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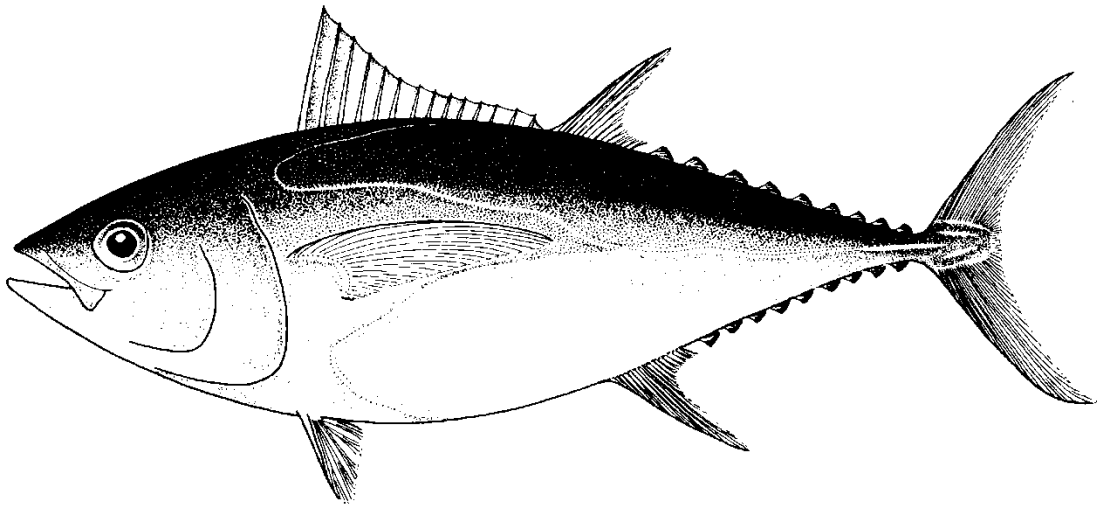
REPORT OF THE TENTH MEETING
OF THE TUNA FISHERY DATA COLLECTION COMMITTEE

12–15 December 2016

Nadi, Fiji



Prepared by the Oceanic Fisheries Programme of the Pacific Community and Pacific Islands Forum Fisheries Agency

Pacific Community
Communauté du Pacifique

FFA

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Contents

1 PRELIMINARIES

1.1 Appointment of chair and rapporteurs

1. Traditionally, the chair of the Tuna Fishery Data Collection Committee (DCC) has been held by the Pacific Islands Forum Fisheries Agency (FFA). The last chair (Tim Park) is no longer with FFA. The choice of a new chair was discussed between the Pacific Community (SPC) and FFA before the 10th meeting of the DCC (DCC10).

2. In choosing a new chair the following prerequisites were applied. The chair must have a general ability to conduct and steer a meeting, and be a staff member of FFA or SPC; a chair must also have attended at least one, if not more, DCC meetings, and have a good understanding of fisheries science and data management. For the DCC10 meeting, SPC and FFA chose Peter Williams (SPC), a frequent DCC attendee, to chair the meeting. Pamela Maru (FFA) kindly accepted the role of vice-chair. For subsequent meetings, SPC will hand the chair back to FFA, at which point Pamela Maru will take the chair role and SPC (normally Tim Park) will once again take up the vice-chair position. The lead rapporteur role is currently held by SPC.

1.2 Adoption of the agenda

3. The proposed agenda was adopted, noting that there were two additional items added since the draft copy was circulated. The two additional items were (3.i Deepwater snapper logsheet) and (4.2 Implications for PIFRO.)

1.3 Opening remarks

4. The DCC meeting has now been held for more than 20 years, with the first meeting held in December 1995 with only 7 participants. The broad objectives of the 1st DCC meeting were much the same as they are for this meeting — to basically ensure that 'data collection in our regional tuna fishery is as standardised as possible'.

5. Over the years, DCC meetings have focused on the standardisation of data collection forms that are required for science, but the previous DCC meeting suggested that the role of the DCC could be expanded to consider standardisation in the data collected, specifically for monitoring, control and surveillance (MCS) purposes, and so some time will be dedicated to that during this meeting.

6. Data collection has also changed radically in recent years with the advent of e-reporting and e-monitoring, and these initiatives must, therefore, come under the consideration of the DCC. How we transition from the development and maintenance of hardcopy forms towards the standardisation of data fields for e-reporting and e-monitoring (ERandEM) will form some of the discussions of this meeting, noting that just last week, the Western and Central Pacific Fisheries Commission (WCPFC) adopted ER standards for operational catch and effort data fields.

7. Data collection related to catch documentation schemes (CDSs) has also become an important initiative in the region and has been listed as a discussion topic at this meeting. The extent to which

DCC has a role to play in the standardisation of data collection related to CDSs remains to be seen, and will hopefully be the outcome of discussions from this meeting.

2 REGIONAL DEVELOPMENTS

2.1 New WCPFC data requirements since DCC9

8. Karl Staisch (WCPFC) noted that very few developments had arisen from the most recent WCPFC meeting (WCPFC13) that would require changes to any data fields. The new conservation and management measure (CMM) on observer safety may have some reporting implications, but there are no concrete requirements at this stage. Discussions with Dr Shelley Clarke suggested that some of the minimum data fields that were being collected for sharks (e.g. hook type) could be recorded at the trip level, if there is an accompanying check box at the set level.

2.2 Review of the DCC Strategic Plan (2016–2020)

9. Deirdre Brogan (SPC) informed participants of the DCC Strategic Plan, which was an output from the DCC Strategic Meeting held at SPC in April, 2016. The DCC Strategic Meeting reviewed the relevance of DCC in an era of increasing use of electronic recording and electronic monitoring (ERandEM). Participants were directed to page 10 of the Strategic Plan, which gives the new terms of reference for DCC, and outlines its core responsibility and secondary roles. The paper defines participation at DCC, and provides a structure for communicating DCC outputs — through the Regional Observer Coordinators Workshop and the Monitoring, Compliance and Surveillance Working Group (MCSWG) — while achieving endorsement through SPC's Heads of Fisheries and FFA's Forum Fisheries Council.

2.3 Outputs from the WCPFC ERandEM working group

10. The WCPFC secretariat gave an update on e-reporting standards, noting that standards for e-logsheet data were adopted at WCPFC13 in December 2016. These standards set out a common framework for the collection and submission of e-reported data. The standards will improve consistency between members, and ensure that submitted data are compatible with WCPFC and SPC systems. Regional standards for electronic observer data have been prepared by SPC but were not adopted by the WCPFC Commission and will require further work in early 2017.

11. The WCPFC secretariat noted it intends to recruit a new position in 2018 to support the management of e-reporting and e-monitoring data. This will include testing vessel monitoring system (VMS) manual reporting standards and high seas transshipment data. Associated work will be in housing a metadata database for all data standards, which will allow members to better access standards. As part of the recruitment process, the WCPFC secretariat will write to its members, non-members and participating territories (CCMs) to invite a regional staff member to join the secretariat to further support ERandEM activities.

12. It was noted there will be no ERandEM working group meeting during 2017, with the focus instead directed to the new compliance monitoring measure. However, the working group chair

will prepare and circulate a paper on what a WCPFC EM framework might look like, noting that there will be considerable policy areas to be considered.

13. The issue of removing DCC data fields was raised, noting that the DCC has a process to retire data fields, while the WPCFC does not. Caution was advised before removing DCC data fields and advice should be sought from all stakeholders before doing this.

14. SPC expects to conduct a workshop to establish purse-seine (PS) electronic monitoring (EM) process standards during 2017. Standards for ERandEM may be different and that these differences (in standards and processes) will be documented by the metadata database.

2.4 FFA regional electronic reporting strategy

15. David Power (FFA) presented information paper IP02 – Draft ER-EM Strategy – Dec 3. The objective of the strategy is to offer a draft vision and purpose for ERandEM in the region. It sets out to document what resources are available and align support from regional agencies. The strategy exists to support development in an area that has very active participation from npn-governmental organisations and private companies. The intention is to answer some of the questions concerning where different sectors and agencies are currently at with this work, and possible timelines for progress.

16. The strategy supports both ER and EM (not just EM), as simultaneous development was voiced strongly voiced by Parties to the Nauru Agreement (PNA) and regional agencies. There was efficiency in supporting the development of VMS, EM and ER concurrently, while noting that some members' lack of capacity prevented their ability to fully back such concurrent development.

17. The two data collection tools have separate purposes. ER is about acquiring data quickly and efficiently, while the purpose of EM is more about independent verification. The draft strategy was not specific around timelines, responsibilities and implementation, especially around the actual data and different types of forms. There is a proposed goal of having ER in widespread use by 2018, which appears ambitious but many members have already committed to start this work by January 2017.

18. Mark Oates (Quick Access) commented that it has become customary to separate EM and ER, which to a degree is correct, but the final output of EM is also data, that will be used for both science and monitoring, control and surveillance (MCS) purposes, which suggests that EM comes under the jurisdiction of the DCC data standards.

19. Pamela Maru (FFA) noted that the metadata database is a repository for standards. When looking at ER standards we are concurrently looking at EM standards. Handwritten information on a paper form may be populated into an ER application or autopopulated by EM; either way, the output is data. At the moment, the metadata database is currently an MS Word table, which makes it difficult to relate the interfaces (forms/tablets). David Power (FFA) further commented that there was a data lifecycle to be considered when looking at data collection. A data standard's use and purpose is another area requiring review as the DCC moves towards accepting ERandEM standards.

20. Peter Williams (SPC) noted that there are legislative restrictions and other unknowns in countries such as dealing with domestic vs foreign fleets. How this is approached may cause delays with implementation.

21. David Karis (Papua New Guinea National Fisheries Authority) noted that national agencies were struggling to keep up with changes with respect to developing the supporting legislative framework. PNG is currently working on its Evidence Act, which needs to be reviewed to allow EMandER evidence from prosecutions. This would be raised at the MCSWG next year. Alois Kinol Kapin (NFA) asked whether the current information in the data forms is useful for the commercial sector, and said it was necessary to look at reducing user difficulty and integrating different requirements (i.e. science, compliance and possibly industry).

22. David Powers (FFA) presented a summary of data types (e.g. vessel registration, unloadings, observers, transshipment, boarding and inspection) that are considered within the ER Strategy, and summarised what each agency was doing to achieve these data needs. He noted that a benefit of ER was timely, reliable and accurate data, which would promote responsible fishing practices. Misreporting would be better identified and increased MCS activity would be a consequence. Tim Park (SPC) noted that port sampling data collection was a data field that was missing.

23. Karl Staisch (WCPFC) mentioned that in the case of transshipments of longline vessels on the high seas, there was a suite of transshipment forms that were not DCC forms but their use was encouraged by the WCPFC as 'guides'.

24. Comments from Mark Oats (Quick Access) suggested that there were challenges with integrating vessel registration and licensing into subregional ER applications due to the differences in licensing requirements among national agencies. Standardisation of requirements in these areas would help. He asked if minimum data fields for vessel registration could be standardised.

25. Pamela Maru (FFA) noted that this was similar to the electronic boarding and inspection forms, which are generally country-specific, and that it has been a challenge to generalise them and develop a common ER interface. Individual countries or sectors may have different needs, but there was also a need for core or minimum data standards. She noted that a process to establish standard practice procedures can help members develop national legislative requirements.

26. Peter Williams (SPC) reminded the participants that the DCC does include the WCPFC minimum data fields, and in addition the SPC/FFA member country needs are included. Participants considered the reporting notification requirements (e.g. zone and port entry, bunkering) and whether these would be a part of the PNA Fisheries Information Management System (iFIMS) or e-logs systems. Michael Oates (Quick Access) noted that differences in national legislations and layers of access to the data are current challenges.

27. It was noted that the DCC should highlight the purpose of the forms/fields (e.g. is the purpose for traceability requirements?). Participants noted that there considerable data had been collected that were not under the realm of the DCC; however, in some cases, agreed minimum standards were available, such as high seas boarding and inspection. Ken Katafono (FFA) said that the new application developed for vessel inspections called BOJAK, was based on Food and Agriculture

Organization (FAO)-recommended minimum data requirements. The application broadly covers all countries requirements, but that some national needs also needed to be accommodated for.

28. Maurice Brownjohn (PNA) opinion was that there were parallel MSC systems currently being used, which created duplication of effort and inefficiency. The chair commented that this will be discussed under the data management section.

29. David Power (FFA) felt that there had been good discussion regarding areas of future work, but asked again if the date to establish ER (January 2018) was feasible. The meeting agreed that it was a good goal, but the time frame may not be attainable for some members. WCPFC noted that technically it was not a problem, but developing the legal support at the national level would take time. It will also require good political will. FFA advised that it had a good legal team and knowledge in this area, and that it was currently drafting a legal template to support the use of ER for members. David Karis (PNG NFA) reiterated that for ER to be used as evidence, the ER framework needs to be developed in parallel with the legal framework (Evidence Act); otherwise, prosecutions would be difficult. NFA are currently considering the FAO guidelines for CDS

30. Peter Williams (SPC) noted that the data formats for the observer ER data had been done but that the other data types would require accepted regional data standards, and asked whether this would be done through the MCSWG. Lara Manarangi-Trott (WCPFC) considered the relationship between this strategy and the WCPFC's process, and acknowledged that the presence of WCPFC secretariat staff should not be construed as a decision by WCPFC members. SPC noted that data management issues would be covered under Agenda Item 9.2.

2.5 Implications of regional and subregional CDS and other traceability schemes on data collection

31. To begin the discussion on CDS, the Quick Access representative noted that most of their recent data developments were generally driven by either the vessel day scheme or CDS. It was worth noting that PNA members have signed an MOU with regards to data sharing for CDS purposes with other PNA members.

32. Industry has been proactive and involved in the CDS process, mostly to ensure access to markets. Quick Access has been working closely with NFA regarding automating catch documentation requirements and generating catch certificates. One area of current focus is to consolidate reporting requirements and minimise the number of forms that must be completed (by industry or otherwise).

33. Ms Maru (FFA) noted that there is still a significant amount of work to do regarding the development of CDS standards at the WCPFC level. As a result, there are no concrete standards available. A revised draft of the CDS standards will be distributed to WCPFC CCMs in 2017. The WCPFC CDS chair noted that this year's Intersessional Working Group (IWG) aimed to provide guidelines and standards for the development of CDS. In addition, CCMs and the WCPFC are constantly taking note of other regional and global developments when preparing or discussing any standards. The FAO CDS guidelines are nearly complete and may, indeed, influence many decisions and developments regarding WCPFC CDS standards.

34. Regarding traceability, Mr. Harris (PNA) noted the development of an integrated application for e-CDS. CDS requires the integration of all information, which necessitates a large platform within which to collate this information and facilitate near real-time access to traceability information. Mark Oates (Quick Access) once again noted the need for minimum data fields for vessel registration.

35. An iFIMS representative commented that from a development point of view, it would definitely be appreciated if the DCC could prepare or assist in developing data collection standards. The availability of any such standards would significantly assist in developing targeted and efficient fishery data products.

36. The WCPFC CDS IWG Chair suggested that the DCC may have an ongoing role regarding CDS. The DCC may be useful in identifying existing forms that need to be recognised and maintained as official forms and standards (e.g. forms used to validate and certify catch for transshipment). However, the role of the DCC is to harmonise data collection forms in use by members.

37. PNA noted that recently there has been confusion regarding chain of custody (COC) forms. Industry has been using a COC form that comes with SPC or FFA branding; however, it is unclear what endorsement has been given to these forms. PNA noted that the form actually has little relevance to COC, and has been driven largely by one industry member. This is a serious issue and must be clarified and rectified to ensure the ongoing safety of observers who are being asked to sign-off on COC forms. To ensure observer safety, their roles should be confined to observation and reporting only, and not expanded to verification, which puts observers in a vulnerable position and may jeopardise their safety.

38. Industry may be motivated to undermine the credibility of observer programmes. The WCPFC Regional Observer Programme (ROP) manager noted that if an ROP observer signs an industry form, it does not necessarily construe that the data is recognized as WPCFC data. Observers are instructed not to sign forms although they do sign the GEN-3 form and their journal. However, the issue around whether any such forms are considered member or observer provider data should be looked at. SPC noted that all forms used in the Pacific Islands Regional Fisheries Observer (PIRFO) training are, indeed, approved by the DCC. However, the observers' role in the collection of commercial data has yet to be clearly defined. It was recognised that industry does need to collect certain data standards that may or may have some overlap with science and compliance, and this area of overlap should be carefully considered by the DCC. If there are requirements beyond observer providers and the DCC, then this must be managed by relevant members.

39. Validation and certification are generally considered to be official government functions and carried out by government authorities, and this implies that the forms they use are officially endorsed. Private certification is a different matter. It was asked what the current process was for getting new forms approved or endorsed by the DCC. The chair noted that any forms presented to the DCC will be reviewed. In the past, only hardcopy forms were used. However, key data fields can also be assessed and not just forms. Regarding CDS, it may be premature to review CDS forms as the DCC may be involved in considering key CDS data fields. It was also noted that information relevant to CDS is already being collected in logsheets.

40. The scope of the DCC contains components that are used in CDS. However, CDS is far broader than the current reach of the DCC. Market requirements could, where relevant, be trapped

by relevant forms and this is something that the DCC can contribute to. The PNA noted that forms must be used to collect carrier and transshipment information

41. Traceability schemes use observations of 'FAD associated' species to identify FAD-associated catches. Observer training is limited to identifying individual species, but does not go as far as assigning a FAD-association index to each species. Observer training defines species although there is no guidance regarding what is an FAD-associated species (e.g. a triggerfish, *Canthidermis maculatus*). Currently, PNA uses a layman's definition of FAD-associated species, which can loosely be described as light-bellied and fast swimming. A request was made for the DCC to further define FAD-associated species; however, it was stated to be outside of the DCC's role. Considering the observer's mandate to 'observe and record' can direct the conversation because observers are trained to record *what* they see, and not to make a *judgement* on what they have seen.

42. For traceability, the key data field that PNA is looking at is the hatch or well number, along with information regarding transfer from well to well.

43. The meeting noted that based on the above discussion, the DCC has some useful guidance as to its role in CDS and traceability developments.

3 LOGSHEETS

44. SPC maintains a repository of requests for changes to the logsheets. These requests for changes come from a number of sources, including staff, national data programmes, distant water fishing nations, and regional meetings. The requests for changes are logged at SPC and the changes are submitted directly to the DCC (i.e. no further 'cleansing' of the requests are done before the DCC meets).

45. For DCC10, SPC prepared new 'Form Change Tables' that outline the requested change in a format that can be trapped in a metadata database and allow better tracking of changes over time.

46. An outcome of DCC10 was a procedure for retiring or 'archiving' forms that are no longer in use. Instead of removing forms from the DCC suite, it was recognised that because these forms had a purpose in the past, it is possible that they will have a use in the future. Archived forms will appear in a new 'Archived' section of the DCC report and a tabbed section of SPC's 'Data Collection Forms' webpage. Changes that would normally be made to the form during each DCC meeting (e.g. general logsheet changes) will be documented, and can be applied if the form is brought back into use.

3.1 Tables of logsheet form changes

- General Changes to all DCC9 Logsheets
- SPC / FFA Regional Purse Seine Logsheet
- SPC / FFA Regional Longline Logsheet – Expanded Format

- SPC / FFA Regional Shark Longline Logsheet
- SPC / FFA Regional Pole-and Line Logsheet
- SPC / FFA Regional Handline Logsheet
- SPC / FFA Regional Interim Troll Logsheet
- SPC / FFA Regional Longline Logbook
- SPC / FFA Regional Deepwater Snapper Logsheet

GENERAL CHANGES TO ALL DCC9 LOGSHEETS

Proposed form modification details					DCC10 agreed updates			
Data field (or code)	Form Type	Form Section	Person proposing change	Proposed addition/modification	Record of discussions	New Remove Edit (Form/Field/Code)	ER standards Table field	WCPFC field
UTC DATE AND TIME	**All Logs**	Set Details	*Tim Park from Fisheries Consultation between FFA-FAJ (April 2015)*	General resistant to the use of nautical time as the standard is not known/understood (but were more comfortable, but still resistant to nautical time - when issued with a nautical time zone map.)	The general and often strong opposition to the use of nautical time on logsheets was accepted, and the group agreed to revert to the use of UTC time on all logsheet. The meeting noted however, that there have been problems with UTC time recording in the past, most especially on PS vessels where while the UTC time may have been correctly recorded (as read form the GPS or other instrumentation) the date may be incorrectly recorded (intentionally or otherwise) with the Pacific date and not the UTC date. Other historical errors with the UTC date and time has been the incorrect use of home port date and time on the logsheet.	EDIT DATA FIELD		
UTC DATE AND TIME	**All Logs**	Set Details	*David Karis, NFA,*	The use of nautical time is not consistent with VDS or VMS data recording, and the SPC logsheets should revert to UTC time.	- As above -	EDIT DATA FIELD		
UTC DATE AND TIME	**All Logs**	Set Details	*TP from Fisheries Con between FFA/FAJ,*	3. Requested to use home port time on LL (and PL) logsheets.	This request was denied. All regional logsheets will use the same standards for date and time. DCC 10 agreed that the DCC standard for date and time will be UTC date and time.	NO DATA FIELD CHANGE		

• SPC FFA REGIONAL PURSE-SEINE LOGSHEET

Proposed form modification details					DCC10 agreed updates			
Data field (or code)	Form Type	Form Section	Person proposing change	Proposed addition/modification	Record of discussions	New Remove Edit (Form/Field /Code)	ER standards Table field	WCPFC field recommendation
CETACEAN INTERACTIONS	**PS Logsheet**	Daily Log	*Pamela Maru (FFA)* *By email* *Dec 2016*	Capture whale shark and cetacean interactions by purse seiner. FFA members are not fully implementing the reporting requirements under CMM 2011-03 and 2012-04 for vessel masters to report this specific information on interactions. Adding the information to the logsheet will make it easier gather the information so it can be synthesised in to Annual Report Part 1.	The DCC accepted the decision to add new data fields to capture reports on interactions with whale sharks and cetaceans. However, if also stated that there was no more room on the paper copy form. The data should be collected by ER applications and a new supplement form to the purse-seine logsheet can be created to allow FFA member countries to capture this data if no ER application is in use.	NEW FORM		
	PS Logsheet	Daily Log	*PeterW (SPC)*	Many purse-seine logsheets record well transfers as text field. Data fields to capture well transfers have also been added to iFIMS e-logsheet tables. Participants were asked if dedicated data fields were required on the purse-seine logsheet to record purse-seine well transfers. After the discussion it was noted that this was not necessary and the iFIMS still uses PS-5 observer data as the main source of well transfer information.	No change	NO DATA FIELD CHANGE		

• SPC FFA REGIONAL LONGLINE LOGSHEET – EXPANDED VERSION

Data field (or code)	Form Type	Form Section	Person proposing change	Proposed addition/modification	Record of discussions	New Remove Edit (Form/Field /Code)	ER standards Table field	WCPFC field
ACTIVITY CODE	**LL Logsheet**	Codes	*Malo Hosken by email (Nov 2015)*	The definitions and instructions for the logsheet activity codes can be interpreted differently, and this can lead to inconsistency in how fishers report most especially in regards to transit. Use Activity Code 2 ('A day at sea but not fished and not in transit – please specify') if the vessel was at sea, but the longline gear was not placed in the water that day and the vessel was not in transit, describe the activity on the line that refers to that day. Use Activity Code 3 ('Transit') if no sets were made and the vessel spent most of the day in transit. Use Activity Code 4 ('In port - please specify') if no sets were made and the vessel spent most of the day in port. Generally, we would expect the captain to use code 2 when the vessel is motoring from one fishing ground to another. It could also be used when drifting at sea due to an extended haul, a mechanical breakdown, bad weather, etc. The transit - code 3 - should be used when the vessel is transiting from port to fishing ground or from fishing ground to port only.	DCC10 stated that Activity Code 3 (Transit) is an acceptable code for transiting between fishing grounds.	NO DATA FIELD CHANGE		

Data field (or code)	Form Type	Form Section	Person proposing change	Proposed addition/modification	Record of discussions	New Remove Edit (Form/Field /Code)	ER standards Table field	WCPFC field
ACTIVITY CODE	**LL Logsheet**	Daily Log	Tim Park from Fisheries Consult-ation between FFA-FAJ April 2015	If a set is deployed on day 1 but hauled in day 2, the description in the instructions would suggest that the Captain should only record activity code 1 (set) on the day the line is set in the water, and that activity code 2 should be recorded on the subsequent day(s) i.e. "activity 2 ('longline was not placed in the water')". The JP wished to clarify this most especially if case they are boarded and inspected when they still have their line in the water	Activity Code 2 can be used on a day that the fishing line is still in the water and a set was not made. Activity code 2 requires a text explanation (i.e. please specify)	NO DATA FIELD CHANGE		
DATE AND TIME OF UNLOADING	**LL Logsheet**	Header	Tim Park from Fisheries Consulta-tion between FFA-FAJ April 2015	Date and Time of Departure have been incorrectly packed with Date and Time of unloading /transshipment paragraph – separation needed in order to have a distinct description for each?	The form instructions will be amended.	EDIT INSTRUCT		

Data field (or code)	Form Type	Form Section	Person proposing change	Proposed addition/modification	Record of discussions	New Remove Edit (Form/Field /Code)	ER standards Table field	WCPFC field
TIMES	**LL Logsheet**	Daily log		After an incident where a JP vessel was prosecuted for non-recording of catch consumed by the crew, the JP have requested an Update to the instructions. Therefore, change the instructions by inserting "*including number of fish consumed during the trip* "after the line *Print number of fish that were discarded or released/ struck off (live or dead)* in all relevant areas (tuna marlin, other species).	The instructions will be amended to provide clarification for fish consumed or Stuck off during the trip.	EDIT INSTRUCT.		
ACTIVITY CODES	**LL Logsheet**	Daily log	Peter Williams/ Andrew Hunt SPC pre-DCC meeting Nov 2016	Longline vessels, mostly those fishing on the high seas continue to complete their logsheets over extended periods. Often these LL records will run from the date of departure from port until the date of return to port which could a period of more than 12 months. The LL logsheets instructions currently require Captains to start a new logsheet after every partial or full unloading, although these instructions are regularly not adhered to. Consider implementing new activity codes on the LL logsheet to force and capture 1) the start of transshipment and 2) the end of transshipment.	PGW stated that only one new code for 'transshipping' was required and this was accepted.	NEW CODE		

- **SPC FFA REGIONAL SHARK LONGLINE LOGSHEET**

Proposed form modification details					DCC10 agreed updates			
Data field (or code)	Form Type	Form Section	Person/ agency proposing change	Proposed addition/modification	Record of discussions	New Remove Edit Archive (Form/Field /Code)	ER standards Table field	WCPFC field recommendation
FORM	**SHK LL Logsheet**		SPC	Proposed during DCC10	SPC introduced the agenda item and noted that no members are currently targeting sharks so the proposal is to retire this logsheet. SPC asked if any participants present were aware of targeted shark fishing. DCC participants confirmed that there are none and the logsheets can be retired.	ARCHIVE FORM		

- **SPC FFA REGIONAL LONGLINE LOGSHEET**

Proposed form modification details					DCC10 agreed updates			
Data field (or code)	Form Type	Form Section	Person/ agency proposing change	Proposed addition/modification	Record of discussions	New Remove Edit Archive (Form/Field /Code)	ER standards Table field	WCPFC field recommendation
FORM	**SHK LL Logsheet**		SPC	Proposed during DCC10	The standard longline logsheet was used extensively before the expanded format was introduced. At this stage all FFA member and FR Territories are using the Expanded version of the longline logsheet. This format can be retired, noting that unfortunately older versions of this form still remain in circulation.	ARCHIVE FORM		

• SPC FFA REGIONAL POLE-AND-LINE LOGSHEET

Proposed form modification details					DCC10 agreed updates			
Data field (or code)	Form Type	Form Section	Person/ agency proposing change	Proposed addition/modification	Record of discussions	New Remove Edit Archive (Form/Field /Code)	ER standards Table field	WCPFC field recommendation
FORM	**PL Logsheet**		SPC		No changes have been proposed for this form with the exception of moving back to UTC time. The logsheet is actively used and the format will continue to be made available for use.	EDIT DATA FIELDS		

• SPC FFA REGIONAL HANDLINE LOGSHEET

Proposed form modification details					DCC10 agreed updates			
Data field (or code)	Form Type	Form Section	Person/ agency proposing change	Proposed addition/modification	Record of discussions	New Remove Edit Archive (Form/Field /Code)	ER standards Table field	WCPFC field recommendation
FORM	**Handline Logsheet**	All	SPC		This form is not currently being used. The form will be archived.	ARCHIVE FORM		

- **SPC FFA REGIONAL INTERIM TROLL LOGSHEET**

Proposed form modification details					DCC10 agreed updates			
Data field (or code)	Form Type	Form Section	Person/ agency proposing change	Proposed addition/modification	Record of discussions	New Remove Edit Archive (Form/Field /Code)	ER standards Table field	WCPFC field recommendation
FORM	**Interim Troll Logsheet**	All	SPC		SPC and Fiji confirmed that the interim troll logsheet was no longer being used. It was also noted that New Zealand and Cook Islands used it in the past but it is no longer in use. The DCC supported retiring the interim troll logsheet.	ARCHIVE FORM		

- **SPC FFA REGIONAL LONGLINE LOGBOOK**

Proposed form modification details					DCC10 agreed updates			
Data field (or code)	Form Type	Form Section	Person/ agency proposing change	Proposed addition/modification	Record of discussions	New Remove Edit Archive (Form/Field/Code)	ER standards Table field	WCPFC field recommendation
ALL	**LL Logbook**	All	SPC		The longline logbook was previously trialed in a number of countries. While the trial was successful, the data management of the multiple data fields was thought to be high. The longline logbook is not currently in use.	ARCHIVE FORM		

- **SPC FFA REGIONAL DEEPWATER SNAPPER (DWS) LOGSHEET**

Proposed form modification details					DCC10 agreed updates			
Data field (or code)	Form Type	Form Section	Agency proposing change	Proposed addition/modification	Record of discussions	New Remove Edit Archive (Form/Field /Code)	ER standards Table field	WCPFC field recommendation
FORM	**SHK LL Logsheet**		SPC		SPC noted that there is a data gap with regard to deepwater snapper as there is no sub regional data standardization. The proposal was to take the current Tongan form and to adopt it for use as the regional standard for any other member to use in their fisheries. There was a question around how the logbook would be reviewed. The chair advised that any review would need to involve the coastal fisheries science and data management group. It was noted the artisanal monitoring programme captures logsheet information from small-scale vessels that target coastal snapper species, and the Tails app has been developed for data collection through this monitoring programme, but that Tails/artisanal is not approved for fisher led data reporting A trial for Tails fisher lead data collection will normally go ahead in 2017.	NEW FORM		

3.2 Implementation of DCC10 version of the SPC/FFA regional logsheets

47. SPC outlined the process for implementing the logsheet outputs of this workshop. The DCC report will become a standing agenda item at the regional observers coordinator's workshop and then again at the FFA MCS working group in early 2017. Following on from that the SPC Heads of Fisheries meeting and FFC will receive the DCC report and consider final endorsement.

4 OBSERVER DATA FORMS

4.1 Review of observer forms

48. The Mini-Observer DCC took place in early November in Noumea at the end of the Observer Trainers' workshop. The following people were present: Benia Bauro (Kiribati), Gabrielle Black (SPC), Deirdre Brogan (SPC), Elton Clodamar (Nauru), Glen English (PNG), Siosifa Fukofuka (SPC), Manoi Kutan (PNG), Ambrose Orianhaa (FFA), Tim Park (SPC), Steve Peter (Marine Resources Assessment Group, MRAG), Karl Staisch (WCPFC), Peter Sharples (consultant), Lucas Tarapik (PNG), Icanus Tuiloma (SPC), Harold Vilia (Solomon Islands), Ricky Narruhn (Federated States of Micronesia). The records of the mini-Observer DCC were presented to DCC 10 for review. The outcomes are noted in the tables below.

4.2 Implications for the Pacific Islands Regional Fisheries Observer Programme

49. Tim Park spoke about the implications of ERandEM for observers. The revised Pacific Islands Regional Fisheries Observer (PIRFO) training standards have specific ERandEM competencies as elective units, which are in the process of being published. There is also a generic COC standard to meet the requirements of various industry schemes. The introduction of these new roles for observers has implications for PIRFO in ensuring that observers are skilled enough to meet their changing duties.

50. All FFA members' observers are trained to PIFRO standards. It is important that the region continues to support and build on these standards, and that the PIRFO structure is able to adapt to the changing roles and data requirements of observers. For example, continuously using non-PIFRO trained observers as EM video analysts is likely to have an impact on data quality, and the standing and perception of quality of observer data over the long term. PIRFO structure has 'interpret electronic monitoring' as an elective standard for trained observers. EM video analysts need to maintain their monitoring skills by also taking observer trips. There is a current trend to blend the application of these two monitoring tools which risks losing recognition of their separate strengths. There is also a need to critically analyse the data collected by EM versus observers to verify both tools utility against all data fields, their relevance and utility to collect the data accurately.

51. This meeting has discussed the used of observers in industry chain of custody schemes. There is a need for the Regional Observer Coordinators Workshop to consider how observers are used, and to consider the commercial application of observers, especially with respect COC schemes. Where

observers' data collection has a direct commercial value, it does risk compromising their independence in collecting data for fisheries management purposes.

52. While national and regional programmes now are recovering costs of observer training and maintaining the observer standards from industry, the use of observers by the industry should be considered with caution in order to maintain their independence and security.

4.3 Supplementary notes on the review of the GEN-3 form

53. The GEN-3 form was referred to at many points during the DCC meeting, especially in terms of the proposed new conservation and management measure on observer safety. WCPFC posted the following explanatory notes as to why it is premature for DCC10 to make changes to the GEN-3 form.

Observer Rights (RS-A) proposed amendments

54. To note that in 2016 the new WCPFC Compliance case file system was launched as a support tool for tracking the investigations undertaken by flag CCMs based on ROP observer reports and other notifications from CCMs.

55. In 2016 the case file system did provide notifications to flag CCMs of observer obstruction incidents as notified in Gen-3 ROP data related to 2015 year (based on ROP data set as at June 2016). These notifications are based on either RS-A, RS-B and/or RS-D being ticked in the ROP dataset. The expectation is that flag CCMs will duly investigate all alleged incidents and provide a report on the outcome of the investigation back to the Commission, for inclusion in the compliance case file system.

56. To also note that observer providers are also able to review all alleged incidents as reported in the compliance case file system.

57. And that at WCPFC13 the Commission agreed to a new conservation and management measure on the protection of WCPFC ROP observers, which among others, seeks to ensure that there is an appropriate response to a range of obstruction and observer safety concerns.

58. Ideally, observer programmes' debriefing processes might be the best way to 'filter' and 'check' alleged incidents before they are notified.

59. On the basis of these recent developments, to suggest that perhaps it might be premature to make changes to the GEN-3 codes for observer obstruction alleged incidents, and suggest that time should be given to observer providers to review and strengthen their debriefing procedures.

WCPFC CMMs (WC) –'fail to comply with any CMMs'

60. To note that in 2016 the new WCPFC compliance case file system was launched as a support tool for tracking the investigations undertaken by flag CCMs based on ROP observer reports and other notifications from CCMs.

61. Each compliance case file list includes a cross-reference to a specific CMM paragraph(s), which makes it easier for tracking alleged infringements and flag CCM responses within the Commission's Compliance monitoring reporting system.

62. However, the concern the WCPFC secretariat has with WC-A is that is that this 'ROP minimum field' is too general to be useful in compliance reviews. It is also subject to interpretation, and it does not seem reasonable for the observer to be expected to understand each CMM requirement that applies to a specific trip, and to make a determination if one or more CMM paragraphs have been infringed during that trip.

63. In practice, for implementation into the compliance case file system, it is not clear if the "WC-A" box is ticked whether this will on its own provide much in the way of a basis for the flag CCM to undertake an investigation of the activities by its vessels on that trip. For it to be meaningful, the complete ROP dataset will be needed, and again it would rely on interpretation being made by the observers.

64. The DCC10 meeting agreed to support the recommendation that the 'WC-A' question be reviewed by the WCPFC, and further, that specific amendments or questions that are more appropriate for observers to answer (based on observation, not interpretation) will be furnished by the DCC.

4.4 Tables of observer form changes

PS–1 (p. 1)	•	Purse-Seine General Information
PS–1 (p. 2)	•	Purse-Seine General Information
PS–2	•	Purse-Seine Daily log
PS–3	•	Purse-Seine Set Details
PS–4	•	Purse-Seine Length Measurement
PS–5	•	Well Transfer Reconciliation Form
LL–1	•	Longline General Information
LL–2 /3	•	Longline Set and Haul Information
LL–4	•	Longline Catch Monitoring
PL–1	•	Pole-and-line General Information
PL–2	•	Pole-and-line Daily log
PL–3	•	Pole-and-line Catch Details
TR-1	•	Troll General Information
TR-2	•	Troll Daily Log
TR-1	•	Troll Catch Details
GEN–1	•	Vessel and Aircraft Sightings / Fish, Bunkering and Other Transfers Logs
GEN–1*	•	Vessel and Aircraft Sightings / Fish, Bunkering and Other Transfers Logs
GEN–2	•	Species of Special Interest (vessel interactions)
GEN–2*	•	Species of Special Interest (sightings)
GEN–3	•	Vessel Trip Compliance Record
GEN-4	•	Conversion Factors
GEN-5	•	FAD/PAYAO and Floating Object Information Record
GEN–6	•	Pollution Report

*Supplementary form

Proposed form modification details		DCC10 agreed updates			
Person proposing change	Proposed addition/modification	Record of discussions	New Remove Edit (Form/Field/Code)	ER standards Table field	WCPFC field recommendation
• FORM PS-1 PURSE-SEINE OBSERVER GENERAL INFORMATION (Page 1)					
Data Field : **Port Arrival and Departure** Form Type and Section: PS-1 (page1), Trip Details					
Mini Observer DCC, Nov 2016.	A request to add the country for the port of departure and return was denied as this is not a minimum WCPFC standard, but rather described as helpful in the description of the WCPFC min. standards for Port of Departure and Port of Return. The instructions can be amended to remind observers to add the country for the port of arrival and departure in their trip report, most especially for ports outside SPC/FFA member countries .	Agreed	NO DATA FIELD CHANGE		

Proposed form modification details		DCC10 agreed updates			
Person proposing change	Proposed addition/modification	Record of discussions	New Remove Edit (Form/Field/Code)	ER standards Table field	WCPFC field recommendation
Data Fields : **{Country Reg No.}, {IRCS}, {UVI}, {Flag}, {Length}, {Gross Tonnage}** Form Type and Section: PS-1 (page 1), Vessel Characteristics					
Mini Observer DCC, Nov 2016.	In recent years the vessel details data fields, including {Country Reg No.} {IRCS} {UVI} {Flag} {Length} {Gross Tonnage} have been auto populated in the observer database through the simple selection of the vessel name. The information that the observer collected is not captured by this process. The meeting noted that observers have a very important role in *physically verifying and validating* vessel details through the review of the multiple paper copies relating to the vessels identify that can be found in the wheelhouse. The WCPFC also advised that these are minimum observer data standards and that member countries have agreed that this information should be collected by observers. In terms of auto-populating the database where the observer data is noted to be different to the vessel register information the observer data should be captured.	Agreed to continue observer's role in validating the data until vessel registration and validation schemes are in place. Vessel registration systems can pre-populate observer databases and tablets, however there are current challenges maintaining the vessel registration databases, most especially with duplicates and re-flagging. A minimum data set for vessel registration has not yet been achieved. Depending on the source, key data may be different, and there is a need to understand where the data has been sourced from. The Committee agreed that observers will retain their role of validating vessel characteristics, with an integrated review of vessel registration and vessel/port inspection operations to be considered, before the role is removed from observers.	NO DATA FIELD CHANGE		

Proposed form modification details		DCC10 agreed updates			
Person proposing change	Proposed addition/modification	Record of discussions	New Remove Edit (Form/Field/Code)	ER standards Table field	WCPFC field recommendation
	In some countries debriefers are required to bring vessel registration discrepancies to the notice of the licensing officer. A participant from a national programme noted that Port inspectors have a role in verifying vessel registration details, however the increasing use of pre-populated fields on tablets have reduced attention to detail and cross-checking.				
Data Field: **Gross Tonnage** Form Type and Section: PS-1 (pg1), Vessel Characteristics					
Mini Observer DCC, Nov 2016.	Clarification around the gross tonnage (GT) data field was requested by observers. It remained unclear for many observers why GT had fully replaced gross registered tonnage (GRT), as some observers still come across GRT. Another area of concern for observers is that they have seen relatively long vessels with large storage areas will comparatively small GTs, most especially when compared to shorter vessels they have boarded.	Agreed Some vessels' records of GT/GRT may not be consistent with vessel registration records, and the committee suggested that all units of weight measurement must be consistent with vessel registry. The committee also suggested to make it mandatory for vessels to provide this information during vessel registry, due to the fact the many vessels changes names, ownership etc.	NO DATA FIELD CHANGE		

Proposed form modification details		DCC10 agreed updates			
Person proposing change	Proposed addition/modification	Record of discussions	New Remove Edit (Form/Field/Code)	ER standards Table field	WCPFC field recommendation
	It was explained that gross register tonnage (GRT) was replaced by gross tonnage (GT) in 1994 and is no longer a widely used term in the industry. It is also worth noting that differences between GT and GRT are subtle, and not easily understood, but mostly depend on the difference between the calculations. A GT record will always be smaller than a GRT record for the same vessel. Since observers may still encounter older vessels that use GRT units, the group agreed to re-instate the option to record GRT on the form.	The committee noted the e-reporting development and whether the observer can use the electronic system to validate this information. WCPFC informed the committee that they have the Unique Vessel Identification system to identify vessel duplicates, and the UVI number will help identify whether there is duplication. It was also noted and worth considering on what source of data the information needs to be validated against because of different rules and data standards.			
Data Fields: {**Net max depth}, {Net max length}, {Net No. of Strips}** Form Type and Section: PS-1 (pg1), Vessel Characteristics					
Mini Observer DCC, Nov 2016.	Participants suggested a comprehensive review around the requirement to collect purse-seine net information. Increasingly net plans are provided in Asian script and it is difficult for observers to confidently identify the required data fields. In the early days of observing a large number of trips were carried out on the US fleet, and while the net plan is very technical in	Agreed to review The committee suggested that these units of measurement should be standardised, because at the moment, some vessels like US are using yards and fathoms, while others are using meters. It was also suggested that the net plan design must be in English which will be easier for the	NO DATA FIELD CHANGE		

Proposed form modification details		DCC10 agreed updates			
Person proposing change	Proposed addition/modification	Record of discussions	New Remove Edit (Form/Field/Code)	ER standards Table field	WCPFC field recommendation
	nature the observers had enough training to understand and capture the required information. As an alternative to requiring observers to capture net plans, vessels could be obliged to do this in English and through the vessel register, although it is known that net plans can change during the year. The collection of net information should be reviewed before the next DCC, most especially with the recruitment of SPC Fisheries Scientist (Purse Seine Dynamics).	observer to collect necessary information as required by them to do their job.			
Data Field: **Brail Type** Form Type and Section: PS-1 (pg1), Fishing gear					
Post DCC, March 2017	Noted during work on analyzing project 60 grab v spill sampling a request was made by SPC to add a brail type data field. This follows the earlier intention by DCC to code for the brail descriptions.	Adopted at SPC, March 2017 New Codes applied LH – Long Handle HF – Heavy Frame SP – Spanish Brail JP Japanese Type	NEW CODES		

Proposed form modification details		DCC10 agreed updates			
Person proposing change	Proposed addition/modification	Record of discussions	New Remove Edit (Form/Field/Code)	ER standards Table field	WCPFC field recommendation
Data Field: **Brail Number** Form Type and Section: PS-1 (pg1), Fishing gear					
Post DCC, March 2017	Noted during work on analyzing project 60 grab v spill sampling a request was made by SPC to add a third brail number to allow observers to record changes to brail capacity during the trip. If extra paneling is added to the brail, then the observer will recognise this as a new brail and record all information for a 2nd or if necessary a 3rd brail.	Adopted at SPC, March 2017	Additional DATA FIELD		
Data Field: **Brail Change Comments** Form Type and Section: PS-1 (pg1), Fishing gear					
Post DCC, March 2017	A comment field was added to the brail type area, mostly for catching the date of change or other useful comments relating to the changes in the brails. An observer journal page number could also be added.	Adopted at SPC, March 2017.	NEW TEXT DATA FIELD		

Proposed form modification details		DCC10 agreed updates			
Person proposing change	Proposed addition/modification	Record of discussions	New Remove Edit (Form/Field/Code)	ER standards Table field	WCPFC field recommendation
Data Field: **AIS** Form Type and Section: PS-1 (pg1), Electronics					
Mini Observer DCC, Nov 2016.	(General change – see also PL-1, PL-1) Participants simply suggested that the AIS field should be moved closer to the VMS data fields. The meeting encouraged a review of the data compiled to data to see if it has been useful. The use of AIS in identifying nearby vessels was discussed during the review of the GEN-1 form.	Agreed to move the data field in line with the AIS unit and to review the usefulness of the AIS data.	EDIT FORM		
Data Field : **proposed only - Radio Buoys** Form Type and Section: PS-1, Electronics					
Mini Observer DCC, Nov 2016.	A query was made in relation to the increasing numbers of radio buoys thought to be associated with FADs being found in coastal areas, prompted a request to reinstate radio buoys onto the PS-1 form. As it not possible to link radio buoys found on the beaches to a specific vessel this was rejected.	The group agreed that it was necessary for observers to record data on the vessel's radio buoys as the information was not helpful for science. Radio buoys found on beaches cannot be tracked back to vessels unless they are clearly marked with the vessel name and call sign.	NO DATA FIELD CHANGE		

Proposed form modification details		DCC10 agreed updates			
Person proposing change	Proposed addition/modification	Record of discussions	New Remove Edit (Form/Field/Code)	ER standards Table field	WCPFC field recommendation
Data Field : **Usage Codes** Form Type and Section: PS-1, Electronics					
Mini Observer DCC, Nov 2016.	(General change – see also PL-1, PL-1) Observers have been questioning the selection of the appropriate 'usage code' in relation to the usage of 'buoys' (GPS and echo sounding buoys) during the FAD closure period. They suggested that none of the current codes are appropriate to indicate that the buoys are not used during the FAD closure period, but that they are used at most other times. The usage code – NUF (not used in FAD closure period) was suggested, however at the end of the discussion the group thought that adding a catch all code to capture all other scenarios was the best solution. The decision was made to add a new code 'OTH – other please specific'.	A new usage code will be added to cater for other scenarios i.e. sonar buoys switched off during the FAD closure period. The usage codes will be updated on the LL-1, PS-1 and PL-1 form.	NEW CODE		

Proposed form modification details		DCC10 agreed updates			
Person proposing change	Proposed addition/modification	Record of discussions	New Remove Edit (Form/Field/Code)	ER standards Table field	WCPFC field recommendation
Data Fields : Communication and Information Services {**Mobile, Other**,} Form Type and Section: PS-1, Electronics.					
Mini Observer DCC, Nov 2016.	(General change – see also PL-1, PL-1) A number of mostly minor edits were requested within the communication and information services area. Clarify that a mobile phone is also a cell phone would be appreciated in US territories and in regards to US fleets. To avoid database changes, this can go into the instructions. The blank data field on the same line as weather fax line confuses observers and should be removed. The data field for Information Services 'Other Y or N' is superfluous and can be removed. The empty data field can be used to note "website" and "www" can be written into encourage observers to write in the website address in this area.	The Committee agreed to requested minor edits for communication and information services. This includes noting that a mobile phone is a cell phone on the instructions. And within the information services area removing the 'Other Y or N' data field and adding notation to denote it is a website name.	EDIT INSTRUC-TIONS AND FORM EDIT		

Proposed form modification details		DCC10 agreed updates			
Person proposing change	Proposed addition/modification	Record of discussions	New Remove Edit (Form/Field/Code)	ER standards Table field	WCPFC field recommendation
Data Fields : ***Observations / Comments / Other Gear / Unusual Use of Gear***					
Mini Observer DCC, Nov 2016.	There were no requests to change this data field. However, there were also some queries around how well observers were responding to this data field, and how effective it is. SPC's Observer Database Manager confirmed that all comments were being added to the database and a review of the usefulness of the open comment data field could be achieved.	DCC10 agreed to review the data compiled to data under this data field. There are not data field changes.	NO DATA FIELD CHANGE		
• FORM PS-1 PURSE-SEINE OBSERVER GENERAL INFORMATION (Page 2)					
Data Fields: **Licence No.** Form Type and Section: PS-1 (page 2) , Crew List					
Mini Observer DCC, Nov 2016.	The participants queried the value of the licence number data field saying; it wasn't clear what was being requested, and that even when understood obtaining the captain or master's navigation or fishing master licence number was not an easy task. Neither is it a WCPFC min standard.	Retained, not removed. The committee agreed to maintain the master/captain license number data field. It was also suggested to use passport number as a form of human tracking. It was noted that the US and Interpol interest on human smuggling/trafficking, drugs, arms, and illegal migration will need such information to help track person of interest. FFA is also proposing to	NO DATA FIELD CHANGE		

Proposed form modification details		DCC10 agreed updates			
Person proposing change	Proposed addition/modification	Record of discussions	New Remove Edit (Form/Field/Code)	ER standards Table field	WCPFC field recommendation
	The group agreed to remove this data field.	have a system in place to tract person of interest similar to the tracking of vessel of interest. There are concerns raised at the mini DCC that observers find it difficult to collect this information. This information can be collected during placement meeting, however, some ports has no placement officers especially when placing of observers outside of the region. It was also suggested that, if this information is already captured under the vessel registry then it will ease the problem of observers trying to collect this information.			
Data Fields: Human Trafficking – proposed only Form Type and Section: PS-1 (page 2) , Crew List					
Mini Observer DCC, Nov 2016.	As a clarification it was noted that the crew list was for recording members of the regular crew only. Transit crew or other persons, (second observers, rescued persons, etc.) should not be recorded on the form, but rather into the trip report. Participants were aware that human trafficking is a current area of media focus for the international fishing community and that some observer programmes had started to document these phenomena, along with associated labour and human rights issues. That said, the group suggested that their perception is that these issues were not strongly visible in the purse-seine fishery at least, and there was no demand or reason for observers	The Committed agreed that observers should note any changes to crew during the trip, whether they are disembarking or embarking, onto the crew list. All other changes to the persons on board were to be noted in the trip report, including capturing all personal details, passport number etc.			

Proposed form modification details		DCC10 agreed updates			
Person proposing change	Proposed addition/modification	Record of discussions	New Remove Edit (Form/Field/Code)	ER standards Table field	WCPFC field recommendation
	to collect such information at this time. National programmes are asked to keep a watch on this area.				
Data Fields : **EPIRBS** Form Type and Section: PS-1 (page 2) , Safety Equipment					
Mini Observer DCC, Nov 2016.	(General change – see also PL-1, PL-1) Clarify in the instructions that observers are only required to record information on EPIRBs that they have easy access to. There is no requirement for observers to record EPRIBs that may be present in sealed life-rafts for instance.	Agreed to amend the instructions that only EPIRBs that can be easily accessed should be reported.	EDIT INSTRUC.		
Data Fields : **Comments of Drawing of Well Pattern** Form Type and Section: PS-1 (page 2) , Safety Equipment					
Mini Observer DCC, Nov 2016.	The area on the form to draw the well pattern was thought to be too small. That said, observers generally submit a separate page with the vessel's own copy of the well pattern.	The committee agreed to add specific pages into the workbook where loose pages (well drawings, crew lists etc.) can be attached.	EDIT WBOOK		

Proposed form modification details		DCC10 agreed updates			
Person proposing change	Proposed addition/modification	Record of discussions	New Remove Edit (Form/Field/Code)	ER standards Table field	WCPFC field recommendation
	SPC's Observer Database Manager noted that with the upcoming integration of the observer database into the TUFMAN platform it will be possible to attach the well plan scan to the observer trip data. However, for that to be done, and to avoid the need for the entire trip scan to be attached, the well pattern drawing will have to be scanned separately to the rest of the workbook. A suggestion to add an extra page into the workbook titled "well pattern" where the photocopy could be attached was also suggested and should be considered, noting that there are other loose pages that are regularly collected by observers (net plan, crew list etc. Another minor edit of the data field wording was proposed and the suggestion is to write it as 'Comments, and/or Drawing of Well Pattern'.				

Proposed form modification details		DCC10 agreed updates			
Person proposing change	Proposed addition/modification	Record of discussions	New Remove Edit (Form/Field/Code)	ER standards Table field	WCPFC field recommendation
• FORM PS-2 PURSE-SEINE OBSERVER DAILY LOG					
Data Fields : **Radio Buoys – Proposed only** Form Type and Section: PS-2, General Query					
Mini Observer DCC, Nov 2016.	Earlier versions of the forms mostly used the term 'radio buoy'. At one stage and most certainly around when GPS and sonar buoys were introduced the use of word 'radio buoy' has become unclear at times. The participants suggested that observers use 'radio buoy' as the primary or 'catch all' term for buoys and that the comments would, where necessary, clarify that this included GPS buoys and sonar buoys. This discussion is most relevant to the Activity code 15R and 15D.	The term radio buoy will be used as the overall or 'catch all' term when referring generally to all buoys (e.g. GPS, echo sounding) or beacons.			

Proposed form modification details		DCC10 agreed updates			
Person proposing change	Proposed addition/modification	Record of discussions	New Remove Edit (Form/Field/Code)	ER standards Table field	WCPFC field recommendation
Data Fields : **Activity Codes** Form Type and Section: PS-2, Daily Log					
Mini Observer DCC, Nov 2016.	Initially, the semantics of the activity code '12 – No fishing drifting with a floating object' were called into question. It was pointed out that technically the floating object must be tied to the vessel (??? Not clarified) and that this was not obvious from the wording. As the conversation continued the group suggested that none of the terms 'no fishing' were actually technically correct, as they were not in line with our understanding of fishing, which can continue when the vessel is not moving. To resolve this the wording 'no fishing' was removed from activity codes 11, 12 and 13 and the activity code 12 further clarified to show that the floating object must be tied to the floating object. 11 ~~No fishing~~ – Drifting at day's end	Agreed The Committee agree to amend the Activity and Helicopter Codes in the following manner 11 Drifting at day's end			

Proposed form modification details		DCC10 agreed updates			
Person proposing change	Proposed addition/modification	Record of discussions	New Remove Edit (Form/Field/Code)	ER standards Table field	WCPFC field recommendation
	12 ~~No fishing~~ – Drifting and tied with floating object (*comment DAB – tied to was not agreed?)* 13 ~~No fishing~~ - Other reason - please specify Conversations around the activity code also explored and clarified that if additional material is added to a log/FAD during servicing no second object number will be assigned.	12 Drifting and tied with floating object 13 Other reason - please specify 18 Drifting – No fishing			
• FORM PS-3 PURSE-SEINE OBSERVER SET DETAILS					
Data Fields : **Multiple- for sharks - Sex, condition,** Form Type and Section: PS-3, Bycatch					
Mini Observer DCC, Nov 2016.	In 2014, and following on from CMM 2011 -04, 2013-08 FAL and OCS were recognised as species of special interest by the DCC. Recording multiple landings of these sharks on the observer forms has caused a number of issues. On a very	In conjunction with the GEN-2 discussion the Committee agreed to add an area to the PS-3 form to capture all landings and interactions of SSIs with the primary gear. See further comments in the box below.	NO DATA FIELD CHANGE		

Proposed form modification details		DCC10 agreed updates			
Person proposing change	Proposed addition/modification	Record of discussions	New Remove Edit (Form/Field/Code)	ER standards Table field	WCPFC field recommendation
	basic level the purse-seine PS-3 Set Details, (unlike the LL-4 Catch Monitoring form) only lightly captures the condition of the species of special interest when landed, and normally additional information on SSI should be recorded on the GEN-2 form. The limitations of the observer workbooks (even with additional pads of GEN-2) meant it was difficult for the observer to record multiple landings of SSI on GEN-2 form. To overcome this WCPFC circulated a table to capture sharks on the PS-3 form. Please note discussions on this area are on-going, linked with other forms, and a more comprehensive summary of the discussion will be presented at DCC.				

Proposed form modification details		DCC10 agreed updates			
Person proposing change	Proposed addition/modification	Record of discussions	New Remove Edit (Form/Field/Code)	ER standards Table field	WCPFC field recommendation
Data Fields : **Interaction Codes** Form Type and Section: PS-3, discussion (?)					
Mini Observer DCC, Nov 2016.	New codes to summarise interaction and landing events were compiled and submitted for consideration by the WCPFC. These codes can be used on the purse catch details form (PS-3) and the species of special interest form (Gen2). The codes represent common interaction situations, as captured from previous observers descriptions. Coding known and typical interaction scenarios allows observers, data entry staff and data analysis persons to process this information promptly. The interaction codes could be termed 'interaction and landing codes', but on a practical level the shorten term – interaction codes has been used. The proposed codes are listed below with typical form use	In conjunction with the GEN-2 discussion the Committee agreed to amend the PS-3 form to capture **all landings and interactions of** SSIs with the purse seine primary gear on the form. This requires a new section on the form, under the bycatch area to capture information on SSIs. The data fields will be the same as the bycatch area, except that the condition on landing and the condition on release will be added. The time the SSI was first sighted will be added to the PS-3 form. Additionally, new fate codes will be introduced to allow observers to code how the SSI was handled after it was landed on deck, but also before if appropriate i.e. scooped out of net and released. (Codes to be revised at ROCW).	NEW DATA FIELDS		

Proposed form modification details		DCC10 agreed updates			
Person proposing change	Proposed addition/modification	Record of discussions	New Remove Edit (Form/Field/Code)	ER standards Table field	WCPFC field recommendation
	LOD Landed On Deck by Brailing, Scooping or lifting from Water PS-3 Gen 2 LPD Landed On Deck but went through Power Block PS-3 Gen2 IBR Interaction - Bow riding (Gen-2) IWR Interaction - Wake riding (Gen-2) ION Interaction - Outside of net during set (Gen-2) ICF Interaction - Crew feeding SSIs (Gen-2) INE Interaction - Caught Inside Net and Escaped (PS-3 Gen-2) INA Interaction - Caught inside Net not landed but release assisted by crew (PS-3 Gen2) IWF Interaction - With FADS (Gen-2) IHN Interaction – Hooked, but not landed (LL – 4 Gen2)	Post DCC, Gear interaction, Vessel Interaction and Sighting Codes finalised. Was thought not-possible to code for vessel treatment as it is often a multi-step procedure. Final Codes are shown below. **GEAR INTERACTION CODES** IEN - Entangled (in gear) IJO - Jumped out (net closed) ICR - Crew released from net IBR - Broke through net IHE - Hooked internally (mouth) IDJ - Hooked in jaw (circle hook) IHD - Hooked deeply - throat or stomach IHU - Hooked unknown OTH - Other, please specify **VESSEL INTERACTION CODES** IBV - Interaction, beside vessel ION - Interaction, outside net ICF - Interaction, crew feeding IWF - Interaction, with FADs, but not set on IDW - Interaction, dead in water ICV - Interaction, collision with vessel ICP - Interaction, collision with propeller ICT - Interaction, collision with tori line FRB - Interaction, feeding on bait during set IFO - Interaction, feeding on discarded offal IRE - Interaction, resting on vessel, floats or FADs(birds) OTH - Interaction- other, please specifiy	NEW FATE CODES		

Proposed form modification details		DCC10 agreed updates			
Person proposing change	Proposed addition/modification	Record of discussions	New Remove Edit (Form/Field/Code)	ER standards Table field	WCPFC field recommendation
	IDW Interaction - Dead in the water. (PS-3, Gen2) IOH Interaction - Other – specify ICH Interaction - ??? Please note discussions on this area are on-going, linked with other forms, and a more comprehensive summary of the discussion will be presented at DCC.	**SIGHTINGS CODES** SDS - Sighting - Distance Swimming SBR - Sighting - Breaching STP - Sighting - Tail slapping or playing SMG - Sighting - Motionless in group SDW - Sighting - Dead in Water SBO - Sighting - Bird overhead OTH - Sighting - Other, please specify			
Data Fields : **Escaped Species** Form Type and Section: PS-3, Target Tuna					
	The PS-3 form gives an area to record tuna that have escaped before being landed either through a break in the net or because a mitigation procedure was applied. For non-tuna species escaped species can be recorded under the by catch area. Escaped SSIs should be recorded on the GEN-2 form.	No change, or further discussion	NO DATA FIELD CHANGE		

Proposed form modification details		DCC10 agreed updates			
Person proposing change	Proposed addition/modification	Record of discussions	New Remove Edit (Form/Field/Code)	ER standards Table field	WCPFC field recommendation
• FORM PS-4 PURSE-SEINE OBSERVER LENGTH MEASUREMENT					
Data Fields : **Calibration of Caliper** Form Type and Section: PS-4, Measurement Instrument					
Mini Observer DCC, Nov 2016.	Observer will be asked to record on a set by set basis the calibration of their caliper. For instance if the caliper is reading 50.3 cm when the true length is 50 cm they record a calibration error of + 3 mm.	The Committee agreed to improve the length measurement data by asking the observers to calibrate their calipers before every set. A new data field will be added to capture this calibration. Training instructions on calibrations (already in place) will be strengthened through a page in the workbook.	NEW DATA FIELD		
Data Fields : **if Other** Form Type and Section: PS-4, Sample Type - SS					
DCC10, Nadi		To capture lengths for any SSI landed on PS vessels introduce a new sample type called 'SSI' to allow observers to measure a FL measurement for sharks and marine mammals, a CL length for turtles, and a TW length measurement for any rays and appropriate length codes for birds. Additionally, by choosing this sample type observer	NEW CODE		

Proposed form modification details		DCC10 agreed updates			
Person proposing change	Proposed addition/modification	Record of discussions	New Remove Edit (Form/Field/Code)	ER standards Table field	WCPFC field recommendation
		can indicate the sex of the species where known by adding M or F before the length; for example, LENGTH (cm) is M 137. Post DCC 1. SS is new sampling protocol for sampling species of special interest New Length Codes for Bird Measurements added BL – Bill Length, WL – Wing Length (Wrist to Fingertips), noting that training materials to be provided to observers			
Data Fields : **if Other** Form Type and Section: PS-4, Sample Type -LB					
Adopted at SPC posted DCC Nadi.		Observers may sample live fish from brail dedicated to removing live fish for the sashimi or kabushikii market. While the sampling protocol is much the same as the grab sampling (grab 5 fish from the brail), it is obvious that the circumstances will make it difficult for the observer to grab and measure the fish in the same way (large, active fish will be harder to grab and remove from the brail). Noting the challenges in sampling and the need to identify this at the data analysis level a new sampling protocol was introduced. LB- Live Fish removed from Brail.	NEW CODE		

Proposed form modification details		DCC10 agreed updates			
Person proposing change	Proposed addition/modification	Record of discussions	New Remove Edit (Form/Field/Code)	ER standards Table field	WCPFC field recommendation
Data Fields : **Which Brail Size was sampled** Form Type and Section: PS-4, Sampling Details - Brails					
Adopted at SPC, Post DCC		Noting the changes to the PS-1 form, where we recognise a change in brail capacity during the trip as a complete new brail a third brail (Brail 3) has been added as a possible response.	NEW DATA FIELD		
Data Fields : **Samples** Form Type and Section: PS-4, Sampling Details - Brails					
Mini Observer DCC, Nov 2016.	Data control technician highlighted that the number of brails that are catered for on one form (30 brails) is higher than the number of species / length data fields that can be recorded (120) on the same form {where normally 5 fishing are taken from one brail}. The participants reviewed the logistics of this, noting that due to the speed of brailing and the difficulty in selecting fish capturing five fish from every brail is not always possible. Selecting more than five is not	The PS-4 form will be amended so that the number of brails under 'brail pattern' is in line with the number of lengths that can be recorded on the page.	EDIT FORM		

Proposed form modification details		DCC10 agreed updates			
Person proposing change	Proposed addition/modification	Record of discussions	New Remove Edit (Form/Field/Code)	ER standards Table field	WCPFC field recommendation
	encouraged. In any case observers should describe their actual sampling protocol in the comments area. That said, under the current format a typical grab sample taken from 30 brails cannot be record on the same form as the brail samples. The group agreed to reduce the number of brails on each form to 24. Observers were to be reminded to complete the 'column totals' for each species on the same page as they were recorded and to place 1) the tallies, 2) the sum of all brails and 3) the totals for the 'Target Species' and the 'Other Species' on the front of the first PS-4 form for each sample type. This is equivalent to the same the instructions given to port sampler where a sum of the page totals is reported on the first or *top* port sampling form.				

Proposed form modification details		DCC10 agreed updates			
Person proposing change	Proposed addition/modification	Record of discussions	New Remove Edit (Form/Field/Code)	ER standards Table field	WCPFC field recommendation
• FORM PS-5 PURSE-SEINE OBSERVER WELL TRANSFERS RECONCILIATION FORM					
Data Fields : **Process query only** Form Type and Section: PS-5, **All**					
Mini Observer DCC, Nov 2016.	There were general queries on how the PS-5 should be recorded. The group confirmed that each transfer required one line of data. For instance, if tuna were transferred from one set to three different wells, then three lines of data are required. This is shown in the instructions.	The committee agreed that the process for recording well transfers is that observers need to record a line of data for each well transfer. There are no changes required. The iFIMS developer noted that the PS-5 form is treated differently in their observer tablet application. Well transfers are considered a vessel activity (as per the PS-2) form and the information is valued by industry for MCS purposes.	NO DATA FIELD CHANGE		
Data Fields : **Start of Set Date and Time** Form Type and Section: PS-5, All					
Mini Observer DCC, Nov 2016.	A request was made to update the instructions to state that the start of set time and date should be recorded for any well transfers originating from sets.	The committee agreed to update the instructions so observers are sure to use the start of set date and time for every well transfer that originates from a set.	EDIT INSTRUCT.		

Proposed form modification details		DCC10 agreed updates			
Person proposing change	Proposed addition/modification	Record of discussions	New Remove Edit (Form/Field/Code)	ER standards Table field	WCPFC field recommendation
Data Fields : **Metric Tonnes Moved** Form Type and Section: PS-5, All					
Mini Observer DCC, Nov 2016.	The database does not currently allow the entry of decimal tonnes (?). This lead into a discussion as to whether metric tonnes should be rounded off, and if so in what manner. Records of decimal tonnes of catch normally arise from observer using their calculated tonnage of catch from their PS-3 form.	Agreed, decimal places if recorded by observer can be added to the database.	NO DATA FIELD CHANGE		

LONGLINE

Proposed form modification details		DCC10 agreed updates			
Person proposing change	Proposed addition/modification	Record of discussions	New Remove Edit (Form/Field/Code)	ER standards Table field	WCPFC field recommendation
• FORM LL-1 LONGLINE OBSERVER GENERAL INFORMATION (Page 1)					
Data Fields : **No. (Number)** Form Type and Section: LL-1, Vessel					
Mini Observer DCC, Nov 2016.	The number data field records the number of the Captain/Fishing Master nationality document. However this is not required by the WCPFC and can be difficult to get. The group suggested removing this data field	As per purse-seine	NO DATA FIELD CHANGE		
Data Fields : **Length** Form Type and Section: LL-1, Vessel					
Mini Observer DCC, Nov 2016.	The required length for the vessel is the 'length overall', which is the maximum length of a vessel's hull when measured parallel to the waterline. A request to better define this on the front	Is there a standard measurement of length? It was noted that this is more of a vessel registry question and will come under the review of the collection/validation of vessel registry data by observer.	EDIT INSTRUCT.		

Proposed form modification details		DCC10 agreed updates			
Person proposing change	Proposed addition/modification	Record of discussions	New Remove Edit (Form/Field/Code)	ER standards Table field	WCPFC field recommendation
	of the form and as part of the data field was accepted, while noting that the requirement to report 'length overall' is already documented on the back of the form. The data field will change to 'Length- LOA'. An explanation in the instructions that M refers to meters and F refers to feet and not fathoms was noted to be helpful.				
Data Fields : **AIS** Form Type and Section: LL-1, Electronics					
Mini Observer DCC, Nov 2016.	(General change – also PS-1, PL-1) Participants simply suggested that the AIS field should be moved closer to the VMS data fields. The meeting encouraged a review of the compiled data to see if the data collected to date has been useful. The use of AIS in identifying nearby vessels was discussed during the review of the GEN-1 form.	As per purse-seine	FORM EDIT		

Proposed form modification details		DCC10 agreed updates			
Person proposing change	Proposed addition/modification	Record of discussions	New Remove Edit (Form/Field/Code)	ER standards Table field	WCPFC field recommendation
Data Fields : **Usage Codes** Form Type and Section: LL-1, Electronics					
Mini Observer DCC, Nov 2016.	(General change – also PS-1, PL-1) Observers have asked which 'usage code' was the most appropriate in relation to the usage of 'buoys' (GPS and echo sounding buoys) during the FAD closure period. They suggested that none of the current codes are appropriate to indicate that the buoys are not used during the FAD closure period, but that they are used at most other times. The usage code – NUF (not used in FAD closure period) was proposed. However the group preferred to add a catch all code to capture all other scenarios. The decision was made to add a new code 'OTH – other please specific' .	Added for consistency with Purse-Seine Usage Code requirements.	NEW CODE		

Proposed form modification details		DCC10 agreed updates			
Person proposing change	Proposed addition/modification	Record of discussions	New Remove Edit (Form/Field/Code)	ER standards Table field	WCPFC field recommendation
Data Fields : **Communication and Information Services** Form Type and Section: LL-1, Electronics					
Mini Observer DCC, Nov 2016.	(General change – also PS-1, PL-1) A number of mostly minor edits were requested for the communication and information services area. Us Territories would appreciate that clarifying that a mobile phone is also a cell phone. To avoid database changes, this could go into the instructions. The blank data field on the same line as weather fax line confuses observers and should be removed. The data field for Information Services 'Other Y or N' is superfluous and can be removed. The extra space can be used to note 'website' and 'www' to encourage observers to write in the website address in this area.	As per purse-seine	NEW CODE		

Proposed form modification details		DCC10 agreed updates			
Person proposing change	Proposed addition/modification	Record of discussions	New Remove Edit (Form/Field/Code)	ER standards Table field	WCPFC field recommendation
Data Fields : **Life raft – number and inspection dates** Form Type and Section: LL-1, Electronics					
Mini Observer DCC, Nov 2016.	Two edits for the life-raft data fields were highlighted. The 'no' data field should be amended to no. to denote number, or the full word 'number' inserted. The data format for the life raft year / month is incorrect and should be yy/mm.	Accepted without opposition	EDIT DATA FIELD		
Data Fields : **EPIRBs** Form Type and Section: LL-1, Electronics					
Mini Observer DCC, Nov 2016.	(General change – also PS-1, PL-1) Clarify in the instructions that observers are normally only required to record EPIRBs that they have normal access to. There is no requirement for observers to record EPRIBs that may be present in sealed life-rafts for instance.	As per purse-seine	NO DATA FIELD CHANGE		

Proposed form modification details		DCC10 agreed updates			
Person proposing change	Proposed addition/modification	Record of discussions	New Remove Edit (Form/Field/Code)	ER standards Table field	WCPFC field recommendation
Data Field : **Radio Beacon Direction Finder** Form Type and Section: LL-1, Electronics					
Mini Observer DCC, Nov 2016.	In light of the discussion on radio buoys under the PS form, a request was made to change the word 'beacon' to buoy. In a post meeting review it was found that the normal terminology for this piece of equipment, most especially in the fishing community is 'radio beacon direction finder'. In order to facilitate good communication between observers and fishers the terminology was not changed. However, generally DCC recognises the term 'buoy' as referring to all radio buoys, beacons, GPS buoys and sonar buoys.	This is proposed because previously there was a change to move to the term 'buoy' from 'beacon', although in this instance the common term for this equipment is beacon. Accepted without opposition	NO DATA FIELD CHANGE		
Data Field : **Hook type, hook size** Form Type and Section: LL-1, Fishing Gear					
Mini Observer DCC, Nov 2016.	In line with the minimum data standards updated at the WCPFC12 meeting requested that the type of hook(s) be recorded on a set level, rather than the current situation where the type of hooks used by the vessel were recorded at the trip level.	There was strong support for capturing hook type and size at the trip level only. It was noted that after further consideration FFA members supported the collection of this information at the trip level. During recent internal discussions. WCPFC (Shelly Clarke) also agreed that the hook type data could be collected at a trip level and not at a set level.	NO DATA FIELD CHANGE (for LL-1)		

Proposed form modification details		DCC10 agreed updates			
Person proposing change	Proposed addition/modification	Record of discussions	New Remove Edit (Form/Field/Code)	ER standards Table field	WCPFC field recommendation
	There was a lot of resistance to this particular change to the minimum data standards. Most participants suggested that vessels monitored by their national programme rarely change the type or size of hooks they use *between sets* as there is a lot of labour required to remove each hook and replace them manually. Any such global changes to the fishing gear would take considerable time. While the group agreed to *move the type of hooks used from the LL-1 form to the LL 2/3 form*, in line with the new WCPFC min. standards these data fields could be captured at the set level they were hesitant to do so and suggested this change should be highlighted and discussed with WCPFC as an impractical change and not reflective of current fishing practices WCPFC replied that this was strongly lobbied for and they have been informed that in certain fisheries hooks are changed between sets. Alternatively a check box to capture any hook changes at the set level could be added to the LL 2/3 form and a	The Committee agreed to keep the hook type and hook size recordings at the trip level and to add a check box on the LL 2/3 form to capture any changes at the trip level.			

Proposed form modification details		DCC10 agreed updates			
Person proposing change	Proposed addition/modification	Record of discussions	New Remove Edit (Form/Field/Code)	ER standards Table field	WCPFC field recommendation
	description of the changes added to the unusual set details data field. The meeting called on the WCPFC to review these minimum data standards, and to document which longline fisheries may deliberately change hook types between sets.				
Data Field : **Refrigeration Methods** Form Type and Section: LL-1, Fishing Gear					
Mini Observer DCC, Nov 2016.	***Refrigeration Method*** In 2014 new refrigeration methods were added to the LL-1 form. The main feedback on this change was that observers require further descriptions to properly identify the different refrigeration methods. The use of brine refrigeration was queried, as it understood that brine 'damages' fish, or at the very least it reduces the sale price However, it is accepted that while the method was uncommon and mostly used by longliners selling product to canneries.	Accepted without opposition.	NO DATA FIELD CHANGE		

Proposed form modification details		DCC10 agreed updates			
Person proposing change	Proposed addition/modification	Record of discussions	New Remove Edit (Form/Field/Code)	ER standards Table field	WCPFC field recommendation
	Most particularly, the use of 'brine spray' refrigeration was, once again, called into question. The method is known to have been used widely in the southern ocean albacore fishery in earlier days. While it is doubtful that many PIFRO observers will come across brine spray refrigeration the participants agreed to keep the method listed for the moment. In response to observers' request for a more detailed description of the refrigeration methods it was noted that form instruction have limited space, so dedicated training material can be placed in the front of the workbook in the first instance.				
Data Field : **Waste Disposal System.** Form Type and Section: LL-1, (Section?)					
Mini Observer DCC, Nov 2016.	The waste disposal field provides an area for the observer to describe the vessel's procedures for disposing waste. An important element of this is explaining the procedures for offal (fish) waste, or more importantly the *strategic disposal of offal waste* which is a WCPFC minimum	The committee discussed the mitigation methods for birds and the information that is captured across both the LL-1 and the LL 2/3 form. They agreed that on the LL-1 form amending the definition of the Waste Disposal System data field to indicate that the priority information being sought from observers was information on the waste disposal methods for seabird mitigation.	EDIT DATA FIELD		

Proposed form modification details		DCC10 agreed updates			
Person proposing change	Proposed addition/modification	Record of discussions	New Remove Edit (Form/Field/Code)	ER standards Table field	WCPFC field recommendation
	standard. The group suggested changing the wording so this data field is aligned with the Commission's standard. Furthermore, during discussions the group highlighted that observers regularly request more guidance to describe waste disposal systems; most especially in regards to strategic offal disposal. The vessel activity, the point of discharge and the depth of the discharge all have impact on the effectiveness of strategic fish offal disposal and should be recorded by observers. The form instructions have limited space, so dedicated training material can (at least initially) be placed to the front of the workbook. The disposal of offal waste is recorded on a set by set basis on the LL 2/3 form.				

Proposed form modification details		DCC10 agreed updates			
Person proposing change	Proposed addition/modification	Record of discussions	New Remove Edit (Form/Field/Code)	ER standards Table field	WCPFC field recommendation
• FORM LL-1 LONGLINE OBSERVER GENERAL INFORMATION (Page 2)					
Data Field : **Observations** Form Type and Section: LL-1, (Section?)					
Mini Observer DCC, Nov 2016.	***Observations / Comments / Other Gear / Unusual Use of Gear*** There were no requests to change this data field. However there were some queries around how well observers were responding to the data field, and how effective it is. SPC's Observer Database Manager confirmed that all comments were being added to the database and a review of the usefulness of this open comment data field would be helpful.	As per purse-seine	NO DATA FIELD CHANGE		

Proposed form modification details		DCC10 agreed updates			
Person proposing change	Proposed addition/modification	Record of discussions	New Remove Edit (Form/Field/Code)	ER standards Table field	WCPFC field recommendation
• FORM LL-2/3 LONGLINE OBSERVER SET AND HAUL INFORMATION					
Data Field : **Line Setting Speed** Form Type and Section: LL-2/3, Longline Set Specifications					
Mini Observer DCC, Nov 2016.	Line setting machines are capable of adjusting the speed at which the mainline leaves the vessel and thus regulating fishing depths. Line setting speeds should only be recorded when a line setting machine is on-board. Observers record the line setting speed by reading the appropriate line speed console and choosing the appropriate unit of speed. A request was made to remove knots as it is always possible to get the speed in meters per second by dividing knots by two. The instructions can be changed to explain this. *(Note the presence of a line shooter is recorded* on LL-1.)	Unopposed	EDIT DATA FIELD		

Proposed form modification details		DCC10 agreed updates			
Person proposing change	Proposed addition/modification	Record of discussions	New Remove Edit (Form/Field/Code)	ER standards Table field	WCPFC field recommendation
Data Field : **TDRS** Form Type and Section: LL-2/3, Longline Set Specifications					
Mini Observer DCC, Nov 2016.	SC3 (2007) meeting updated the minimum data standards to ask observers to record the total number of TDRs used and if placed, their position on the mainline. The group suggested moving the recording of the TDRs in line with the records for bait species where hook number within a basket is recorded.	The group suggested that they are very limited or practically no TDR records by observers. Noting that the data field is a WCPFC minimum data field no change can be made at this time. DCC10 suggests that the WCPFC remove this data field from their minimum data standards.	NO DATA FIELD CHANGE		
Data Field : **Target Species** Form Type and Section: LL-2/3, Longline Set Specifications					
Mini Observer DCC, Nov 2016.	An option to record sharks as a target species is mostly redundant at this stage, since the CMM 2011-04 and 2013-08. No SPC/FFA member country is currently licensing shark targeting vessels. The group suggested changing the option to 'other' with the type of target fishery to be documented in the trip report.	Unopposed	REMOVE /EDIT DATA FIELD		

Proposed form modification details		DCC10 agreed updates			
Person proposing change	Proposed addition/modification	Record of discussions	New Remove Edit (Form/Field/Code)	ER standards Table field	WCPFC field recommendation
Data Field : **Light Sticks** Form Type and Section: LL-2/3, Longline Set Specifications					
Mini Observer DCC, Nov 2016.	*WCPFC12* At WCPFC12 the minimum data standards increased the recording precision required from observers for light sticks. They asked that where possible observers record the total number of light sticks that are used at the set level and their location within the basket, normally indicated by hook or branchline attachment order. The DCC suggests this can be achieved by lining the light stick data fields up with the bait species data fields where hook number within a basket is recorded.	The committee accepted the suggestion.	EDIT FORM		
Data Field : **Tori Pole** Form Type and Section: LL-2/3, Mitigation					
Mini Observer DCC, Nov 2016.	Highly colourful streamers are deployed to scare seabirds away from the longline gear during setting. Generally attached by a mainline to a long pole, recent	Unopposed	EDIT DATA FIELD		

Proposed form modification details		DCC10 agreed updates			
Person proposing change	Proposed addition/modification	Record of discussions	New Remove Edit (Form/Field/Code)	ER standards Table field	WCPFC field recommendation
	changes to the WCPFC min standards require observers to note if there is a single or double line from the tori pole at the set level. The group suggested that this was best fulfilled by recording the number of tori lines that were deployed on a set basis, rather than just indicating Y or N.				
Data Field : **Strategic Offal Waste** Form Type and Section: LL-2/3, Mitigation					
Mini Observer DCC, Nov 2016.	*WCPFC12* Offal discharge at the set level is recorded on the LL-2/3 form. In line with the WCPFC min. standards the group agreed to change the wording to "strategic offal waste". Strategic offal waste can involve a number of procedures to reduce the attraction of birds to the vessel and reduce diving behaviour which increases their chances of interacting with the gear. The point or location on the vessel from which fish official is disposed from, the time it was disposed and the constitution of the offal (large heads may float) are all	No changes, but more training and improved instructions required.	NO DATA FIELD CHANGE		

Proposed form modification details		DCC10 agreed updates			
Person proposing change	Proposed addition/modification	Record of discussions	New Remove Edit (Form/Field/Code)	ER standards Table field	WCPFC field recommendation
	things that need to be considered for strategic offal waste. Supplementary instructions and training are required to compliment this field's diversity				
Data Field : **Hooks (type and size)** Form Type and Section: LL-2/3, (Bait Used ?)					
Mini Observer DCC, Nov 2016.	Please see comments on hooks under form LL-1. WCPFC12 changed the requirements for hook type records, from a once off trip level record to a recurring record to be taken during every set. The meeting participants suggested that changes to the hook configuration was unlikely to be carried out on any regular basis by vessels, as it can be quite labour intensive as each hook had to be removed and replaced by hand, they agreed to move the hook data fields to the LL 2/3 form. Observer will be able to monitor set level hook changes during the hauling period, so while it does add extra work to them, it was not thought to be too burdensome. However,	There was strong support for only capturing hook type and size at the trip level only. It was noted that FFA members have recently supported the collection of this information at the trip level only. During a recent internal discussions at WCPFC (Shelly Clarke) agreed that the hook type data could be collected at a trip level and was not always practical or desirable at the set level for many fleets. The Committee agreed to add a check box on the LL 2/3 form to capture any changes to the hook type and size at the trip level.	NEW DATA FIELD		

Proposed form modification details		DCC10 agreed updates			
Person proposing change	Proposed addition/modification	Record of discussions	New Remove Edit (Form/Field/Code)	ER standards Table field	WCPFC field recommendation
	recording hook type at the set level will also require database changes. Alternatively a check box to capture any hook changes at the set level could be added to the LL 2/3 form and a description of the changes added to the unusual set details data field. The meeting called on the WCPFC to review this minimum data standards, and to document which longline fisheries may deliberately change hook types between sets. The observations and concerns of operational staff should be noted by WCPFC.				

Proposed form modification details		DCC10 agreed updates			
Person proposing change	Proposed addition/modification	Record of discussions	New Remove Edit (Form/Field/Code)	ER standards Table field	WCPFC field recommendation
• FORM LL-4 LONGLINE OBSERVER CATCH DETAILS					
Data Field : **Weight Code** Form Type and Section: LL-4, Catch Details					
Mini Observer DCC, Nov 2016.	A clarification was requested with regards to the code required for no weight measurements. Observers are comfortable recording NM-not measured when no length measurement is made. However, there were unsure if the same code was relevant when no weight measurement was made. The instructions are possibly confusing as the code NM- not measured was only listed under the length codes. The group agreed that NM – not measured was the correct code when no weights are collected and that it should be listed with the weight codes. {The earlier 2007 LL Observer Guide continues to show a previously agreed method.} The group suggested that observers move to the port sampling procedures for recording weight to one decimal place. *(Minor form edit – the word 'Code' has dropped off the form – replace it).*	It is uncommon for observers to collect weight data on longline vessels as weighing scales are rarely available. However, when recorded the committee agreed to change the instructions so they better reflect the port sampling protocol for recording weight.	EDIT INSTRUCT.		

Proposed form modification details		DCC10 agreed updates			
Person proposing change	Proposed addition/modification	Record of discussions	New Remove Edit (Form/Field/Code)	ER standards Table field	WCPFC field recommendation
Data Fields : **Calibration of Caliper** Form Type and Section: LL-4, New					
Mini Observer DCC, Nov 2016.	Observers will be asked to record on a set by set basis the calibration of their caliper. For instance if the caliper is reading 50.3 cm when the true length is 50 cm they record a calibration error of + 3 mm.	Accepted, as per purse-seine	NEW DATA FIELD		

Proposed form modification details		DCC10 agreed updates			
Person proposing change	Proposed addition/modification	Record of discussions	New Remove Edit (Form/Field/Code)	ER standards Table field	WCPFC field recommendation
Data Field : **Fate Code** Form Type and Section: LL-4, Catch Details					
Mini Observer DCC, Nov 2016.	A request was made for a new discarded fate code to capture situations where species of special interest (mostly turtles) are landed hooked, but subsequently have the implanted hook removed in a process known as de-hooking (normally done with a recognised de-hooking device) . It was also noted that the process could be captured as one of the new interaction codes for SSI. One of the constraints of recording this process as a fate code was that the animal (generally a turtle) may stay on board for a length of time before it is released, the observer would need to go back to data sheets at a later time. The group suggested capturing this under interaction codes, if implemented. The conversation also raises the question as to whether observers are responsible for handling species of special interest. Many, but not all observers have been trained to de-hook turtles, but they are	After discussions on the GEN-2 the group agreed to remove all records of landings from the GEN-2 form and for longline gear to add these to the LL-4 form through the use of a new column for "gear interaction code", with a new set of codes that reflect what was used on the back of the GEN-2 form previously. **GEAR INTERACTION CODES** IEN - Entangled (in gear) IJO - Jumped out (net closed) ICR - Crew released from net IBR - Broke through net IHE - Hooked internally (mouth) IDJ - Hooked in jaw (circle hook) IHD - Hooked deeply - throat or stomach IHU - Hooked unknown OTH - Other, please specify	NEW DATA FIELD AND NEW CODES		

Proposed form modification details		DCC10 agreed updates			
Person proposing change	Proposed addition/modification	Record of discussions	New Remove Edit (Form/Field/Code)	ER standards Table field	WCPFC field recommendation
	not supplied with de-hooking devices. Increasingly handling procedures for SSI are being introduced including birds and whale sharks. Observers should be given direction explicit direction on their obligations around this area. ROCW - Should observers handle SSIs				
Data Field : **Fate Code** Form Type and Section: LL-4, Catch Details					
Mini Observer DCC, Nov 2016.	Continuing the conversation around recording SSI interactions with longline vessels - the codes DSO and DCF were reviewed. These codes were revised in 2009 to better capture change in *vessel behaviour* due to the presence of observers. At the time it was suggested that vessels were deliberately cutting the branchline before the hooked species was pulled close to the vessel, apparently so observers could not see the species. It was important to capture this behaviour in the days before the shark CMMs which banned shark landings. Since, landings are now banned it was suggested and accepted, that amending the codes to better reflect the fact that it is common	Some discussion about whether we should record the length of branch line left in struck off species because of the turtle mitigation workshop. To be re-considered at DCC11. Understanding that it is not possible to really quantify what 'far' and 'close' are the group agreed to revert to the original meaning of the fate codes DCF and DSO. DCF – Discarded cut free DSO – Discarded struck off	CODE EDIT		

Proposed form modification details		DCC10 agreed updates			
Person proposing change	Proposed addition/modification	Record of discussions	New Remove Edit (Form/Field/Code)	ER standards Table field	WCPFC field recommendation
	for a number of species to be struck off close to the boat. Additionally, it was thought that the word 'far' was no longer appropriate within the DCF code definition.				

Proposed form modification details		**DCC10 agreed updates**			
Person proposing change	Proposed addition/modification	Record of discussions	New Remove Edit (Form/Field/Code)	ER standards Table field	WCPFC field recommendation
		• TR-1 Troll General Information			
Post mini-observer DCC	The Troll observer data from are rarely if ever referred to. The last changes were made in 2009. The main question is if DCC should continue to maintain these forms, in case a national programme deploys an observer on a troll vessel. If DCC continues to maintain these forms the changes required on the TR-1 are aligned with the changes made to the PS-1, LL-1, PL-1 forms ID Document LOA Usage codes Communication and Information Services EPIRBS Waste Disposal	DCC10 agreed to a procedure for retiring forms that are not currently in use. The procedure will be to note in the report that the forms have been archived and continue to capture any changes that would normally be applied to the form if it was active. The form will be placed in an area labelled archived in the report and on the website.	ARCHIVE FORM		

Proposed form modification details		DCC10 agreed updates			
Person proposing change	Proposed addition/modification	Record of discussions	New Remove Edit (Form/Field/Code)	ER standards Table field	WCPFC field recommendation
• TR-2 Troll Daily Log					
Post mini-observer DCC	No changes requested		ARCHIVE FORM		
• TR-3 Troll Catch Details					
Post mini-observer DCC	No changes requested		ARCHIVE FORM		

Proposed form modification details		DCC10 agreed updates			
Person proposing change	Proposed addition/modification	Record of discussions	New Remove Edit (Form/Field/Code)	ER standards Table field	WCPFC field recommendation
• FORM GEN-1 VESSEL AND AIRCRAFT SIGHTINGS / FISH, BUNKERING AND OTHER TRANSFERS LOG					
Data Field : Form Type and Section: LL-1, Vessel or Aircraft Sightings					
Mini Observer DCC, Nov 2016.	*Vessel or Aircraft sightings* AIS consoles provide information on vessels that are in the surrounding area. Some observers obtain their vessel sighting records from the AIS and not from personal observations. Observers should be informed to follow the observer protocol and to only record vessels that they have personally seen. They can subsequently verify the vessel details from the AIS console. Recent trials on the effectiveness of the AIS, carried out by FFA showed that one in three AIS readings is correct (verify?) so a certain amount of caution should be	A general discussion on AIS units revealed that the VMS has a higher legal standing than the AIS, as discovered in a court case in PNG. FFA to explore and the effectiveness of AIS.	NO DATA FIELD CHANGE		

Proposed form modification details		DCC10 agreed updates			
Person proposing change	Proposed addition/modification	Record of discussions	New Remove Edit (Form/Field/Code)	ER standards Table field	WCPFC field recommendation
	used when reading the AIS consoles. In recent debriefings GEN-1 forms from different observers (who were in the same vicinity) showed that that one observer was not completing his duties. ROCW				
Data Field : **Species_Blank** Form Type and Section: GEN-1, Fish Transferred					
Mini Observer DCC, Nov 2016.	During the review the meeting reviewed the effectiveness of the previously change – removing the word 'mixed' from the species area. This allows observers to record their species of choice. This is most helpful for authorised longline transfers that happen within the EEZ boundaries. However, it was thought useful to add more to the instructions to indicate that recording 'mixed' species is an option, most especially for purse-seine transfers.	Removing the word 'mixed' was agreed to with no further discussion.	NO DATA FIELD CHANGE		

Proposed form modification details		DCC10 agreed updates			
Person proposing change	Proposed addition/modification	Record of discussions	New Remove Edit (Form/Field/Code)	ER standards Table field	WCPFC field recommendation
• FORM GEN-1 VESSEL AND AIRCRAFT SIGHTINGS / FISH, BUNKERING and OTHER TRANSFERS LOG – <u>Supplementary form</u>.					
Mini Observer DCC, Nov 2016.	No change During discussion, this form was noted to have been designed to capture multiple fish transfers, which is a feature of the PNG mothership fleet.	No further discussion	NO DATA FIELD CHANGE		
• FORM GEN-2 SPECIES OF SPECIAL INTEREST					
	The nomination of two sharks species (FAL and OCS) as species of special interest by DCC in 2014 (which are generally landed in multiples) has tested the limits of the reporting format. a) Most especially increasing the number of times multiple GEN-2 forms are required for a single set, along with requiring length frequency recording	A small working group met on the Tuesday evening. The outcomes were shared with plenary and the agreement for the GEN-2 was 1. Remove the recording of SSI interacting with the gear from Gen 2 2. Enhance the PS-3 and LL-4 form to collect required information on SSIs interacting with the gear	REMOVE DATA FIELDS <u>AND</u> NEW CODES		

Proposed form modification details		DCC10 agreed updates			
Person proposing change	Proposed addition/modification	Record of discussions	New Remove Edit (Form/Field/Code)	ER standards Table field	WCPFC field recommendation
	over three forms GEN-2, GEN-2 supplementary and PS-4. Of note is that marine mammals can in some instances be landed in multiples and the GEN-2 supplementary forms. b) Also, the changes to the date and time recording (most especially in relation to the new time of 'first observer sighting') was not fully understood by all observers, and this has on occasion resulted in the loss of the link between the set details and the species of special interest details in the database. c) Finally, the number of GEN-2 forms in the workbook (5) would have also been limiting and resulted in less records, although extra pads of GEN-2 forms were circulated to observer programmes. There were three responses to this 1) during the meeting, 2) in the write up of the mini-DCC meeting notes 3) internal SPC meeting. An additional paper will be provided to the DCC meeting. The outcomes of which may affect PS-3, PS-4, GEN-2, GEN-2 supplementary and LL-4 forms.	3. The new Gen 2 will only deal with sighting and interactions that are related only to the vessel. 4. The tagging information will be moved and enhanced on a new Tuna and SSI tagging form. Add new vessel interaction codes: IBR Interaction - Bow Riding IWR Interaction - Wake Riding ION Interaction - Outside Net ILD Interaction – Bird landed on deck (no interaction with gear) ICF Interaction - Crew Feeding IWF Interaction - With Fads (but not set on) IDW Interaction - Dead In The Water IUU Interaction – (not with gear) OTHER, please specify… Add new Sighting codes SDS – Sighted - Distance Swimming SBR – Sighted - Breaching STP - Sighted - Tail Slapping or Playing SMG - Sighting - Motionless in Group SDW - Sighting - Dead in the Water SWF - Sighting - with FAD (but not set on) SOT - Sighting - OTHER (please specify…)			

Proposed form modification details		DCC10 agreed updates			
Person proposing change	Proposed addition/modification	Record of discussions	New Remove Edit (Form/Field/Code)	ER standards Table field	WCPFC field recommendation
		(Codes to be reviewed by ROCW) The usefulness of sighting information was questioned and it was noted that this type of data has been removed by Australian. Collecting multiple sightings of the same species can be an issue for consideration. However, it is likely that this type of information and biological sampling will become a higher priority for observers in the future, most especially with the implementation of EM etc. (See PS-3, PS-4 and LL-4 for other associated changes) Final agreed codes are below. **GEAR INTERACTION CODES** IEN - Entangled (in gear) IJO - Jumped out (net closed) ICR - Crew released from net IBR - Broke through net IHE - Hooked internally (mouth) IDJ - Hooked in jaw (circle hook) IHD - Hooked deeply - throat or stomach IHU - Hooked unknown OTH - Other, please specify			

Proposed form modification details		DCC10 agreed updates			
Person proposing change	Proposed addition/modification	Record of discussions	New Remove Edit (Form/Field/Code)	ER standards Table field	WCPFC field recommendation
		VESSEL INTERACTION CODES IBV - Interaction, beside vessel ION - Interaction, outside net ICF - Interaction, crew feeding IWF - Interaction, with FADs, but not set on IDW - Interaction, dead in water ICV - Interaction, collision with vessel ICP - Interaction, collision with propeller ICT - Interaction, collision with tori line FRB - Interaction, feeding on bait during set IFO - Interaction, feeding on discarded offal IRE - Interaction, resting on vessel, floats or FADs(birds) OTH - Interaction- other, please specifiy **SIGHTINGS CODES** SDS - Sighting - Distance Swimming SBR - Sighting - Breaching STP - Sighting - Tail slapping or playing SMG - Sighting - Motionless in group SDW - Sighting - Dead in Water SBO - Sighting - Bird overhead OTH - Sighting - Other, please specify			
• FORM GEN-2 SPECIES OF SPECIAL INTEREST- Multi-Landings					
Mini Observer DCC, Nov 2016.	No changes requested. Retire this form? *Post meeting*, this form contains many of the elements required by the shark form.	In light of the changes to the GEN-2 form, where information on landed species is recorded on the PS-3, and PS-4 form the GEN-2 multi-landings form is no longer required.	ARCHIVE FORM		

Proposed form modification details		DCC10 agreed updates			
Person proposing change	Proposed addition/modification	Record of discussions	New Remove Edit (Form/Field/Code)	ER standards Table field	WCPFC field recommendation
• FORM GEN-3 VESSEL TRIP REPORT					
Data Field : **Form Title** Form Type and Section: GEN-3, Form Title					
Mini Observer DCC, Nov 2016.	The group discussed the title of the form. The group agreed that the title of the form should be 'Vessel Trip Monitoring Summary" in line with the WCPFC data standards.	The group agreed that the title of the form should be 'Vessel Trip Monitoring Summary" in line with the WCPFC data standards.	EDIT FORM TITLE		
Data Field : **{Observer Start Date of Trip}, Observer End Date of Trip }, {Status of Observer Debriefing : Debriefed, Not Debriefed, Pre-debriefed}{Port Departure} {Port of Return}** Form Type and Section: GEN-3 Header Details					
Mini Observer DCC, Nov 2016.	In line with the changes to the WCPFC Minimum Data Standards the group agreed to add new data fields to the header area of the form. These new data	Additional data fields were discussed and agreed: • Observer Start Date of Trip			

Proposed form modification details		DCC10 agreed updates			
Person proposing change	Proposed addition/modification	Record of discussions	New Remove Edit (Form/Field/Code)	ER standards Table field	WCPFC field recommendation
	fields will allow the trip details to be identified when the GEN-3 form is circulated independently of the workbook • Observer Start Date of Trip • Observer End Date of Trip • Status of Observer Debriefing : Tick boxes to select Debriefed, Not Debriefed, Pre-Debriefed • Additionally the SPC data entry team asked to add the port of departure and return date and time so that the can easily identity the trip.	• Observer End Date of Trip • Status of Observer Debriefing • Tick boxes to select Debriefed, Not Debriefed, Pre-Debriefed	NEW DATA FIELDS		
Data Field: Form Type and Section: GEN-3, Infringements					
Mini Observer DCC, Nov 2016.	In general discussion the group suggested no major changes to the list of infringements. That said the choice of language was thought to be difficult for observers to interpret in some areas,	Initial discussions focused on whether the GEN-3 form could be changed as much of the language comes directly from the WCPFC min. standards. The outcome of this was that DCC would use (where appropriate) more user-friendly language in the instructions and			

Proposed form modification details		DCC10 agreed updates			
Person proposing change	Proposed addition/modification	Record of discussions	New Remove Edit (Form/Field/Code)	ER standards Table field	WCPFC field recommendation
	most especially in the logsheet recording area.	suggest to WCPFC that the minimum data standards could be changed.	NO DATA FIELD CHANGE		
	The group agreed to review the language on the form and where the WCPFC language was deemed to be difficult clear concise language would be used to explain this in the instructions. The group also agreed to separate out lesser or more administrative infringements and to ask the Commission to approve this re-wording as the new minimum standard.	However, the WCPFC suggested that due to the most recent (WCPFC13) agreement to formulate a new Conservation and Management on Protection of WCPFC ROP observers - most especially to ensure there are appropriate mechanisms to deal with observer obstructions, there should be no review of the GEN-3 form this year. The committee agreed not to make any changes to the GEN-3 form (incidents) at this time.			
	DCC should prepare the list of the suggested changes and submit to WCPFC.	Further explanation is contained in the main body of the report.			
	Observer rights / social behaviour **RS-a** - With WCPFC approval - pull out the minor stuff. Review the issue with regard to observer's *obligation* to work or do chores around the vessel.				

Proposed form modification details		DCC10 agreed updates			
Person proposing change	Proposed addition/modification	Record of discussions	New Remove Edit (Form/Field/Code)	ER standards Table field	WCPFC field recommendation
	(link this wording to the same issue on the placement form). **RS-d** With WCPFC approval re-word the sentence as it was deemed to be too long. **RS-e** - with WCPFC approval add a new line to capture minor, but common incidents. *Logsheet recording* - with WCPFC approval improve the language in this area. **LC-a** **LC-b** With WCPFC approval, change the language for these two lines. W*WCPFC CMMs* **WC-a** Insert the word 'relevant' before CMM to clarify that observers only have to take into consideration CMMs that are related to their work area.				

Proposed form modification details		DCC10 agreed updates			
Person proposing change	Proposed addition/modification	Record of discussions	New Remove Edit (Form/Field/Code)	ER standards Table field	WCPFC field recommendation
• FORM GEN-4 CONVERSION FACTORS					
Data Field : Form Title **All** Form Type and Section: GEN-4, Details of Weight and Measurements Collected					
Mini Observer DCC, Nov 2016.	There were no comments on this form except to highlight that for the moment at least, it is very rarely used. Most participants thought the form could be retired. *Post meeting* – there is a very real need for this data to be collected, especially for CDS etc. Available conversion factor data is mostly old at this stage. National programme need to put priority on collecting this data. Data Management tools could help countries see what values remain to be collected. Send to ROCW	The meeting agreed to retain this form and highlight its importance to national programme and the benefits to their national fishery management goals in terms of CDS and biological sampling. SPC will further support the implementation of this form in countries.	NO DATA FIELD CHANGE		

Proposed form modification details		DCC10 agreed updates			
Person proposing change	Proposed addition/modification	Record of discussions	New Remove Edit (Form/Field/Code)	ER standards Table field	WCPFC field recommendation
• FORM GEN-5 FAD / PAYAO and FLOATING OBJECTS INFORMATION RECORD					
Data Field : **Discussion** Form Type and Section: GEN-5					
Mini Observer DCC, Nov 2016.	*Post meeting discussions* Is a whale shark a FAD? Yes, by definition a whale share is a FAD if the vessel deliberately set on it. However, since they are not permitted to set on whale sharks if one is caught in the net and wasn't seen on the surface or was a really small whale shark it shouldn't be considered a FAD. The value of filling in a GEN-5 form for any whale sharks needs further discussion.	After a long discussion the meeting agreed that technically (originally CMM 2008-01) a whale shark is a FAD. {The definition of a FAD in footnote 1 to CMM 2008-01 shall be interpreted as including: *"any object or group of objects, of any size, that has or has not been deployed, that is living or non-living, including but not limited to buoys, floats, netting, webbing, plastics, bamboo, logs and whale sharks floating on or near the surface of the water that fish may associate with"}* However, recording information about a whale shark on the GEN-5 form is neither logical or relevant as much of the information requirements refer to man-made FADs (like latitude and longitude of deployment) Information from the PS-2 will capture whether the set was made on a whale shark The meeting agreed to amend the instructions to state that the GEN-5 form was to cater for all logs and floating objects excluding whale sharks.	EDIT INSTRUCT		

Proposed form modification details		DCC10 agreed updates			
Person proposing change	Proposed addition/modification	Record of discussions	New Remove Edit (Form/Field/Code)	ER standards Table field	WCPFC field recommendation
Data Field : {**Origin of FAD codes}, {Floating Object codes}, {FAD Materials codes},** Form Type and Section: GEN-5					
Mini Observer DCC, Nov 2016.	The main suggestion from national programmes was to re-insert the FAD codes back onto the form. (*Post meeting* - explore the idea of placing the code pages as the last few pages in the workbook)	The main suggestion from national programmes was to re-insert the FAD codes back onto the form.	EDIT FORM		
Data Field : {**Object Number}** Form Type and Section: GEN-5 FAD Details (?)					
Mini Observer DCC, Nov 2016.	Replying to an observer query the group stated that for FAD recordings not related to sets the set number should be dashed.	OK. This request generated an e-reporting discussion on adding a dash into a data field in the e-environment. Apparently this is difficult to achieve when compared to the hard copy form. Replying to an observer query the group stated that for FAD recordings not related to sets the set number should be dashed.	NO DATA FIELD CHANGE		

Proposed form modification details		DCC10 agreed updates			
Person proposing change	Proposed addition/modification	Record of discussions	New Remove Edit (Form/Field/Code)	ER standards Table field	WCPFC field recommendation
Data Field : Form Title {**Diagrams**} Form Type and Section: GEN-5, Diagram					
Mini Observer DCC, Nov 2016.	Observers are required to make drawings of the FADS they have seen. This is one of the best ways of documenting the different types of FADs that are being used. Drawings can be replaced by photographs, and observers are strongly encouraged to take photographs. The submission of photographs requires proper photo registration procedures which should include instructions to trapping object numbers. (Data management).	Mark Oates advised that a system to capture and file photos with FIMIS tablets is currently in place.	NO DATA FIELD CHANGE		
• FORM GEN-6 POLLUTION REPORT					
Mini Observer DCC, Nov 2016.	No review as SPREP was invited to the DCC meeting, but they declined.	No review as SPREP was invited to the DCC meeting, but they declined	NO DATA FIELD CHANGE		

POLE-AND-LINE

Proposed form modification details		DCC10 agreed updates			
Person proposing change	Proposed addition/modification	Record of discussions	New Remove Edit (Form/Field/Code)	ER standards Table field	WCPFC field recommendation
• FORM PL-1 POLE-AND-LINE GENERAL INFORMATION					
Data Fields : **AIS** Form Type and Section: PL-1, Electronics					
Mini Observer DCC, Nov 2016.	(General change – also PS-1, LL-1) Participants simply suggested that the AIS field should be moved closer to the VMS data fields. The meeting encouraged a review of the data compiled to data to see if it has been useful. The use of AIS in identifying nearby vessels was discussed during the review of the GEN-1 form.	As per purse-seine	FORM EDIT		

Proposed form modification details		DCC10 agreed updates			
Person proposing change	Proposed addition/modification	Record of discussions	New Remove Edit (Form/Field/Code)	ER standards Table field	WCPFC field recommendation
Data Fields : **Usage Codes** Form Type and Section: PL-1, Electronics					
Mini Observer DCC, Nov 2016.	(General change – also PS-1, LL-1) Observers have been questioning the selection of the appropriate 'usage code' in relation to the usage of 'buoys' (GPS and echo sounding buoys) during the FAD closure period. They suggested that none of the current codes are appropriate to indicate that the buoys are not used during the FAD closure period, but that they are used at most other times. The usage code – NUF (not used in FAD closure period) was suggested. However at the end of the discussion the group thought that adding a catch all code to capture all other scenarios was the best solution. The decision was made to add a new code 'OTH – other please specific'.	As per purse-seine	NEW CODE		

Proposed form modification details		DCC10 agreed updates			
Person proposing change	Proposed addition/modification	Record of discussions	New Remove Edit (Form/Field/Code)	ER standards Table field	WCPFC field recommendation
Data Fields : **Communication and Information Services** Form Type and Section: PL-1, Electronics					
Mini Observer DCC, Nov 2016.	(General change – also PS-1, LL-1) A number of mostly minor edits were requested within the communication and information services area. Clarify that a mobile phone is also a cell phone would be appreciated in US territories and in regards to US fleets. To avoid database changes, this can go into the instructions. The blank data field on the same line as weather fax line confuses observers and should be removed. The data field for Information Services 'Other Y or N' is not superfluous and can be removed. The extra space can be used to note 'website' and 'www' to encourage observers to write in the website address in this area.	See agreed outcomes for the PS-1 form.	EDIT INSTRUCT. And REMOVE DATA FIELD And EDIT DATA FIELD		

Proposed form modification details		DCC10 agreed updates			
Person proposing change	Proposed addition/modification	Record of discussions	New Remove Edit (Form/Field/Code)	ER standards Table field	WCPFC field recommendation
Data Fields : **EPIRBs** Form Type and Section: LL-1, Safety Equipment					
Mini Observer DCC, Nov 2016.	(General change – also PS-1, LL-1) Clarify in the instructions that observers are only required to record EPIRBs that they have easy access to. There is no requirement for observers to record EPRIBs that may be present in sealed life-rafts for instance.	See agreed outcomes for the PS-1 form.	EDIT INSTRUCT.		
• FORM PL-2 POLE-AND-LINE DAILY LOG					
Data Fields : **Species Codes** Form Type and Section: PL-2, Bait					
	Bait Species Identification Guide The Solomon representative asked for a species identification guide for the pole-and-line bait fishery. A relevant publication has recently been put together by Tony Lewis and FFA and published by SPC Fishery Information	Agreed.	NEW CODES		

Proposed form modification details		DCC10 agreed updates			
Person proposing change	Proposed addition/modification	Record of discussions	New Remove Edit (Form/Field/Code)	ER standards Table field	WCPFC field recommendation
	office. Some disappointment was expressed by the fact that the guide has not used the FAO species codes. It was noted that the FAO 3 letter species ID codes do not cover all species (mostly commercial species) and it was likely that the FAO codes do not exist for these species. *SPC to create species codes where no FAO codes exist.*				

Proposed form modification details		DCC10 agreed updates			
Person proposing change	Proposed addition/modification	Record of discussions	New Remove Edit (Form/Field/Code)	ER standards Table field	WCPFC field recommendation
• FORM PL-3 POLE-AND-LINE CATCH DETAILS					
Data Fields : **Calibration of Caliper** Form Type and Section: PL-3					
Mini Observer DCC, Nov 2016.	Observers will be asked to record on a set by set basis the calibration of their caliper. For instance if the caliper is reading 50.3 cm when the true length is 50 cm they record a calibration error of + 3 mm.				
	No changes requested.				

Person proposing change	Proposed addition/modification	Record of discussions	New Remove Edit (Form/Field/Code)	ER standards Table field	WCPFC field recommendation
• SUP-1 PLACEMENT FORM					
Data Field : Form Title **Header Details** Form Type and Section: SUP-1					
Mini Observer DCC, Nov 2016.	The placement form was officially recognised as an observer form in 2014. Technically it is not an observer form as it is not filled in by the observer, but it does fill a critical role in capturing information on the observer trip. Both subregional programmes (USMLT and MRAG) meeting confirmed that in the absence of a placement officer observers can carry out their own placement meeting. Generally this tends to happen when observer board in non-SPC/FFA member country fishing ports. It is also possible for the fishing company to arrange for the captain to sign the form and send the scanned form back to the placement authority. This would save fishing companies a travel invoice to send a placement officer. In terms of minimum standards the WCPFC does not have specific data fields for placement, but national programmes are required to state their procedures for	ROCW is asked to review the procedures, information management and policies for placement.			

Person proposing change	Proposed addition/modification	Record of discussions	New Remove Edit (Form/Field/Code)	ER standards Table field	WCPFC field recommendation
	placing observers. The placement form can be used for any boarding on a fishing or transshipment vessel. Generally there is no placement meeting if trips are carried out on the same vessel, or when observer move to the IATTC area (cross-endorsement trips). Send to ROCW				
Data Field : Form Title **Caliper Serial Number** Form Type and Section: SUP-1					
Mini Observer DCC, Nov 2016.	*Caliper serial number* MRAG requested that the caliper code is placed on the placement form. This will help to maintain the registry of calipers.	A new data field will be added to better manage caliper use, the tracking of calipers, etc.	NEW DATA FIELD		

Person proposing change	Proposed addition/modification	Record of discussions	New Remove Edit (Form/Field/Code)	ER standards Table field	WCPFC field recommendation
Data Field : Title **2-way communication device** Form Type and Section: SUP-1					
Mini Observer DCC, Nov 2016.	From 1 January 2017, all observers will be required to carry an 'approved independent two way communication satellite device; and a waterproof personal lifesaving beacon'. MRAG has requested that the make and model of any such personal safety devices be captured on the placement form. They have also requested capturing that these device(s) are tested and known to be working during placement. " There was a suggestion to put this under all three sections of the "XX to initial when they have" to ensure that the placement officer, observer and captain are aware of the observers personal safety device.	The placement form will be used to trap if the compulsory two-way communication device is with the observer and if it is working. The data field will be repeated under the placement officer, observer and captain section so all acknowledge the presence of the device. Assets are also tracked by the OPM application.	NEW DATA FIELD		

Person proposing change	Proposed addition/modification	Record of discussions	New Remove Edit (Form/Field/Code)	ER standards Table field	WCPFC field recommendation
Data Field : Title **PLB and life vest** Form Type and Section: SUP-1					
Mini Observer DCC, Nov 2016.	Having a PLB and their own life vest are not currently compulsory pieces of equipment for observers. However, their use is strongly encouraged. The use of these devices should be trapped at the placement meeting.	The placement form will be used to trap if observers has 1) a PLB and 2) a personal lifejacket and also a) if they understand how to use these equipment.	NEW DATA FIELDS		
Data Field : Form Title **Observer Placement Checklist** Form Type and Section: SUP-1					
Mini Observer DCC, Nov 2016.	Link line six with line 15 and ensure that it is clear that the text for "Obligations of the Vessel Operators to Observer" is as described within the WPCFC CMM 2008-01. Revise the wording to show that there is no *obligation* for observers to work with the crew. Review the inclusion of the need to inform the Captain of any special medical issues as the captain may refuse to allow the observer to board, etc. Clarify and emphasise that the Obligations to the Vessel Operators to	Agreed Agreed	NO DATA FIELD CHANGE EDIT DATA FIELD		

Person proposing change	Proposed addition/modification	Record of discussions	New Remove Edit (Form/Field/Code)	ER standards Table field	WCPFC field recommendation
	Observers are listed / pertain to the CMM 2008-01 ***Observer Duties and Obligations*** New Add a line to show that in line with their "Code of Conduct" observers should not drink alcohol at any point during the trip. A particular issue was observers buying alcohol from bunkering vessels, getting around the fact that their code of conducts often refer to their own fishing vessel. New (2) Add a line to show that observers must sign for and report all gifts received from the vessel. Trip Report Add an area to the trip report where the observer can report any gifts they have received. (Centering the first paragraph on page 2) ***Obligations of the Vessel Operators to the Observer*** Re-word this sentence. Remove the first word 'provide' and replace it with 'allow'.	Retained. However, observer providers are to ensure observers are medically fit and to include the procedures for this in their Emergency Action Plans. Agreed A new line will be added under 'Observer' for the observer to initial when they have understood that they cannot have any alcohol during any point of the trip. The group agreed that observer should record all gifts in the trip report.	EDIT DATA FIELD NEW DATA FIELD NO DATA FIELD CHANGE		

Person proposing change	Proposed addition/modification	Record of discussions	New Remove Edit (Form/Field/Code)	ER standards Table field	WCPFC field recommendation
	Re-word this sentence. Remove the first work 'provide' and replace it with 'instruct'	Agreed	EDIT DATA FIELD		
	This is a repeat of line nine, therefore remove this line.	Agreed	EDIT DATA FIELD		
	Should not be given other duties that interfere with his main tasks. Cross check with GEN-3		NO DATA FIELD CHANGE		
	17 Explain vessel safety procedure including mustering station.	The GEN-3 form will not be revised under DCC10. This item should be re-considered under DCC11.			
	20 Add the word 'appropriate' space. "Provide *appropriate* space for the storage of…" Storage space on vessels is limited and it is possible that some observers may claim that the typical vessel spaces are not sufficient. . Note that the placement officer should make sure this happens, physically.	Agreed Agreed	EDIT DATA FIELD		
		Add a line to inform the captain where he can get a copy of the 'Vessel Report on the Observer'	EDIT DATA FIELD		

Person proposing change	Proposed addition/modification	Record of discussions	New Remove Edit (Form/Field/Code)	ER standards Table field	WCPFC field recommendation
Data Field : ***WCPFC VESSEL SAFETY CHECK*** Form Type and Section: SUP-1					
Mini Observer DCC, Nov 2016.	***WCPFC VESSEL SAFETY CHECK*** The placement form is the first point of interaction between the observer and the Captain. Both observers and Captain can refuse the placement. Documenting the reason for any refusal to board is an important aspect of the placement form. It is also one of the few places where observers can strongly voice their concerns around unsafe and unhygienic vessels. In regards to unsafe vessels, the WCPFC's VSC) captures some of the issues, but the meeting clarified that is not an obligatory list. WCPFC stated that the VSC was agreed as a guideline to allow countries to design their own list. Many programmes have just adopted this list as it is, but others have amended it. The group agreed to amend the WPCFC VSC and to change the title as specific change to the WCPFC list were proposed.	The group agreed to remove 'WCPFC' from the data form.	EDIT DATA FIELD		

Person proposing change	Proposed addition/modification	Record of discussions	New Remove Edit (Form/Field/Code)	ER standards Table field	WCPFC field recommendation
Data Field : ***Not Available (?)*** Form Type and Section: SUP-1, **WCPFC VESSEL SAFETY CHECK**					
Mini Observer DCC, Nov 2016.	*NA – not available* The VSC is too valuable to allow placement officers the option of recording 'not available' on any item. The group agreed to remove all 'N/As'. For instance it would be unsettling if the placement officer circled N/A for insurance (if for instance weren't able to retrieve or read the vessel insurance papers on the day of the boarding). Certain items should be properly cleared before observer placement even happens. They should be dealt with at the national programme level. This includes insurance and vessel surveys. These can be removed from the list. The VSC could capture any material safety list held by the vessel for dangerous chemicals etc (follow up on the general use/presence of such a list on fishing vessels).	The group agreed to remove the N/A option on the Vessel Safety Check, as the option was not helpful to ensuring the observer was placed into a safe environment.	EDIT DATA FIELD		

Person proposing change	Proposed addition/modification	Record of discussions	New Remove Edit (Form/Field/Code)	ER standards Table field	WCPFC field recommendation
Data Field : ***Presence during placement*** Form Type and Section: SUP-1, Presence During Placement					
Mini Observer DCC, Nov 2016.	*Presence during placement* It is important to capture if the observer was present when the placement officer carried out the VSC. The current wording which asks two questions and allows only one response is ambiguous. The form should be updated to properly capture that the observer was present at the VSC. It is equally important to trap whether all other officers were actually present during the VSC or they just sent their signature by fax etc.	This was agreed.	EDIT DATA FIELD		

Person proposing change	Proposed addition/modification	Record of discussions	New Remove Edit (Form/Field/Code)	ER standards Table field	WCPFC field recommendation
Data Field : ***Agreement to Board*** Form Type and Section: SUP-1, Presence During Placement					
Mini Observer DCC, Nov 2016.	*Agreement to Board* Equally, it is important to properly capture if the observer agreed to board after being present at the VSC. Any refusal to board should be captured. Discussions captured incidents of observers refusing to board (when the life raft was out of date) and subsequently been stood down by their national programme for six months. Such issues should be reviewed by the ROCW. Send to ROCW.	The group agreed to have a separate clear question to capture whether the observer agreed to board the vessel.	EDIT DATA FIELD		
Data Field : ***Acknowledgement*** Form Type and Section: SUP-1, Presence During Placement					
Mini Observer DCC, Nov 2016.	*Acknowledgement* A request was made that the area of the form where individual parties acknowledge having read the Placement form was formatted to withstand any legal review/use.	FFA agreed to review the acknowledgement part of the form so that it can withstand legal review.	REVIEW DATA FIELD		

Person proposing change	Proposed addition/modification	Record of discussions	New Remove Edit (Form/Field/Code)	ER standards Table field	WCPFC field recommendation
• SUP-2 WORKBOOK REFERENCE FORM					
Mini Observer DCC, Nov 2016.	No changes requested		NO DATA FIELD CHANGE		
• SUP-3 TRIP RECONCILIATION					
Mini Observer DCC, Nov 2016.	No changes requested		NO DATA FIELD CHANGE		
• SUP-4 ADVANCES and CLAIMS FORM					
Mini Observer DCC, Nov 2016.	No changes requested		NO DATA FIELD CHANGE		

Proposed form modification details		DCC10 agreed updates			
Person proposing change	Proposed addition/modification	Record of discussions	New Remove Edit (Form/Field/Code)	ER standards Table field	WCPFC field recommendation
• Purse-Seine, Longline, Pole-and-line **TRIP REPORT**					
The group agreed to completely review the Observer Trip Reports at a later date. The group seeks advice from DCC for dates, location and participation of this review. Minor – align wording on the front of all trip reports. DCC10 asked for all observer gifts to be documented in the trip report.					
		DCC10 asked for all observer gifts to be documented in the trip report.	EDIT REPORT		

Proposed form modification details		DCC10 agreed updates			
Person proposing change	Proposed addition/modification	Record of discussions	New Remove Edit (Form/Field/Code)	ER standards Table field	WCPFC field recommendation
• Observer Journal (all gear types)					
OBSERVER JOURNAL A standardised observer journal format is available from SPC. Using this format helps observer programmes properly scan and submit their observer daily journal. The PNG observer programme asked that the middle line – originally inserted to save paper by allowing observer to sign off in the middle of the page was causing confusion, mostly especially with the non-signature of some pages. Signing off each page of the journal is important as often it captures important information on areas of infringements, species of special interest and non-signature is an issue.					
		DCC10 agreed that the middle line on the journal can be removed, to avoid confusion in where the observer needs to sign, which can reduce the legal standing of the observer report.	EDIT FORM		

Proposed form modification details		DCC10 agreed updates			
Person proposing change	Proposed addition/modification	Record of discussions	New Remove Edit (Form/Field/Code)	ER standards Table field	WCPFC field recommendation
• Purse-seine, Longline, Pole-and-line **DEBRIEFING Evaluation and Score Sheet Forms**					
Traditionally the debriefing and its associated forms are reviewed outside the DCC process, as it can be a lengthy process and the observer forms must be well established before this work can be done. The meeting noted that the debriefing, evaluation and score sheet forms for the 2014 purse-seine, longline and pole-and-line forms were comprehensively reviewed in August 2016 and re-posted on the SPC website. That updated frame work provided by that review will facilitate quicker review of the debriefing forms in the future. The <u>DATA MANAGEMENT</u> of the Debriefing forms needs to be discussed.					
		SPC and FFA agreed that the outputs of the Evaluation Form were best 'packed' with the original observer data, and therefore SPC will develop the module for trapping historical and current evaluation outputs along-side the observer database. FFA will continue to trap the observer score in the OPM application	NEW DATABASE COMPONENT		

Data Field : **Calibration of Calipers** – Proposed Only Form Type and Section: PS, LL, PL Evaluation form, Before Current Data Fields					
Mini Observer DCC, Nov 2016.	The debriefer should also calibrate the calipers. A new data field should be added to the evaluation form to capture this on the data form.	Agreed. A new data field requiring the debriefer to cross-check the observer caliper calibration will be added to the Debriefing Form.	NEW DATA FIELD		
Data Field : **Health and Safety Questioning Form** – Proposed Only, next ROCW Form Type and Section: New Form					

Mini Observer DCC, Nov 2016.	The meeting noted that questioning around the social aspects of the trip that are not currently part of the observer debriefing process. Noting the recent increase in observer suicides and attempted suicides, an appropriate procedure should be made available to capture and prevent such incidents. Noting that health and safety concerns can often arise before, after or well outside the observer trip it was recommended that any new health and safety questioning format should sit outside the regular de briefing format and would only be processed by national or sub-regional programmes. Although training in this area should be provided to the relevant staff. The proposed new health and safety issues should be considered within the Emergency Action Plans. Family and drug use were noted to be the main source of health and safety issues for observers. Weakness in personal health and safety issues can be spotted during training and could be documented at that stage. Should DCC maintain this new form?	DCC10 suggested that although important any new Health and Safety Form should be dealt with outside the realms of the DCC. ROCW is the best place to provide advice and review of any such form/procedures and implementation should be handled at the national / observer provider level	NO DATA CHANGE		

5 UNLOADING DATA COLLECTION

5.1 Purse-seine and longline unloading forms

1. Deirdre Brogan (SPC) presented an overview of current issues with the unloading forms for both longline and purse-seine gear types. The purpose of the unloading form is to capture unloading and transshipment data collected from a source that is independent of the fishing vessel, normally the agent. The obligation to collect these data is outlined in para. 4 in Attachment K, Annex 1 of the WCPFC's Science Data Provisions. However, in many countries purse-seine unloading data collection is being carried out through the collection of the industry standard format "Mate's receipts" and not through collection of the DCC purse-seine unloading form. In contrast, the DCC longline unloading form has been generally well accepted and is filled in by agents in most countries.

2. While data collection from unloading events has improved over time, the source of purse-seine data continues to be the submission of the mate's receipts from the fishing vessel. The unloading forms provide data collection for both unloading and transshipment events although some countries continue to use their own forms, which may not meet the minimum data standards. It was noted that some countries were unaware that the unloading form was available for unloading and transshipment events, or of its intended use by agents as a separate data source from the fishing vessel. PNG noted that it would be reviewing its national form to ensure consistency with the SPC/FFA unloading form and data fields contained within.

3. With the broad use of the mate's receipts in the region, it was recognised that the procedures and formats would have to be reviewed to cater for this practice.

4. Tables for changes to the unloading form are shown in section 5.4.

5.2 Transshipment monitoring forms

5. Currently there are no DCC transshipment monitoring forms. Monitoring transshipments and unloading was generally done through port sampling. However port sampling efforts have been considerably reduced in recent times due to the following.

- SPC's advice to end purse-seine port sampling since 2010 when analysis showed that purse-seine port sampling was unusable due to a bias in both size and species composition, and was affected by undocumented well transfers, which thwarted scientists' ability to track the catch back to the fishing ground and assign the correct school association.

- A switch by longline vessels away from sashimi-grade fish to deep frozen tuna has resulted in more highly dressed fish (i.e. lacking head and tails) and considerably higher quantities of fish being off-loaded. These changes have challenged traditional port

sampling protocols because species are harder to identify for frozen-grade fish, and the larger amounts of offloads mean that attaining 100% coverage of the offload is difficult in terms of the total person-hours required.

6. At this point, transshipment and unloading monitoring is being driven by national efforts in MCS and other traceability and verification schemes. These monitoring programmes capture considerable information that is useful for science and compliance analysis; however, because national forms are commonly used, there is no platform for the DCC to add new science or compliance data fields.

7. In discussion, DCC10 suggested that SPC and FFA conduct a complete review of purse-seine and longline transshipment and unloading monitoring, and this will include an assessment of all national forms, certification and traceability schemes, as well as science, compliance and other industry needs.

5.3 Tables of unloading form changes

Proposed form modification details		DCC10 agreed updates			
Person proposing change	Proposed addition/modification	Record of discussions	New Remove Edit (Form/Field/Code)	ER standards Table field	WCPFC field recommendation
• LONGLINE UNLOADING FORM					
		No form change requests	NO DATA FIELD CHANGE		
• LONGLINE UNLOADING DESTINATION FORM					
		No form change requests	NO DATA FIELD CHANGE		
• PURSE-SEINE and POLE-AND-LINE UNLOADING FORM					
		No form change requests, however it was noted that this form is not always filled by vessel agents and that countries have a preference for recording Mate's receipts from purse-seine fishing vessels. A general review of all unloading data collection and monitoring of in-port transshipments and unloading was recommended.	NO DATA FIELD CHANGE		

6 PORT SAMPLING FORMS

6.1 Review of port sampling forms

65. As mentioned, under unloading forms port sampling efforts have been reduced in the region due to:

- Advice from SPC to stop purse-seine port sampling due to the bias in the data that cannot be resolved by changes to the sampling protocol.
- Increased landings of frozen-grade fish, which make it harder for the sampler to identify the species and, thus, attain 100% coverage of the unloading.

66. SPC and FFA have agreed to review the collection of port sampling data in conjunction with an over-arching review of all transshipment monitoring in the region.

6.2 Tables of port sampling form changes

Proposed form modification details		DCC10 agreed updates			
Person proposing change	Proposed addition/modification	Record of discussions	New Remove Edit (Form/Field/Code)	ER standards Table field	WCPFC field recommendation
• LONGLINE PORT SAMPLING FORM					
		New data field to capture the calibration of the caliper to be added. This improve the	NEW DATA FIELD		
• POLE-AND-LINE PORT SAMPLING FORM					
		No form change requests	NO DATA FIELD CHANGE		
• TROLL PORT SAMPLING FORM					
		In line with the retirement of the Troll Observer Forms the Troll Port Sampling Forms will be archived. The DCC10 modifications for future use include the addition of a data field to capture caliper calibration.	ARCHIVE FORM		

7 ARTISANAL DATA FORMS

7.1 Review of artisanal data forms

67. The SPC and FFA Regional Standard Artisanal data collection forms were reviewed in early August 2016 by SPC staff in Noumea. Deirdre Brogan, Oceanic Fisheries Programme (OFP), Philip James, Coastal Fisheries Programme (CFP), Frank Magron (CFP), Brad Moore (CFP), Neville Smith (OFP) and Peter Williams (OFP) attended.

7.2 Table of artisanal form changes

Proposed form modification details		DCC10 agreed updates			
Person proposing change	Proposed addition/modification	Record of discussions	New Remove Edit (Form/Field/Code)	ER standards Table field	WCPFC field recommendation
The SPC/ FFA Regional Standard Artisanal data collection forms were reviewed in early August in Noumea by SPC staff. Deirdre Brogan, Oceanic Fisheries Programme (OFP, Philip James, Coastal Fisheries Programme (CFP), Frank Magron (CFP), Brad Moore (CFP), Neville Smith (OFP) and Peter Williams (OFP) attended.					
Data Field : Form Type and Section: ALL FORMS					
Since its inception in 2011 the artisanal monitoring programme has continued to re-draw its boundaries and clarify areas of over-lap with other monitoring programmes for small-scale fishing vessels. The artisanal fishery monitoring forms were originally designed to monitor ssfv that target tuna species for national fisheries management interests and voluntary data contributions to the WCPFC. Over time the breadth of the monitoring programme expanded as the extent of overlapping fisheries (or secondary targeting) was better understood. The monitoring programme was also deemed suitable for ssfv targeting snapper and bottom fishery. Since the last DCC an increasing number of countries have implemented the SPC coastal fisheries creel surveys alongside the artisanal programme. In discussion with staff from coastal fisheries programme the group decided to revise the title of artisanal tuna forms to SPC / FFA 'Regional Artisanal Line Fishery form' to better describe that the montioring programme is most suitable for collecting information from ssfv that use *line fishing gear* (troll, handline, drop line, bottom fishing etc). Occasional use of non-line gear (i.e. scoop net, gillnet, harpoon) can be recorded, but since the fishing effort for non-line fisheries is not well captured, and any long-term monitoring of non-line gear fisheries should be done through the creel survey programme or other relevant monitoring programme.					
• FORM ART-1 FAD COST AND MAINTENANCE SCHEDULE (Page 1)					
Data Field : Form Type and Section: ART-1 ALL					
Mini-DCC Artisanal, August 2016.	Due to other commitments the FAD deployment form was not reviewed. A full review of the form will be scheduled for 2017.	**Agreed**	EDIT FORM		

Proposed form modification details		DCC10 agreed updates			
Person proposing change	Proposed addition/modification	Record of discussions	New Remove Edit (Form/Field/Code)	ER standards Table field	WCPFC field recommendation
• FORM ART-1 FAD COST AND MAINTENANCE SCHEDULE (Page 2)					
Data Field : Form Type and Section: ART-1 ALL					
Mini-DCC Artisanal, August 2016.	Due to other commitments the FAD deployment form was not reviewed. A full review of the form will be scheduled for 2017.	**Agreed**	NO CHANGE		
• FORM ART-2 VESSEL IDENTIFICATION FORM					
Data Field : **Form Title** Form Type and Section: ART-2, All					
Mini-DCC Artisanal, August 2016.	A request was submitted to change the title of the 'Vessel Identification Form' to the more commonly used term 'Vessel Registration Form'. The form is titled 'vessel identification form' in recognition of the fact that many countries have pre-existing, but often redundant national vessel registration forms for ssfvs. Additionally, the term 'vessel registration' can have legal connotations and may require a fee payment. Operationally the form is always referred to as the vessel registration form, hence the request for a change. In the end the group decided to keep the wording 'vessel identification' due to the legal connotations of 'vessel registration'. This can be re-visited at some point in the future as there will be increasing focus small-scale vessel registration, licensing and the associated legislation by SPC and FFA during 2017.	**Agreed**			

Proposed form modification details		DCC10 agreed updates			
Person proposing change	Proposed addition/modification	Record of discussions	New Remove Edit (Form/Field/Code)	ER standards Table field	WCPFC field recommendation
Data Field : **{Island code}, {Unique Vessel ID}** Form Type and Section: ART-2, All					
	A combination of a three-letter code and a four digit number can be generated nationally to get a unique alpha numeric code for each small-scale fishing vessel. One of the challenges for the monitoring programme is to continuously uniquely identify a vessel when monitoring. The current system allows countries to generate their own code. However, the system does not work well for large countries i.e. PNG and there may already be unique identification systems in place in some countries. The DCC should consider the best method for creating a strong, user friendly vessel identification system for ssfvs which ultimately must be visible on the vessel and accessible to monitoring staff.	DCC10 provided no solution for improved vessel identification code. Noting that some countries do use a vessel registration code, a new data field can be added to trap this where appropriate.	NEW DATA FIELD		
Data Field : **Mooring / Docking** Form Type and Section: ART-2, All					
Mini-DCC Artisanal, August 2016.	Recording the mooring position of the vessel can help to map the distribution of the fleet and offer a good visual tool when selecting sites for monitoring, FAD deployments or project set ups. Currently, the form layout captures a postal address but these are generally described with post office box number in the Pacific, and not helpful for mapping. Enhancing the data field to allow the capture of a GPS location, where possible, will improve the collected data.	Agreed	EDIT DATA FIELD		

Proposed form modification details		DCC10 agreed updates			
Person proposing change	Proposed addition/modification	Record of discussions	New Remove Edit (Form/Field/Code)	ER standards Table field	WCPFC field recommendation
Data Field : Form Type and Section: ART-2, **Proposed only new section** – Licensing					
Mini-DCC Artisanal, August 2016.	An increasing component of artisanal fisheries is licensing, where countries require vessels to be licensed. Currently the vessel identification form does not capture licensing information. It may not need to, but it could offer to do so, and or capture the details from elsewhere. What elements are required?	DCC10 did not advise on the licensing component for ssfvs. The topic will be further discussed at the FFA licensing workshop.	NO DATA FIELD CHANGE		
Data Field : **Sports Fishing Vessel** Form Type and Section: ART-2, Vessel Specifications					
Mini-DCC Artisanal, August 2016.	This data field has been mis-understood. The intention of the data field was to capture ssfv that regularly take out paying tourists. The data fields have been used in the past to indicate vessels that take out non-fishers during local competition days etc. Better defining this data field in the instructions and considering a name change (charter vessel) should help to improve the data.	**Agreed**	EDIT DATA FIELD		
Data Field : **Monitoring Times** Form Type and Section: ART-2, Vessel Specifications					
Mini-DCC Artisanal, August 2016.	The group looked at a common error in the start time and end time records to discover if better formatting or instructions could improve the submitted data. Often monitors would start a new monitoring time before ending the last monitoring session. Data analysis suggested that this problem was not significant and that the data could be teased out to display general monitoring times. At this stage most errors in this area have been cleared up with better	**Agreed**	NO DATA FIELD CHANGE		

Proposed form modification details		DCC10 agreed updates			
Person proposing change	Proposed addition/modification	Record of discussions	New Remove Edit (Form/Field/Code)	ER standards Table field	WCPFC field recommendation
	training. The group suggested no change was required.				
• FORM ART-3 VESSEL FISHING ACTIVITY FORM					
Data Field : **Fishing Activity Codes – proposed -** Form Type and Section: ART-3, Vessel Activity Count					
Mini-DCC Artisanal, August 2016.	The vessel activity form does not capture non-fishing days. Non-fishing days may occur due to bad weather, religious adherence, or participation in community activities. Additionally, increased fishing activity can take place before festivals etc. In the absence of data to denote non-fishing days, analysts may assign average fishing activity to non-fishing days. This can result in erroneous estimates of total catch. To better capture non-fishing and increased fishing days the group agreed enumerators should be encouraged to record a fishing activity code for every day of the calendar year using the described codes. Fishing Activity Codes 1. Normal 2. No survey 3. Industrial Vessel Unloading 4. Adverse Weather 5. Community Fishing Event 6. Community Obligations (Not Fishing) 7. No Fuel 8. Sunday 9. Competition Day 10. Other – pls specify	**Agreed**	NEW CODES		

Proposed form modification details		DCC10 agreed updates			
Person proposing change	Proposed addition/modification	Record of discussions	New Remove Edit (Form/Field/Code)	ER standards Table field	WCPFC field recommendation
• FORM ART-4 FISHING LOGSHEET					
Data Field : **Header details** Form Type and Section: ART-4, Header Details					
Mini-DCC Artisanal, August 2016.	*Header details* The header detail captures supplementary information about the vessel to help uniquely identify it in the absence of a full vessel registration programme. In the case of strong national vessel registration some of these fields will no longer be required on the logsheet. The group agreed to retain all data fields until vessel registration for ssfv has improved.	**Agreed**	NO DATA FIELD CHANGE		
Data Field : **New – Gender Information** Form Type and Section: ART-4, Header Details					
	Increasingly funding project required information on the gender of the crew and it was suggested that gender disaggregated data is best captured under the 'no. of crew' data field.	**Agreed**	NEW DATA FIELD		
Data Field : Form Type and Section: ART-4, Trip Costs					
Mini-DCC Artisanal, August 2016.	As an overall comment for all of the artisanal forms the less important data should be placed lower on the form. The group agreed to place trip costs below fishing events.	**Agreed**	EDIT FORM		
Data Field : ***Fuel / Ice / Bait purchased Y/N*** Form Type and Section: ART-4, Trip Costs					
Mini-DCC Artisanal, August 2016.	Recording a dollar value for trips costs may introduce a digit and recall bias if fishers don't remember or weren't	**Agreed**	EDIT DATA FIELDS		

Proposed form modification details		DCC10 agreed updates			
Person proposing change	Proposed addition/modification	Record of discussions	New Remove Edit (Form/Field/Code)	ER standards Table field	WCPFC field recommendation
	involved in purchasing the last quantity of fuel/ice/bait. The method of payment may also influence fishers' responses. For instance fuel may not be paid for, but rather acquired through hire purchase or 'put on credit'. New wording capturing both the volume used and the cost was suggested and these should be asked at the trip level. "How much fuel/ice was used?' with a positive response flowing to 'how much did you purchase?'. The group considered the effect of recall bias on the collection of gear purchased data and decided that the most appropriate time would be the previous 7 days.				
Data Field : ***Use Live Bait?*** Form Type and Section: ART-4, Questions					
Mini-DCC Artisanal, August 2016.	Live bait can be used by fishers in the Cooks Islands and a request to add this data field was previously accepted. However, when the data was reviewed (Sept 2016) only a handful of the logsheet records indicated any use of live bait. The majority of records stated live bait use as 'unknown', with some records indicating no use of live bait. Since capturing live bait use has not been successful in the Cook Islands, and that it is nationally focused request this data field will be retired from the data form.	**Agreed**	REMOVE DATA FIELD		

Proposed form modification details		DCC10 agreed updates			
Person proposing change	Proposed addition/modification	Record of discussions	New Remove Edit (Form/Field/Code)	ER standards Table field	WCPFC field recommendation
Data Field: ***Fish on a FAD? Y/ N*** Form Type and Section: ART-4, Questions					
Mini-DCC Artisanal, August 2016.	***Fish on a FAD? Y/ N*** This data field was originally added as a cross-check to ensure fishers reported FAD fishing fully. Analysis of artisanal data in Tuvalu suggested there was a need to enhance the data field to capture any FAD associated fishing that was not done directly on the FAD. Increasingly sub-surface FADs are used and it is known that fish associated with the FAD can be found up to a mile away. The group agreed to change this field to 'fish within 1 mile of FAD'. The instructions will clarify that it is a nautical miles.	**Agreed**	EDIT DATA FIELD		
Data Field: ***Shark bites*** Form Type and Section: ART-4, Questions					
Mini-DCC Artisanal, August 2016.	***Shark bites*** Increasingly, verbal reports suggest a rise in shark interactions with coastal fisheries. There is, however, no hard data to support this. To better understand shark interactions a request was made to capture the number of shark bites that occurred during the trip. A new question "Number of shark bites this trip' will be introduced. Shark bites will be defined in the instructions.	**Agreed**	NEW DATA FIELD		
Data Field: **Intended End Use** Form Type and Section: ART-4, Catch					
Mini-DCC Artisanal, August 2016.	There are strong and continuous requests to document the final or end use of the fish, most especially the final economic	A suggestion was made to add a code where the intended end use is for a community ceremony.	NEW DATA FIELD CODES		

Proposed form modification details		DCC10 agreed updates			
Person proposing change	Proposed addition/modification	Record of discussions	New Remove Edit (Form/Field/Code)	ER standards Table field	WCPFC field recommendation
	value of the fish, but not particularly the dollar value. In the past there was resistance to collecting this data as the end use of the fish is not always known at the point of unloading. Capturing non-dollar usage or shadow price is helpful when assessing changes in livelihood and food security behaviours. Noting the continued request for this data and its appearance in NGO FAD data collection systems the group proposed to add this to the form. The group agreed to add a new data field 'end use code' after the 'SPECIES NO. KG' data fields Intended End Use Codes 1. Community Market 2. Provincial Market 3. Urban Market 4. Restaurant 5. Home Consumption 6. Given Away 7. Community Donation 8. Other – pls specify.				
• FORM ART-5 SAMPLING FORM					
Data Field: **Proposed – Weight column** Form Type and Section: ART-4, Catch					
Mini-DCC Artisanal, August 2016.	*Add Weight* A request was made to add a weight column to the sampling form. Normally lengths are taken for pelagic biometric data. However, in some reef species weight data may also be taken. In discussion the Coastal Fisheries Scientist	**Agreed**	NO DATA FIELD CHANGE		

Proposed form modification details		DCC10 agreed updates			
Person proposing change	Proposed addition/modification	Record of discussions	New Remove Edit (Form/Field/Code)	ER standards Table field	WCPFC field recommendation
	suggested that weight data was not required and length data was sufficient. No change. *Post meeting* – the sampling protocol should be revised to collect accurate weight data to improve annual catch estimates. How does DCC capture changes in sampling protocols?				
Data Field: **Calibration of Caliper – New** Form Type and Section: ART-5,					
	Samplers will be asked to record on a set by set basis the calibration of their caliper. For instance if the caliper is reading 50.3 cm when the true length is 50 cm they should record a calibration error of + 3 mm.	**Agreed**	NEW DATA FIELD		

8 OTHER FORMS

8.1 MCS data standards

68. The availability of MCS data standards will support, and are important for, the development of e-tools, most especially in the operational area. FFA is working towards listing MCS standards in line with the Niue Treaty Subsidary Agreement (NTSA) next meeting. The lack of DCC-endorsed MCS standards was noted and suggested to be desirable to be developed with surveillance partners (e.g. Australia, France, New Zealand and the USA). There are processes in place for implementing MCS minimum requirements such as through the harmonised minimum terms and conditions (MTCs). DCC10 suggested establishing vessel registration minimum data standards. The WCPFC noted that it could be used as a source of such standards, defining exchange formats and endorsing any standards through the WCPFC. DCC10 agreed with the need to follow through on WCPFC minimum standards, but also to achieve this at the national and subregional level and then to push this beyond FFA members. FFA expects to present some minimum data standards for MCS at the MCSWG in 2017.

69. The role and effect of observers collecting vessel registration and crew data was considered. The necessity and utility of observers recording MCS and vessel registration information placed an unnecessary burden on observers and was not useful for validation because it was not collected independently (e.g. observers do not actually measure a vessel). Asking for certain crew information such as the captain's licence or master's details also was a burden in that it could possibly be perceived by the crew as antagonistic, or in cases of people smuggling, dangerous. The vessel registration data could be verified by boarding inspections and crew details by immigration data. This led to a discussion about other observer work components that may be affected by the implementation of EM. There may be a need to update certain definitions or processes before EM is applied. The DCC10 reflected on CMM 2008-01 and the requirement for observer coverage. A number of definitions and terms may need to be re-visited. For instance the definition of 'observer', including the status, role and training for 'dry observer', may need to be considered, along with the term 'coverage' in respect to the use of EM. SPC noted that the nomenclature for the two monitoring tools 'observer' and EM 'dry or 'office' observer (rather than 'EM analyst') was confusing and that they needed to be regarded separately on their own merits and partitioned as unique tools, particularly with reference to vessel monitoring coverage requirements and their legal status in compliance prosecutions. The WCPFC added that the requirement that the observer cannot be from the flag state needs further deliberation with respect to EM, and suggested that bridging papers be prepared. In the first instance, work will focus on the harvest strategy objectives and then the measures will be formulated. Work also continues under the Fish Aggregating Device Informal Working Group to collect FAD identification information from operators and information regarding the observer's role in reporting FAD structure and the use of that information.

9 DATA MANAGEMENT ISSUES

9.1 Electronic reporting

70. Electronic reporting is quickly becoming a reality in the region and an implementation goal of 2018 is realistic. The WCPFC is considering a CMM for compulsory ERandEM in the future, but it is expected to initially have a longline focus; interest has been expressed by some CCMs for the WCPFC to prioritise implementation of ERandEM on vessels that are transshipping outside of ports. At WCPFC13 in December 2016, the Commission agreed to remove the entry and exit reporting requirements through the amendment of the Eastern High Seas Pocket Measure.

71. The iFIMS ER system (integrated fishery information management system electronic reporting system) is becoming more aligned with science needs, as the submission of electronic reports is used to control and verify non-fishing days, thus, the ER tool can be seen as driving management measures. Non-fishing days are valuable, and vessel owners are, therefore, keen to use the ER system. Recently, ER reporting requirements for FADs has been implemented. ER is also making a mark in the observer world because working with the constraints of paper copies is difficult when the reality is that an observer can embark, disembark and be debriefed in three different jurisdictions. Shared e-platforms make this work easier. Interagency cooperation is important for obtaining the full benefits from ER.

72. The WCPFC provided a presentation that overviewed the secretariat's national information management system (IMS) developments, introduced the Compliance Case file system, and noted that ER has the potential to streamline data flows into WCPFC databases. Standards, Specification and Procedures for Record of Fishing Vessels, is a first implementation of ER standards, whereby two options are provided for flag CCMs to submit their updates to details of their vessels in the Record of Fishing Vessels (direct data entry through an online web-portal, or submission of an MS Excel spreadsheet that meets certain specifications). Recently, the WCPFC completed the integration of the Record of Fishing Vessels with WCPFC VMS data. The WCPFC also outlined its new compliance case file e-tool. Initially the WCPFC Secretariat used the SPC online reporting tool for TUBS to generate individual excel files that were used as the notification mechanism to flag CCMs of alleged infringements as reported by observers. However, using Excel-generated files was difficult for multiple issues to be tracked by the secretariat and reported on to WCPFC's Technical and Compliance Committee, and for cases and related correspondence to be shared across CCMs and observer providers. In 2016, the WCPFC implemented the online 'Managing Compliance Case file system' that is based on joint work between WCPFC and SPC to develop a loading mechanism for ROP data into the WCPFC data warehouse, and the generation of compliance cases. The online system, provides notification in summary form of flag CCMs of individual cases to be investigated, and allows authorised users (including relevant coastal CCMs and flag CCMs) to view the progress of flag CCMs' investigations. To date, the centralisation of the notifications of alleged incidents has assisted the WCPFC and TCC with reviewing and monitoring the progress of alleged incidents as reported by ROP observers.

9.2 Data management

73. Previously, the DCC has looked at a number of data management issues that are common to SPC and FFA. More recently, ER and EM have become more of a focus.

74. FFA's IT Manager discussed what FFA has been doing regarding data management throughout the past year. All FFA members now have access to the Regional Information Management Facility (RIMF) portal. Specific focus has been placed on the FFA MTCs. In November, FFA held a RIMF training workshop. At this workshop there was a soft launch of an application specifically for boarding and inspection data collection. The FFA secretariat will work with members to further refine modules under RIMF, and fine-tune necessary platforms for ER based on member needs.

75. Regarding EM, FFA discussed the need for member countries to provide a status report on their EM developments. Some gap analysis work for EM has recently been completed by the Environmental Defense Fund although it would be beneficial if members could provide frequent updates regarding developments. An online platform may be useful for maintaining these updates.

76. Member representatives gave updates on their EM developments.

77. PNG is working with AFMA regarding policy considerations for EM.

78. In 2017, Fiji has worked with SatLink, and they are very grateful to SPC for building reporting into the system.

79. David Power (FFA) gave a brief presentation on EM, discussing currently accepted methods and approaches. Focus was placed on the need for effective data management, including the use and management of hard drives. The draft FFA Regional ERandEM Strategy was discussed. The strategy, outlines current trials and implementation efforts from members. Having national focal points for EM would help drive electronic monitoring processes forward. The meeting discussed the current timelines and goals for full ER implementation by 1 January 2018, and suggested that DCC could play an important role in assisting with establishing minimum data fields. Most cameras have high definition, but they will never be as clear as a human eye; however, it is a recognised tradeoff because many vessels are too small to carry observers. A new competition for industry to improve video monitoring with open source software has been launched successfully by the Nature Conservancy, but it likely that any concrete outputs are still two to three years away.

80. Andrew Hunt (SPC) presented on SPC's recently developed data management tool (TUFMAN 2 and TAILS). TUFMAN 2 facilitates data sharing, unlike it predecessor TUFMAN. It also is designed to be used with ER providers, and is compatible with iFIMS. TAILS is now being used for longline logsheets and port sampling, going beyond its original artisanal concept. It is complementary to the FFA RIMF applications that are currently being trialed. Fiji noted that it is very excited to start officially using the app.

81. David Karis (PNG) provided an update on iFIMS, as driven by PNA. The current management tools for VDS have shaped iFIMS through NFA, PNA and industry. Electronic licensing registration has also been developed. The current major development is the FAD register, which also requires FAD data standards to assist industry. An update was provided of the new Vessel Monitoring Command and Control Center at NFA.PNG is also undertaking significant developments in CDS. The high importance of the data sharing arrangement was stressed.

82. Ludwig Kumoru (PNA) noted that PNA is currently working on approved FAD types and a compulsory requirement for vessels under the VDS to register on the PNA register. Additionally, PNA has a FAD register to capture relevant FAD information. FAD tracing data will also PNA to compare FAD structure with catches.

83. WCPFC's Compliance Manager, Lara Manarangi-Trott, presented an overview of WCPFC IMS development, ER, and compliance case file management. (Also see notes under agenda item 9.1.)

- IMS

The demands of the Compliance Monitoring Scheme triggered the need for development of an integrated IMS. A large part of 2016 has been spent working on the transition and implementation of WCPFC CMS to Trackwell.

- Compliance Case File System

This system has built upon SPC's reporting tools and utilises observer data for compliance monitoring. It tracks alleged infringements (for instance), sets on FADs, observer obstruction, and shark catch (oceanic white tip or silky retention). A subset of the relevant information is provided to the particular flag state involved. The system has the ability to share relevant information, including observer providers. Future work includes plans to load an additional set of data, and expand to include purse-seine and cetacean and whale shark interactions.

- ER

Some Commission-managed datasets, such as ROP data, and catch and effort data, will continue to be submitted and managed by SPC. However, there is a need to streamline the entry of other reporting under CMMs that are presently received directly and manually data entered, so they can more efficiently be uploaded into the Commission's databases and potentially made available to CCMs through their approved data access requests. The secretariat will continue to support the current process of receiving various PDF and in-text email reports from CCMs. However, time and human resourcing can be a challenge, especially when CCMs are requesting to receive prompt access to the WCPFC data through online systems or as a feed or export from WCPFC databases. Therefore, streamlining the work through use of automated systems is the desired goal. The implementation of ER will depend on CCMs and the rate at which ER standards are agreed on by the Commission. Priority areas for further work are in the area of testing and refining draft ER standards for HSP1 reporting (Philippines) and position reporting in the event of ALC failure; developing ER standards for high seas transshipment reporting; and developing a metadata database (in conjunction with SPC).

84. With regards to the national information portal (IMS) developed by FFA, every member now has access. Current work includes consolidating the work to date, and pushing through with the introduction and uptake of MCS data standards. The system uses generic tools and standards and builds country specific tools for national needs. The last training in November concentrated on data collection using ER for in-port and at sea boardings, as well as pre-inspection standards.

85. Icanus Tuiloma (SPC) discussed the use of the Trip Placement Information Report, and practicalities involved in entering relevant data by Data Registry Officers. This is largely an administrative form, providing useful information. Some observers are referencing or indexing to their journal or trip reports in the data comment fields. However, often the referenced documents (e.g. journals) are not being provided, and therefore data and information are missing.

86. Participants supported administrative developments in these areas, and discussed the merits of including a check box specific to other relevant forms (e.g. Gen3). Potentially more work is required to fine-tune the fields in this form. The meeting also noted that the observer programme management system (OPM) already covers many of the fields in the Trip Placement Information Report. Where OPM is being used by countries, perhaps then relevant information from OPM can be provided or reported.

87. SPC noted that it is not involved in Gen3 information aside from on the data entry side, as the WCPFC's science services (including data) provider. WCPFC confirmed that it undertakes in-house review of Gen3 reports, and any alleged infringements are notified to the relevant flag State and observer provider. In many cases, the observer provider will be aware of alleged infringements through the debriefing process. Additionally, SPC's online reporting system (DORADO) has a specific section relating to Gen3 reports that countries can monitor themselves. This system is also subject to data sharing arrangements, which can assist in relevant countries viewing information concerning their observers.

88. FFA suggested that OPM can be revised to include any new fields (contained in the Trip Placement Information Report). This would avoid the need for any DCC-approved form and would alleviate any concerns through a simple amendment to OPM fields (to which SPC already has viewing access). Although this would be useful, SPC noted that there is still a need to reduce the administrative burden on the particular SPC Data Registry Officer (which may not be achieved merely by amending OPM fields).

89. DCC10 recommended that this report and issue be considered further by SPC, in consultation with FFA, and then presented to members and potentially ROCW. However, the work involved in this data management consolidation is unlikely to be completed prior to the next ROCW. At the very least, the work can be discussed at ROCW in order to inform participants of the needs and benefits of this administrative improvement. The meeting also noted that there are more senior-level officials and representatives (beyond participants at ROCW) that will also need to be informed about this work

10 FUTURE WORK

10.1 Review of future work areas of the DCC

GitHub

90. SPC highlighted the GitHub platform that is being used to capture all suggestions for data standard changes. This replaces an internal document system held at SPC. There were some queries about whether GitHub, which is tool for tracking change by developers, was the most appropriate tool. Other tools such as Google docs could be used. The meeting agreed to use GitHub for the following year and to review its appropriateness after a year.

Work plans

91. There were no new work plan items raised in this section although a number of tasks have been assigned to DCC through the meeting and many are highlighted in the recommendations section below.

92. Mini-DCC meetings, to review specific forms types or other issues, can be called by technical experts whenever a need is identified.

10.2 Recommendations

a) **SPC and FFA** submit the report of the DCC10 (highlighting all form changes and the DCC 2016 versions of the forms) for adoption at the next SPC Heads of Fisheries (HOF – March 2017) and the next FFC (May 2017).
b) **SPC and FFA** conduct a general review of the catch offloading processes (onshore and transshipments) in the longline and purse-seine fisheries with a view of updating DCC data fields and protocols. This review should consider the requirements for science, fisheries management, CDS and compliance.
c) **SPC and FFA** request industry and national programmes to submit all non-DCC data forms used by industry and other entities in their national tuna fisheries (overlapping with data types covered by DCC forms) well in advance of the next DCC, noting that the introduction on non-DCC data forms and standards can impact current DCC data collection protocols.
d) **FFA and SPC** investigate the potential for establishing minimum regional data fields for MCS that will assist in the development and enhancements to the IMS systems used throughout the region. The outcomes of this review will be presented to DCC11.
e) **SPC and FFA** conduct a more thorough review of current DCC data fields and forms to determine which fields are no longer used (redundant) for consideration at DCC11. This review will need to include scientists and consider the move to ERandEM.
f) **SPC** include agenda items to review data collection protocols for each data type at DCC11.
g) In regards to **observer forms** and data, it is recommended that **SPC**:
    a. enhance the database system to include the entry of debriefer evaluation form information with the other observer data (this will help researcher understand data quality issues for example); and
    b. review the potential issues around having the Observer Trip Report supported in the ER environment
h) **SPC** proceeds to organise the EM standards workshop for the purse-seine fishery to be conducted in 2017, but also include enough time to review the progress with the EM standards from the longline fishery (conducted in 2016). The results of this workshop are to be reported to, *inter alia*, DCC11.
i) **SPC** liaises with **FFA** and **PNA** to confirm access to their respective observer placement data through their respective systems (e.g. OPM) and plan the enhancements required to improve the observer document management process at SPC. This will require: (i) a report of the outcomes of the gap analysis between SPC requirements and the FFA and PNA observer placement systems and data registration systems; (ii) the work then conducted by SPC, FFA and PNA/QAC on enhancing and aligning their systems (based on the gap analysis); (iii) informing member countries through the next ROCW; and (iv) continuing to highlight to observer coordinators and senior management the importance of, and benefits to member countries for observer data management using the respective observer placement systems.
j) FFA proceeds to enhance the ERandEM Strategic Plan based on comments received by member countries and regional agencies and a goal of setting out a plan and key actions for ERandEM implementation during 2017 and 2018.

10.3 Future meetings

93. The timing and location of the DCC10 meeting was thought to have worked well. However, as the next WCPFC meeting (WCPFC14) was scheduled to be held in the Philippines, it was unlikely to be a convenient location for operational-level staff. Consideration should be given to again holding the meeting after the WCPFC meeting, but at a venue accessible to those working in Pacific tuna fisheries

94. With appropriate procedure and ceremony, the chair, Peter Williams, kindly handed over the microphone to the incoming chair Pamela Maru.

11 CLOSING

95. The meeting closed to a round of vigorous applause.

12 PAPER COPY FORMS

12.1 SPC / FFA REGIONAL LOGHSEETS AND LOGBOOK FORMS

- SPC / FFA Regional Purse-Seine Logsheet
- SPC / FFA Regional Longline Logsheet – Expanded Format
- SPC / FFA Regional Pole-and-Line Logsheet
- SPC / FFA Regional Deepwater Snapper Logsheet

REVISED:DEC 2016

SPC / FFA REGIONAL PURSE-SEINE LOGSHEET

PAGE____ OF ____

NAME OF VESSEL		FISHING PERMIT OR LICENCE NUMBER(S)		YEAR	TRIP No. THIS YEAR
NAME OF FISHING COMPANY	FFA VESSEL REGISTER NUMBER	NAME OF AGENT IN PORT OF UNLOADING	PORT OF DEPARTURE	PLACE OF UNLOADING	
COUNTRY OF REGISTRATION	UNIQUE VESSEL IDENTIFICATION (UVI)	• ALL DATES AND TIMES MUST BE IN UTC TIME	DATE AND TIME OF DEPARTURE	DATE AND TIME OF ARRIVAL IN PORT	
REGISTRATION NUMBER IN COUNTRY OF REGISTRATION	INTERNATIONAL RADIO CALL SIGN	• RECORD SMALL AND LARGE YELLOWFIN AND BIGEYE SEPARATELY	AMOUNT OF FISH ONBOARD AT START OF TRIP	AMT OF FISH ONBOARD AFTER UNLOADING	

MONTH	DAY	ACTIVITY CODE	01:00 UTC OR SET POSITION				SCHOOL ASSOC CODE	START OF SET TIME	END OF SET TIME	RETAINED CATCH (METRIC TONNES)							DISCARDS					
			LATITUDE DDMM.MMM	N S	LONGITUDE DDDMM.MMM	E W				SKIPJACK	YELLOWFIN		BIGEYE		OTHER SPECIES		WELL NUMBERS	TUNA SPECIES			OTHER SPECIES		
											Small ≤ 9 kgs	Large > 9 kgs	Small ≤ 9 kgs	Large > 9 kgs	NAME	METRIC TONNES		NAME	METRIC TONNES	CODE	NAME	NUMBER	METRIC TONNES
PAGE TOTAL																							
TRIP TOTAL																							

ACTIVITY CODES

- RECORD ALL SETS
- IF NO FISHING SET MADE IN A DAY, RECORD THE MAIN ACTIVITY FOR THAT DAY

1 FISHING SET
2 SEARCHING
3 TRANSIT
4 NO FISHING - BREAKDOWN
5 NO FISHING - BAD WEATHER
6 IN PORT - PLEASE SPECIFY
7 NET CLEANING SET
10 DEPLOYING OR RETREIVING RAFTS, FADS OR PAYAOS

SCHOOL ASSOCIATION CODES

1 UNASSOCIATED
2 FEEDING ON BAITFISH
3 DRIFTING LOG, DEBRIS OR DEAD ANIMAL
4 DRIFTING RAFT, FAD OR PAYAO
5 ANCHORED RAFT, FAD OR PAYAO
6 LIVE WHALE
7 LIVE WHALE SHARK
8 OTHER - PLEASE SPECIFY

TUNA DISCARD CODES

1 FISH DAMAGED / UNFIT FOR CONSUMPTION
2 VESSEL FULLY LOADED
3 GEAR FAILURE
4 OTHER REASON (SPECIFY)

UNLOADINGS TO CANNERY, COLD STORAGE, CARRIER OR OTHER VESSEL

START DATE	END DATE	CANNERY OR VESSEL AND DESTINATION	INTL RADIO CALL SIGN	SKIPJACK	YELLOWFIN	BIGEYE	MIXED	OTHERS	REJECTS

NAME OF CAPTAIN	SIGNATURE OF CAPTAIN	DATE

SPC / FFA REGIONAL PURSE-SEINE LOGSHEET INSTRUCTIONS

Logsheets must be completed for each trip. The start of a trip is defined to occur when a vessel leaves port to transit to a fishing area or to transit to another port to complete unloading. The end of a trip is defined to occur when a vessel enters port to unload part or all of the catch.

Block One: Vessel Identification and Trip Information

Country of Registration and *Registration Number in Country of Registration*: Print the name of the country in which the vessel is registered (e.g. "Japan") and the registration number issued by the country in which the vessel is registered (e.g. "ME1-808").

FFA Vessel Register Number: Print the number issued by the Forum Fisheries Agency for inclusion of the vessel on the FFA Vessel Register (e.g. "12345"). *Unique Vessel Identifier:* Print the vessel's UVI number.

Fishing Permit or License Number(s): If the vessel fished under one or more bilateral access agreements, then print the fishing permit number issued by each of the coastal states in whose waters the vessel fished during the trip. If the vessel fished under a multilateral treaty, then print the fishing permit number issued to the vessel under the multilateral treaty. If the vessel is registered in the coastal state, then print the fishing license number issued by the coastal state.

Name of Agent in Port of Unloading: Print the name of the agency or agencies which represented the vessel in the port or ports in which the vessel unloaded the catch recorded on the logsheet. Place of Unloading Specify the name of the port where the catch was unloaded, or the GPS position where unloading occurs at sea.

Year and *Trip Number This Year*: Print the year in which the vessel departed from port at the start of the trip and the number of trips the vessel has taken this year, including this trip. (See the definitions of the start and end of a trip above.) *Date and Time of Departure, and Date and Time of Arrival in Port:* Specify the start date and time when the catch was unloaded in port, or was transhipped where permissible. Use UTC time and this format (YYYY-MM-DD: hh:mm)

Amount of Fish Onboard at Start of Trip: If any fish caught during a previous trip have not been unloaded before the departure of the current trip, then print the amount of fish onboard the vessel at the start of the current trip.

Amount of Fish Onboard After Unloading: If any fish remained onboard after the unloading of the catch from the current trip and before the departure of the next trip, then print the amount of fish onboard the vessel at the start of the next trip.

Block Two: Catches and Discards

Complete at least one line of Block Two for each set made, either fishing set or net cleaning set, even if the fishing set was unsuccessful. If no fishing sets were made during the day, then provide the Month, Day, Activity Code and the 01:00 UTC position. All columns must be completed for each fishing set, **including the discards columns**. If necessary, use more than one line to record the retained catch of other species, well numbers, and discards.

Activity Code: Use Activity Code 1 ('Fishing set') when a set on a school of fish was made. Use Activity Code 2 ('Searching') for days on which no fishing sets were made and the main activity was searching for schools of fish. Use Activity Code 3 ('Transit') for days on which no fishing sets were made and the main activity was transiting. Use Activity Code 4 ('No fishing - breakdown') for days on which no fishing sets were made and the main activity was being inactive due to breakdown. Use Activity Code 5 ('No fishing - bad weather') for days on which no fishing sets were made and the main activity was being inactive due to bad weather. Use Activity Code 6 ('In port - please specify') for days on which no fishing sets were made and the main activity was being in port (e.g. to disembark an injured crew member). Use Activity Code 7 ('Net cleaning set') for any sets that were not made on a school of fish. If no code exists, please describe the activity on the form. Use Activity Code 10 ('Deploying or retrieving raft, FAD or payao') for days on which no fishing sets were made and the main activity was deploying or retrieving rafts, FADs or payaos.

01:00 UTC or Set Position: If a set was made, print the position of the set. If no sets were made during the day, print the vessel's position at 01:00 UTC. The position should be recorded to the nearest thousandth of a minute of latitude and longitude (e.g. "08–22.334 N" and "165–45.556 E").

School Assoc Code: Schools of tuna are often associated with a floating object or an animal. If the school was not associated with anything, then use School Association Code 1 ('Unassociated'). If the school was associated with an object that is not on the list of School Association Codes, then use School Association Code 8 ('Other') and please describe the object.

Set Start Time: Print the vessel's UTC time at which the skiff was put in the water.

Retained Catch: Skipjack, Yellowfin, *Bigeye*, and *Other*: Print the amounts caught in the set, rounded to the nearest metric tonne. If a species other than skipjack, yellowfin and bigeye was caught and not discarded, print the name of the species in the column under *Other Species, Name,* and the amount caught under *Other Species, Weight*. If a species of special interest (such as a marine turtle, marine mammal or sea bird) is caught, then record the capture *Other Species, Name*. When more than one 'other' species occurs in a set, use additional lines on the logsheet.

Well Numbers: Print the number of the wells in which the catch from the set was stored initially and note any transfers amongst wells with arrows, for example: "S4 → P3, P2, P5" and "S4, S5 → P3".

Discards: If tuna were discarded or released, then print the name of the species, the amount discarded, and the Discard Code. If any other species was discarded or released/struck off (alive or dead), print the name of the species, and the total number of fish discarded or the total weight of fish discarded.

Vessels Sighted: If other fishing vessels are sighted, write the name of the vessel, and other identifiers, such as the vessel type, on one line of the logsheet.

Block Three: Unloadings

Unloadings to Cannery, Cold Storage, Carrier or Other Vessel: When fish are unloaded at the end of a trip, record the date on which unloading began, the date on which unloading ended, the name of the cannery or vessel to which the fish were unloaded, the port in which the fish were unloaded, the international radio call sign of the vessel to which the fish were unloaded, and the amount of each species unloaded. If transhipping to a vessel, also record the destination of the fish beside the name of vessel. Use one line for each cannery or vessel to which the fish were unloaded. If unloadings of skipjack and yellowfin were not recorded separately, then record the total amount unloaded under *Mixed*.

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SPC / FFA REGIONAL PURSE-SEINE LOGSHEET

• SUPPLEMENTARY FORM FOR CETATCEAN and WHALE SHARK INTERACTIONS

NAME OF VESSEL		FISHING PERMIT OR LICENCE NUMBER(S)		YEAR	TRIP No. THIS YEAR
NAME OF FISHING COMPANY	FFA VESSEL REGISTER NUMBER	NAME OF AGENT IN PORT OF UNLOADING	PORT OF DEPARTURE	PLACE OF UNLOADING	
COUNTRY OF REGISTRATION	UNIQUE VESSEL IDENTIFICATION (UVI)	• ALL DATES AND TIMES MUST BE IN UTC TIME	DATE AND TIME OF DEPARTURE	DATE AND TIME OF ARRIVAL IN PORT	
REGISTRATION NUMBER IN COUNTRY OF REGISTRATION	INTERNATIONAL RADIO CALL SIGN		AMOUNT OF FISH ONBOARD AT START OF TRIP	AMT OF FISH ONBOARD AFTER UNLOADING	

MONTH	DAY	SET POSITION				SCHOOL ASSOCIATION CODE	WHALE SHARK AND CETACEANS INTERACTIONS					
		LATITUDE DDMM.MMM	N S	LONGITUDE DDDMM.MMM	E W		START OF SET TIME	END OF SET TIME	SPECIES NAME	NUMBER of ANIMALS INVOLVED	FATE CODE	DESCRIPTION OF INTERACTION

SCHOOL ASSOCIATION CODES
1 UNASSOCIATED
2 FEEDING ON BAITFISH
3 DRIFTING LOG, DEBRIS OR DEAD ANIMAL
4 DRIFTING RAFT, FAD OR PAYAO
5 ANCHORED RAFT, FAD OR PAYAO
6 LIVE WHALE

FATE CODES
1 ENCIRCLED -ESCAPED
2 ENCIRCLED - RELEASED BY CREW
3 ENCIRCLED - LANDED - DISCARDED
4 ENCIRCLED - LANDED - RELEASED

MAM	**All Marine Mammals**
ODN	**Toothed Whales**
FAW	False Killer Whale
SHW	Short-Finned Pilot Whale
SPW	Sperm Whale
KPW	Pygmy Killer Whale
DWW	Dwarf sperm whale
BCW	Cuvier's Beaked Whale
BBW	Blainville's Beaked Whale
MEW	Melon-headed Whale

MYS	**All Baleen Whales**
BLW	Blue whale
FIW	Fin whale
SIW	Sei whale
BRW	Bryde's whale
MIW	Minke whale
HUW	Humpback whale

DLP	**All Dolphins**
DBO	Bottlenose Dolphin
DCO	Common Dolphin (short-beaked)
DRR	Risso's Dolphin
DSI	Spinner Dolphin
DPN	Spotted Dolphin
DST	Stiped Dolphin
RTD	Rough-toothed Dolphin

RHN - Whale Shark

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SPC / FFA REGIONAL LONGLINE LOGSHEET -- EXPANDED FORMAT

PAGE ____ OF ____

NAME OF VESSEL		FISHING PERMIT OR LICENCE NUMBER(S)		YEAR
NAME OF FISHING COMPANY	FFA VESSEL REGISTER NUMBER	NAME OF AGENT IN PORT OF UNLOADING, or NAME OF CARRIER VESSEL AND DESTINATION WHEN TRANSHIPPING AT SEA	PRIMARY TARGET SPECIES	TRIP NUMBER THIS YEAR
COUNTRY OF REGISTRATION	UNIQUE VESSEL IDENTIFICATION (UVI)	• **ALL DATES AND TIMES MUST BE IN UTC TIME** • **ALL WEIGHTS MUST BE KILOGRAMS** • **START A NEW LOGSHEET AFTER FULL OR PARTIAL UNLOADING / TRANSHIPMENT**	PORT of DEPARTURE	DATE AND TIME OF DEPARTURE
REGISTRATION NUMBER IN COUNTRY OF REGISTRATION	INTERNATIONAL RADIO CALL SIGN	**ACTIVITY CODES** **1.** A SET **2.** A DAY AT SEA BUT NOT FISHED AND NOT IN TRANSIT (please specify) **3.** TRANSIT **4.** IN PORT (please specify) **5.** TRANSHIPMENT	PLACE OF UNLOADING/ TRANSHIPMENT	DATE AND TIME OF UNLOADING/ TRANSHIPMENT

SET DETAILS		MONTH	DAY	ACTIVITY	MONTH	DAY	ACTIVITY	MONTH	DAY	ACTIVITY	MONTH	DAY	ACTIVITY	MONTH	DAY	ACTIVITY	MONTH	DAY	ACTIVITY	MONTH	DAY	ACTIVITY	MONTH	DAY	ACTIVITY	MONTH	DAY	ACTIVITY	MONTH	DAY	ACTIVITY
START OF SET OR 0100 UTC POSITION	LATITUDE	DDMM		N/S																											
	LONGITUDE	DDDMM		E/W																											
SET START TIME																															
NUMBER OF HOOKS																															
HOOKS BETWEEN FLOATS																															

PAGE TOTALS		**CATCH**	NO. RET	KG RET	NO. DISC	NO. RET	KG RET	NO. DISC	NO. RET	KG RET	NO. DISC	NO. RET	KG RET	NO. DISC	NO. RET	KG RET	NO. DISC	NO. RET	KG RET	NO. DISC	NO. RET	KG RET	NO. DISC	NO. RET	KG RET	NO. DISC	NO. RET	KG RET	NO. DISC	NO. RET	KG RET	NO. DISC
No.	KG																														
		ALBACORE																													
		BIGEYE																													
		PACIFIC BLUEFIN																													
		SKIPJACK																													
		YELLOWFIN																													
		BLACK MARLIN																													
		BLUE MARLIN																													
		STRIPED MARLIN																													
		SWORDFISH																													
		BLUE SHARK																													
		HAMMERHEAD SHARK																													
		MAKO SHARKS																													
		OCEANIC WHITETIP																													
		PORBEAGLE SHARK																													
		SILKY SHARK																													
		THRESHER SHARKS																													
		OTHER SPECIES																													

	NAME OF CAPTAIN	SIGNATURE OF CAPTAIN	DATE

SPC / FFA REGIONAL EXPANDED LONGLINE LOGSHEET INSTRUCTIONS

Logsheets must be completed for each trip. The start of a trip is defined to occur when a vessel leaves port to transit to a fishing area or to transit to another port to complete unloading. The end of a trip is defined to occur when a vessel enters port to unload part or all of the catch or when any authorised transhipping of catch occurs.

Block One: Vessel Identification and Trip Information

Country of Registration and, Registration Number in Country of Registration: Print the name of the country in which the vessel is registered (e.g. "Japan") and the registration number issued by the country in which the vessel is registered (e.g. "ME1-808").

FFA Vessel Register Number: Print the number issued by the Forum Fisheries Agency for inclusion of the vessel on the FFA Regional Register (e.g. "12345"). Unique Vessel Identifier: Print the vessel's UVI number. *Fishing Permit or Licence Number(s)*: If the vessel fished under one or more bilateral access agreements, then print the fishing permit number issued by each of the coastal states in whose waters the vessel fished during the trip. If the vessel fished under a multilateral treaty, then print the fishing permit number issued to the vessel under the multilateral treaty. If the vessel is registered in the coastal state, then print the fishing licence number issued by the coastal state.

Name of Agent in Port of Unloading or Name of Carrier Vessel and Destination when transhipping at sea: Print the name of the agency or agencies which represented the vessel in the port or ports in which the vessel unloaded the catch recorded on the logsheet. In case of transhipment at sea, print the name of the carrier and destination port of the unloaded catch.

Year and *Trip Number This Year*: Print the year in which the vessel departed from port at the start of the trip and the number of trips the vessel has taken this year (including this trip). The start of a trip is defined to occur when a vessel transits to a fishing area after unloading part or all of the catch, regardless of whether the unloading took place in port or at sea. The end of a trip is defined to occur when a vessel unloads part or all of the catch, regardless of whether the unloading took place in port or at sea.

Primary Target species: Print the primary target species for this trip.

Port, Date and Time of Departure. Record the date the vessel transits to a fishing area after unloading part or all of its catch. Use the vessel's UTC time and this format (YYYY-MM-DD: hh:mm).

Place, Date and Time of Unloading/Transhipment: Specify the name of the port where the catch was unloaded, or the GPS position if transhipment occurs at sea. Record the date of the unloading / transhipment with the following format YYYY:MM: DD hh:mm).

Block Two: Set Details and Catches

Complete at least one daily column of Block Two for each set that was made during the trip. If no sets were made during the day, then provide the Month, Day, Activity Code, and the vessel's position at UTC noon-time. If necessary, use more than one line to record the catch of other species.

Month and *Day*: The day should correspond to the day on which the crew started the set; record the day number and not the day of the week.

Activity Code: Use Activity Code 1 ('A set') if the daily column in Block Two corresponds to a set of the longline gear in the water. Use Activity Code 2 ('A day at sea but not fished and not in transit – please specify') if the vessel was at sea, but the longline gear was not placed in the water that day and the vessel was **not** in transit, please describe the activity on the line that refers to that day. Use Activity Code 3 ('Transit') if no sets were made and the vessel spent most of the day in transit. Use Activity Code 4 ('In port - please specify') if no sets were made and the vessel spent most of the day in port. Use Activity Code 5 (Transhipment) if the vessel is transhipping fish at sea. If no code exists, please describe the activity on the form.

Start of Set or 01:00 UTC Time Position: If a set was made, print the position of the start of the set. If no sets were made during the day, print the vessel's position at 01:00 UTC. The position should be recorded to the nearest minute of latitude and longitude (e.g. "08–22 N" and "165–45 E").

Set Start Time: Print the vessel's UTC time when the crew started placing the longline gear in the water.

Number of Hooks: Print the total number of hooks that were set. *Hooks between Floats*: Print the average number of hooks used between two successive floats.

Catches: For **tuna**, print the number of fish caught and retained under *NO. RET*. Print the total amount of the whole weights for albacore, and the gilled-and-gutted weights for bigeye and yellowfin, of all fish that were caught and retained, in kilograms, under *KG RET*. Print number of fish that were discarded or released/ struck off (live or dead) including number of fish consumed during the trip under *NO. DISC*. Record small tuna (< 9kg / 20lbs / tuna too small for commercial markets) in one of the "Other species" rows at the bottom of the form. For **marlin**, print the number of fish caught and retained under *NO. RET*. Print total amount of the processed weights of all fish that were caught and retained, in kilograms, under *KG RET*. Print number of fish that were discarded or released/ struck off (live or dead) including number of fish consumed during the trip under *NO. DISC*. For **sharks**, print the number of fish caught and retained, **excluding** fish from which only the fins were retained and not the body, under *NO. RET*. Print the number of fish discarded or released/struck off (live or dead), **including** fish from which only the fins were retained and not the body, under *NO. DISC*. For **other species**, print the full name of the species in the left-hand column. Print the number of fish caught and retained under *NO. RET*. Print the total amount of the processed weights of all fish that were caught and retained, in kilograms, under *KG RET*. Print number of fish that were discarded or released/ struck off (live or dead) including number of fish consumed during the trip under *NO. DISC*. When more than three 'other' species occur, use any unused lines on the logsheet by crossing out the name of the species and writing in the name of the other species. *Vessels Sighted*: If other fishing vessels are sighted, write the name of the vessel, and other identifiers, such as the vessel type, somewhere in the daily column of the logsheet. *Whale Predation*: If any fish were predated by whales, write the number of fish predated by whales somewhere in the daily column of the logsheet.

ACTIVITY CODES

1 A SET
2 A DAY AT SEA BUT NOT FISHED AND NOT IN TRANSIT (please specify)
3 TRANSIT
4 IN PORT – (please specify)
5 TRANSHIPMENT

REVISED:DEC 2016

SPC / FFA REGIONAL POLE-AND-LINE LOGSHEET

PAGE _____ OF _____

NAME OF VESSEL		FISHING PERMIT OR LICENCE NUMBER(S)	NUMBER OF CREW	YEAR	TRIP No. THIS YEAR
NAME OF FISHING COMPANY	FFA VESSEL REGISTER NUMBER	NAME OF AGENT IN PORT OF UNLOADING	PORT OF DEPARTURE	DATE AND TIME OF DEPARTURE	
COUNTRY OF REGISTRATION	UNIQUE VESSEL IDENTIFIER (UVI)		PLACE OF UNLOADING	DATE AND TIME OF ARRIVAL IN PORT	
REGISTRATION NUMBER IN COUNTRY OF REGISTRATION	INTERNATIONAL RADIO CALLSIGN				

- **ALL DATES AND TIMES MUST BE IN NAUTICAL TIME**
- **ALL WEIGHTS MUST BE KILOGRAMS**
- **START A NEW LOGSHEET AFTER FULL OR PARTIAL UNLOADING**

MONTH	DAY	ACTIVITY CODE	BAIT ONBOARD Y / N	START OF SET OR 01:00 TIME POSITION				RETAINED CATCH					DISCARDS			
				LATITUDE DDMM.MMM	N S	LONGITUDE DDDMM.MMM	E W	SKIPJACK WEIGHT	YELLOWFIN WEIGHT	BIGEYE WEIGHT	OTHER SPECIES		TUNA SPECIES		OTHER SPECIES	
											NAME	WEIGHT	NAME	NUMBER	NAME	NUMBER
							PAGE TOTAL									
							TRIP TOTAL									

ACTIVITY CODES
1 A DAY FISHING OR SEARCHNG
2 NO FISHING - COLLECTING BAIT
3 NO FISHING - TRANSIT
4 NO FISHING - BREAKDOWN
5 NO FISHING - BAD WEATHER
6 IN PORT - PLEASE SPECIFY

NAME OF CAPTAIN	SIGNATURE OF CAPTAIN	DATE

SPC / FFA REGIONAL POLE-AND-LINE LOGSHEET INSTRUCTIONS

Block One: Vessel Identification and Trip Information

Country of Registration and *Registration Number in Country of Registration*: Print the name of the country in which the vessel is registered (e.g. "Japan") and the registration number issued by the country in which the vessel is registered (e.g. "ME1-808").
FFA Vessel Register Number: Print the number issued by the Forum Fisheries Agency for inclusion of the vessel on the FFA Vessel Register (e.g. "12345"). *Unique Vessel Identifier*: Print the vessel's UVI number.
Fishing Permit or Licence Number(s): If the vessel fished under one or more bilateral access agreements, then print the fishing permit number issued by each of the coastal states in whose waters the vessel fished during the trip. If the vessel fished under a multilateral treaty, then print the fishing permit number issued to the vessel under the multilateral treaty. If the vessel is registered in the coastal state, then print the fishing licence number issued by the coastal state.

Name of Agent in Port of Unloading: Print the name of the agency or agencies which represented the vessel in the port or ports in which the vessel unloaded the catch recorded on the logsheet. In case of transhipment at sea, print the name of the carrier and destination of the unloaded catch.

Port, Date and Time of Departure Specify the name of the port and the date and time when the vessel returns to the fishing ground after a full or partial unloading. Use UTC time and this format (YYYY-MM-DD: hh:mm)

Place, Date and Time of Arrival, Unloading: Specify the name of the port and the date and time when the catch was unloaded in port. Use UTC time and this format (YYYY-MM-DD: hh:mm)

Number of Crew: Print the total number of officers and crew, excluding observers.

Year and *Trip Number This Year*: Print the year in which the vessel departed from port at the start of the trip and the number of trips the vessel has taken this year (including this trip). The start of a trip is defined to occur when a vessel leaves port to transit to a fishing area or to transit to another port to complete unloading. The end of a trip is defined to occur when a vessel enters port to unload part or all of the catch.

Block Two: Catches and Discards

Complete at least one line of Block Two for each day at sea. If necessary, use more than one line to record the retained catch of other species and discards.

Month and *Day*: The day should correspond to the day on which the activity commenced; record the day number and not the day of the week.

Activity Code: Use Activity Code 1 ('A day fishing or searching') for days on which tuna were caught or the vessel searched for tuna. Use Activity Code 2 ('No fishing - collecting bait') for days on which no tuna were caught and the vessel collected bait. Use Activity Code 3 ('No fishing - transit') for days on which no tuna or bait were caught and the vessel spent most of the day in transit. Use Activity Code 4 ('No fishing - breakdown') for days on which no tuna or bait were caught and the vessel spent most of the day inactive due to a breakdown. Use Activity Code 5 ('No fishing - bad weather') for days on which no tuna or bait were caught and the vessel spent most of the day inactive due to a bad weather. Use Activity Code 6 ('In port - please specify') for days on which no tuna or bait were caught and the vessel spent most of the day in port. If no code exists, please describe the activity on the form.

Bait Onboard Y/N: Print 'Y' if, at any time during the day, sufficient bait was carried to chum a school of fish. Print 'N' if, during the whole day, insufficient bait was carried to chum a school of fish.

Start of Set or 01:00 UTC Time Position: If fishing was undertaken, print the position at the start of the set. If no sets were made during the day, print the vessel's position at 01:00 UTC time. The position should be recorded to the nearest thousandth of a minute of latitude and longitude (e.g. "08–22.062 N" and "165–45.143 E").

Retained Catch: *Skipjack*, *Yellowfin*, *Bigeye*, and *Other Species*: Print the amounts caught during the day (rounded to the nearest metric tonne). If a species other than skipjack, yellowfin or bigeye, was caught and not discarded, then print the full name of the species in the column under *Retained Catch*, *Other Species, Name* and print the amount caught (rounded to the nearest metric tonne) in the column under *Retained Catch, Other Species, Weight*. When more than one 'other' species occurs in a set, use additional lines on the logsheet. Do not record the amount of bait that was caught. If a species of special interest (such as a marine turtle, marine mammal or sea bird) is caught, then record the capture on a separate line.

Discards: If tuna or other species were discarded or released, then print the name of the species in the column under *Discards*, *Tuna Species, Name* and print the number of fish discarded in the column under *Discards, Tuna Species, Number*. If any other species was discarded or released, then print the name of the species in the column under *Discards*, *Other Species*, *Name* and print the number of fish discarded in the column under *Discards, Other Species, Number*. Do not record the amount of bait that was discarded.

Vessels Sighted: If other fishing vessels are sighted, write the name of the vessel, and other identifiers, such as the vessel type, on one line of the logsheet.

REVISED: DCC DEC 2016

SPC / FFA REGIONAL DEEP-WATER SNAPPER LOGSHEET

PAGE _____ OF _____

Vessel Name			
IRCS	Departure Date/Time	Departure Port	Trip No.
License No.	Arrival Date/Time	Arrival Port	No. of Reels
No. of Crew	Unloading Date/Time	Unloading Port/Company	No. of hooks per reel

Note: "Dates/Times" in local time and all weight in kilograms (kg). Total number of hooks = no. reels x no. hooks per reel

Date	Activity Code	Position of Fishing, or Position at 1200hrs (when no fishing that day)				Fishing start time	Total no. of hooks	Total hours fishing	Depth (m)	Flame / Longtail snapper		Ruby snapper		Saddle-back snapper		Crimson jobfish		Golden eye jobfish		Rusty jobfish		Trumpet emperor		Eight-bar grouper		Bluenose		Others	
		Latitude		Longitude																									
		ddmm	N/S	dddmm	E/W					No.	Kg	No.	Kg	No.	Kg	No.	Kg	No.	Kg	No.	Kg	No.	Kg	No.	Kg	No.	Kg	No.	Kg
									TOTALS:																				

Activity Code	
	1. Fishing
	2 At sea but not fished
	3. Transit
	4. In Port

Captain's Name	**Capt. Signature**	**Date**

12.2 SPC / FFA REGIONAL OBSERVER FORMS

PS–1 (pg1)	•	Purse-Seine General Information
PS–1 (pg2)	•	Purse-Seine General Information
PS–2	•	Purse-Seine Daily log
PS–3	•	Purse-Seine Set Details
PS–4	•	Purse-Seine Length Measurement
PS–5	•	Well Transfer Reconciliation Form
LL–1	•	Longline General Information
LL–2 /3	•	Longline Set and Haul Information
LL–4	•	Longline Catch Monitoring
PL–1	•	Pole-and-line General Information
PL–2	•	Pole-and-line Daily log
PL–3	•	Pole-and-line Catch Details
GEN–1	•	Vessel and Aircraft Sightings / Fish, Bunkering and Other Transfers Logs
GEN–1*	•	Vessel and Aircraft Sightings / Fish, Bunkering and Other Transfers Logs
GEN–2	•	Species of Special Interest – vessel interactions
GEN–2*	•	Species of Special Interest – sightings
GEN–3	•	Vessel Trip Monitoring Summary
GEN-4	•	Conversion Factors
GEN-5	•	FAD/PAYAO and Floating Object Information Record
GEN–6	•	Pollution Report

*Supplementary form

OBSERVER PROGRAMME:

SPC/FFA REGIONAL PURSE SEINE GENERAL INFORMATION

FORM PS-1 (pg 1)

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TRIP DETAILS

OBSERVER

NAME	NATIONALITY	TRIP ID NUMBER	TRIP START LOCATION	TRIP END LOCATION	TRIP START (SHIP'S DATE AND TIME) YY MM DD hh mm	TRIP END (SHIP'S DATE AND TIME) YY MM DD hh mm

VESSEL NAME	FISHING PERMIT / LICENSE No.s	VESSEL DEPARTURE PORT	VESSEL DEPARTURE DATE YY MM DD

VESSEL CHARACTERISTICS

VESSEL OWNER	COUNTRY REG. No.	IRCS	UVI	FLAG	LENGTH M / F	GT (circle one) / GRT mT

No. of SPEED BOATS	No. of OTHER ONBOARD AUXILARY BOATS	Do OTHER TENDER BOATS WORK with CATCHER Y / N	MAKE / POWER NET SKIFF ENGINE ; / hp	VESSEL CRUISING SPEED: kts

HELICOPTER CHARACTERISTICS	MAKE MODEL	REGISTRATION NUMBER	EFFECTIVE RANGE KM / NM	COLOUR	No. of VESSELS that the HELICOPTER SERVICES: (including this vessel)

FISHING GEAR

MAKE MODEL	MAKE MODEL	BRAIL	TYPE	mT	LIVE FISH BRAIL: Y / N
POWER BLOCK:	PURSE WINCH:	1			

NET - MAX. DEPTH: M / Y / F	NET - MAX. LENGTH: Metres / Yards / Fathoms	NET - No. of STRIPS	NET - MESH SIZE (of main body) CM IN	BRAIL	TYPE	mT	LIVE FISH BRAIL: Y / N
				2			

BRAIL TYPE CODES	BRAIL CHANGE COMMENTS	BRAIL	TYPE	mT	LIVE FISH BRAIL: Y / N
LH - LONG HANDLE HF - HEAVY FRAME SP - SPANISH TYPE JP - JAPANESE TYPE		3			

ELECTRONICS

		USAGE			USAGE
GPS	Y / N		DEPTH SOUNDER	Y / N	
TRACK PLOTTER	Y / N		SST GAUGE	Y / N	

			USAGE	MAKE	MODEL	COMMENTS
ADV in TEC.	EQUIPMENT TYPE	Y / N				
	EQUIPMENT TYPE	Y / N				
	BIRD RADAR	Y / N				
	SONAR	Y / N				
	GPS BUOYS	Y / N				
	ECHO SOUNDING BUOY	Y / N				
	NET DEPTH INSTRUMENTATION	Y / N				
	DOPPLER CURRENT METER	Y / N				
	AIS	Y / N				
VMS SYSTEMS	1	Y / N				
	2	Y / N				

COMMUNICATION SERVICES	PHONES	SATELLITE:	Y / N	Phone #	MOBILE/ CELL PHONE:	Y / N	Phone #
	OTHER	FACSIMILE:	Y / N	Fax #			
INFORMATION SERVICES	WEATHER	WEATHER FAX:	Y / N	WEATHER SATELLITE MONITOR: Y / N	EMAIL:	Y / N	Email address:
	WEBSITES	PHYTOPLANTION Y / N		SST Y / N			SEA HEIGHT Y / N
		www.		www.			www.

OBSERVATIONS / COMMENTS / OTHER GEAR / UNUSUAL USE OF GEAR

(write brief notes here and a full description in trip report)

USAGE CODES

ALL - used all the time in fishing
TRA - used only in transit
OIF - used often in fishing
SIF - used sometimes in fishing
RAR - rarely used
BRO - broken now but used normally
NOL - no longer ever used
OTH - other please specify

N.B. - fishing can be searching, setting, retrieving, deploying, investigating, etc.

GENERAL INFORMATION

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N.B.: Wherever there is a Y / N (yes or no) option for an item, either the "Y" or the "N" must be circled

A complete fishing trip is defined as 'from one full or partial unloading to the next full or partial unloading'.

TRIP DETAILS — If not a normal complete fishing trip explain reasons why in trip report - also see "*Partial trips*" below.

OBSERVER

NAME and NATIONALI	First and family names must be in full and in correct order (e.g. "John Masa" not "Masa, John"). Nationality as passport.
TRIP ID NO.	Print number issued by the authority sending you on this trip. (E.g.: John H. Masa, on his third trip in 1996 might be issued Trip ID Number: "JHM 96-03").
TRIP START / **TRIP END** (SHIP'S DATE and TIME)	} Print date using "year year/ month month / day day" format. } Print time using 24 hour "hour hour : minute minute" format. (e.g. Five past one on the afternoon on 3rd of January, 1996 as "96/01/03 - 13:05"). USE SHIP'S TIME (and DATE)
TRIP START LOCATION / TRIP END LOCATION / VESSEL DEPARTURE PORT:	Record in all three boxes even if the same port.
Partial trips	N.B.:Observer trip officially starts and ends only when the vessel on which the catch is actually observed is boarded and disembarked. If boat met at sea "Trip Start Date and Time" is day of transfer from transit vessel to observed boat. "Trip Start Location" is "At sea". If transferred off host vessel to another to return to port "Trip End Date and Time" is day of transfer. Trip End Location is "At sea". In each case 'at sea' should be followed by a position in degrees and minutes
Multiple	- If observing catch on 2 (or more) boats, each new observed boat must be a new trip with separate observer trip ID No.
VESSEL NAME	Full name with no abbreviations. (The name "Captain Paul John Smith" should not be abbreviated to Capt. P.J. Smith.)
FISHING PERMIT / LICENSE NUMBERS	Record all numbers of current fishing licenses on board. This may include more than one license. There should be at least one on board if the vessel fishes in any EEZ waters. Note country the license comes from in brackets alongside number.

VESSEL CHARACTERISTICS

VESSEL OWNER	Name of Company or Person who owns the vessel. This should be in the Registration Papers.
COUNTRY REGISTRATION NUMBER	Number given by the Country (Flag State) to where the vessel is registered. This can be found in the registration papers of the vessel. Do not confuse this with FFA Regional Registration Number.
VESSEL FLAG	Country where vessel is registered. E.g.: Japanese purse seiners are usually registered in Japan so their Flag State is Japan.
IRCS (*international radio call*	Series of numbers and letters painted on the side of the boat, must be either in black lettering on a white background or white on black.
UVI - Unique Vessel Identifier	WCPFC requires all vessels over 100 Gross Tonnage to have a UVI after 1st Jan 2016. Generally the UVI is the International Marine Organistion number or may be the Lloyd's Register (LR) no.
NO OF SPEED BOATS	Number of speed boats. Don't count tow boats, or a boat that looks like a speed boat but is only used as a tow boat.
NO OF AUXILIARY BOAT	Count only the tow boats and light boats that the vessel keeps **onboard**. Don't count a speed boat if it is already counted.
Do OTHER TENDER BOATS WORK with CATCHER ?	Boats (ranger boats, light boats, reefers, etc.) not carried on board but work with the catcher boat as a regular part of the fishing strategy.
NET SKIFF ENGINE MAKE / POWER	Brand of engine used in net skiff and the power (horsepower - hp). Get this from the skiff driver. E.g.: Caterpillar 3408 (400hp)
VESSEL CRUISING SPEED	Ask the captain for the cruising speed of the vessel (not top speed).
HELICOPTER MAKE/MODE	Brand name and model of the helicopter. Ask the pilot if you need to.
REGISTRATION NO.	Registration No. of helicopter. Written on side or pontoons or ask pilot.
EFFECTIVE RANGE	Distance helicopter can go and return safely, without running out of fuel.
COLOUR of HELIC	Main colour or colours of the helicopter

LENGTH / **GROSS TONNAGE**: The place to find vessel's length overall (LOA) and gross tonnage is on registration papers. Be alert for any signs that suggest there has been a change to length and/or gross tonnage. Note in report.

FISHING GEAR

POWER BLOCK - Make - Model	Brand of main power block on the vessel. The model of the block. If these cannot be seen, ask the captain, engineer or winch driver. Only fill in this information if sure it is correct.
PURSE WINCH (Make, Model)	Brand of main purse winch on the vessel. The model of the winch. If unsure, record the information in your written report only, with a note.
MAX. NET DEPTH	Deepest depth of the net wall when it has been set.
MAX. NET LENGTH	The length of the net when it has been set. M = Metres; Y = Yards; F = Fathoms. Make sure you circle the correct unit used on the vessel for net measurements.
NET - No OF STRIPS	Each net is made up of strips of netting sewn together to create the depth of the net *(e.g.: if the depth of net is to be 300 metres then 30 strips of 10 metre wide net are required to make the net depth* (adding strips deepens the net, removing strips makes it shallower).
NET MESH SIZE OF MAIN SECTION	The mesh is a different size in different parts of the net. Record the mesh size of the main body of the net. Make sure the units are recorded in "CM" (centimetres) or "IN" (inches). Ask the Deck Boss.
BRAIL: TYPE, CAPACITY, LIVE FISH BRAIL	Starting with Brail 1 (the brail with the largest capacity), use the new **brail type codes** to indicate what type of brail it was (see notes and drawing at the start of the workbook - 'Changes to PS workbook'). Then record the **capacity** of the brail in **metric tonnes**. This will help estimate the total catch. Remember to identiy the same brail (brail 1) in the same way (brail 1) on the PS-4 form. If there is a second type of brail record the information for Brail 2. If the vessel intentionally brails live fish onboard with any of the brails and processes these tuna differently mark Yes.
Brail change comments	Record any changes to brail capactity (new panel inserted etc) by recording a new brail number (i.e. Brail 2 or Brail 3) and then recording all the brail details and specifiying the type, new capacity and whether the brail is used for live fish brailing. ***Provide brief comments*** on the brail change (like date, reason etc) in this data field.
ELECTRONICS-YES / NO- ***USAGE***	If vessel has a device, circle "Y"(yes); if it does not have the device circle "N" (no). You must circle "Y" or "N" for every use codes (bottom front of form) to show how much each piece of equipment, for which "Y" is circled, is used.
NEW TECH :	Only record new types of equip. or major upgrades to technology here. Not to be used to record old or unlisted equip. i.e. radio. Give a full description of any new equipment or new capability (through upgrades technology) in the journal etc.
AIS	Automatic Identification System: Transponding unit that will be attached to VHF Antenna, but maybe located inside.
MAKE AND MODEL	Name of company and model (name or number) of each device listed. Don't mix up make and model. *E.g.: for a "JRC, JMA - 7790": "JRC" is the brand (make); "JMA - 7790" is the model.*
VMS System:	Record the manufacturer's name (e.g.: Trimble, Thrane and Thrane, Furuno, etc.) and the model of the MTU unit.
INFORMATION SERVICES	Vessels may access "Fishery information services" to get instant information on oceanographic features.

OBSERVATIONS / COMMENTS, OTHER GEAR, UNUSUAL USE of GEAR

Make notes if there is anything special about this boat compared to others. Comment if equipment is not working, not used or used in unusual way. Describe fishing gear if different to equipment you see on other purse seiners and record make, model, special characteristics and usage of new gear.

SPC/FFA REGIONAL PURSE SEINE OBSERVER GENERAL INFORMATION

FORM PS - 1 (pg 2)

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OBSERVER NAME	VESSEL NAME	OBSERVER TRIP ID NUMBER

TOTAL POSSIBLE FISH STORAGE CAPACITY (in metric tonnes): → _____ mT

CREW	NAME	YRS.EXP	NATIONALITY	COMMENTS
CAPTAIN				License No.
MASTER				License No.
NAVIGATOR				
MATE				
CHIEF ENGINEER				
ASSISTANT ENGINEER				
DECK BOSS				
COOK				
HELICOPTER PILOT				
HELICOPTER MECHANIC				
RADIO OPERATOR				
SKIFF MAN				
WINCH MAN				
TRANSLATOR				

CREW	NAME	YRS.EXP	NATIONALITY

CREW	NAME	YRS.EXP	NATIONALITY

TOTAL NUMBER OF CREW (include Captain and officers): → _____

WASTE DISPOSAL SYSTEM ? **Y / N**

DESCRIBE waste disposal system especially for fish offal, but also other waste.

SAFETY EQUIPMENT

LIFE JACKET

PROVIDED FOR OBSERVER: Y / N / O

SUITABLE SIZE: Y / N

AVAILABILITY (circle one): Easy / Moderate / Hard

Number of **LIFE BUOYS / LIFE RINGS**: _____

LIFE RAFTS Number of people and Inspection due date(D) or last date of inspection (L)	1	2	3	4
	Number	Number	Number.	Number
	YY / MM (L or D)	YY / MM (L or D)	YY / MM (L or D)	YY / MM (L or D)

EPIRB (406)	Total No.	No. with Exp. Batteries	**EPIRB (other)**	Total No.	No. with Exp. Batteries

COMMENTS or DRAWINGS of WELL PATTERN

GENERAL INFORMATION

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OBSERVER NAME	Print your name in full. Put your first name, or Christian name, first and lyour last name, or surname, last.
VESSEL NAME	Print the vessel's name in full as stated on its fishing licence. Don't use any abbreviations.
OBSERVER TRIP ID NO.	Fill in your trip identification number as supplied by your programme before departure - exactly as on PS-1 (pg.1) and elsewhere.

CREW

NAME **(for listed specialist positions)**	For each of the listed positions enter the name of the crew person who works in this position. This information should be available on the crew list that must be given to immigration when a vessel visits port. Record first name first and last name last. Be certain of the spelling. If a person holds more than one position write "same as (the other position they hold)". E.g.: if Joe Flyer is both helicopter pilot and helicopter mechanic, write "Joe Flyer" next to "Helicopter Pilot" and write "same as helicopter pilot" next to "helicopter mechanic". Another common double position is the Captain and Navigator/Master. If the vessel does not have anyone in the position indicated write "Vacant" in the "Name" column. If the vessel has a specialist position that is not listed here try to squeeze the name of that position followed by a dash (-) and the name of the person holding the position in one of the "Crew" rows below. Be sure to describe this position in the written trip report.
(for non-specialist positions)	For each crew mewmber not working in a specialist position correctly record the name, number of years of experience and the nationality in the lower crew sections.
YEARS EXPERIENCE (YRS.EXP)	Record the number of years experience the crew member or officer has **in this position**. E.g.: if the Captain has been fishing on purse seine vessels for 20 years but has only been a Fishing Captain on purse seine vessels for five years write in "5".
NATIONALITY	Nationality should be available on the crew list. Pay special attention to the nationality of any Pacific Islanders amongst the crew.
COMMENTS	Record any information about the crew in this column. Any relevant information may be useful. Examples could include: name of boat previously worked; name of Fishery College attended; famous fishing family connection; etc.
License No.s (Captain / Master / Navigator)	To be recorded if readily available but not necessary if obtaining it will in any way hinder other observer activities on board. If licence is not available then try to obtain other identification document types (e.g. passport) and their document numbers.
TOTAL NUMBER OF CREW (include Captain and officers)	Add up all the crew. Include the Captain, listed positions and other crew. But be very careful not to count any of the crew twice. This is an easy mistake to make in situations where one crew person has two different positions. Be Careful !

WASTE DISPOSAL SYSTEM	Circle "Y" or "N" (yes or no) to show if the vessel has equipment and / or follows standard procedures to manage fish offal or other waste. Examplesof equipment of equipment include incinerators, crushers, shredders, compacters, balers, meal plants, etc. Example of procedures might be keeping all plastic waste until the end of the trip. If present describe how these are used and how effectively they are used in your trip report. (i.e., what pollution control processes does the vessel have?)

SAFETY EQUIPMENT (obtain as much information as possible

LIFE JACKET	If observer has their own (or a fisheries) life jacket (LJ), the "O" must be circled. Otherwise circle the "Y" or "N" to show if the vessel showed the observer a L J that they could use in an emergency. Also circle the "Y" or "N" to show if the LJ the vessel offered was a suitable size. Circle "easy" if the allocated L.J was easily available, "moderate" ift not so easy to get to, or "hard" if it would be very hard to find in an emergency.
EPIRBS **LIFEBUOYS / LIFE RINGS**	Count all EPIRBs together (with or without expired batteries). Then count only those with expired batteries. Only record information for EPIRBs that are easily accessible (not found in liferaft etc). Count all lifebuoys and life rings that can be found
LIFE RAFTS	Find info on labels on life-rafts. If, **after a careful check**, dates are not found, record "ND" for 'dates not displayed'

SPC/FFA REGIONAL PURSE SEINE OBSERVER DAILY LOG

FORM PS - 2

REV. DEC. 2016

OBSERVER NAME	VESSEL NAME	OBSERVER TRIP ID NUMBER	PAGE OF

	SHIP'S TIME	LATITUDE (dd°mm.mmm')	N S	LONGITUDE (ddd°mm.mmm')	E W	EEZ CODE	ACTIVITY CODE	WIND (kts)	WIND (°)	SEA C-S-M-R-V	HOW DETECT	SCHOOL ASSOC	COMMENTS (and **Set No.** - from PS-3)
1													
2													
3													
4													
5													
6													
7													
8													
9													
10													
11													
12													
13													
14													
15													
16													
17													
18													
19													
20													
21													
22													
23													

FLOATING OBJECT AND SCHOOL SIGHTINGS	Anchored floating objects (with **NO** school)	Anchored floating objects (with school)	Free floating objects (no anchor) (with **NO** school)	Free floating objects (no anchor) (with school)	Free schools	DID YOU OBSERVE ANY EVENTS TO RECORD ON FORM GEN-3 TODAY	
Example	Tally / No.	Tally / No.	Tally / No.	Tally / No.	Tally / No.	YES NO (circle one)	Journal pg#
N 11 6							

START OF DAY

SHIP's DATE	SHIP's TIME
UTC DATE	UTC TIME

ALL MUST BE RECORDED

ACTIVITY and HELICOPTER CODES

1 Set
2 Searching
3 Transit
4 No fishing - Breakdown
5 No fishing - Bad weather
6 In port - please specify
7 Net cleaning set
8 Investigate free school
9 Investigate floating object
10D Deploy - raft, FAD or payao
10R Retrieve - raft, FAD or payao
11 Drifting at day's end
12 Drifting with floating object
13 Other reason (specify)
14 Drifting -With fish aggregatting lights
15R Retrieve radio buoy
15D Deploy radio buoy
16 Transhipping or bunkering
17 Servicing FAD or floating object
18 Drifting - No fishing
H1 Helicoptor takes off to search
H2 Helicopter returned from search

If FAD involved be sure to fill out a GEN-5 Form - FAD and Floating Object Information Record

Changing buoys ? - use first line for 15R and next for 15D

HOW DETECTED

1 Seen from vessel
2 Seen from helicopter
3 Marked with beacon
4 Bird radar
5 Sonar / depth sounder
6 Info. from other vessel
7 Anchored FAD / payao (recorded)

"Seen from helicopter" Use when vessel gets to the school of tuna that helicopter either: 1. reported on; or 2. dropped buoy on

SCHOOL ASSOCIATION (tuna)

1 Unassociated } Free schools
2 Feeding on Baitfish
3 Drifting log, debris or dead animal
4 Drifting raft, FAD or payao
5 Anchored raft, FAD or payao
6 Live whale
7 Live whale shark
8 Other (please specify)
9 No tuna associated

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OBSERVER'S DAILY LOG

Notes on FORM PS-2

Observer Name and *Vessel Name*: Always print each of these names out **in full**
(e.g. an observer name "John Masa", and a vessel name "Hai Hsiang No. 959")

Observer Trip ID Number: Number issued by the authority you are working for.
(e.g. John Masa, on his 3rd trip in 1996 may get Trip ID No.: "JHM 96-03").

Page of: Number Form PS-2's through trip as Page 1, Page 2, Page 3, etc.
At end of trip check pages are all there (again). Put last page number on every page
(e.g. if there are 36 pages then the first page will be " Page 1 of 36 ", the fourth page,
" Page 4 of 36 " and the last page will be " Page 36 of 36 ").

Ships Time: Record the "Ship's time" whenever there is a change of an activity.
Be sure to record all activities. Record as often as necessary during the day.
At the very least, record a morning, noon and evening position when in transit.

Latitude, *Longitude*, *N*, *S*, *E*, *W*: Record position as degrees, minutes and minutes to three decimal places, which is usually as it is displayed on a GPS.
N.B.: dd = degrees; mm = minutes; mmm = decimal minutes.
For latitude below 10° put a zero in front of the number (e.g.:write 5° as 05°).
Never forget to enter north or south and east or west correctly
(for example "05°27.985' S, 152°28.239' W")

Start of day: At start of each day, date and time on ship's clock (and observer's watch) must be matched to the UTC time and date as read from the GPS. ***Always record date as YY/MM/DD.*

Ship's Date and Ship's Time: is the date and time used by crew on board normally. The observer's watch should be set to this date and time as soon as they board.
UTC Date and UTC Time: is standard date and time used by scientists to correct the ship's date and time when it is used incorrectly, as it often is.
Record Ship's date and time and UTC date and time at same moment each day. N.B.: UTC date is sometimes different from Ship's date.
Observers should record Ship's time in all other forms and paperwork.

EEZ Code: Place the code for the EEZ (on back of Form GEN-6) for your position.
Use the chart supplied or the chart of the vessel to work this out.
If you are not sure then put the code for the EEZ where you think you are.

Wind (kts) (°): Record speed in knots and direction in degrees of the compass
(e.g. for a 15 knot easterly wind, under (kts) print "15" and under (°) print "090")
If the wind meter shows metres per second then (kts = 2 x m/sec) approximately.

Sea conditions (C-S-M-R-V).
C = Calm; S = Slight; M = Moderate; R = Rough; V = Very rough.
Judge this yourself. A guide is the wind. If it has been blowing awhile then
0-5 kts is calm; 5-10 kts is slight; 10-20 kts is moderate; 20-40 kts is rough;
and anything over 40 kts is usually very rough, however not always so.

*Comments (and **Set No**, - from PS-3)* - for all activity code "1" write the set No. before the comments in this field. Get "set No." from the PS-3 that must be used every set.

Activity and Helicopter Codes: The activity codes are shown on the front.
Use only one code per entry. If it seems that two different codes could be used, record only the most important one and note the other in comments column.
Please record every activity change throughout the day. There may be many. Note that, except for Helicopter codes, the start of a new activity marked by one code also means the end of the activity identified by the previous activity code.
For *codes* 1, 8, 9 or **17** always use *school association* (*tuna*) and *how detected* codes, otherwise the school association (tuna) and how detected code fields must be dashed !
U**se 15R and 15D when vessel retrieves or deploys a buoy set** on FAD or log
- if changing buoys use 15R on one line and 15D on the next.
If using **code 16** remember that **transhipment** includes any transfer between vessels
Use **code 17** if making any repair or change to floating objects other than changing buoys
Helicopter codes: Use whenever helicopter takes off or lands. Comment to describe main activity for each take off / landing - e.g.: search, set buoy, visit other (*named*) vessel, arrive from other (*named*) vessel, visit shore, rescue seaman, etc.

Floating object and school sightings: Through each day try to keep count of every floating objects and free schools. Try to note if floating objects have fish with them or not.
Also count anchored floating objects (FADs or payaos) and note if they have fish.
Note that free schools can be feeding on baitfish or completely unassociated.
This can be a rough but sensible count. It is used to get an idea of life in your area.
Floating objects can include trees, logs, drums, FADs, payaos or other lumps of debris.
Tally: Mark with a stroke every time you sight something (see example on front)
No: Count the "tally" strokes at end of day to get the number of each type of sighting.

How Detected: Use this code to best show how investigated tuna or object was found.
If more than one method used, use code that shows what **first** made vessel change course to inspect tuna or object (E.g.: If helicopter reports tuna so vessel turns toward its position but had to use its bird radar to finally find the tuna then use code "2" - seen from helicopter.)
N.B. : usually a depth sounder or sonar is only used to investigate an already found object or fish, so code "5" should not be used very often. It is usually something else that first causes a vessel to change direction to investigate a school or floating object further.
Anchored FAD - use code 7 only if FAD is found because its position is recorded on chart.

Did You Observe Any Events To Record On Form GEN-3 Today ?
Circle **Yes** if any infringements, as listed on Form GEN-3, were observed.
Write notes on Form GEN-3 and in journal; record the journal page No. on this form. If there was no incident for the day circle **No**.

*School Association (**tuna**)*: Use "School Association" code that best describes if ***tuna*** being targetted are with floating object, animal, feeding on baitfish, unassociated.
If it is an unusual **tuna** association comment here and describe in journal.

SPC/FFA REGIONAL PURSE SEINE OBSERVER SET DETAILS

FORM PS - 3

REV. DEC. 2016

OBSERVER NAME	VESSEL NAME	PAGE OF (SET No.)

OBSERVER TRIP I.D. NUMBER	START OF SET DATE AND TIME — OBSERVER: (see PS-2)	YY	MM	DD	hh	mm	START OF SET DATE AND TIME — VESSEL LOG:	YY	MM	DD	hh	mm

SET SEQUENCE TIMES

EVENT:	if SSI OBSERVED (Obs Time Sighted)	START OF SET (SKIFF OFF)	BEGIN PURSING	END PURSING	BEGIN BRAILING	END OF BRAILING / SACK ONBOARD	END OF SET (NEXT ACTIVITY STARTS)
TIME:							

SET CATCH DETAILS

brail capacity (mT **Type 1 brail** *(see PS-1 form)* x **sum of all brails** *(see PS-4 form)*) = **Total catch** mT

less bycatch *(see below)* mT

= **Total tuna catch** mT

(**Type 2 brail** mT x)

=>

OBSERVER's BREAKDOWN of TOTAL TUNA CAUGHT - *circle **YES** or **NO** for each species*

N.B.: these calculations include all the tuna in this catch, whether retained or discarded

SKIP-JACK		YELLOWFIN					BIGEYE				
		SMALL (< 75 cm)		LARGE (> 75 cm)			SMALL (< 75 cm)		LARGE (> 75 cm)		
YES	(%)	YES	(%)	YES	(%)	NUMBER	YES	(%)	YES	(%)	NUMBER
NO		NO		NO			NO		NO		

BY-CATCH (ALL NON-TARGET SPECIES LANDINGS)

SPECIES CODE	FATE CODE	OBSERVER (mT)	OBSERVER No.	VESSEL LOG (mT)	VESSEL LOG No.	COMMENTS / SSI TREATMENT
Total weight of bycatch:		mT		mT		

TARGET TUNA

		SKJ	YFT	BET
A. **OBSERVER** estimates of total of each species caught (mT)				
Observer	**FATE**			
Observer	*a.* (mT)			
Vessel	**FATE**			
Vessel	(mT)			
Observer	**FATE**			
Observer	*b.* (mT)			
Vessel	**FATE**			
Vessel	(mT)			
Observer	**FATE**			
Observer	*c.* (mT)			
Vessel	**FATE**			
Vessel	(mT)			
B. **OBSERVER totals (mT)** discards + RCC *(a+b+c)*:				

SPECIES OF SPECIAL INTEREST

Interactions with primary gear (not landed)

SPECIES CODE	GEAR INTERACTION CODE	OBSERVER (mT)	OBSERVER No.	CONDITION Captured	CONDITION Released	COMMENTS / SSI TREATMENT

How many Tags were recovered?

Record species and tag numbers. Fill tag recovery forms!

		SKJ	YFT	BET
Tuna kept onboard for later unload if not RWW	FATE			
	OBS (mT)			
	VES (mT)			
	FATE	RWW	RWW	RWW
	OBS (mT)			
	VES (mT)			
Due to gear break bycatch mitigation		ESC	ESC	ESC
estimates	OBS (mT)			
	VES (mT)			

FATE CODES

RWW	Retained - whole weight	DFR	Discarded trunk - fins retained (shark only)	DPQ	Discarded - poor quality	GEAR INTERACTION CODES	
RHG	Retained - headed and gutted (billfish only	DTS	Discarded - too small (tuna only)	DOR	Discarded - other reasons (specify)	IEN	Entangled (in gear)
RGG	Retained - gilled and gutted (kept for sale)	DGD	Discarded - gear damage (tuna only)	ESC	Escaped	IJO	Jumped out (over net)
RPT	Retained - partial (e.g. fillet, loin)	DVF	Discarded - vessel fully loaded	(use these fate codes for any SSIs landed on deck)		ICR	Crew released from net
RCC	Retained - crew consumption (onboard)	DUS	Discarded - unwanted species	DPA	Discarded Protected Species - Alive	IBR	Broke through net
ROR	Retained - other reason (specify)	DSD	Discarded - shark damage	DPD	Discarded Protected Species - Dead	OTH	Other, please specify
RFR	Retained trunk - fins retained (shark only)	DWD	Discarded - whale damage	DPU	Discarded Protected Species - Unknown		

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PURSE SEINE LOG - SET DETAILS

Notes on FORM PS-3

(A PS-3 form **must** be filled out for the first and every set (recorded as *activity code* **1** on PS-2) - whether monitored or not, even if a skunk set.) (For the very rare occassion that a set is not monitored the column for the vessel's estimate of catch must still be completed.) (N.B.: A PS-4 form is not required for skunk set.)

OBSERVER NAME		Print first name first and last name last. E.g.: "John Smith" not "Smith John". Print clearly !
VESSEL NAME		Full unabbreviated name. E.g.: a boat with name "Captain Paul Catchit" should not be abbreviated to Capt. P.Catchit.
PAGE OF		Number each PS-3 form from start until end of trip. Because one PS-3 is used for every set this is also the set No.
OBSERVER TRIP ID No.		This number is the same on all forms for a single observer trip.
START of SET DATE and TIME	**Observer (PS-2)**	The exact date and time that the observer recorded for this set on the PS-2. Record as year/month/day.
	Vessel (logsheet)	The exact date and time that the vessel has recorded for this set on their PS Log Sheet. Record as year/month/date.
If SSI Observed (Obs Time Sighted)		Mark the time the observer first noticed the species of special interest. Only required for SSIs that eventually end up inside the net or were landed (i.e not required for sighted SSIs).
SET SEQUENCE	**BEGIN SET (SKIFF OFF)**	Exact same time as recorded on the daily log (PS-2) and in the "Observer Start of Set Date and Time" section.
	BEGIN PURSING (WINCH ON)	The purse wire will be thrown to the vessel from the skiff, and it will then be attached to the winch. Record the time the winch is switched on.
	END PURSING (RINGS UP)	During the winching, a bunch of rings will come on board. Record the time when the last of the rings appears. This indicates the net has totally enclosed (pursed) the fish and they cannot escape.
	BEGIN BRAILING	Record the time the vessel starts the brailing process. This will have been recorded on the PS-4 form. If there was no brailing just record a dash
	END BRAILING / SACK ONBOARD	Record the time when the vessel finishes brailing. If there was no brailing record the time that the sack was lifted up on to the deck.
	END SET (NEXT ACTIVITY START)	Next activity START marks end of set (no later than 'skiff comes on board').Record the activity change on PS -2.
SET CATCH / CAPTURE DETAILS	**TOTAL CATCH and TOTAL TUNA CATCH**	
	Brail Capacity	Find on the PS-1. Use to calcualte total catch. **'Brail capacity' x 'Sum of all brails' = 'TOTAL CATCH'**
	Sum of all brails	After calculating the total number of brails on the PS-4 form (for the same set) transfer your answer here.
	Type 1 and Type 2 brails	... if a 2nd brail type is also used for this set samples, estimates of the brail capacity for both brail types must be made. Fill the 'brail capacity' and the 'sum of all brail' fields for both the 'type 1' and the 'type 2' brails. Add calculations of total catch from each brail type together to get a single "TOTAL CATCH" figure. (If there is no 'type 2' brail (which is normal) then simply record a dash in each of the 'type 2' fields and all other calculations will be based only on the 'type 1' brail information that is provided.)
	TOTAL CATCH	This is the combined weight of all the (target and bycatch species) fish brought onboard.
	less bycatch	Calculate the amount of bycatch (in mT) that is in the catch in the bycatch area below and transfer to this field
	TOTAL TUNA CATCH	Subtract the total amount of bycatch from the TOTAL CATCH to get TOTAL TUNA CATCH. This includes all tuna caught whether or not it is later discarded. It does not include tuna that escaped **alive** from net.
	OBSERVER's BREAKDOWN of TOTAL TUNA CAUGHT — **YES or NO**	YES' or 'NO' **must** be circled to show if SKJ, small YFT, large YFT, small BET, large BET were even seen in the catch
	%	Carefully eye-estimate the **percentage of the TOTAL TUNA** for each species (+ each size category for YFT and BET) N.B.: **%** of small (or large) YFT (or BET) is the **%** of **TOTAL TUNA** ! NOT **%** of that species of tuna.
	Number	If there are not many large YFT or BET and good estimate of number can be made record number of large YFT (or BET) If a **good** estimate (counts) is not easy, dash the 'number' field. **Do not** make a rough estimate !
	BY-CATCH SPECIES CODE	Record every species that lands on deck with the three letter FAO species code.
	SPECIES OF SPECIAL INTEREST *1. (under Bycatch all non-target species landings)*	In the normal manner, record any SSI that land on deck, estimate total weight and number. Use the SSIs fate code to record condition status when discarded. (DPA, DPD, DPU). Note no SSI can be kept onboard (injured turtle may be while recorvering). Note these landed SSIs are no longer recorded on Gen-2 form. Use new PS 4 to record length and sex of landed SSIs (sharks etc).
	2. (under Interactions with net not landed)	Record any SSI you see in the net, but are not landed on deck in this area. Use the **new gear interaction codes** instead of the normal fate codes here. Record their condition (A0- alive, A1- alive and healthy, A2 - alive injured, A3 - alive but dying, D - Dead, U - unknown) under the Condition data field.
	3. Comment / SSI Treatment	Add some notes on how the vessel handled or treated the SSI. Example -'released by lowering net etc'.
	FATE CODE	Use fate codes provided to say what happened to each species landed. Remember that a species may be split into groups each with a different fate code. **REMEMBER** - use only one (the best and most informative) code for each line. Use 1 line per species/fate group. Eg: RRU RWW 2 mT / RRU DTS 0.5 mT
	OBSERVER — **(mT)**	Calculate the amount of each species caught, in each fate code category, using an appropriate assessment technique. Use mT. For instance if 300 kg of Mahi mahi and 40 kg of wahoo were caught - record 0.3 mt DOL /0.04 mt WAH
	Number	Only record a number if an accurate count is possible. Large amounts are recorded in "mT". If possible record both.
	VESSEL LOG — **(mT)**	Copy the figures recorded by the ship's officers on the Vessel Logsheet, for this set. Place a dash in the column if they have not recorded the species.
	Number	
	Total weight of bycatch	Calculate from the fields above for observer (important for use in 'Total Tuna' calculation) and vessel bycatch estimates
	TARGET TUNA A. **OBSERVER estimates of total caught**	Calculate the combined large and small **%** x **Total tuna catch** for each species (SKJ, YFT and BET)
	FATE	Record fate of discarded tuna or tuna retained for crew consumption (RCC), using fate codes listed at bottom of form
	OBS (mT)	Give a careful approximation (eye-estimate) of the total amount of catch for the relevant fate /species code combination. Record the amounts in metric tonnes.
	VES (mT)	Copy the weight, as recorded for each species in the vessel's logsheet. If nothing is recorded in the logsheet place a dash in the data field. If "0" is recorded on the logsheet record "0" here.
	B. **OBSERVER totals (mT) discards + RCC**	For each species add together the mT amounts that are recorded in the rows 'a.', 'b.' and 'c' to get the total of all the discarded and the retained for crew consumption (RCC) combined for that species.
	Tuna kept onboard for later unload	Usually tuna are retained whole weight (RWW). If so then RWW can be calculated as (A. - B.) for each species. If tuna is otherwise retained onboard for later unload (fate = R??) then A. - B. = the combined total of RWW + R??
	Due to gear break / bycatch mitigation — **ESC**	Best observer estimate of mT of any live tuna that escaped during set. Refer to Captain for any tuna seen escaping via sonar. Include any live tuna escaped from gear breakage or because vessel trys to release important bycatch. N.B. This does not include dead tuna that are released from the net after a breakdown during or after net sac-up = discards.
TAGS	**How many tags were recovered ?** *species and tag numbers*	Note the number of tags found from in this set. Look out for tags on tuna, billfish, sharks, turtles, birds, etc. Record **tag number** and **species**. Note tag colour, tagging organisation and any unusual features about condition. Fill these and other tag details into the tag recovery form .

SPC/FFA REGIONAL PURSE SEINE OBSERVER
LENGTH MEASUREMENT

FORM PS - 4

REV MAR. 2014

OBSERVER NAME	VESSEL NAME	OBSERVER TRIP ID NO.	PAGE OF

SAMPLING DETAILS

SAMPLE TYPE *fill only one of grab, spill,*

if **GRAB** what is the Target No. of SAMPLES	*if* **SPILL** brail # sampled	*if* **SPILL** How many fish measured	*if* **OTHER** What "Other" ? Use code (*from back of*	Which brail was sampled?	BRAIL TIMES
				BRAIL 1	start
				BRAIL 2	end
				BRAIL 3	

PS-4 FORMS USED FOR THIS ONE SAMPLE: ____ of ____ (1, 2, 3) (total)

START OF SET DATE AND TIME (see PS-2): Y Y | M M | DD | h h | m m

MEASURING INSTRUMENT — Callibrated this set ?

Aluminium callipers ☐ Deck tape ☐ Y / N

Measuring board ☐ Other ☐ + / - mm

COMMENTS ON SAMPLING PROTOCOL

MEASUREMENTS FOR EACH SPECIES

UF - UPPER JAW TO FORK IN TAIL (TUNA, SHARK)

LF - LOWER JAW TO FORK IN TAIL (BILLFISH)

BL - BILL LENGTH (DEAD BIRDS)

TW - TOTAL WIDTH (TIPS OF WINGS - RAYS)

WL - WING LENGTH (DEAD BIRDS)

TL - TOTAL LENGTH - TO END OF TAIL (FISH WITH NO FORK IN TAIL)

CL - CARAPACE LENGTH (TURTLES)

BRAIL — tallies: Full (**1**) 7/8 brails (**2**) 3/4 brails (**3**) 2/3 brails (**4**) 1/2 (**5**) 1/3 (**6**) 1/4 (**7**) 1/8 (**8**)

	Full (1)	7/8 (2)	3/4 (3)	2/3 (4)	1/2 (5)	1/3 (6)	1/4 (7)	1/8 (8)	TOTAL BRAILS	SUM OF ALL BRAILS
No.										see back of form

Pattern	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	More brails? Start a new form
fullness																									
samples																									

SPECIES CODE	LENGTH (cm)	SPECIES CODE	LENGTH (cm)	SPECIES CODE	LENGTH (cm)	SPECIES CODE	LENGTH (cm)	SPECIES CODE	LENGTH (cm)	SPECIES CODE	LENGTH (cm)
1		21		41		61		81		101	
2		22		42		62		82		102	
3		23		43		63		83		103	
4		24		44		64		84		104	
5		25		45		65		85		105	
6		26		46		66		86		106	
7		27		47		67		87		107	
8		28		48		68		88		108	
9		29		49		69		89		109	
10		30		50		70		90		110	
11		31		51		71		91		111	
12		32		52		72		92		112	
13		33		53		73		93		113	
14		34		54		74		94		114	
15		35		55		75		95		115	
16		36		56		76		96		116	
17		37		57		77		97		117	
18		38		58		78		98		118	
19		39		59		79		99		119	
20		40		60		80		100		120	

	No. / sum of lengths		No. / sum of lengths		No. / sum of lengths		No. / sum of lengths		No. / sum of lengths		No. / sum of lengths	
column totals		SKJ		Column totals		SKJ		Column totals		SKJ		
		YFT				YFT				YFT		
		BET				BET				BET		

	TARGET SPECIES			OTHER SPECIES								
	SKJ	YFT	BET									
Number sampled :												
Sum of lengths :												
Average length :												

LENGTH MEASUREMENT

Notes on FORM PS - 4

Observer Name	Put first name first and last name (family name as it would be recorded in a passport) last.
Vessel Name	Full name of vessel (no abbreviations)
Observer Trip ID	Use number assigned to the observer by the Observer Programme, for this trip. E.g.: AZA 03-01
Page of	Number all the PS-4 forms in sequence from the start until the end of the trip.
Start Set Date & Time	Record the date and time that the ship is using, exactly as it is recorded on Forms PS-2 and PS-3.

SAMPLING DETAILS

Sample type - Grab - Spill - Other	Fill in only one of the three sampling option areas - **GRAB**, **SPILL** or **OTHER**. In normal **GRAB** samples target 5 fish from every brail. If fish are large target 4 or 3 per brail. Record the target number. If **SPILL** sampling record the brail number being sampled. When finished record the number of samples taken from that brail
"**OTHER**" samples can only be one of: (*use code*)	**DA** - all discards **DT** - only discarded tunas **BS -** bycatch **-** select species (one or more different species but not all species) **SS** - Species of special interest. Include the sex with the length eg. "male" 26cm = M 26, "unknown" 56cm = U 56 **LB** - Live-fish Brailing - separate the samples on different pages where live fish brailing is used prior to standard brailing.
Brail times (*start* + *end*)	Record when first brail came onboard (*start*) and when last brail came onboard (*end*) for transfer to Form PS-3.
Which brail?	Usually BRAIL 1., but a vessel may use different brails (see PS-1). The correct brail number recorded on the PS-4 form, must be the same brail number on the PS-4 form. (Remember - when you fill in the brail number on the PS-4 you are indicating the brail type and brail capacity as that was recorded on the PS-1 form. Use a new form when the brail is changed during a set. If two brail sizes are used: always prepare two forms, even if only measuring from one brail size, as the "sum of all brails" must be calculated for each brail size separately!
Forms used this sample:	Record forms used only for this sample as "number of the form used" out of "total used". Eg.: "1 of 3", "2 of 3".
Target samples per brail	If "normal" sampling, record No. of fish observer tried to measure from each brail. If not normal sampling dash it.
Measuring instrument	Record whether callipers, flat ruler or deck tape was used. N.B. - do not use tape measures.
Callibrated this set?	Did you check the zero of the measuring instrument. When zeroed was the intrument reading more or less than zero e.g. '+4mm'. If the callipers shows a length that is 30.4 cm when the true length is 30 cm. Record '+4 mm'.
Comments on Protocol	Explain why you sampled as you did, especially if you tick "Other" or collect two samples. Were their any problems? If conditions allow during **GRAB** sampling, experienced observers are asked to use two forms when brailing mixed tuna sets - one for "**GRAB**" species composition and the second for "**OTHER** - BET/YFT only" species composition sampling.
Brail *tallies*	Record a tally mark for every full, 7/8, 3/4 (etc)., brail that comes onboard. Tally counts and write totals in boxes.
Total No. *of Brails*	a **simple** count of all the brails that came onboard, whether full or not full. Add numbers in all corner boxes together.
Sum of ALL Brails	must be **calculated** using the work area below. If two brail sizes are used, calculate each one on a separate form.
Brail pattern - fullness and samples - record a fullness code (1-8) and the number of fish measured for every brail that comes on board	

MAIN BLOCK

Species Code 1-120	Record species measured fish in the order they are sampled - follow field numbers down one column and then the next, etc.
Column totals	To ease adding the lengths of each species in the entire sample first count each species and add the lengths of each species in each column, then add totals from each column together before making the average length calculations.

AVERAGE LENGTH CALCULATIONS (these totals are also used to check data entry, so must be accurately added)

A Number Sampled	Write in the total number of each species that were sampled in this set (add the column totals for a species).
B Sum of Lengths	Add lengths of each species sampled in each column then add the column totals for each species together.
C Average Length	To get the "average length" (C) of each species in the sample divide the "sum of lengths" (B) by the "number sampled" (A).

IMPORTANT POINTS ON THE SAMPLING PROTOCOL

1	For most sets observers carry out either a "Grab" or a "Spill" sample, as they have been drected and are equipped to do.
2	If grab sampling spread sampling throughout the entire brailing process. Try to take 5 tuna from every brail. If a specimen is missed occasionally try to get an extra one from the next brail but try to keep the number of tuna steady throughout the sampling process. If brailing is too fast measure less than 5 tuna per brail but try to sample the same number from every brail. If problems describe in comments.
3	Always get a random sample. Don't choose fish just because they are the easiest size to handle or you haven't had one like that yet.
4	Do not include measurements from fish that crew select even though they are trying to help.
5	IT is very, very important to correctly identify juvenile yellowfin and bigeye tuna!
6	If using a deck tape, ensure one end is placed against a flat surface or has a nose block. Make sure the end of the tape starts at 0 cm. If using deck tape, make sure fish is straight on tape when measuring. Never bend tail down to measure. Look directly over top of tail.
7	Do not measure damaged fish.
8	Record lengths to the nearest centimetre below e.g. a 69.9 cm fish will be recorded as 69 cm.
9	ALWAYS record all species and lengths in full and in order. Follow the numbered order. Do not use ditto marks !
10	If taking an "Other" sample, start a new PS-4 page, tick "**Other**" and write what that other is. Most often this will be lengths from <u>every species</u> still on deck, ready to throw away after brailing is ended. Record as "all discards". Remember to still collect specimens at random, as trained. Do not be tempted to choose different (or same) sizes. N.B. – "All discards" includes target discards (SKJ-YFT-BET) and bycatch discards. "All discard bycatch" is for sampling only bycatch Usually an "Other" sample is collected after, or along with, a "Normal" sample but it could also be collected as an only sample.

CALCULATING SUM OF ALL BRAILS

How many ?

Full and part brails - get these numbers from the "No." boxes of each tally box.

Full	7/8	3/4	2/3	1/2	1/3	1/4	1/8	
								SUM OF ALL BRAILS
x 1	x 0.875	x 0.75	x 0.667	x 0.5	x 0.333	x 0.25	x 0.125	

Equivalent full brails (use a calculator!) = (+ + + + + + +) =

SPC/FFA REGIONAL PURSE SEINE OBSERVER WELL TRANSFER RECONCILIATION FORM

FORM PS - 5

REVISED MAR. 2014

VESSEL NAME	OBSERVER NAME	OBSERVER TRIP ID	PAGE OF

DATE	TIME	WELL ACTIVITY CODE	SOURCE	DESTINATION	METRIC TONNES MOVED	VESSEL CHANGE ? (+ / - / 0)	NEW CUMULATIVE TOTAL	RECORDED ON LOGSHEET ? Y / N	COMMENT

WELL ACTIVITY CODES		SOURCE	DESTINATION	VESSEL CHANGE ?
FS	Received as desired catch from a set on this vessel	"NET"	<well no.>	+
CR	Retained from a set solely because of catch-retention rules	"NET"	<well no.>	+
WT	Transferred between wells	<well no.>	<well no.>	0
UL	Unloaded to cannery or cool store	<well no.>	"SHORE"	-
TR	Received into well from another vessel's hold	<vessel name>	<well no.>	+
TG	Given from well to another vessel's hold	<well no.>	<vessel name>	-
SR	Received into well from another vessels net	<vessel name>	<well no.>	+
DC	Discarded into the sea from Well due to spoilage, etc.	<well no.>	"DISC."	-

CR <well no.>s			

Record ALL CATCH in metric tonnes. Use whole numbers (e.g.: 25).

Calculate the "NEW CUMULATIVE TOTAL" by adding or subtracting (see the "VESSEL CHANGE ?" value for '+' or '-') to or from the previous "cumulative total" (on the previous line). This is tonnage that has been 'added to' or 'removed from' the vessel.

SPC/FFA REGIONAL PURSE SEINE OBSERVER WELL TRANSFER RECONCILIATION FORM

FORM PS - 5

REVISED MAR. 2014

VESSEL NAME	OBSERVER NAME	OBSERVER TRIP ID	PAGE OF

DATE	TIME	WELL ACTIVITY (CODE)	SOURCE	DESTINATION	METRIC TONNES MOVED	VESSEL CHANGE ? (+ / - / 0)	NEW CUMULATIVE TOTAL	RECORDED ON LOGSHEET? Y / N	COMMENT

Date: Time	Record the date that the fish was transferred on. Use ship's time. Record the time the fish were transferred. Use ship's time. Note each transfer (in or out of a well) should be recorded with at least one line of data.
Well activity code:	Use **Well Activity** codes at bottom of this page to show types of fish transfer that took place. The well activity codes explain where the fish came from and where they were transferred to. This might include fish that were not loaded into your vessel's well, but were transferred directly from the brailer to another boat.
Source:	The source indicates where the fish has come from. The source code is related to the well activity code that you have recorded. An explanation of the source information that should be recorded is outlined to the right of the well activity code you have used. NET: The fish has come from the net. Record 'NET'. WELL NO.: The fish has come from a well. Record the well number here. VESSEL NAME: The fish has come from a vessel. Record vessel's full name here, including numbers, etc.
Destination:	the well activity code that has been recorded. The type of destination information required is outlined on the bottom of this form - on the same line and to the right of the related ' well activity code'
Vessel Change?	Use the symbol provided to indicate if they were more or less fish on your vessel after the fish transfer. See further explanations below. You do not have to state the amount. (+) indicates a positive change - there are more fish on your vessel after the fish transfer. (--) indicates a negative change - there are less fish on your vessel after the fish transfer.
New Cumulative Total	Record the vessel's new 'onboard' total or 'cumulative' total here. The figure should be consistent with the amounts you have recorded to date.
Recorded on logsheet? Y/ N	Check the vessel's logsheet to see if they have recorded the fish transfer clearly on the logsheet. Record Y for yes and N for no.

Examples

10/10/11	11.25	FS	NET	P5	30	+	30	Y	*From set, on logsheet*
11/10/11	15.20	FS	NET	P1	35	+	65	Y	*See PS-3 form*
11/10/11	15.20	FS	NET	P2	30	+	95	Y	*See PS-3 form*
11/10/11	15.20	FS	NET	S3	15	+	110	Y	*See PS-3 form*
15/10/11	22.20	WT	P1	S1	30	0	110	N	*Not observed, see jnl* page 52
16/10/11	08.10	TR	Yasu# 2	S7	40	+	150	N	*See journal page 58*
18/10/11	15.45	TG	S1	Ying#9	30	-	120	N	*See journal page 62*
19/10/11	11.25	FS	NET	P7	35	+	155	N	*From set, not on logsheet*
20/10/11	18.05	SR	Yasu# 8	P2	20	+	175	N	

WELL ACTIVITY CODES		SOURCE	DESTINATION	VESSEL CHANGE ?
FS	Received from a set on this vessel	"NET"	<well no.>	+
CR	Retained from a set solely because of catch-retention rules	"NET"	<well no.>	+
WT	Transferred between wells	<well no.>	<well no.>	0
UL	Unloaded to cannery or cool store	<well no.>	"SHORE"	-
TR	Received into well from another vessel	<vessel name>	<well no.>	+
TG	Given from well to another vessel's hold	<well no.>	<vessel name>	-
SR	Received into well from another vessels net	<vessel name>	<well no.>	+
DC	Discarded into the sea from Well due to spoilage, etc.	<well no.>	"DISC."	-

CR <well no.>s			

CR <well no.>s are wells used by a vessel to collect fish that would have been discarded if there was no WCPFC catch retention CMM. These <well no.>s will be the DESTINATION <well no.>s when WELL ACTIVITY CODE = CR is used. They may also be used with WELL ACTIVITY CODE = WT, if small fish are sorted from other (mixed sized fish) wells and into these wells. CR <well no.>s may also be used it as SOURCE <well no.>s if fish are being removed from these wells during **other Well Activities**.

OBSERVER PROGRAMME:

SPC/FFA REGIONAL LONGLINE OBSERVER GENERAL INFORMATION

FORM LL-1 (pg1)

REV. DEC. 2016

TRIP DETAILS

OBSERVER

NAME		TRIP START (SHIP DATE AND TIME) YY MM DD hh mm					TRIP START LOCATION
NATIONALITY	TRIP ID No.	TRIP END (SHIP DATE AND TIME) YY MM DD hh mm					TRIP END LOCATION

VESSEL NAME	VESSEL DEPARTURE (SHIP DATE) YY MM DD	VESSEL DEPARTURE PORT

CREW NATIONALITY

CAPTAIN	FISHING MASTER

VESSEL

VESSEL OWNER	COUNTRY REGISTRATION NO.	UVI	OTHER CREW:	How many ?

VESSEL CAPTAIN	ID document	No.	FLAG	IRCS	OTHER CREW:	How many ?

FISHING MASTER	ID document	No.	FISH HOLD mT	OTHER CREW:	How many ?

FISHING PERMIT or LICENSE Nos.	LENGTH OVERALL (Circle one unit) Metres Feet	GT circle one GRT mT	OTHER CREW:	How many ?

ELECTRONICS

		USAGE			USAGE
GPS	Y / N		DEPTH SOUNDER	Y / N	
TRACK PLOTTER	Y / N		SST GAUGE	Y / N	

		USAGE	MAKE	MODEL	COMMENTS
ADVANCES in TECNOLOGY		Y / N			
SONAR		Y / N			
RADIO BEACON DIRECTION FINDER		Y / N			
GPS BUOYS		Y / N			How many ?
DOPPLER CURRENT METER		Y / N			
XBT (BATHYTHERMOGRAPH)		Y / N			
VMS SYSTEMS	VMS-1	Y / N			
	VMS-2	Y / N			

COMMUNICATION SERVICES	PHONES	SATELLITE:	Y / N	Phone #	MOBILE/ CELL PHONE	Y / N	Phone #
	OTHER	FACSIMILE:	Y / N	Fax #			
INFORMATION SERVICES	WEATHER	WEATHER FAX	Y / N	SATELLITE WEATHER MONITOR Y / N	EMAIL:	Y / N	Email address:
	WEBSITES	Phytoplankton Y / N WWW:		SST Y / N WWW:			Sea Height Y / N WWW:

FISHING GEAR

	USAGE	
MAINLINE HAULER	Y / N	
BRANCHLINE HAULER	Y / N	
LINE SHOOTER	Y / N	
AUTOMATIC BAIT THROWER	Y / N	
AUTOMATIC BRANCHLINE ATTACHER	Y / N	
WEIGHING SCALES	Y / N	
OFFAL DISPOSAL MACHINE	Y / N	
ADVANCES in TECNOLOGY	Y / N	

TERMINAL GEAR (see TG ID guide)

		MATERIAL	DIAMETER	LENGTH
MAINLINE:			mm	nM
BRANCHLINE MATERIALS:	1)		mm	WIRE TRACE? YES / NO
	2)		mm	
	3)		mm	

BRANCHLINE WEIGHTS?	YES / NO	WEIGHT (g)	DISTANCE of WEIGHT to HOOK (cm)

HOOKS OFFSET, RINGS, and/or SWIVELS (O, R, S) → record each used	JAPAN size %	CIRCLE size %	"J" size %	TERACIMA size %

SAFETY EQUIPMENT

LIFE JACKET	PROVIDED FOR OBSERVER:	Y / N / O	Number of LIFE BUOYS / LIFE RINGS
	SUITABLE SIZE:	Y / N	
AVAILABILITY (circle one)	Easy	Moderate	Hard

EPIRBs	Total	Total with Exp Bat.	LIFE RAFTS	1	2	3	4
406			Number of PEOPLE	No.	No.	No.	No.
other			INSPECTION DATE (D or L - yy/mm)	YY/MM (L or D)	YY/MM (L or D)	YY/MM (L or D)	YY/MM (L or D)

REFRIGERATION METHOD

BLAST FREEZE	Y / N
ICE	Y / N
BRINE WELL	Y / N
BRINE SPRAY	Y / N
CHILLED SEA WATER	Y / N
REFRIDGERATED SEA WATER - RSW	Y / N

USAGE CODES

- ALL - used all the time in fishing
- TRA - used only in transit
- OIF - used often in fishing
- SIF - used sometimes in fishing
- RAR - rarely used
- BRO - broken now but used normally
- NOL - no longer ever used
- OTH - other pease specify

WASTE DISPOSAL SYSTEM? Y / N

STRATEGIC OFFAL DISPOSAL? Y / N

Describe strategic offfal disposal for fish (important). Also mention any general waste disposal systems.

GENERAL INFORMATION

REVISED MARCH 2016

Observer programme : -

record the country code if working for a national programme, refer to country codes
or the abbreviation if a regional programme (e.g.: USMLT, FSMA, PNA, SPC, ROP, etc.)
of the authority / provider that has allocated this trip

A complete fishing trip is defined as 'from one full or partial unloading to the next full or partial unloading'.
If an observer trip is not over a normal complete fishing trip the reasons why must be in the trip report - also see "*Partial trips*" notes, below.

N.B.: Wherever there is a **Y** / **N** (yes or no) option for an item, either the "**Y**" or the "**N**" **must be circled**

TRIP DETAILS

Observer Name and *Nationality* : Record first name and family name in full (e.g. "John Masa"); and Nationality as in passport
Observer Trip ID Number : Print number issued by the authority sending you on this trip.
(e.g. John H. Masa, on his third trip in 1996 might be issued Trip ID Number: "JHM 96-03").
Trip start (Ship Date and Time) } Print date using "year year/ month month / day day" format. USE SHIP'S TIME *also read N.B. for departure/return port*
Trip end (Ship Date and Time: } Print time using 24 hour "hour hour : minute minute" format.
(e.g. Print five past one on the afternoon on 3rd of January, 1996 as "96/01/03 - 13:05").
Observer Trip Start, Trip End, and Vessel Departure Port : Record in all three boxes even if it is the same port.
N.B.: an observer trip starts only once the actual vessel to be observed is boarded and ends when disembarking that vessel.
Partial trips - If boat is met at sea the 'trip start date and time' is the date and time that the transfer between vessels occurs.
The 'trip start location' is "At sea" followed by a position recorded in degrees and minutes only (dd^{O}mm').
If the observer transfers from a host vessel to another vessel to end their trip the 'end of trip date and time' is time of transfer.
The 'end of trip location' is "At sea" followed by a position recorded in degrees and minutes only (ddOmm').
Multiple trips - treat work on 2 (or more) different vessels while at sea as 2 (or more) trips, each with its own forms.

VESSEL

Vessel Name, Vessel Owner, Vessel Captain, Fishing master : Print full names whenever possible.
Country Registration : Number issued by country in which the vessel is registered (e.g. "ME1-808").
Unique Vessel Identifier : WCPFC requires all vessels over 100 Gross Tonnage to have a UVI after 1st Jan 2016. The number may appear on certificates before 2016. Generally the UVI is the International Marine Organistion number or the the Lloyd's Register (LR) number. If there is no UVI just make a dash in the data field.
Flag : Name of country in which vessel is registered (e.g. "Belize") even if it comes from another country, such as Korea.
International radio call-sign (IRCS) : Do not confuse with Registration No. Note in report if vessel has no proper IRCS.
Vessel Captain - ID Document / No. : Along with the Captain's and Fishing Master's full names record identification
Fishing Master - ID Document / No. : document types and the document numbers for each of them
The prefered document is a Captain or Master's license but another, such as their passport, will do if that is not possible.
Fishing Permit or Licence Number(s) : If vessel fished under one or more bilateral access agreements, then print the fishing permit number issued by each of the coastal states in whose waters the vessel fished during the trip.
If vessel fished under a multilateral treaty, then print the permit number issued to vessel under the multilateral treaty
If the vessel is registered in the coastal state, then print the fishing licence number issued by the coastal state.
Length overall (LOA) : The place to find vessel's length overall (LOA) and gross tonnage is on registration papers.
Gross tonnage (GT) / Gross Registered Tonnage (GRT) : Normally record Gross Tonnage (GT) . For older vessels if no GT, then record gross registered tonnage (GRT) . Check for changes to length and/or gross tonnage.
Fish Hold Capacity : (record in metric tonnes (mT)) can usually be found in deck plans and engineer's logs.
Record the total space for all holds that can carry fish regardless of whether they are used to carry fish on this trip

CREW NATIONALITY

Captain , *Fishing Master* : In the "Crew Nationality" section record only the nationality of the Captain and/or Fishing Master
No need to record their names or identification documents here because they are recorded in the "Vessel" section already
Other Crew - *How many ?* : Record what other nationalities of crew and how many of each nationality there is.
Do not include the Captain and Fishing Master in these counts.

ELECTRONICS (circle "Y" or "N" (yes or no) to show if each item is present or not present on board)

* *Advances in technolgy* : Empty lines are to record new types of equipment or major upgrades to the current electronics or any types of advances in fishing electronics technology . Don't record old pieces of equipment not listed like radio etc. Write about new equipment in journal and trip report.

Usage : use codes (bottom front of form) to show how much each piece of equipment, for which "Y" is circled, is used
VMS - 1 and *VMS - 2* : Record system type (e.g.: InMarSat-C, Iridium, Argos) for each "vessel monitoring system" used.
Also use the usage codes to record when the VMS system was being used.

Communication services : If vessel uses satellite and/or mobile phones and/or fax and/or email record thecontact details.

Fishery Information Services : Vessels may receive real-time information on some oceanographic features.
Circle **Y** or **N** to show if they get information on sea-surface temperature (SST), phytoplanton densities or sea height.
If they are receiving another type of information record that in "Comments" and write about it in your trip report.
If "Y", record the www: (website address) below the "Y / N" and write more about the website in your written report.

See the back of LL-1(page2) for more notes on gear, safety equip., refridgeration, waste disposal system and observations…

OBSERVATIONS / COMMENTS / OTHER GEAR / UNUSUAL USE OF GEAR

Write notes here and full descriptions in the daily journal and trip report
(put page references to the full descriptions beside the notes w ritten here)

FISHING GEAR

*(circle "**Y**" or "**N**" (yes or no) to show if each item is present or not present on board)*

Weighing scales : If weighing scales used to weigh retained fish are on-board, circle "Y" (yes)

For help with the rest of this section use the SPC Terminal Gear Idendification Guide (TG ID guide)
Note that the TG ID guide can be used to measure hook size and line diameter

Terminal gear

Mainline : Write down the material the mainline was made out of i.e monofilament or tarred rope
Record the total length of the mainline in nautical miles - ask Captain for this information.
Get the diameter of the mainline. Use small callipers to measure the width of the mainline.

Branchline : Record all types of material used in branchline (including wire trace) - see LL Terminal Gear guide

Branchline weights : If any weights have been added to the branchline - normally to weigh the line down and allow it to sink faster, record the information. Record the average weight in grams and then 2) record the Distance of the Weight from the Hook in centimeters.

Wire trace : Indicate if wire trace (wire just before the hook) was used in the branchline.

Hooks : for each type of hook used record the size and the percentage of that hook that is usually used in each set. Show if hooks were **O**ffset (O), had **R**ings (R) or **S**wivels (S). Record three letters and/or dashes in each box.

- e.g.: if vessel sets 10-hook baskets with standard size 12.0 circle hooks with rings and swivels on hook numbers 1,2, 9, 10, but with offset "J" hooks (size 10.0) with no rings or swivels on every other line in a basket an observer will record as:

JAPAN size	%	CIRCLE size	%	"J" size	%	TERACIMA size	%
—	—	12.0	40	10.0	60	—	—
— — —		— R S		O — —		— — —	

SAFETY EQUIPMENT (obtain as much information as possible without intruding)

Life jacket : if the life jacket is the observer's own or was issued by their provider, circle "**O**".
if the observer doesn't have their own but the vessel supplies one, circle "**Y**", or "**N**" if one is not supplied
Was it a good size ? - circle **Y** (yes) or **N** (no)
If the life jacket is carried by the observer or if it is allocated by the vessel and is easily available circle "**easy**"
if it is allocated by the vessel but it is not so easy to get to circle "**moderate**"
and if an allocated life jacket is very difficult to get to circle "**hard**"

Lifebuoys/life rings - count all to be found

EPIRBS - count all EPIRBS onboard **including** those with expired battery renewal dates. Don't count any inside life raft.
Only count the EPIRBS that observers normally have access to.
- then just count only the EPIRBS with expired battery renewal dates.

Life rafts - *Number of People* - record the number of people that each life raft is certified to carry.
- *Inspection Date* - check carefully for inspection stickers/labels or fixed plates with inspection information
Find out from these inspection certificates when the next inspection is due (or when last was carried out)
- if label has an inspection **D**ue date record the letter "D" then a dash ("-"), then the date in 'dd/mm/yy' format
- if a **L**ast inspection date is on the inspection label record the letter "L", then a dash, then the date
(e.g.: for an inspection due on 30th June 2012 record "D-30/06/12"; If, after a careful check for life-raft inspection labels, dates cannot be found, record "ND" for 'not displayed'.

REFRIGERATION METHOD (circle "Y" or "N" (yes or no) to show if each method is present or not present)

N.B.: There may be more than one refrigeration method so record yes or no for each one.

Other storage : If another refrigeration or other storage method is observed descibe it in detail in the trip report.

WASTE DISPOSAL SYSTEM ? (circle "Y" or "N") to indicate if a waste disposal system is present)A waste disposal system is either a machine or a procedure to properly process garbage / oil / plastics (refer to GEN-6). Examples of equipment include incinerators, crushers, shredders, compacters, balers, meal plants, barrel to contain oil etc. Example of procedures might be keeping all plastice waste until the end of the trip. If present

STRATEGIC OFFAL DISPOSAL? (circle "Y" or "N") . Circle Y if the vessel has procedures about discarding fish offal (guts, bait, bits of fish) during the setting/hauling cycle. this could be no disposal of fish offal during setting or hauling or disposal from certain locations on the vessel (i.e. the opposite side tof hauling or settng)

OBSERVATIONS / COMMENTS, OTHER GEAR, UNUSUAL USE OF GEAR

Write about anything special observed about this boat and its equipment or crew compared to other boats observed. Comment if equipment is not working, not used or is used in an unusual way and describe fishing gear that is different to equipment observed on other longliners, recording the make, model, special characteristics and usage of this new gear. If there is lots to write about (good) write in the observer's daily journal and in the proper place in the trip report then write brief notes here but include page No.s so that others can easily find what is written in the journal and trip report.

SPC/FFA REGIONAL LONGLINE OBSERVER - SET and HAUL INFORMATION

FORM LL - 2 / 3

REV. DEC. 2016

OBSERVER NAME	VESSEL NAME	OBSERVER TRIP ID NUMBER	SET No.	PAGE OF

LONGLINE SET SPECIFICATIONS

No. OF HOOKS PER BASKET		LINE SETTING SPEED - m/s (only)		VESSEL SPEED FOR SETTING (kts)			
TOTAL No. OF BASKETS		BRANCHLINE SET INTERVAL (s)		**SHARK LINES on floats (Hook No.99s)**			
TOTAL No. OF HOOKS		BETWEEN BRANCHLINES (m)		Number.:	LENGTH (m):		
LENGTH OF FLOATLINE (m)		LENGTH OF BRANCHLINES (m)		WERE TDRs DEPLOYED ?	Y / N		

TARGET SPECIES ('X' to indicate)

TUNA	
SWORDFISH	
OTHER - pls specify	

ALL MUST BE RECORDED

START OF SET

SHIP'S DATE AND TIME YY	M M	DD	h h	m m

UTC DATE AND TIME YY	M M	DD	h h	m m

SET LOG

	SHIP'S TIME	LATITUDE (dd° mm.mmm')	N S	LONGITUDE (ddd° mm.mmm')	E W
START SET					
END SET					

Were all "Start" and "End" positions observed directly? Y / N — If "N" explain in comments

MITIGATION (*were any of the following used for this set ?*)

TORI LINES - TOTAL NUMBER :	
BIRD CURTAIN	Y / N
WEIGHTED LINES	Y / N
UNDERWATER SETTING CHUTE	Y / N

BAIT USED (total weight for EACH species)

SPECIES					LIGHT STICKS
(KG)					
HOOK NOs					
BAIT DYED BLUE	Y / N	Y / N	Y / N	Y / N	TOTAL NO.

HAUL LOG

	SHIP'S TIME	LATITUDE (dd° mm.mmm')	N S	LONGITUDE (ddd° mm.mmm')	E W
START HAUL					
END HAUL					

WAS OFFAL DISCHARGED DURING SETTING OR HAULING?	Y / N	COMMENTS - use for comments from both setting and hauling. Use lower portion for personal workings if necessary.
IF yes, WAS IT DISCHARGED FROM THE OPPOSITE SIDE of SETTING or HAULING?	Y / N	

HOOK CHANGES THIS SET? Y N — DESCRIBE CHANGES TO HOOK SIZE / HOOK TYPE this SET below.

UNUSUAL SET DETAILS

TOTAL BASKETS OBSERVED DURING HAUL (add up the total baskets monitored from the bottom of each Form LL-4 used in this set)

DID YOU OBSERVE ANY EVENTS TO RECORD ON FORM GEN-3 TODAY ? circle one YES NO

reported in Journal **pg #**

SET and HAUL INFORMATION

Use as many Form LL-2/3s per set and haul as necessary (usually one). N.B. (VERY IMPORTANT) - if there is a species target change part way through setting (e.g. completely different branchlines or very different setting depths are used) even if still using the same mainline, then start a new Form LL-2/3 for the different section of the set. (For clear + major changes only !)

Observer Name and *Vessel Name*: Always print each of these names out in full (e.g. an observer name "John Masa", and a vessel name "Hai Hsiang No. 959")

Observer Trip ID Number: Number issued by the authority you are working for. (e.g. John H. Masa, on his 3rd trip in 1996 may get Trip ID No.: "JHM 96-03").

Set No.: (for observer use only) - start at "Set No. 1", "Set No. 2", etc., all through a trip.

Page of: Number Form LL-2's through trip as Page 1, Page 2, Page 3, etc. At end of trip, check all pages are there (again). Put the last page number on every page (e.g. if 36 pages then the first page will be "Page 1 of 36", the fourth page, "Page 4 of 36" and the last page will be "Page 36 of 36").

No. of hooks per basket: See the basket diagram in bottom right for example

Total No. of Baskets, *Total No. of Hooks*: These are the totals for the entire set. *<Total No. of Hooks> =<Total No. of Baskets> × <No. of Hooks per Basket>*

Length of Floatlines (m), *Length of Branchlines (m)*: See diagram in wxbook.

Vessel Speed (kts): Watch the GPS or speed log over several seconds to estimate average speed of vessel. Record to one decimal point (e.g. "9.7 " knots).

Vessel Speed (kts): Watch the GPS or speed log over several seconds to estimate average speed of vessel. Record to one decimal point (e.g. "9.7 " knots).

Line Setting Speed - m/s kts (circle one): Record only if the vessel has a line shooter - must **circle** correct "m/s" or "kts". N.B.: (m/sec = kts/2) and (length = sec **x** m/sec)

Branchline Set Interval (s): Recorded only from vessels with branchline timers.

Between branchlines (m): Distance *between branchlines* may be hand measured (in metres) or calculated by the observer using the formula: *Line Setting Speed* x *Branchline Set Interval*, or if not available, ask fishing master etc for the distance *between branchlines*)

Shark lines on floats (Hook No.99s): If vessel has special lines tied directly to the floats to catch extra sharks, count the total *Number* used in the set. What is their usual *Length (m)*? N.B. Do not count a shark line on a float as one of the "*hooks per basket*"

Were TDRs deployed ? Y / N: Circle Y (yes) if one or more temperature depth recorders are deployed at any time during the set

Target Species - Cross the box/es next to the main species the vessel is targeting during set. It is usually just one species but it could be more than one. **N.B.** to target a species gear must be set especially to catch that species. Retained bycatch was targeted. NEW Observer can now record an 'Other -please specify' for the target species. Specify the other target species in the comments area.

Start of Set, *Ship's date*, *Ships time*, *UTC date*, *UTC time*: At the start of each set you must record the time and date that the ship's clock (and your watch) are set to, and the UTC time and date as read from the GPS. At all other times use only Ship's time. Remember UTC date can be different from the Ship's date.

Start and End of Set and Haul :Complete for every single set even if not fully monitored. The observer should read the GPS directly and must explain in "Comments" if they have not. The remaining lines in the Haul Log must be filled at approximately every hour.

Start and *End* of *Set* and *Haul* :Complete for every single set even if not fully monitored. The observer should read the GPS directly and must **explain** in "*Comments*" if they have not. The remaining lines in the *Haul Log* must be filled at approximately every hour.

Latitude, *Longitude*, *N*, *S*, *E*, *W*: Record GPS positions in degrees, minutes and decimals, to three decimal places. Do not forget to enter north or south and east or west correctly

Bait Used - *Species*, *Kg*: Record species and weight (in kg) of each bait used. *Bait Used* - *Hook Nos*: Usually, if a boat uses more than one bait species it will put the same bait on the same hook numbers (see diagram) in each basket (e.g.: squid might go on hooks 3 and 4 while sardines go on hooks 1, 2, 5 and 6). Record the hooks for each bait type "hook nos". *Blue dyed bait* - if bait used has been dyed blue circle "Y" for yes. Otherwise circle "N" for no. **NEW** *LIGHT STICK - Record the hook numbers any light stick were attached to, also record the total number of light sticks* used in the set.

Comments: Note significant conditions that affect set strategy or cause problems - unusual wind/sea state; SSI contacts; accidents; any unexpected event. Include events from Soak Time, even if asleep but found out from crew later. Record reasons that observer monitoring stopped for 30 minutes or more. If suitable record ship's time in column next to comments.

Total Baskets Observed and Events on FORM GEN-3 - These fields must be completed.

MITIGATION: TORI POLES: High vertical pole placed at the stern, has trailing line with plastic streamers attached. Record the total number of tori lines (attached to tori poles) used during setting. BIRD CURTAIN: Horiztonal pole with vertical streamers positioned on side (+ stern side of the setting station).WEIGHTED LINES: Approx. 60 to 100g of weight placed on branchline 1-3 meters away from hook. SETTING CHUTE: Equipment that ensures the line is set below the waterline. FISH OFFAL DISCHARGE: Indicate if any fish waste (including bait) was thrown overboard at anytime during setting or hauling. If fish offal was disposed of during setting or hauling circle Y- yes if it was disposed from the opposite side of the vessel to the mainline's location during setting or hauling.

NEW HOOK CHANGES THIS SET - If the hooks are *deliberately* changed before the set to a *bigger size of hook, or a different type of hook* record yes. add some notes on the change to the data field below. ' Unusual Set Details:' The information recorded in the "Longline Set Specifications" fields represents the most common or average data during setting. If the setting specifications are deliberately or intentionally changed at some point during the setting, then note these changes in the "Unusual Set Details" area. For instance, if the number of hooks between baskets is always 30, and then the Captain deliberately reduces the number to 15 (to get a shallower line), then record 30 in the standard 'no. of hooks per basket' data field and write "Captain reduced no. of hooks per basket to 15 for the last 10 baskets" in the unusual set details area. Do not write general comments about setting in this area.

SPC/FFA REGIONAL LONGLINE OBSERVER
CATCH MONITORING

FORM LL-4

REVISED DEC 2016

OBSERVER NAME	OBSERVER TRIP ID NUMBER	SET No.	PAGE OF

VESSEL NAME	MEASURING DEVICE	CALLIBRATE + / - mm	SHIP'S START OF SET DATE AND TIME (Y Y, M M, D D, h h, m m)	START OF HAUL DATE (Y Y, M M, D D)

CATCH DETAILS

SHIP'S TIME	HOOK No.	SPECIES CODE	GEAR INTER-ACTION CODE	CONDITION CODE CAUGHT	CONDITION CODE DISCARD	LENGTH (cm)	LENGTH CODE	FATE CODE	SEX M, F, I, U	COMMENTS / SSI TREATMENT

← Tally area	Baskets monitored while filling this page:	Total:

Revised Dec. 2016

CATCH MONITORING

Notes on FORM LL - 4

OBSERVER NAME	OBSERVER TRIP ID NUMBER	SET No.:	PAGE OF

SHIP'S START OF SET DATE AND TIME (Y Y M M D D h h m m) | START OF HAUL DATE (Y Y M M D D)

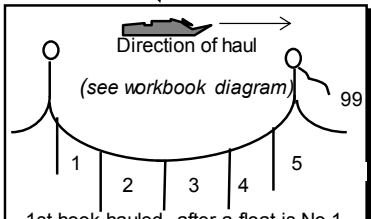
Line numbering Helps with data entry and observer reporting i.e see page 10 line 15.

This header should be filled in completly, as described in the notes for FORM LL-2/3

CATCH DETAILS

	SHIP'S TIME	HOOK No.	SPECIES CODE	GEAR INTER-ACTION CODE	CONDITION CODE CAUGHT	CONDITION CODE DISCARD	LENGTH (cm)	LENGTH CODE	FATE CODE	SEX M, F, I, U	COMMENTS / SSI TREATMENT
1	1720	1	BET	—	A1	—	152	UF	RGG	F	Gonad sample No.3
2	1812	3	OCS	IHD	—	A2	—	—	DPA	U	crew cut free 3m trace attached

LINE NUMBER for referencing in JOURNAL etc



1st hook hauled after a float is No.1.

Accurate **Hook number** is not easy when there are more than 8 hooks in a basket or fishing is very busy. Count the number of hooks AFTER the one with a fish to the end of the basket and subtract that number from the total number of hooks in the basket to get the number of the hook with the fish on in such situations.

For shark hooks record hook number **99**.

GEAR INTERACTI0N CODE

NEW Gear interaction Codes to be used for interactions of SSIs with the primary gear or vessel, but not landed on deck

IEN - Entangled
IHE - Hooked Externally
IHI - Hooked Internally (mouth)
IHJ - Hooked in jaw (circle hook)
IHD- Hooked deeply – throat or stomach
IHU - Hooked unknown
IFB – Feeding on bait during set

Condition codes to describe the animal's health status; use for when it is first **CAUGHT** and **again** if it is **DISCARDED** (released, thrown away, escaped).
Use also for SSIs Interactions, for condition at release

Code	Description
A0	Alive (not categorized into A1, A2, or A3)
A1	Alive, healthy
A2	Alive - injured, distressed
A3	Alive, but dying
D	Dead
U	Condition unknown

Sex:
M - male,
F - female,
I - indeterminate - you inspected the gonads but could not decide what sex it is)
U = unknown - the gonads were not checked)

	SHIP'S TIME	HOOK No.	SPECIES CODE	GEAR INTER-ACTION CODE	CONDITION CODE CAUGHT	CONDITION CODE DISCARD	LENGTH (cm)	LENGTH CODE	FATE CODE	SEX M, F, I, U	COMMENTS / SSI TREATMENT
	1920	4	BUM	—	D	—	215	LF	RHG	F	photo #12
	2052	5	TUG	IHJ	A2	A2	—	—	DPA	U	crew cut free at swivel 3m trace left attached to turtle

Species codes. Use the FAO 3-letter codes.
Most commonly caught longline species are listed here but you should always carry a full list of FAO species codes.

Code	Common Name
YFT	Yellowfin
BET	Bigeye
ALB	Albacore
SKJ	Skipjack
MLS	Striped Marlin
BUM	Blue Marlin
BLM	Black Marlin
SWO	Swordfish
SFA	Sailfish
SSP	Short-billed Spearfish
WAH	Wahoo
DOL	Mahi mahi
LAG	Moonfish (Opah)
OIL	Oilfish
LEC	Escolar
RRU	Rainbow runner

Code	Common Name
FAL	Silky shark
LMA	Long finned Mako shark
SMA	Short finned Mako shark
OCS	Oceanic white-tip shark
PTH	Pelagic Thresher shark
BTH	Bigeye Thresher shark
BSH	Blue shark
TST	Sickle pomfret
BRZ	Pomfrets and Breams
BIZ	Birds

N.B. Avoid using group codes if the species code is known

Fate codes descibe whether the fish was kept (retained) or thrown away / released (discarded). Also - how and/or reason processed / discarded Important to select one **most informative** code !

RGG - Retained - gilled and gutted (for sale)
RGT - Retained - gilled gutted and tailed (for sale)
RWW - Retained - whole
RPT - Retained - partial (e.g. fillet, loin, trunk)
RFR - Retained - both fins and trunk (sharks)
RHG - Retained - headed and gutted (billfish)
RSD - Retained - but shark damaged
RCC - Retained - for crew consumption
RGO - Retained - gutted only.
ROR - Retained - other reason (specify)

DFR - Discarded trunk - fins retained (sharks)
DGD - Discarded - gear damage (tuna only)
DSD - Discarded - shark damage
DWD - Discarded - whale damage
DUS - Discarded - uneconomic species
DDL - Discarded - too difficult to land
DSO - Discarded - struck off
DCF - Discarded - cut free
DDH - Discarded - de-hooked
DTS - Discarded - too small (target species)
DPQ - Discarded - poor quality
DOR - Discarded - other reason (specify)
DPA - Discarded - SSI Alive
DPD - Discarded - SSI Dead
DPU -Discarded - SSI Unknown
ESC - Escaped

Use **COMMENTS** for other information you think is important about a particular catch item e.g. - to record sample numbers if collecting samples, or to record number of photograph if taking photos, or tag number of any landed and tagged fish.
If SSIs are caught indicate how they were handled and whether you think treatement and recovery guidelines were followed.

Length code describes how the fish or animal was measured

Code	Description
TL	- tip of snout to end of tail
UF	- upper jaw to fork in tail
LF	- lower jaw to fork in tail
PF	- pectoral fin to fork in tail
TW	- total width (tips of wings - rays)
CL	- carapace length (turtles)
WL	- wing length tip of wing to wrist (birds)
BL	- beak length (birds)
NM	- not measured

Baskets monitored while filling this page

Count (tally) the baskets (floats) that come aboard as you monitor the catch.
This is important to calculate percentage of hooks monitored.

The perfect observer will monitor every hook in every basket hauled on board. However, observers are human so when monitoring stops record time and reason on a line of FORM LL-4. Record time and "returned to monitoring" on the next line when observer returns. The basket count is to calculate % of hooks actually monitored by observers to give scientists a true picture of how efficiently the vessel catches fish. DO NOT count unmonitored baskets.

𝍸 𝍸 𝍸 𝍸 𝍸 𝍸 𝍸 𝍸 𝍸 𝍸 III

← Tally area

Baskets monitored while filling this page:

Total: 53

SPC/FFA REGIONAL OBSERVER
VESSEL AND AIRCRAFT SIGHTINGS / FISH, BUNKERING and OTHER TRANSFERS LOGS

FORM GEN - 1

REV. DEC. 2016

OBSERVER NAME	VESSEL NAME	OBSERVER TRIP ID NUMBER	PAGE OF

VESSEL OR AIRCRAFT SIGHTINGS

	SHIP'S TIME		OBSERVER'S VESSEL POSITION				SIGHTED VESSEL OR AIRCRAFT				COMPASS BEARING (degrees)	DISTANCE (Nautical Miles)	ACTION CODE (seen vess)	PHOTO FRAME #	COMMENTS
	DATE (MMDD)	TIME (hhmm)	LATITUDE (dd° mm.mmm')	N S	LONGITUDE (ddd° mm.mmm')	E W	NAME	INTERNATIONAL CALLSIGN	FLAG	TYPE CODE					
1															
2															
3															
4															
5															
6															
7															
8															
9															
10															
11															
12															
13															
14															
15															
16															
17															
18															

FISH TRANSFERRING, FISH DUMPING, BUNKERING by OBSERVER'S VESSEL

	SHIP'S TIME		OBSERVER'S VESSEL POSITION				OTHER VESSEL				FISH TRANSFERRED (circle units)				ACTION CODE (host vess)	COMMENTS
	DATE (MMDD)	TIME (hhmm)	LATITUDE (dd° mm.mmm')	N S	LONGITUDE (ddd° mm.mmm')	E W	NAME	INTERNATIONAL CALLSIGN	FLAG	TYPE CODE	SKJ WGT. NO.	YFT WGT. NO	BET WGT. NO.	WGT. NO.		
1																
2																
3																

VESSEL AND AIRCRAFT TYPE CODES

1	SINGLE PURSE SEINE	8	SEARCH, ANCHOR OR LIGHT BOAT
2	LONGLINE	9	FISH CARRIER
3	POLE AND LINE	10	TRAWLER
4	MOTHERSHIP		
5	TROLL	21	LIGHT AIRCRAFT
6	NET BOAT	22	HELICOPTER
7	BUNKER		
		31	OTHER - please specify: .....

FLAG COUNTRY CODES

- IF COUNTRY IS NOT IN LIST WRITE NAME OF COUNTRY

CN	CHINA	US	USA	BZ	BELIZE
JP	JAPAN	PH	PHILLIPINES	RU	RUSSIA
TW	TAIWAN	PA	PANAMA	SG	SINGAPORE
KR	KOREA	HN	HONDURAS	LK	SRI LANKA
				VU	VANUATU

ACTION CODES

- FISHING INCLUDES ANY FISHING RELATED ACTIVITY NOT OTHERWISE COVERED HERE

ALL WEIGHTS MUST BE METRIC TONNES

		RECEIVING		GIVING	
FI	FISHING	TR	TRANSHIPPING FISH	TG	TRANSHIPPING FISH (from hold in one boat to hold in other)
PF	POSSIBLY FISHING	SR	SET SHARING	SG	SET SHARING... (from one boat's net to another boat's hold)
NF	NOT FISHING	BR	BUNKERING	BG	BUNKERING
DF	DUMPING FISH				
		OR	OTHER ..specify...	OG	OTHER .....

Notes on FORM GEN - 1

Sighting vessels is a very important surveillance role of observers. If vessels are seen that could possibly be fishing illegally, record as much detail as possible. Don't hesitate to contact the "Observer Co-ordinator" at FFA or your local fishery division, by telex, fax or email, immediately you see such activity. Include all information about the vessel and its activities. An example of the format to use when reporting a sighting to FFA is at the bottom of this page. Please follow the format, and add any other comments at the end of the message.

Observer Name	Put first name first and last name last. Print name in full.
Vessel Name	Put vessel's full name. Names must not be abbreviated.
Observer Trip ID	Same on all Forms - issued to observer before leaving port.
Page of	If there is more than one page for the trip, number each page.

SIGHTED VESSEL OR AIRCRAFT

Be as thorough as you possibly can when filling this section of the form. Any small piece of information can assist in identifying the vessel. This is especially important if you can not see the name or call sign. If you can not get some information because it is not visible or impossible to work out, put a dash in the data field.

Date/Time	Ship's date / time at start of sighting or transfer activity (dd/mm/yy hh:mm)
Latitude dd°mm.mmm' Longitude ddd°mm.mmm'	Take positions from the GPS. Record in degrees (2 digits for latitude and 3 for longitude), minutes and to 3 decimal place fractions of minutes
N S & E W	It is very important to record if latitude is North or South of the equator by writing "N" or "S" beside the position. Also be sure to note longitude as East or West of the 180° line. These can also be confirmed on the GPS.
Name *(of sighted vessel)*	If possible name the vessel you sighted. If you can't see the name properly, try to get a few of the letters from the name.
International Call-sign	If possible get any call signs or numbers that are visible.
Flag	Try to find out the flag country - often written on stern.
Type Code	"Vessel and aircraft **type codes**" are on front of Form. E.g.: purse -seiner = 1; longliner = 2; etc.
Compass bearing (degrees) and Distance (nautical miles)	Check compass and radar for a bearing and an exact distance from the observer's vessel to the other vessel. Estimate the distance if the radar is not available.
Action Code (seen vess)	In this section the "action code" describes the activity the sighted *(seen)* vessel is involved in when it was observed. If unsure of the best code, describe the activity in "comments".
Photo Frame #	If taking a photo, record the camera's photo frame number.
Comments	Comments about the sighted vessel or aircraft that have not been covered on the form. (E.g., distinguishing features such as colour, hull design or shape, bridge position, etc.). Be as thorough as possible as this will help identify the vessel later, especially if you can not get a name or call-sign.

FISH TRANSFERRING, FISH DUMPING, BUNKERING by OBSERVER'S VESSEL

Other vessel name		Name of any other vessel that is involved in a transfer operation with the observer's vessel.
International callsign		The call-sign that should be visibly painted on the other vessel
Type Code		Use the "Vessel and aircraft **type codes**" on front of this form to describe what type of vessel is receiving the fish.
FISH TRANSFERRED	SkipJack Weight	Total Weight of Skipjack that has been transferred
	Yellowfin weight	Total Weight of Yellowfin that has been transferred
	Bigeye Weight	Total Weight of Bigeye that has been transferred
	"Blank" Weight	Record the species code for any other type of species that are being transferred. Recording 'mixed' species is an option, especially on purse seiners.
	Action Code	See codes on front of Form.
	Comments	Comment about the transfer activities that take place (e.g.: method used; problems; destination of the fish; etc.)

CODES

Vessel & Aircraft type codes	To make recording easier, each type of vessel has a unique number code (see code table). Be careful using number codes.
Action Codes (host vess) *Host vessel = vessel that observer is on.* *Use the* **"?R"** *codes if host vessel is receiving fish or items from another vessel. Use the* **"?G"** *codes if the host vessel is giving fish or items to another vessel*	Here describe the activity of the observer's vessel. If with another vessel be sure to use a code that shows whether the observer's (host) vessel receives ("_R") or it gives ("_G") items. If more than one action is taking place record the most important (usually to do with fish transfer) in the "ACTION" column and the second action code in the comments column. TR, TG - transferring fish between vessel holds SR, SG - set sharing - when vessel has too many fish after all wells are filled (usually from its last set) and another vessel is invited to brail the remaining fish from the its net. BR, BG - bunkering - when one vessel takes fuel from another OR, OG - other - if vessels meet to transfer other items DF – dumping fish - because bad, damaged or too many
Flag Country Codes	Try to identify country that vessel comes from either by seeing the actual flag flying or by the home-port name on the stern.

Report Format Example.

To FFA Observer Co-ordinator

***sighting** - Jun. 23-1400Z- - **Pos.** 0512345S -15612233E Moon-shadow -Q2344*

***flag** KR - **type** 2 - **dir.** 180 - **dis** 3 **act** fi photo **Xtra** large green stripe on hull.*

Regards. "observer name"

This explains that on 23rd June a Korean longline vessel was sighted fishing at the position with latitude: 05°12.345'S and longitude: 156°12.233'E. The name of the vessel is *Moonshadow* and its callsign is Q2344. It has a large green stripe on the hull and a photo has been taken by the observer.

SPC/FFA REGIONAL OBSERVER
FISH, BUNKERING and OTHER TRANSFERS LOGS (continued)

Supplementary FORM GEN - 1

REV. DEC. 2016

OBSERVER NAME	VESSEL NAME	OBSERVER TRIP ID NUMBER	PAGE 1 OF 1

FISH TRANSFERRING, FISH DUMPING, BUNKERING by OBSERVER'S VESSEL

SHIP'S TIME		OBSERVER'S VESSEL POSITION				OTHER VESSEL				FISH TRANSFERRED (circle units)				ACTION CODE host ves.	COMMENTS
DATE (MM/DD)	TIME	LATITUDE (dd° mm.mmm')	N S	LONGITUDE (ddd° mm.mmm')	E W	NAME	INTERNATIONAL CALLSIGN	FLAG	TYPE CODE	SKJ WGT. NO.	YFT WGT. NO.	BET WGT. NO	WGT. NO.		

pto.

FISH TRANSFERRING, FISH DUMPING, BUNKERING by OBSERVER'S VESSEL

SHIP'S TIME		OBSERVER'S VESSEL POSITION				OTHER VESSEL				FISH TRANSFERRED *(circle units)*				ACTION CODE host ves.	COMMENTS
DATE (MM/DD)	TIME	LATITUDE (dd° mm.mmm')	N S	LONGITUDE (ddd° mm.mmm')	E W	NAME	INTERNATIONAL CALLSIGN	FLAG	TYPE CODE	SKJ WGT. NO.	YFT WGT. NO	BET WGT. NO	WGT. NO		

SPC / FFA REGIONAL OBSERVER
SPECIES OF SPECIAL INTEREST - VESSEL INTERACTIONS

FORM GEN - 2

First edition_DEC. 2016

OBSERVER NAME	VESSEL NAME	OBSERVER TRIP ID NUMBER	PAGE OF

SSI CODE	START OF INTERACTION TIME (HH : mm)		END OF INTERACTION TIME (HH : mm)		DATE YY MM DD	LATITUDE (dd mm.mmm)	N S	LONGITUDE (ddd mm.mmm)	E W
VESSEL INTERACTION CODE	Est. DISTANCE from V.		CONDITION CODE		Estimate of SSI Length		**Total Numbers**		
	START m NM	END m NM	START	END	Adults m cm	Juvenilles m cm	Adults	Juvenilles	

Description of Species / Interaction

SSI CODE	START OF INTERACTION TIME (HH : mm)		END OF INTERACTION TIME (HH : mm)		DATE YY MM DD	LATITUDE (dd mm.mmm)	N S	LONGITUDE (ddd mm.mmm)	E W
VESSEL INTERACTION CODE	Est. DISTANCE from V.		CONDITION CODE		Estimate of SSI Length		Total Numbers		
	START m NM	END m NM	START	END	Adults m cm	Juvenilles m cm	Adults	Juvenilles	

Description of Species / Interaction

SSI CODE	START OF INTERACTION TIME (HH : mm)		END OF INTERACTION TIME (HH : mm)		DATE YY MM DD	LATITUDE (dd mm.mmm)	N S	LONGITUDE (ddd mm.mmm)	E W
VESSEL INTERACTION CODE	Est. DISTANCE from V.		CONDITION CODE		Estimate of SSI Length		Total Numbers		
	START m NM	END m NM	START	END	Adults m cm	Juvenilles m cm	Adults	Juvenilles	

Description of Species / Interaction

SSI CODE	START OF INTERACTION TIME (HH : mm)		END OF INTERACTION TIME (HH : mm)		DATE YY MM DD	LATITUDE (dd mm.mmm)	N S	LONGITUDE (ddd mm.mmm)	E W
VESSEL INTERACTION CODE	Est. DISTANCE from V.		CONDITION CODE		Estimate of SSI Length		Total Numbers		
	START m NM	END m NM	START	END	Adults m cm	Juvenilles m cm	Adults	Juvenilles	

Description of Species / Interaction

SPECIES OF SPECIAL INTEREST - VESSEL INTERACTIONS Instructions

First Edition Dec. 2016

The Purpose of the new *Vessel Interaction Form* is to capture any interactions by any Species of Special Interest with the vessel or its non-primary gear. An interaction with the vessel or its non-primary gear is said to have occurred if the SSI has come close to the vessel/non-primary gear or if the behaviour of the SSI has been influenced by the presence of the vessel/non-primary gear. For instance, the marine mammal came close to the vessel and swam alongside it. Record all interactions with the primary fishing gear on the PS-3, LL-4 or PL-3 form.

Non-primary gear means equipment that belongs to the vessel, but it not the gear used by the vessel to catch tuna.

On a purse-seine vessel only the net is the primary gear. FADs, tender vessels, skiff etc are not considered primary gear. All SSIs caught/trapped/entangled by the purse-seine net should be recorded on the PS-3 form.

On a longline vessel the mainline, all componets of the branchline, and the radio buoys attached to the mainline are seen as part of the primary gear. All SSI caught/trapped/ hooked by the longline gear should be recorded on the LL-4 form.

On a pole-and-line vessel only the fishing poles are part of the primary gear.

Observer Name: Print your name in full. Put your first name (Christian name) first and your last name (surname) last.

Observer Trip ID Number: Fill in your trip identification number as supplied by your programme before departure - exactly as recorded on the PS-1 (pg1) form.

Page of: Number forms through trip as Page 1, Page 2 etc. At the end of the trip check that the total number of pages are filled in on all pages.

SSI Code: Record the three-letter FAO species code for each species of special interest that interacts with the vessel/non-primary gear.

Start of Interaction Time: Record in hours and minutes the time the SSI started to interact with the vessel/non-primary gear. This is the time the observer first noted that there was an interaction or that the SSI behaviour was influenced by the vessel presence.

End of Interaction Time: Record the time in hours and minutes when the SSI's interaction with the vessel ended.

Date: Record the date of the interaction (year-month-day).

Latitude / Longitude: Record the location of the start of the interaction (or when the observer first noticed the interaction)by filling in the degrees, minutes and decimal minutes for latitude and longitude to three decimal places.

VESSEL INTERACTION CODES: Use these codes to describe how the SSI interacted with the vessel or non-primary gear.

IBV - Interaction, beside vessel	ICV - Collision with vessel
ION - Interaction, outside net	ICP - Collision with propeller
ICF - Interaction, crew feeding	ICT= Collision with Tori line
IWF - Interaction - with FADs, but not set on	FRB- Feeding on bait during set
IDW - Interaction - dead in water	IFO - Feeding on discarded offal
OTH - Interactions - other, please specify	IRE - Resting on vessel, floats or FADs (birds)

Estimate of Distance from Vessel: Record an observer eye-estimate of the distance of the SSI from the vessel when the observer first noticed the interaction. If the SSI moves towards or away from the vessel/non-primary gear record this in the description box below. Normally the distance will be recorded in (m) **meters, or** (nm) **nautical miles.**

Condition Codes:

A0 - Alive, condition unknown	A3 - Alive, but unlikely to live
A1 - Alive and healthy	D - Dead
A2 -Alive, but injured or distressed	U - Conditinon

Estimate of SSI Length: Record an observer eye-estimate of the average length of 1) the adult SSIs and 2) the juvenille SSIs. Normally, marine mammals will be recorded in (m) **meters**, while turtle, birds will be recorded as (cm) **centimeters.**

Total Numbers: Record the total number of adults, and or the total number of juvenille SSIs. If there are a large number of species, record an eye-estimate, and mention this is in the description area below.

Description of Species / Interaction: Provide more information on the species to help confirm the species (size, colour, markings) code recorded by the observer. Also, describe all aspects of the interaction as briefly, but also as informative, as possible.

SPC / FFA REGIONAL OBSERVER SPECIES OF SPECIAL INTEREST - SIGHTINGS	Supplement to FORM GEN - 2

First Edition DEC. 2016

OBSERVER NAME	VESSEL NAME	OBSERVER TRIP ID No.	PAGE OF

DATE YY MM DD	LATITUDE (dd mm.mmm)	N S	LONGITUDE (ddd mm.mmm)	E W	SIGHTING CODE	TALLY	TOTAL NUMBER
SSI CODE	Species Description						

DATE YY MM DD	LATITUDE (dd mm.mmm)	N S	LONGITUDE (ddd mm.mmm)	E W	SIGHTING CODE	TALLY	TOTAL NUMBER
SSI CODE	Species Description						

DATE YY MM DD	LATITUDE (dd mm.mmm)	N S	LONGITUDE (ddd mm.mmm)	E W	SIGHTING CODE	TALLY	TOTAL NUMBER
SSI CODE	Species Description						

DATE YY MM DD	LATITUDE (dd mm.mmm)	N S	LONGITUDE (ddd mm.mmm)	E W	SIGHTING CODE	TALLY	TOTAL NUMBER
SPECIES CODE	Species Description						

DATE YY MM DD	LATITUDE (dd mm.mmm)	N S	LONGITUDE (ddd mm.mmm)	E W	SIGHTING CODE	TALLY	TOTAL NUMBER
SSI CODE	Species Description						

DATE YY MM DD	LATITUDE (dd mm.mmm)	N S	LONGITUDE (ddd mm.mmm)	E W	SIGHTING CODE	TALLY	TOTAL NUMBER
SSI CODE	Species Description						

DATE YY MM DD	LATITUDE (dd mm.mmm)	N S	LONGITUDE (ddd mm.mmm)	E W	SIGHTING CODE	TALLY	TOTAL NUMBER
SSI CODE	Species Description						

SPECIES OF SPECIAL INTEREST - Supplementary (SIGHTINGS) Instructions

First Edition Dec. 2016

The purpose of the newly formated *Species of Special Interest - Supplementary (* ***Sightings)*** Form is to capture any *sightings of Species of Special Interest made by the observer.* Make sure that it is a *sighting and not an interaction* with the vessel or non-primary gear (see GEN-2 interactions). Recording a sighting of a SSI suggests that the SSI's behaviour was not affected by the presence of the observer's vessel. Be reflective about how you record birds. Obviously, recording every single bird you see over-head with the species group code (BIZ) is not helpful. So think about what is helpful before recording bird sightings. Record (if you can identify them), the species you generally see during your trip. Your data should indicate the general abundance of birds, by species during the trip. Further training in Bird Identification and data recording will be provided from mid-2017. Recording the presence of marine mammals and birds on their migatory routes can be helpful to define, understand and evaluate their species ranges (the areas they can be found) and any impacts changes in the ecosystem is having on their migatory routes.

Observer Name: Print your name in full. Put your first name (Christian name) first and your last name (Surname) last.

Observer Trip ID Number: Fill in your trip identification number as supplied by your programme before departure - exactly as recorded on the PS-1 (pg1) form.

Page of: Number Forms through trip as Page 1, Page 2 etc. At the end of the trip check that the total number of pages are filled in on all pages.

DATE:	Record the date (year-month-day) the sighting was made.
LONGITUDE **LATITUDE:**	Give the position of the observer's vessel when the first SSI was sighted.
SIGHTING CODE:	Record one of the 'Sighting Codes' to indicate the SSI behaviour when sighted.

SIGHTING CODES

SDS - Sighting- Distance Swimming
SBR - Sighting - Breaching
STP - Sighting - Tail Slapping or Playing
SMG - Sighting - Motionless in Group
SDW - Sighting -Dead in Water
SBO - Sighting - Bird Overhead
OTH - Other, please specify

TALLY:	Use this area if there are a number of SSIs that are noticed during the day. This area will be useful for bird sightings, or pods of marine mammal with many individuals.
TOTAL NUMBER:	Record the total number of the SSI species that were seen. If there are large numbers of individual species record an eye-estimate.
SSI CODE	Record the three letter FAO species identification code,
SPECIES DESCRIPTION:	Provide a description of the species that will help to confirm its species code, mention colour, markings, length, fin shape etc.

OBSERVER PROGRAMME:

SPC/FFA REGIONAL OBSERVER VESSEL TRIP MONITORING SUMMARY

FORM GEN - 3 (pg 1)

REV. DEC 2016

Observer NAME		***This form must be filled in by the observer for every trip***		TRIP START DATE YY MM DD	
				TRIP END DATE YY MM DD	
Obs. NATIONALITY	TRIP ID NUMBER	COASTAL STATE LICENCES (IF ANY)		NATIONALITY OF BOARDING VESSEL IF BOARDED DURING TRIP AT SEA	
VESSEL NAME		COUNTRY REG. #	UVI	IRCS	VESSEL FLAG / VESSEL GEAR TYPE

Did the vessel do any of the following (indicate 'Yes' or 'No' with an 'X' for every item)

Refer to instruction pages for the full wording of all items on this page

			Yes		No		pg No.
Observer rights / social behaviour	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*		RS -a			
	RS -b	*Request that an event not be reported by the observer*		RS -b			
	RS -c	*Mistreat other crew*		RS -c			
	RS -d	*Did operator fail to provide observer, while onboard, at no expense to observer or the observer's Government, with food, accommodation, access to safety gear and medical facilities of reasonable standard - equivalent to those normally available to an officer onboard the vessel*		RS -d			
National regulations	NR -a	*Fish in areas where the vessel is not permitted to fish*		NR -a			
	NR -b	*Target species other than those they are licenced to target*		NR -b			
	NR -c	*Use a fishing method other than the method the vessel was designed or licensed*		NR -c			
	NR -d	*Not display or present a valid (and current) licence document onboard*		NR -d			
	NR -e	*Transfer or transship fish from or to another vessel*		NR -e			
	NR -f	*Was involved in bunkering activities*		NR -f			
	NR -g	*Fail to stow fishing gear when entering areas where vessel is not authorised to fish*		NR -g			
WCPFC CMMs	WC -a	*Fail to comply with any Commission Conservation and Management Measures (CMMs)*		WC -a			
	WC -b	*High-grade the catch*		WC -b			
	WC -c	*Fish on FAD during FAD Closure*		WC -c			
Logsheet recording - Position	LP -a	*Inaccurately record vessel position on vessel log sheets for sets, hauling and catch*		LP -a			
	LP -b	*Fail to report vessel positions to countries, where required when entering and leaving an EEZ (crossing to or from an EEZ into or out of the High Seas)*		LP -b			
Logsheet recording - Catch	LC -a	*Inaccurately record retained 'Target Species" in the Vessel logs [or weekly reports]*		LC -a			
	LC -b	*Inaccurately record 'Target Species" Discards*		LC -b			
	LC -c	*Record target species inaccurately [eg. combine bigeye/yellowfin/skipjack catch]*		LC -c			
	LC -d	*Not record bycatch discards*		LC -d			
	LC -e	*Inaccurately record retained bycatch Species*		LC -e			
	LC -f	*Inaccurately record discarded bycatch species*		LC -f			
SSIs	SI -a	*Land on deck Species of Special Interest (SSI.* *(eg. Marine mammmals, turtles seabirds or protected sharks)*		SI -a			
	SI -b	*Interact (not land) with SSIs*		SI -b			
Pollution	PN -a	*Dispose of any metals, plastics, chemicals or old fishing gear*		PN -a			
	PN -b	*Discharge any oil*		PN -b			
	PN -c	*Lose any fishing gear*		PN -c			
	PN -d	*Abandon any fishing gear*		PN -d			
	PN -e	*Fail to report any abandoned gear*		PN -e			
Sea safety	SS -a	*Fail to monitor international safety frequencies*		SS -a			
	SS -b	*Carry out-of-date safety equipment*		SS -b			

If unsure that a violation has been committed but suspect a vessel has violated its license agreement place an 'X' in the 'YES' box. Then wrie a full account of the incident, including a all evidence that aroused suspicion.

OBSERVER PROGAMME	The observer programme/provider you are contracted to (employed by) for this trip.
OBSERVER NAME	Tas written in your passport. Observer must print first name first and last name (family name) last.
OBSERVER NATIONALITY	YOUR nationality as per the passport you are using.
OBSERVER TRIP ID No.	Observer trip identification number. Same number for all forms and issued before leaving port.
COASTAL STATE LICENCE (if any)	List the licence number(s) of any current licence issued by a Coastal States (i.e countries w here the vessel is licensed to fish).
NATIONALITY OF BOARING VESSEL IF BOARDED AT SEA	If host vessel is boarded by authorities and inspected at sea, what was nationality of the authority?
VESSEL NAME	Full vessel name, as written on licence documentation - not abbreviated. Include all numbers.
COUNTRY REGISTRATION #	The country registration number that was issued by the country where the vessel is registered.
UNIQUE VESSEL IDENTIFIER	WCPFC requires all vessels over 100 Gross Tonnage to have a UVI after 1st Jan 2016. The number may appear on certificates before 2016. Generally the UVI is the International Marine Organistion number or may be the the Lloyd's Register (LR) no.
INTERNATIONAL RADIO CALL SIGN (IRCS)	International Radio Call Sign is issued by the flage state, normally painted on the side of the boat and a mix of letters and numbers. The IRCS should be the main number on the hull or side of the vessel. Confirm this before recording it. It may also be found on the vessel's licence.
VESSEL FLAG	Record the flag of the vessel. This is the same as the country the vessel is registered in.
VESSEL GEAR TYPE	The fishing method vessel is licensed to use (i.e purse seine, longline, pole-and-line)

If unsure that a violation has been committed but suspect a vessel has violated its license agreement, place an '**X**' in the '**Yes**' box. Then write a full account of the incident, including all evidence that aroused suspicion.

During the trip did the Master or crew of the vessel attempt or do any of the following:

Observer rights / social behaviour	***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** Were you prevented, blocked, intimidated, harassed or threatened by any of the crew or operator while onboard ? Did any crew member attempt to bias your work through a gift or bribe ?
	RS-b	**Request that an event not be reported by the observer** Did any crew member or operator ask you not to record, report photograph or video an event?
	RS-c	**Mistreat other crew** Were there any clear systematic or prejudiced bullying or mistreatment of any crew ?
	RS-d	**Did the operator fail to provide the observer , while on board the vessel, at no expense to the observer or the observers Government, with food, accommodation [access to safety gear] and medical facilities of a reasonable standard equivalent to those normally available to an officer on board the vessel** Do you think you were purposely given poor accommodation, food, no access to safety gear or medical treatment?
National regulations	***NR-a***	**Fish in areas where the vessel is not permitted to fish** Be aware of areas within EEZs that a vessel is not allowed to fish. These include closed 'high seas pockets for purse-seiners', internal waters, territorial seas (12 miles from a land and archipelagic waters baseline) that are off limits to most gear types (however some exceptions do occur).
	NR-b	**Target species other than those they are licensed to target** The target species is mentioned on the vessel's fishing permit. Usually "Tuna" will be the target species. Most common species targeted illegally are sharks or reef species targeted with handlines.
	NR-c	**Use a fishing method other than the method the vessel was designed or licensed** The licensed fishing method is on the vessel's fishing permit. Note if a fishing method other than that on the permit is used. Common violations are hand lining near reefs and purse seiners setting lines at night to catch sharks. Fully describe the type of gear used and what species, if any, were caught.
	NR-d	**Not display or present a valid (and current) licence document onboard** A valid original licence document should be in the wheelhouse on display. Regulations usually require an official license document to be kept onboard ready for inspection on request by suitable people, including observers. Record 'YES' if: no document; a copy or faxed document; an outdated document; or a cover letter shown. Report which type and
	NR-e	**Transfer or tranship fish from or to another vessel**. Transhipping of fish by purse seiners can only occur in designated ports. Indicate if host vessel transhipped fish or any fish products (e.g. shark fins) at sea. Note: group seine operations in PNG may tranship at sea in their zone
	NR-f	**Was involved in bunkering activities** Bunkering is transfer of fuel between vessels. Generally a bunker vessel is a specialised fuel carrier. Some countries ban bunkering except at port, while others require notification prior to bunkering.
	NR-g	**Fail to stow fishing gear when entering areas where vessel is not authorised to fish** Fishing gear should be stowed when entering waters of areas where vessels are not authorised to fish E.g.: net covered, boom lowered on purse seiners; floats stored and covered and snoods stored on longliners
WCPFC CMMs	***WC-a***	**Fail to comply with any Commission Conservation and Management measures (CMMs)** Has any WCPFC regional regulation (CMM) been breached ?
	WC-b	**High grade the catch** Did the vessel discard target species already on board to make room for better quality, larger size or for a more marketable target species
	WC-c	**Fish on FAD during FAD Closure** During the period July 1- October 31: Did the vessel retrieve, service, set or fish on any floating object or group of objects, of any size, that was or was not deployed, living or non-living, including (but not only) buoys, floats, netting, webbing, plastics, bamboo, logs or whale sharks, floating on or near the surface of the water that fish may associate with ? Was vessel used to aggregate fish or to move aggregated fish, including using underwater lights or chumming.

SPC/FFA REGIONAL OBSERVER
VESSEL TRIP MONITORING SUMMARY

FORM GEN - 3
(pg 2)

REV. DEC 2016

OBSERVER NAME	VESSEL NAME	OBSERVER NATIONALITY
TRIP ID NUMBER	OBSERVER PROGRAMME	

IF YOU ANSWERED YES TO ANY ITEM ON THE GEN-3 FORM PLEASE EXPLAIN BRIEFLY IN THE AREA BELOW.
A FULL EXPLANATION MUST BE WRITTEN IN THE OBSERVER DAILY JOURNAL AND/OR TRIP REPORT
JOURNAL PAGE NUMBERS FOR THE EXPLANATION SHOULD BE RECORDED IN THE BOXES PROVIDED ON THE FRONT OF THIS FORM

DEBREIFING STATUS				OBSERVER SIGNATURE	DATE YY / MM / DD
Circle one:	Not Debriefed	Pre-debriefed	Debriefed		

Rev. DEC 2016		
Logsheet recording - Position Logsheet Recording – Catch	***LP-a***	**Inaccurately record vessel position on vessel log sheets for sets, hauling and catch** The vessel logsheet should be filled out by the Captain or a designated officer, daily, or after each set. The observer has the right to ask to see this log (inspect this log at least once a day). If there are significant discrepancies (>3nm) of reported set positions between the vessel log and the observer forms the details should be written into the observer report.
	LP-b	**Fail to report vessel positions to countries, where required when entering and leaving an EEZ (crossing to or from an EEZ into or out of the High Seas)** Zone Entry and Zone Exit as well as Port Entry and Port Exit notifications are regulated by countries. Most countries also have mandatory Wednesday reporting of position when fishing in their EEZs.
	LC-a	**Inaccurately record retained 'Target Species" in the Vessel logs or weekly reports** Is the vessel under reporting, over reporting or not reporting any of the observed sets for any reason ? It is critical that observers do their own accurate estimate of catch. Compare vessel logged catches with your estimates to ensure all sets are recorded and the catch has been logged correctly every day.
	LC-b	**Inaccurately record 'Target Species" Discards** Report any attempt to not report commercial species that have been rejected because they are damaged, too small or are considered to be undesirable for other reasons. Note in your report if discards were reported by vessel.
	LC-c	**Record target species inaccurately** On purse seiners BET are commonly recorded as YFT; and both BET and YFT are sometimes recorded as SKJ. Mixed small BET and YFT are often recorded as just YFT, simply because they fetch the same cannery price.
	LC-d	**Not record bycatch discards** Report any attempt to not report any fish, shark, reptile or mammal species - retained or discarded.
	LC-e	**Inaccurately record retained bycatch species** Report if vessel wrongly reports retained bycatch species.
	LC-f	**Inaccurately record discarded bycatch species** Report if vessel wrongly reports discarded bycatch species.

SSIs	***SI-a***	**Land on deck Species of Special Interest (SSIs)** Did the vessel land on deck at any time (either deliberately or accidentally) during the trip any SSIs. SSIs are: all turtles; all marine mammals – dolphins, whales, seals, dugongs, etc; birds; oceanic whitetip sharks and silky sharks and whale sharks. All landings should also be fully recorded on the catch details forms (PS-3, PL-3, LL-4). More complete data and description must be in GEN-2 forms, the observer's journal and written report It is important to note the vessel's general attitude to such animals in reports.
	SI-b	**Interact (not land) with SSIs (e.g. Marine mammals, turtle or whale sharks)** Did any SSIs interact with any part of the vessel, its gear, or its support boats, etc., during the trip ? More information on interactions must be recorded on GEN-2 forms, observer journal and written report.

Pollution *(see MARPOL explanation on GEN-6)*	***PN-a***	**Dispose of any metals, plastics, chemicals or old fishing gear** Was there any deliberate throwing over of: metals or plastics (from kitchen or elsewhere on boat); or parts of the fishing gear (netting, nylon line, etc.); from the vessel into the ocean at any time ? Was any unprocessed perishable garbage discharged within 12 nautical miles of land or a reef ?
	PN-b	**Discharge any oil** Was any fuel oil spilled or dumped within 50 nautical miles of shore ?
	PN-c	**Lose any fishing gear** Was any fishing gear lost during this trip ?
	PN-d	**Abandon any fishing gear** Was any fishing gear dumped or abandoned by the observer's host vessel ?
	PN-e	**Fail to report any abandoned gear** Did vessel not report any lost fishing gear (IF REQUIRED by the country in which waters it is fishing) ?

Sea safety	***SS-a***	**Fail to monitor international Safety frequencies** Does the vessel keep its radio tuned into and turned onto the international distress, safety and calling frequencies when it is not communicating ? Frequencies are: VHF marine radio for medium to long range voise communications - 2182 kHz VHF marine radio for short range voice communications - Channel 16
	SS-b	**Carry out-of-date safety equipment** Was any of the safety equipment (lifeboats, EPIRBs, etc.) out of survey date or in a bad condition ?

Debriefing Status: Normally the 'pre-debriefer' or 'debriefer' should circle one choice to indicate if debriefing has taken place at any time on the GEN-3 form. It is possible that the form will be first circled -'not debriefed', then circled pre-debriefed and finally circled debriefed .

SPC/FFA REGIONAL OBSERVER CONVERSION FACTORS

FORM GEN-4

REVISED DEC. 2016

OBSERVER NAME	MEASURING INSTRUMENT	OBSERVER TRIP ID No.	PAGE OF

VESSEL NAME	MAKE, MODEL AND CAPACITY OF SCALES	SHIP'S START OF TRIP DATE (YYYY/MM/DD)	SHIP'S END OF TRIP DATE (YYYY/MM/DD)

DETAILS OF WEIGHTS AND MEASUREMENTS COLLECTED

SET NO.	SHIP'S TIME	LABEL NO.	SPECIES CODE	LENGTHS (in cm.)						WEIGHTS (in kg.)					PROCESSED WGT.		LANDED WEIGHT		COMMENTS
				UF	US	LF	PF	PS	TL	WHOLE	HEAD	TAIL	GUTS	WET FIN	(kg.)	CODE	(kg.)	CODE	

CONVERSION FACTORS

OBSERVER NAME	MEASURING INSTRUMENT	OBSERVER TRIP ID No.	PAGE OF
This header should be filled in completly	*e.g.:SPC 1.5 m Aluminium calipers*	*e.g.: JMA 97-* This is page 7 →	*7* → *19*
VESSEL NAME	MAKE, MODEL AND CAPACITY OF SCALES	Don't forget!	Total number of GEN-4s forms used in the trip was 19
	e.g.:Salzer 100kg dial-faced spring scales		

DETAILS OF WEIGHTS AND MEASUREMENTS COLLECTED

SET NO.	LABEL NO.	SHIP'S TIME	SPECIES CODE	LENGTHS (in cm.)						WEIGHTS (in kg.)				WET FIN	PROCESSED WGT. (kg.)	PROCESSED WGT. CODE	LANDED WEIGHT (kg.)	LANDED WEIGHT CODE	COMMENTS
				UF	US	LF	PF	PS	TL	WHOLE	HEAD	TAIL	GUTS						
# 1	*3*	*1720*	*BET*	*152*	*124*	—	—	*98*	—	—	—	*4*		*9*	*72*	*GG*	*70*	*GG*	*An example*

Set No.

Record the relevant set number ie set # 1, 2 etc. There is no need to start a new page for a new set but you must indicate the correct set number for each line The set number is at the top of the PS-3 and LL-4 form

Label No.

When unable to get **whole** or **processed weight** during the trip attach a label inside the mouth or gut cavity of the fish.
When back on shore record **landed weight.**

If processed weight can be collected on board still use labels and then also record **landed weight** of fish as it is recorded at unloading. This can be used for checking weight loss during storage

Ship's Time and **Species Code**

must be recorded exactly as they are on Catch Monitoring Form (LL-4).on longliners or the set time and species from the Set Details Form (PS-3) on purse seiners

If using Form GEN-4 but not using Form LL-4 (see * below), record sex in the

Length code describes what parts of the fish or animal are actually measured

Code	Description
UF	Upper jaw to fork in tail
US	Upper jaw to second dorsal fin
LF	Lower jaw to fork in tail
PF	Pectoral fin to fork in tail
PS	Pectoral fin to second dorsal fin
TL	Total length (for sharks)

measure the pectoral and second dorsal fins at the most forward points that they attach to the body

Collect "UF", "US" and "PS" for tunas
Collect "LF", "PF" and "PS" for billfish

Weights:

if <10 kg
aim for accuracy to 0.5 kg
(round to nearest whole kg)

if >10kg
aim for accuracy to 1.0 kg

Tunas: Include removed gills with guts when weighing whole weight.

Billfish: Include removed bills with guts when weighing whole weight

Weight codes describe the state of the fish at the time that it was weighed.
As such they must not be confused with Fate codes, which describe the final state of the fish.

Code	Description
WW	Whole weight
GG	Gutted and gilled
GH	Gutted and headed
GT	Gutted, gilled and tailed
GX	Gutted, headed and tailed
GO	Gutted only (gills left in)
NM	Not Measured

The GEN-4 form can be used to collect information from several sets (see the set number column on the left).
As with all data it is important that you collect information as accurately as possible.

However, it is not important to collect this data for all catch. Usually only the more experienced and proven obsevers will be asked to collect this extra information.
Only collect data for this form when it can be comfortably and accurately gathered without stopping the collection of other important data.

* On some more difficult trips you may choose, or were asked, to take time out from normal sampling to put more effort into collecting conversion factor information.
In this situation the Catch Monitoring Form may not be used. At times like this record the sex of the fish in the comments section of Form GEN-4.

The comments section can be used to note any factor that you feel has had an important influence on the data collection for this form.

FAD/PAYAO and FLOATING OBJECTS INFORMATION RECORD	Form GEN-5

REVISED DEC. 2016

OBSERVER NAME:	VESSEL NAME:	OBSERVER TRIP ID NUMBER:	PAGE OF

Date	Time (from PS-2)	Set No.	Object number	Origin of FAD	Deployment date	latitude dd°mm.mmm'	N S	and longitude ddd°mm.mmm'	E W	FAD as found	FAD lifted	FAD as left	Comments / Change details
											YES / NO		
FAD materials Main materials	net/mesh size	Attachments	net/mesh size	Max est. depth	FAD length	FAD width	Buoy number	FAD / Payao No. and or markings			SSI seen	SSI trapped	
	cm		cm	M	M	M					Y / N / U	Y / N / U	

Date	Time (from PS-2)	Set No.	Object number	Origin of FAD	Deployment date	latitude dd°mm.mmm'	N S	and longitude ddd°mm.mmm'	E W	FAD as found	FAD lifted	FAD as left	Comments / Change details
											YES / NO		
FAD materials Main materials	net/mesh size	Attachments	net/mesh size	Max est. depth	FAD length	FAD width	Buoy number	FAD / Payao No. and or markings			SSI seen	SSI trapped	
	cm		cm	M	M	M					Y / N / U	Y / N / U	

Date	Time (from PS-2)	Set No.	Object number	Origin of FAD	Deployment date	latitude dd°mm.mmm'	N S	and longitude ddd°mm.mmm'	E W	FAD as found	FAD lifted	FAD as left	Comments / Change details
											YES / NO		
FAD materials Main materials	net/mesh size	Attachments	net/mesh size	Max est. depth	FAD length	FAD width	Buoy number	FAD / Payao No. and or markings			SSI seen	SSI trapped	
	cm		cm	M	M	M					Y / N / U	Y / N / U	

Date	Time (from PS-2)	Set No.	Object number	Origin of FAD	Deployment date	latitude dd°mm.mmm'	N S	and longitude ddd°mm.mmm'	E W	FAD as found	FAD lifted	FAD as left	Comments / Change details
											YES / NO		
FAD materials Main materials	net/mesh size	Attachments	net/mesh size	Max est. depth	FAD length	FAD width	Buoy number	FAD / Payao No. and or markings			SSI seen	SSI trapped	
	cm		cm	M	M	M					Y / N / U	Y / N / U	

Diagrams- *label with 'Object number'*

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FAD/PAYAO and FLOATING OBJECT INFORMATION RECORD

Complete a GEN-5 record for every activity code '9' or '10D' entered on a PS-2, related to any FAD or other floating object described in the 'Floating Object' list on the workbook codes page.
(except if for same object encountered unchanged within four hours of previous encounter)

Observer name, Vessel name - Print each name out in full.
For example: an observer name = "John Smith"; and a vessel name = "Mahino No 8")

Observer trip ID number: - number issued by the authority that placed the observer.

Page of : Number "Form GEN-5"s throughout the trip as Page 1, Page 2, Page 3, etc.
At end of trip put the last page number on every page.
For example if there are 10 x FAD Information Forms filled out then the first page will be "Page 1 of 10", the fourth page will be "Page 4 of 10" and the last page will be "Page 10 of 10".

Date & Time - Must match the PS-2 form time for the activity code related to this floating object.
Use "Ship's Date" and "Ship's Time" on the ship's clock - the date and time used by crew onboard.
Observers should set their watches to this date and time as soon as they board the vessel.

Set Number - If object is involved in a set during this encounter record the same Set No. that is recorded on the daily activity sheet (PS-2). If no set is made record a dash in this space.

Object Number - Give new (consecutive) 'Object Number' to each floating object. Start with 001.
If that same object is recognised in future activities use the same 'Object Number' in the record.
If it comes onboard it still gets an Object No. and if returned to water at same place, number stays the same, however if it goes to a different area it gets a new number and a new record is created.

Origin of FAD - Try to find out the origin of the object before this current encounter.
Use the "Origin" code that best describes where the FAD or floating object came from.
If you cannot find out where the FAD came from, use the code for "unknown".
If origin not listed use "other" and describe in comments. Also use comments for additional details.
N.B. The difference between Code "5" or "6" and Code "7" is that the FAD in that codes 5 or 6 are used for will have a radio buoy still attached, whereas the FAD (or other floating object) will no longer have a buoy attached to it.

Deployment date, latitude and **longitude** - If deployment is not actually witnessed by observer efforts try to get this information from the vessel's records, if applicable. Otherwise enter dashes.

FAD as Found, **FAD lifted** *and* **FAD as Left**
Shows what an object is when it is found and if it has changed by the time the vessel leaves it.
N.B.: Complete the 'FAD as Found' field only if object was found in the water - if the object is a FAD being deployed for the first time then only record a dash in the 'FAD as found' field.
Circle YES or NO to show if FAD was lifted from water at any time.
Watch for changes being made to any found floating object before the vessel leaves it adrift again.
If no modifications were made to the object, the 'As found' and 'As Left' fields should be identical.
If object is brought aboard vessel and moved to another area put a dash in the 'FAD as left' field.
A new record will be created if that floating object is redeployed.

FAD Materials - Main Materials, **FAD Attachments** and **Net/mesh size**
Most materials found in the main body (or platform) of floating objects and those commonly used for attachments under FADs have codes '1' to '17' in the list under 'FAD materials' on this form.
N.B.: some materials can be used as main material or as attachment materials so the material codes amy be used twice - describing both the main and the attachment materials.
If many materials make up the body of a FAD, list up to 3 of them starting with the most abundant.
If the object has a component not included in the list use other code "17" and describe in comments.
If not sure of the material use unknown code "10" and describe it, if possible.
If possible get diagonal mesh measurements of net used to make the platform and/or attachments

Max Est Depth (maximum estimated depth)Record the estimated depth (**in metres**) below the surface of the water of any objects, streamers or other equipment attached to the FAD (but not including the anchor rope or chain) at the time the object is found (or deployed, if the deployment is the reason for this record). If there are any attachments at all always make an estimate even if estimating depth is very difficult. - comment on the difficulty.

THE WCPFC recognises live whale sharks, marine mammals etc as FADs. Just dash through any data fields on the GEN-5 form that are not relevant if the FAD is a live animal.

Fad Length & Fad Width
Record dimensions (length and width) of the man body of a floating object or FAD when it is found (or deployed if the deployment is the reason for this record).
If the object has an irregular shape or is made up of multiple components, imagine a box with the object in it and record the length and width dimensions of the imaginary box.

Buoy number and **FAD/PAYO Numbers and markings**
Record any identification numbers seen on any radio buoy (or other buoy) that is attached to the floating object or FAD, or any ID numbers or other markings that can be seen on the FAD/Payao itself.
If only part of an identification number can be seen then record the parts that can be seen and show question marks for letters or numbers that cannot be read (e.g. STV-76??3H)

SSI seen *and* **SSI trapped** - *circle* 'Y' = yes, 'N' = no; *or* 'U' = unknown
to state if any **Species of Special Interest** (SSI) is seen near the object and again to state if any SSI is trapped, whether with webbing, ropes, cloth, buckets, between the bars in a rack or other.
NB - use 'N' only if top of FAD (in water) and attachments (when FAD is lifted) are clearly seen.
Write the name of the SSI species in the Comments area and be sure to fill in a GEN-2 form.

Comments / Change details
Record any information that will help identify a FAD or floating object and any information that can help understand why the FAD or floating object works well or doesn't work well.
If a FAD has been changed describe the changes. with notes and refer to more description that are written in the observer's trip report and/or daily journal.
Diagrams - A drawing of an object can be very helpful.

SPC/FFA REGIONAL OBSERVER POLLUTION REPORT

FORM GEN-6

REVISED Dec. 2016

OBSERVER NAME	VESSEL NAME	OBSERVER ID NUMBER	PAGE OF

- fill in one form for each pollution incident -

INCIDENT DETAILS

Ship's DATE and TIME YY	MM	DD	hh	mm	LATITUDE (dd°mm.mmm')	N / S	LONGITUDE (ddd°mm.mmm')	E / W	EEZ / HARBOUR

WIND DIRECTION	WIND SPEED	SEA CONDITIONS (C, S, M, R)	CURRENT : (knts and direction °)	OBSERVER'S VESSEL ACTIVITY

NAME OF OFFENDING VESSEL	IRCS	TYPE OF VESSEL	YOUR POSITION FROM OFFENDING VESSEL Compass Bearing	Distance (nautical miles)

WASTE DUMPED OVERBOARD

Material	*Tick each box that applies*	Describe Type	Describe Quantity
Plastics			
Metals			
Waste oil			
Chemicals			
General garbage (*within 12 miles of shoreline*)			
describe:			

OIL SPILLAGES AND LEAKAGES

Source	*Tick each box that applies*	Visual Appearance / Colour	Describe Area and Quantity
Vessel Aground / Collision			
Vessel at Anchor / Berth			
Vessel Underway			
Land based source - Describe source			
Other - please specify			

Abandoned or Lost Fishing Gear

Source	Activity	Describe Gear	Estimate Quantity
Lost during fishing			
Abandoned			
Dumped			

Other comments:

Were there any stickers/ posters displayed to remind the vessel about MARPOL Regulations? **Y / N**

Did you take any photos? **Y / N**

If yes, please state the number(s) of the photo frames or files.

MARPOL Regualations - state

It is illegal for any vessel to discard any form of plastics into the sea at anytime. It is illegal for any vessel to discard any form of oil into the sea less than 50 nautical miles (nm) from shore. It is illegal for any vessel to dump any form of rubbish into the sea within 12 nautical mile of the shore, unless the vessel has a machine on-board (comminuter) to shred and treat the waste. In this case they can release the treated garbage up to 3 nm from the shore.

Notes on FORM GEN-6

POLLUTION REPORT

Remember - Fill in one form for each pollution incident. There might be more than one per day.
If forms run out, report this on the last form and continue recording pollution infringements in diary.

Observer Name	Put first name first, and your family name last.
Vessel Name	Record the full name of the vessel. Do not use any abbrevations.
Observer ID Number	Use the number assigned by the observer programme e.g. AA 03-01
Page of	Number all GEN-6 pages in sequence from the start until the end of the trip
Date of Incident (yy / mm /dd)	Date pollution seen in year, month and day. *Use ship's time as defined in other observer data collection forms*
Time (00.00 hrs)	Report the time using the 24hr clock.
Latitude / Longitude	Record the GPS positon of the host vessel when the pollution was first seen.
EEZ / Harbour	Record the EEZ or, for shorebase staff, mark port or Harbour name here.
Wind Direction	The prevailing wind direction. Use degree eg. 90 degrees for an east wind
Wind Speed	Record the prevailng wind speed.
Sea Conditions	C- Calm, S- Slight, M- Moderate, R - Rough.
Current (knts and direction)	If the vessel has a current meter find out what the current strength is.
Observer's vessel activity	State the host (observer's) vessel activity at the time of the pollution incident. Some activities to consider might be: fishing; transhipping; bunkering; transitting; aground.
Name of offending vessel	Make an effort to record the complete and proper name of offending vessel. Be careful not to make any spelling mistakes which may make it difficult to prosecute the vessel if the report goes through legal proceedings.
IRCS	The international callsign is marked in large letters on the side of the boat.
Type of vessel	Consider the full vessel and aircraft codes on the front of Form GEN-1.
Your positon from offending vessel.	Use the vessel compass to get direction of theoffending vessel from the obs.' vessel. The radar can be used to get an extact distance in nautical miles. Otherwise give your best estimate.
	WASTE DUMPED OVERBOARD
Material	Tick the appropriate data field to show which types of materials were dumped. Only a maxium of two materials ifmore than one material type dumped over at the same time - e.g.: it dumped plastic and metal at 10:00hrs. If plastic was dumped at 10:00hrs and metal at 16:00hrs - record
Describe type	Give as good a description as possible of the type of dumped material. E.g.: - plastic bags; bait boxes plastic strapping; bait boxes plastic bags;
Describe Quantities	Give a best estimate of the amount dumped. Sometimes this will be easy - e.g., 12 metal oil drums were dumped. At other times the material might be too far away to see the amount. If it is too far away then estimate the amount as well as possible and make note that it is only a rough estimate at
	OIL SPILLAGES AND LEAKAGES
Source	Tick to indicate where the spillage or leak came from
Visual Appearance / Colour	Describe the colour/ thickness/depth of the spill as well as able.
Describe Area and Quantity	Give a best estimate of the size of the spill. The boat could be a size reference - e.g.: it was 4 times bigger than the boat.
	Abandoned or Lost Fishing Gear
Source	There is no tick box. Indicate the source of the abandoned/ lost fishing gear by completing the information for the corresponding row of information. For instance if the source is 'lost during fishing' fill in the activity, describe gear, and estimate quantity on the line to the right of 'lost during fishing'.
Source - Lost during fishing	Use this line if the gear was accidentally lost from the observer's vessel during this trip and the vessel tried to search and recover the gear.
Source - Abandoned	Use this line if the gear was deliberately abandoned from the observer's vessel during the trip, or similarly the vessel made no effort to retrive the gear.
Source - Dumped	Use this line if the vessel deliberately dumped any fishing gear overboard (either old fishing gear, or some of the gear that was used during the trip).
Activity	Record your vessel's activity when gear was lost, abandoned or dumped. This might be setting, hauling, steaming etc.
Describe Gear	Given information on the gear, especially the type of materials it was made of (e.g. aluminium, nylon rope) and its make up - fishing net 10cm mesh, old monofilament branchline, no hooks
Estimate Quantifty	Refer to the total area in square meters. Mention the length, breadth and width.

For Country Codes - see the **Code Page** in your Workbook

OBSERVER PROGRAMME:

SPC/FFA REGIONAL POLE-AND-LINE OBSERVER GENERAL INFORMATION

FORM PL-1

REVISED DEC. 2016

TRIP DETAILS

OBSERVER

NAME		TRIP START LOCATION	TRIP START (SHIP DATE AND TIME) YY	MM	DD	hh	mm
NATIONALITY	TRIP ID NUMBER	TRIP END LOCATION	TRIP END (SHIP DATE AND TIME) YY	MM	DD	hh	mm

VESSEL NAME:	FISHING PERMIT OR LICENCE NUMBER(S):	VESSEL DEPARTURE PORT	VESSEL DEPARTURE DATE YY	MM	DD

VESSEL

VESSEL OWNER:			COUNTRY REGISTRATION No.		
VESSEL CAPTAIN:	ID document :	No. :	IRCS or UVI No.		
FISHING MASTER:	ID document :	No. :	FLAG		
LENGTH OVERALL (LOA) (circle one unit)	Meters / Feet	GT circle one / GRT	mT	FISH HOLD CAPACITY	mT

CREW NATIONALITY

CAPTAIN:		FISHING MASTER:	
OTHER CREW:	How many ? :		
OTHER CREW:	How many ? :		
OTHER CREW:	How many ? :		

ELECTRONICS

		USAGE				
GPS	Y / N		DEPTH SOUNDER	Y / N		
TRACK PLOTTER	Y / N		SST GAUGE	Y / N		

			USAGE	MAKE		COMMENTS
ADVANCES IN TECH	EQUIPMENT TYPE	Y / N				
	EQUIPMENT TYPE	Y / N				
BIRD RADAR		Y / N				
SONAR		Y / N				
RADIO BUOY DIRECTION FINDER		Y / N				
GPS BUOY		Y / N				
DOPPLER CURRENT METER		Y / N				
XBT (BATHYTHERMOGRAPH)		Y / N				
VMS SYSTEMS	1	Y / N				
	2	Y / N				

COMMUNICATION SERVICES	PHONES	SATELLITE:	Y / N	Phone #		MOBILE / CELL PHONE	Y / N	Phone #
	OTHER	FACSIMILE:	Y / N	Fax #				
INFORMATION SERVICES	WEATHER	WEATHER FAX	Y / N	WEATHER SATELLITE	Y / N	EMAIL	Y / N	Email address:
	WEBSITES	PHYTOPLANKTON WWW:	Y / N	SST WWW:	Y / N	SEA HEIGHT WWW:	Y / N	

FISHING GEAR

			USAGE
AUTOMATIC POLING DEVICES			Y / N
MAKE		MODEL	

WASTE DISPOSAL SYSTEM ?

Y / N

DESCRIBE:

BAIT WELLS

No.	Are bait wells low temperature controlled?	Y / N

SAFETY EQUIPMENT

PROVIDED FOR OBSERVER:	Y / N / O	Number of **LIFE BUOYS / LIFE RINGS**	
LIFE JACKET SUITABLE SIZE	Y / N		
AVAILABILITY (circle one)	Easy	Moderate	Hard

EPIRBs (No)	Total (all)	Ex-pired
406		
other		

LIFE RAFTS	1	2	3	4
Number of people	No.	No.	No.	No.
Inspection date (**D** or **L** - yy/mm)	YY/MM (D or L)	YY/MM (D or L)	YY/MM (D or L)	YY/MM (D or L)

OBSERVATIONS / COMMENTS, OTHER GEAR, UNUSUAL USE OF GEAR

(write brief notes here and a full description in trip report)

USAGE CODES

ALL - used all the time in fishing
TRA - used only in transit
OIF - used often in fishing
SIF - used sometimes in fishing
RAR - rarely used
BRO - broken now but used normally
NOL - no longer ever used
OTH - other please specify

N.B. - fishing can be searching, bait or tuna fishing, investigating, etc.

GENERAL INFORMATION

Observer programme : -

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record the country code if working for a national programme
or the abbreviation if a regional programme (e.g.: USMLT, FSMA, PNA, SPC, ROP, etc.)
of the authority / provider that has allocated this trip

A complete fishing trip is defined as 'from one full or partial unloading to the next full or partial unloading' .
If an observer trip is not over a normal complete fishing trip the reasons why must be in the trip report - also see " *Partial trips* " notes, below.

N.B.: Wherever there is a **Y** / **N** (yes or no) option for an item, either the **"Y"** or the **"N" must be circled**

Trip Details

For dates and times use SHIP'S DATES and TIMES

Observer

Name : Print name in full - first name first and family name last (e.g. "John Masa").
Nationality : Record the nationality as it is shown in the observer's passport
Trip ID Number : Print number issued by the authority sending you on this trip.
(e.g. John H. Masa, on his third trip in 1996 might be issued Trip ID Number: "JHM 96-03").
Start of trip (Ship date and time) : when vessel lets go ropes or hauls anchor to leave port or observer transfers at sea.
End of trip (Ship date and time) : when the vessel ties up or drops anchor in port or observer disembarks at sea.

Trip Start Location / Trip End Location / Vessel Departure Port : Record in all three boxes even if it is the same port.

(YY = Year) - (MM = Month) - (DD = Day) - (hh = hour) - (mm = minute) - (dd = degree)

N.B.: an observer trip starts only once the actual vessel to be observed is boarded and ends when disembarking that vessel.
Partial trips - If boat is embarked or disembarked at sea:
Record 'Trip Start Date and Time' as time of transfer between boats and 'Trip Start Location' as "At sea"; and
Record 'End of Trip Date and Time' at time of transfer off vessel and 'End of Trip Location' as "At sea"
- in both situations the "At sea" should be followed by the position recorded in degrees and minutes (dd°mm').
Observer meeting host vessel at sea must record position and 1st activity in PL-2 forms as soon as possible after boarding

Multiple trips - treat work on 2 (or more) different vessels while at sea as 2 (or more) trips, each with its own forms.

Vessel

Vessel Name : Full name of vessel including a number if appropriate - No abbreviations ! (e.g. " *The Lucky* ")
Vessel owner, Vessel Captain, Fishing master : Print full names whenever possible.
Country Registration : Number issued by country in which the vessel is registered (e.g. "ME1-808").
Flag : Name of country in which the vessel is registered (e.g. "Japan").
IRCS (international radio call-sign) or UVI No : The IRCS should be painted on the side but do not confuse it with a license number which may also be painted on the side of the vessel,
The UVI - The WCPFC requires all vessel over 100 GT to have a unique vessel identifier before June 2016, and while this won't apply to PL vessels for another while, you can record the number here if it appears on the vessel's paperwork.
Vessel Captain - ID Document / No. : Along with the Captain's and Fishing Master's full names record
Fishing Master - ID Document / No. : identification document types and the document numbers for each of them
The prefered document is a Captain or Master's license but another, such as their passport, will do if that is not possible.
Fishing Permit or Licence Number(s) : If the vessel is registered in the coastal state, then print the fishing licence number issued by the coastal state. If the vessel fished under one or more bilateral access agreements, then record the fishing permit number issued by each of the coastal states. If the vessel fished under a multilateral treaty, then print the fishing permit number issued to the vessel under the multilateral treaty.
Length overall (LOA, } The place to find vessel's length overall (LOA) and gross tonnage is on registration papers.
Gross tonnage : } M= Meters, Ft = Feet.
} Normally record Gross Tonnage (GT). For older vessels GT may not be available then, record Gross Registered Tonnage. Check for changes to length or gross tonnage.
Fish Hold Capacity : (record in metric tonnes (mT)) can usually be found in deck plans and engineer's logs.
Record the total space for all holds that can carry fish regardless of whether they are being used to carry fish on this trip

Crew Nationality

Captain and *Fishing Master* (under "Nationality"): Record the nationality of the Captain and/or the Fishing Master (eg: Taiwan
Other Crew : For each nationality of crew (not Captain or Fishing Master) report nationality and how many of that nationality.

Electronics

* ***Advances in technolgy*** : Empty lines are to record new equipment or major upgrades to the current electronics or any types of advances in fishing electronics technology. Don't record old pieces of equipment nt listed like radio etc. Wrtie about any new equipment or advances in technolgy in journal and trip report.

Usage : use codes (bottom front of form) to show how much each piece of equipment, for which "Y" is circled, is used

Y / N : (Circle **"Y"** or **"N"** (yes or no) to show if each item is present or not present on board)

Comments (equipment usage) : Make a note about each piece of equipment's use during the trip (sometimes, never, very old, out of order etc.) Make a comment if it is used in an unusual way.

Binoculars : Number /Power .Write down the different powers of binoculars used and the amount in each category (example : 2 x 8 x 50, 2 x 10 x 50 and 1 x 15 x 70)

VMS - 1 and *VMS-2* : Record system type (e.g.: InMarSat-C, Iridium, Argos) for each "vessel monitoring system" used by the

System type : Record the manufacture's name (e.g. Trimble, Thrane and Thrane, Furuno etc) and the model of the MTU unit, if possible.

Communication services : If vessel has satellite and/or mobile phone and/or fax and/or email address, record contact details.

Information services : Weather info may be faxed. Weather and/or other info may be sent in other ways to onboard computer

Circle Y or N to show if they get information on sea-surface temperature (SST), phytoplanton densities or sea height.

If they are receiving another type of information record that in "Comments" and write about it in your trip report.

If "Y", record the url (website address) below the "Y / N" and write more about the website in your written report.

Fishing Gear - (*Automatic Poling devices*)

Record the number of automatic poling devices onboard the vessel.

Comments whether all are used and if they are in good working order.

Bait Wells

Bait wells # - Record the total number of bait wells that the vessel has.

Circle Y or N to show if any of the bait wells are low temperature wells.

Waste Disposal System

Circle Y or N to show if the vessel has any equipment or special procedures onboard to manage garbage / waste.

Describe the strategic disposal of offal waste either during poling/fishing and baitfishin and where exactly the diposal carried out, eg. forward starboard, stern or port side of the vessel.

Describe This data field is very small so mark the journal page where the description is written

Safety Equipment

(obtain as much information as possible without intruding)

Life jacket : if your own (or fisheries) circle "**O**". Else circle "**Y**" or "**N**" to show if vessel showed you one for your own use

Was it a good size ? Was it (*easy*) available, available but not easy (moderate) to get to, or (*hard*) to find

Lifebuoys/life rings - count all to be found

EPIRB'- count all EPIRBS onboard **including** those with expired battery renewal dates.

Don't count EPIRBs inside the life raft Only count the EPIRBS that observers normally have access to.

Life rafts Number of People - record the number of people that each life raft is certified to carry.

Inspection Date - check carefully for inspection stickers/labels or fixed plates with inspection information.

Find out from these inspection certificates when the next or last inspection is due/happened. Record **L** for last inpection and **D** for a due or next inspection date. If after carefully checking no dates can be found record **'ND'** for not displayed.

Record notes if you think there is anything special about this boat or its crew compared to others.

Comment if equipment is not working, not used or used in an unusual way. Describe fishing gear if different to equipment you see on other longliners and record make, model, special characteristics and ***usage*** of this new gear.

If you have lots to write about (good) do so in your diary and in a special section in your trip report then only put a brief note here with a reference to page numbers in your diary and trip report.

SPC/FFA REGIONAL POLE-AND-LINE OBSERVER CATCH DETAILS

FORM PL - 3

REVISED DEC. 2014

VESSEL NAME	OBSERVER NAME	OBSERVER TRIP ID NUMBER	PAGE OF

SHIP'S DATE YY	MM	DD	SPRAYING, CHUMMING and POLING time:	START h h	m m	FINISH h h	m m	No. POLES OPERATING CREW	AUTO	MEASURING INSTRUMENT	CALIBRATED Y / N
											+ / - mm

COMMENTS

TARGET SPECIES				OTHER SPECIES				COMMENTS
SPECIES CODE	FATE CODE	CATCH mT	CATCH No.	SPECIES CODE	FATE CODE	CATCH mT	CATCH No.	
SKJ								
YFT								
BET								

How many tags were recovered ?		TAG #	SPECIES	SEX	LENGTH (cm)	WEIGHT (kg))

SPECIES CODE	LENGTH (cm)	SPECIES CODE	LENGTH (cm)	SPECIES CODE	LENGTH (cm)	SPECIES CODE	LENGTH (cm)	SPECIES CODE	LENGTH (cm)
1		21		41		61		81	
2		22		42		62		82	
3		23		43		63		83	
4		24		44		64		84	
5		25		45		65		85	
6		26		46		66		86	
7		27		47		67		87	
8		28		48		68		88	
9		29		49		69		89	
10		30		50		70		90	
11		31		51		71		91	
12		32		52		72		92	
13		33		53		73		93	
14		34		54		74		94	
15		35		55		75		95	
16		36		56		76		96	
17		37		57		77		97	
18		38		58		78		98	
19		39		59		79		99	
20		40		60		80		100	
Σ lengths		Σ lengths		Σ lengths		Σ lengths		Σ lengths	

	TARGET SPECIES			OTHER SPECIES			
	SKJ	YFT	BET				
Number Sampled:							
Sum of lengths:							
Average length:							

CATCH DETAILS

Notes on FORM PL-3

Revised March 2014.

Use a new Form PL-3 for each continuous period of "SPRAYING, CHUMMING and POLING".

"SPRAYING, CHUMMING and POLING" includes any activity directly related to getting fish on board. Spraying, chumming and poling occurs only after the fish are found by searching or at an anchored FAD. Short times (minutes) not spraying, chumming or poling are still part of the same Activity Code "1" period.

There is no need to complete this form if no fish are caught, but **be sure** to record the details (start time, position, activity code "1", etc.) on Form PL-2 (Daily Log). Don't forget to correct the "START TIME" on this Form PL-3 if you then use it for the next period of "spraying, chumming and poling" activity.

Details

VESSEL NAME	Full name. E.g., don't abbreviate the "*Captain John Smith"* to the "*Capt J. Smith"*
OBSERVER NAME	First name first, last name last, make sure to print full name.
OBSERVER ID NUMBER	This number is issued before you leave port and should be used on all forms. The number will not change for entire trip. Place wherever required on all forms.
PAGE OF	Number each Form PL-3 sequentially through trip. The last page number will be number for the "of " field. E.g., if a total 26 Form PL -3's were used, first form would be "Page 1 of 26", 16th "Page 16 of 26" and the last "Page 26 of 26".
SHIPS DATE	The date that is being used on the vessel by officers and crew as year-month-day.
SPRAYING, CHUMMING, POLING } times: START -	When the vessel starts trying to get fish to bite by chumming bait, using sprayers It is very **Important** to record the start time exactly the same as you record it under "SHIP'S TIME" when entering activity code "1" (Spraying, chumming and poling) on Form PL-2, the Daily Log.
FINISH -	When no more fish are being caught and the vessel starts another activity. The same time as "SHIP'S TIME" for start of next activity recorded on Form PL-2. Short times of no spraying, chumming or poling are included in the same period.
No. OF CREW POLING	This should be one count taken when the fishing activity is well established (not right at the beginning or right at the end).
No. OF FISH SAMPLED	Try to measure at least 50 fish per fishing period and up to 100 fish for big catches. Grab any fish, regardless of species or size, that is in your **random** sampling area.
MEASURING INSTRUMENT	And its size, e.g.: 1m measuring board, 1.5m calipers, 2m deck tape, etc.
CALIBRATED Y / N	Check that the calliper is reading the correct length. See Workbook for instructions
COMMENTS	Use this especially to describe how you sampled and for notes about discards.

Catch and Sample

SPECIES CODE	Use an FAO three letter code. Main species are listed on the bottom of the form. Important ! Use a separate line to record discards amounting to more than just a few (5 or 6) fish. Give the reason for discard in the "COMMENTS" section above.
CATCH (mt) / (number)	Put the number or weight of fish whichever is appropriate, or both if available. All weights must be written as "mt" (metric tonnes). E.g.: 200kg is 0.2 mt.
FATE CODE	Shows what happened to the fish. Most common fate codes are in the table below.
NUMBER OF TAGS RECOVERED	Record all details, as requested, for any tags recovered in this set

Sampling

SPECIES CODE (1- 100)	Record species code for each fish you measure in the same order they are sampled.
LENGTH	The length of tuna (Upper jaw to fork length - UF) is measured from the tip of the upper jaw to the fork in the tail (caudal fork). Keep the mouth closed if possible.
Σ LENGTHS (= sum of lengths)	Only add up the lengths in the column above. This is used for data entry checking.

A Number Sampled: Write the total individual species sampled in the appropriate boxes
B Sum of Lengths: Add all the length for each species and enter in the boxes under the headings
C Average Length: Sum of lengths sampled divided by sum of number sampled for each species. C = A / B (to the nearest cm.)

Important points

1. Spread your sampling throughout the entire fishing period.
2. Always get a random sample.
3. Do not let crew select fish for you even though they are trying to assist.
4. **Be sure to separately Identify Yellowfin and Big-eye when sampling**
5. Do not measure damaged fish.
6. If using a deck tape, make sure fish is on the tape straight when measuring
7. For deck tapes ensure the **"0"** end of the tape is placed against a vertical edge.
8. Record length to the nearest centimetre rounded down.
9. Take good notes of other species and discards while you are measuring fish.
10. Always note species code, especially when there is a change of species.

Fate codes

RWW - Retained - whole weight
RGG - Retained - gilled and gutted (kept for sale)
RCC - Retained - crew consumption (onboard)
ROR - Retained - other reason (specify)
DTS - Discarded - too small
DGD - Discarded - gear damage
DUS - Discarded - undesirable species
DOR - Discarded - other reason (specify)

SSIs FATE Codes -
DPA - Discarded alive
DPD - Discarded dead
DPU - Discarded condition unknown

12.3 SPC / FFA REGIONAL UNLOADING FORMS

- SPC / FFA Longline Form
- SPC / FFA Longline Unloading Destination Form
- SPC / FFA Regional Purse-Seine and Pole-and-Line Unloading Form

SPC / FFA REGIONAL LONGLINE UNLOADING FORM

REVISED: DEC 2007

PORT	COMPLETED BY	MONTH	YEAR	PAGE OF

UNLOADING DATE	INFORMATION ON THE VESSEL			NUMBERS AND WEIGHT OF EACH SPECIES IN CATCH								OTHER 1	OTHER 2	OTHER 3	OTHER 4
					YFT	BET	ALB	BUM	MLS	BLM	SWO				
	NAME		FLAG	EXPORT No.											
				Wt.											
	REG. No		AGENT	LOCAL No.											
	FFA VID No	WIN No		Wt.											
	NAME		FLAG	EXPORT No.											
				Wt.											
	REG. No		AGENT	LOCAL No.											
	FFA VID No	WIN No		Wt.											
	NAME		FLAG	EXPORT No.											
				Wt.											
	REG. No		AGENT	LOCAL No.											
	FFA VID No	WIN No		Wt.											
	NAME		FLAG	EXPORT No.											
				Wt.											
	REG. No		AGENT	LOCAL No.											
	FFA VID No	WIN No		Wt.											
	NAME		FLAG	EXPORT No.											
				Wt.											
	REG. No		AGENT	LOCAL No.											
	FFA VID No	WIN No		Wt.											
	NAME		FLAG	EXPORT No.											
				Wt.											
	REG. No		AGENT	LOCAL No.											
	FFA VID No	WIN No		Wt.											
	NAME		FLAG	EXPORT No.											
				Wt.											
	REG. No		AGENT	LOCAL No.											
	FFA VID No	WIN No		Wt.											

Notes on LONGLINE UNLOADING FORM

The Longline Unloading Form records how much fish is unloaded from longliners at end of each trip.

On each form, or forms if necessary, only record data for unloadings that begin in the same month.

GENERAL INFORMATION

PORT	The port of unloading.
YEAR	The calendar year (e.g. 1999).
MONTH	The month during which each unloading began.
COMPLETED BY	The first and last name of the person who completed the form.
PAGE OF	The PAGE number of this form OF the total number of pages used for the month.

UNLOADING DATE

Place the first date of unloading here. Write the date as dd / mm / yy.

INFORMATION ON THE VESSEL

NAME	Full name of the longliner, including number if it has one (e.g., *Catchit No. III*).
FLAG	The vessel nationality or country of registration (sometimes a flag of convenience).
AGENT	The agent for the longliner, who is usually based in the port of unloading.
REG. No.	Registration number issued by the country of registration (flag country) of the longliner N.B.: this is not the fishing permit or license number and not usually the radio call sign.
FFA VID	Print the number issued by the Forum Fisheries Agency.
WIN No	Print the number issued by the Flag State.

HOW MUCH FISH IS GOING WHERE ?

Export	Fish that are being transhipped for export.
Local	Fish that are rejected or not needed for export and unloaded for the local market.
No.	Number of fish.
Wt.	Total weight of fish in kilograms.

SOME COMMON SPECIES CODES (Check your FAO species codes list for others.)

YFT	Yellowfin tuna, *Thunnus albacares*
BET	Bigeye tuna, *Thunnus obesus*
ALB	Albacore tuna, *Thunnus alalunga*
BFT	Bluefin tuna, *Thunnus thynnus*
BUM	Blue marlin, *Makaira mazara*
BLM	Black marlin, *Makaira indica*
MLS	Striped marlin, *Tetrapturus audax*
SWO	Broadbill swordfish, *Xiphias gladius*
SFA	Indo-Pacific sailfish, *Istiophorus platypterus*
BIL	Marlins, sailfish and spearfishes (unidentified)
SKH	Unspecified sharks
OTHER	Other species (please write in the code for the other species)

If a vessel is known to have unloaded, but the amounts are not available, then *the first date of unloading, the vessel name, registration, flag and agent* **should still be recorded.**

SPC / FFA REGIONAL LONGLINE UNLOADING DESTINATION FORM

REVISED: MARCH 2014

LOCATION (Enter the PORT NAME or at-sea POSITION)	
FIRST DAY OF UNLOADING (YY / MM / DD)	LAST DAY OF UNLOADING (YY / MM / DD)
AGENT / COMPANY	

FISHING VESSEL			
FISHING VESSEL NAME			FIRST DATE ON LOGSHEET
FLAG		FFA VESSEL REGISTER No.	LAST DATE ON LOGSHEET
REGIST. NO.	IRCS	WCPFC IDENTIFICATION No.	FULL OR PARTIAL UNLOAD

CARRIER VESSEL (if not unloading to an on-shore facility)		
CARRIER NAME		
FLAG		FFA VID
REGIST. NO.	IRCS	Unique Vessel Identifier (UVI)

SPECIES	Fresh (FR) / Frozen (FZ)	Weight Code	FOREIGN MARKET DESTINATION								LOCAL, CANNERY OR OTHER PROCESSING MARKETS					
			JAPAN		OTHER		OTHER		OTHER		LOCAL MARKET		CANNERY NAME/ COUNTRY		OTHER	
			NO.	KG / LB	NO.	KG / LB	NO.	KG / LB	NO.	KG / LB	NO.	KG / LB	NO.	KG / LB	NO.	KG / LB
TOTAL																

Notes on the LONGLINE UNLOADING DESTINATION FORM

The Longline Unloading Destination Form records the amount of fish unloaded from a longline vessel as well as the final destination of the unloaded fish. All fish unloaded from the vessel should be accounted for.
Fill in a form for every unloading. Use more than one form if required.

GENERAL INFORMATION

LOCATION	**T**he name of the port where the unloading took place, or the latitude/longitude position if the unloading took place at sea.
FIRST DAY OF UNLOADING:	**T**he first date that fish were unloaded from the vessel.
LAST DAY OF UNLOADING:	**T**he last date that fish were unloaded from the vessel.
COMPANY OR AGENT:	**T**he full name of the company or agent handling the unloading.

FISHING VESSEL INFORMATION

VESSEL NAME:	**W**rite in the full name of the vessel as recorded on the country registration certificate.
FLAG:	**T**he name of the country issuing the registration certificate.
REGISTRATION NUMBER:	**T**he vessel's registration number as written on the county registration certificate.
FFA VESSEL REGISTER NUMBER {FFA VID}:	**P**rint the number issued by the Forum Fisheries Agency.
WCPFC IDENTIFCATION NUMBER {WIN NO}:	**P**rint the number issued by the Flag State.
FIRST DATE ON LOGSHEET:	**T**he first date that appears on the logsheet for the most recent trip (corresponding to this unloading).
LAST DATE ON LOGSHEET :	**T**he last date that appears on the logsheet for the most recent trip (corresponding to this unloading).
FULL//PARTIAL UNLOADING	Indicate (Y or N) whether the vessel unloaded all catch (Y) or the vessel return to fish without unloading all of its catch (N).

CARRIER VESSEL INFORMATION (if not unloading to an on-shore facility)

(CARRIER) VESSEL NAME:	**W**rite in the full name of the vessel as recorded on the country registration certificate.
FLAG:	**T**he name of the country issuing the registration certificate.
REGISTRATION NUMBER:	**T**he vessel's registration number as written on the county registration certificate.
FFA VESSEL REGISTER NUMBER {FFA VID}:	**P**rint the number issued by the Forum Fisheries Agency.
WCPFC IDENTIFCATION NUMBER {WIN NO}:	**P**rint the number issued by the Flag State.

SPECIES UNLOADED AND DESTINATION

SPECIES: On the same line as the species name (or species code) show the final destination of the fish by placing the total number and the total weight unloaded under the appropriate final destination columns. *Both* the weight and the number should be stated. See the example above. Use the FAO species codes when known.

SPECIES CODES			
YFT	YELLOWFIN	**SWO**	SWORDFISH
BET	BIGEYE	**SFA**	SHORT BILLED - SPEARFISH
ALB	ALBACORE		
BUM	BLUE MARLIN	**WAH**	WAHOO
MLS	STRIPED MARLIN	**DOL**	MAHI MAHI
BLM	BLACK MARLIN	**LAG**	OPAH

FRESH or FROZEN (FR / FZ) : **M**ark the code (FR) if the unloaded fish are <u>not</u> frozen (i.e. in a "fresh" state), or mark the code (FZ) if the unloaded fish are frozen.

WEIGHT CODE : **I**ndicate the state of the fish when unloaded, use these <u>weight codes</u>.

WEIGHT CODES			
WW	WHOLE WEIGHT	GX	GUTTED, HEADED, TAILED
GH	GUTTED, HEADED	GO	GUTTED ONLY, NOT GILLED
GG	GILLED & GUTTED	SF	SHARK FINS
GT	GILLED, GUTTED, TAILED	NM	NOT MEASURED
LW	LOINED WEIGHT		

No. : **R**ecord the total number of the species sent to this destination.
Kg / lb: **R**ecord the total weight of the species sent to this destination. *Circle* the appropriate unit of weight. Kg for kilograms and lb for pounds.

FOREIGN MARKET DESTINATIONS:
Use these columns if the unloaded fish are exported from the country or transported by carrier for the fresh or frozen sashimi-grade market. You may also use the two blank fields to fill in a country name if any fresh sashimi-grade exports are sent to countries other than Japan and USA.

LOCAL, CANNERY or other PROCESSING MARKETS:
Use these columns if the fish are sold locally, or processed locally for other export markets, for example, canneries, loining etc.
Cannery: For fish sent to canneries please state the name and the country of the cannery.
Other: Fill in the name of any other final destination for unloaded fish which are not for the sashimi markets and canneries.

SPC / FFA REGIONAL UNLOADING FORM FOR PURSE SEINE and POLE-AND-LINE VESSELS

REVISED: MARCH 2014

PORT	COMPLETED BY	YEAR	MONTH	PAGE OF

LOADING DATES		NAME OF CARRIER, COOLSTORE OR CANNERY	DETAILS OF CARRIER VESSEL			
FIRST DAY MM / DD	LAST DAY MM / DD		FLAG	REGISTRATION No.	SHIPPING COMPANY	DESTINATION
			UNIQUE VESSEL IDENTIFER (UVI)	FFA VESSEL REGISTER No.	PERMIT No.	CAPTAIN

IF ANSWER IS YES FILL THE OTHER FIELDS IN THAT LINE.	YES or NO	PORT OF LOADING / COOLSTORE NAME	LOADING DATES START MM / DD	LOADING DATES END MM / DD	WEIGHT OF EACH SPECIES (mT) SKJ	YFT ≤ 9 kgs	YFT > 9 kgs	BET ≤ 9 kgs	BET > 9 kgs	YFT/BET	SKJ / YFT BET	OTHER Sp.	TOTAL
1. WERE ANY FISH ON BOARD WHEN VESSEL ARRIVED ?													
2. WERE FISH LOADED FROM A COOLSTORE AT THIS PORT ?													

UNLOADING DATES		DETAILS OF UNLOADING VESSEL			TRIP DATES		WEIGHT OF EACH SPECIES (mT)							OTHER Sp.	TOTAL	FULL OR PARTIAL
FIRST DAY MM / DD	LAST DAY MM / DD	VESSEL NAME REGISTRATION No.	FLAG	UVI No. FFA VID	START MM / DD	END MM / DD	SKJ	YFT ≤ 9 kgs	YFT > 9 kgs	BET ≤ 9 kgs	BET > 9 kgs	YFT / BET	SKJ / YFT BET			

Notes on UNLOADING FORM FOR PURSE SEINE AND POLE-AND-LINE VESSELS

- Use this Unloading Form to record amounts of fish delivered to canneries, cold stores or carrier vessels from purse seine or pole-and-line boats. Use one (or more) page per MONTH for each carrier vessel, coolstore or cannery.
- All dates should be recorded using the first three letters of the month, e.g. 26 Jul or Jul 26.

HEADER INFORMATION

PORT	The port of unloading
COMPLETED BY	The first and last name of the person who was mainly responsible for filling out this form
YEAR	The calendar year
MONTH	The month durng which unloading took place
PAGE ? OF ??	*?* = The page number and *??* = the total number of pages for the month

LOADINGS (in to a Carrier Vessel, Coolstore or Cannery)

LOADING DATES FIRST / LAST DAYS	The date (month/day) the carrier, cannery or coolstore (that is named in this section) started loading and the date (month/day) they finished loading fish from all the unloading vessels that are listed on this form
NAME OF CARRIER, COOL STORE OR CANNERY	Full name with no abbreviations

CARRIER VESSEL'S DETAILS

FLAG	The country that the vessel is registered in (also called Vessel Nationality)
REGISTRATION No.	The registration number of the fishing vessel given by the FLAG country
FFA VESSEL REGISTER No.	Print the Regional Vessel Register number as issued by the Forum Fisheries Agency
UNIQUE VESSEL IDENTIFIER	Print the vessel's UVI number (as issued by the IMO or Llyods)
SHIPPING COMPANY	The name of the shipping company that owns or charters the carrier to load fish
CAPTAIN	The full name of the Captain of the carrier vessel
PERMIT No.	The number of the permit under which the carrier is allowed to tranship fish in this port
DESTINATION	The final destination for the fish on board the carrier

FISH ON BOARD or FISH FROM COOL STORE

Answer YES or NO to both question 1. and 2. (If the answer is yes then complete rest of information in that row)

PORT OF LOADING / COOLSTORE NAME	Name of port where the fish that is already on carrier was picked up …. or Name of the coolstore that is loading fish on to the carrier in this port
LOADING DATES	(of fish that were loaded at another port or were loaded from a coolstore at this port)
START / END	The date (month/day) the carrier started and the day it finished loading fish in the previous port. The date (month/day)the cool store started and the day it finished loading fish on to the carrier at

WEIGHT OF EACH SPECIES (mT)

SKJ, YFT, BET	The amount (metric tonnes) of skipjack, yellowfin and bigeye already on board when carrier arrived in this port, or that the carrier loaded from a cool store in this port
YFT / BET, SKJ / YFT / BET	Use only when separate weights (mT) of each of YFT and BET on board are not known.
OTHER Sp.	The amount (metric tonnes) of any other species already on board or loaded from cool store. Write the name of the species (or FAO 3-letter code) at the top of each of this column.
TOTAL	The total amount (metric tonnes) of fish previously on board or being loaded from cool store

DETAILS OF VESSEL UNLOADINGS TO CARRIER, COOL STORE or CANNERY

UNLOADING DATES FIRST / LAST DAYS	First day is the day fish first start moving onto the carrier from this fishing boat. The last day is the last day that any fish were moved from this fishing boat onto the carrier

DETAILS OF UNLOADING VESSELS (**purse seiners and pole-and-line boats**)

NAME		The name of the unloading vessel
FLAG		The county that the unloading vessel is registered in (also called Vessel Nationality)
REGISTRATION No.		The registration number of the unloading vessel given by the FLAG country
TRIP DATES	START	The date (month/day) at the start of the fishing trip that occurred prior to this unloading
	END	End date date (month/day) of fishing trip that has just been completed (day of arrival in t

WEIGHT OF EACH SPECIES (mT)

SKJ, YFT, BET	The amount (metric tonnes) of skipjack, yellowfin and bigeye loaded on to the carrier vessel.
YFT / BET, SKJ / YFT / BET	Use only when the separate weights of unloaded YFT and BET species are not known.
OTHER Sp.	The amount (metric tonnes) of each other species being loaded on to carrier. Write the name of the species (or FAO 3-letter code) at the top of this column.
TOTAL	The total amount (metric tonnes) loaded on to carrier vessel
FULL OR PART UNLOADING	If fishing vessel unloads all fish write "FULL" unloading If fishing vessel only unloads some of its catch write "PART" unloading

- Each line represents a single port of call by a vessel. If a vessel unloads all its catch in one day, then the first day and last day are the same. If a vessel takes more than one day to unload you should still record total amounts unloaded.
- Vessel registration should be completed whenever possible (particularly important for identifying Taiwanese vessels).
- If a vessel is known to have unloaded, but the amounts unloaded are not available, the dates, vessel name, registration number and nationality should still be recorded on the form.

12.4 SPC / FFA REGIONAL PORT SAMPLING FORMS

- SPC / FFA Regional Longline Port Sampling Form
- SPC / FFA Regional Pole-and-line Sampling Form

SPC / FFA REGIONAL LONGLINE PORT SAMPLING FORM

REVISED: DEC 2016

PORT:	SAMPLER:	STAFF ID Code	ASSISTANT:	STAFF ID Code	PAGE OF

VESSEL NAME:	FFA VID NO.	IRCS	REGISTRATION — COUNTRY AND NUMBER

DATE - START OF TRIP: (DEPARTED PORT)	Y Y	M M	D D	DATE - END OF TRIP: (ARRIVED IN PORT)	Y Y	M M	D D	DATE OF SAMPLE:	Y Y	M M	D D

FISHING AREA	FROM LATITUDE (or code/s)		N / S (circle)	TO LATITUDE		N / S (circle)	FROM LONGITUDE		E / W (circle)	TO LONGITUDE		E / W (circle)

	SPECIES	LENGTH CM	LENGTH CODE	WEIGHT KG	WEIGHT CODE	EXPORT CODE	OTHER
1							
2							
3							
4							
5							
6							
7							
8							
9							
10							
11							
12							
13							
14							
15							
16							
17							
18							
19							
20							
21							
22							
23							
24							
25							

	SPECIES	LENGTH CM	LENGTH CODE	WEIGHT KG	WEIGHT CODE	EXPORT CODE	OTHER
26							
27							
28							
29							
30							
31							
32							
33							
34							
35							
36							
37							
38							
39							
40							
41							
42							
43							
44							
45							
46							
47							
48							
49							
50							

Indicate by circling on all forms.	TUN	BIL
WERE ALL THE FISH UNLOADED?	Y / N	Y / N
WERE ALL THE UNLOADED FISH ALL MEASURED?	Y / N	Y / N
FISH HOLD CHECKED ?	Y / N	
CALIBRATION	+/- mm	

COMMENTS: IF UNABLE TO RECORD UNMEASURED FISH ABOVE then TALLY and TOTAL THOSE FISH HERE: and other COMMENTS

Eg: *SKJ* 𝍸 𝍸 | = 11

Table of fish counts (for unmeasured fish only)

SPECIES								
NUMBER								

BILLFISH LENGTH CODES		OTHER SPECIES LENGTH CODES		WEIGHT CODES			
LF	LOWER JAW TO CAUDAL FORK	UF	UPPER JAW TO CAUDAL FORK	WW	WHOLE WEIGHT	GX	GUTTED, HEADED, TAILED
PF	PECTORAL TO CAUDAL FORK	US	UPPER JAW TO SECOND DORSAL	GH	GUTTED, HEADED	GO	GUTTED ONLY, NOT GILLED
PS	PECTORAL TO SECOND DORSAL	PS	PECTORAL TO SECOND DORSAL	GG	GILLED & GUTTED	SF	SHARK FINS
NM	NOT MEASURED	NM	NOT MEASURED	GT	GILLED, GUTTED, TAILED	NM	NOT MEASURED

SPECIES									OTHER SPECIES
NUMBER									
SUM LENGTHS									
SUM WEIGHTS									

REV. DEC. 2016

NOTES ON LONGLINE PORT SAMPLING FORM

PORT:	SAMPLER:	STAFF ID Code:	ASSISTANT:	STAFF ID Code:	PAGE	OF

VESSEL NAME:	FFA Registration Number	IRCS	REGI:

DATE - START OF TRIP: (DEPARTED PORT) Y Y M M D D	DATE - END OF TRIP: (ARRIVED IN PORT) Y Y M M D D

FISHING AREA	FROM LATITUDE (or code/s)	N / S (circle)	TO LATITUDE	N / S (circle)	FROM LONGITUDE

PAGE OF Number pages in order, as used to sample each boat.
If one page is used per boat that page must be "PAGE 1 OF 1".
If three pages, they are "PAGE 1 OF 3", "PAGE 2 OF 3" and "PAGE 3 OF 3 ".

This header area should be filled in completly.
If more than 50 fish are sampled from a single unloading, use additional forms and be sure to fill in all the header detail fields on the additional pages. Especially fill in the port, vessel name and date of sample, which must be re-entered exactly as they appear on the first page.

Port = port of unloading

Sampler and Assistant: Always use the full (first and last) name of the sampler (person measuring the fish), also when there is only one person and assistant (person writing measurements on form).
Staff ID code : Fill in the sampler's and the assistant's unique 'Field Staff ID Code 'as issued by the supervisor.

Date at Start of Trip } all dates must have two digits for the year
Date at End of Trip } two digits for month and 2 digits for day
Date of Sample } put a "0" in front of single digit dates
E.g.: February 3rd, 1997 is written as "97 02 03"

Fishing Area: Record the limits of latitudes and longitudes to the nearest whole degree, if possible.
If using a **FISHING AREA code or codes**, place them in the "FROM LATITUDE" box and dashes in the other 3 position boxes.

FFA Vessel Register Number Normally available on the vessel's licence. Domestic vessels may not have this number, so just dash the data field.
IRCS International Radio Call Sign Often painted on the hull. As issued by the vessels's national telecommuniation authority.
Registration: Country and Number: The country in which the vessel is registered and registration number that the country issued to the vessel. This may be on the vessel bow . If not then check the registration papers somewhere on the bridge.

SPECIES	LENGTH CM	LENGTH CODE	WEIGHT KG	WEIGHT CODE	EXPORT CODE	OTHER *Specify here*

Length: (cm) must be rounded down to whole centimentres (e.g. 69.9cm is recorded as 69 cm). (See "Length Codes" on front of form.)

For exported fish use the *country codes*
Local codes:
LL: Local loining
LN: Local canning
LM: Local market
LC: Local crew use
LO: Local other pls specify (in comments)

Species

Code	Common Name
YFT	Yellow fin
BET	Bigeye
ALB	Albacore
SKJ	Skipjack
MLS	Striped marlin
BUM	Blue marlin
BLM	Black marlin
SWO	Swordfish
SFA	Sailfish
SSP	Short-billed spearfish
MAK	Mako sharks
FAL	Silky shark
DOL	Mahimahi
RRU	Rainbow runner
LAG	Opah
WAH	Wahoo
COM	Spanish mackerel
TST	Sickle pomfret

Group codes

BRZ	Breams and pomfrets
BIL	Marlins, spearfish, sailfish
SKH	Sharks
SHF	Shark fins (bags)

N.B. Avoid using group codes if a species code will work

Weight: (kg) in kilograms must be recorded to the first decimal place (e.g. 58.79kg is written as 58.8kg, 55.55kg as 55.6kg, 52.31kg as 52.3kg) See "Weight Codes" on front of form.

Country codes:
AS - American Samoa
AU - Australia
EU - Europe
HK - Hong Kong
HI - Hawaii
JP - Japan
NZ - New Zealand
TW - Taiwan
US - Mainland US
OT - Other

Important !
Try to record every fish even if you are unable to measure it. If possible also check the vessel for fish that are kept back for crew 's use. Record fish not sampled in the table of fish counts in the comment box.

Typical example of a record for yellow fin landed for export to Japan

25	*YFT*	*125*	*UF*	*56*	*GG*	*JP*	

The **"Other"** column at far right is for extra information you may be asked to collect. E.g.: an extra measurement for conversion factor purposes

Indicate by circling on all forms.	TUN	BIL
Were they all unloaded ?	Y / N	Y / N
Were all the unloaded fish	Y / N	Y / N
Did the sampler check the fish hold?		Y / N
CALIBRATION	+/-	mm

COMMENTS: IF UNABLE TO RECORD UNMEASURED FISH ABOVE then TALLY and TOTAL THOSE FISH HERE: and other COMMENTS

Eg: *SKJ* 𝍸 𝍸 | = 11

Eg: *When asked why no marlin unloaded the Captain said it was unloaded to Grabit Co.,*

Table of fish counts (for unmeasured fish only)

SPECIES	SKJ		
NUMBER	11		

Fish counts (first page only): - Display the sum of your fish tallies for all unmeasured fish neatly in this table on the first page that you use.

Circle "Y" (yes) or "N" (no) for all questions. for tuna and billfish (BIL). If a few fish are kept back for the crew and not unloaded you can answer "Y". Only circle "N" when several fish are being kept on board to be off-loaded at another place, time or market. All of these questions must be answered on all submitted forms. **Hint**: You will give the exact same answer on every form used for the same unloading, and you won't be able to answer these questions until the end of sampling. **CALIBRATE YOUR CALLIPER** Before every port sampling session. Record any reading errors here in milimeters. If the callipers is recording 29.7 cm when it shoud be 20cm record a calibration of - 3 mm. See extra trainiing notes.

***Example**: Forty-one of these low valued species were rapidly unloaded to bins while other export species were being measured.

Number (Port sampler should always add these)
Sum of Lengths and **Sum of Weights**
(The results are used by data entry staff to check that they have made no mistakes. Some countries also use this information to add directly intto the TUFMAN database.)
Only add up for the species measured on **this** form Don't include counts that are in the "Record Counts of Fish Not Sampled and Comments" box.

NUMBER							
SUM LENGTHS							
SUM WEIGHTS							

SPC / FFA REGIONAL POLE-AND-LINE PORT SAMPLING FORM

REVISED: DEC 2016

PORT:	SAMPLER:	Staff ID Code	ASSISTANT:	Staff ID Code	PAGE OF

VESSEL NAME:	FFA VID NO.	IRCS	REGISTRATION — COUNTRY AND NUMBER

DATE AT START OF TRIP: (departed from port)	Y Y	M M	D D	DATE AT END OF TRIP: (arrived in port)	Y Y	M M	D D	DATE OF SAMPLE:	Y Y	M M	D D

FISHING AREA	FROM LATITUDE	N S	TO LATITUDE	N S	FROM LONGITUDE	E W	TO LONGITUDE	E W

SORTING - VERY IMPORTANT !

TICK ONE BOX BELOW

- ☐ Not sorted before sample ⇨
- ☐ Sorted by species only ⇨
- ☐ Sorted by size and species ⇨

Record weight of each species landed. ⇨
Record size class of sorted fish at right. ⇨

WEIGHT OF CATCH (KG) from unloadings records after sampling

SKJ	YFT	BET	YFT & BET	MIXED TUNA	OTHER SPECIES

SIZE SORTED FISH SIZE CLASSES

Eg: *3 to 6 kg.*

1

2

3

IF MEASURING SORTED CATCH

- Record only ONE size class of fish in each column. Use two or more columns for each size class if necessary.
- AT THE TOP OF EACH COLUMN write in the size class which is recorded in that column

CALIBRATION

+ / − mm

IF MEASURING CATCH THAT HAS NOT BEEN SORTED

- Be sure that the fish you measure are collected RANDOMLY from throughout the unloading.

SIZE CLASS =		SIZE CLASS =		SIZE CLASS =		SIZE CLASS =		SIZE CLASS =		SIZE CLASS =	
SPECIES CODE	LENGTH (cm)	SPECIES CODE	LENGTH (cm)	SPECIES CODE	LENGTH (cm)	SPECIES CODE	LENGTH (cm)	SPECIES CODE	LENGTH (cm)	SPECIES CODE	LENGTH (cm)
1		26		51		76		101		126	
2		27		52		77		102		127	
3		28		53		78		103		128	
4		29		54		79		104		129	
5		30		55		80		105		130	
6		31		56		81		106		131	
7		32		57		82		107		132	
8		33		58		83		108		133	
9		34		59		84		109		134	
10		35		60		85		110		135	
11		36		61		86		111		136	
12		37		62		87		112		137	
13		38		63		88		113		138	
14		39		64		89		114		139	
15		40		65		90		115		140	
16		41		66		91		116		141	
17		42		67		92		117		142	
18		43		68		93		118		143	
19		44		69		94		119		144	
20		45		70		95		120		145	
21		46		71		96		121		146	
22		47		72		97		122		147	
23		48		73		98		123		148	
24		49		74		99		124		149	
25		50		75		100		125		150	
Σ lengths		Σ lengths		Σ lengths		Σ lengths		Σ lengths		Σ lengths	

Notes for POLE-AND-LINE PORT SAMPLING FORM

Use Pole-and line Port Sampling Forms to record lengths of fish unloaded from pole-and-line vessels at end of a trip.
Only sample fish for which you can obtain good information about area caught and time period of fishing.
Most pole-and-line vessels trips are short and there is enough information in basic trip details. If sampling a large, distant water, pole-and-line boat, try to sample fish from a 5-degree by 5-degree square, landed during the same month.

If the sample from a single sampling session has more than 150 fish, use additional Pole-and-line Port Sampling Forms.
Port, vessel name and date of sample must be re-entered on each extra page exactly as they appear on the first page.

NEW 2014: *All dates to be recorded using 2-digit number for each of year "*Y Y*", month "*M M*" and day "*D D*" in that order. To do this put a "0" in front of single digit numbers. E.g.: write the "3rd of January, 1996" as '96 01 03'.*

HEADER INFORMATION

PORT ..... The port of unloading
SAMPLER ..... The first and last name of the person measuring the fish. If only one person sampling fill in 'sampler'.
ASSISTANT ..... First and last name of person writing measurements, if different from the sampler
VESSEL NAME ..... Full name of boat (no abbreviations), with number if there is one (e.g.: *Skippy 3*)
FFA VESSEL VID The FFA vessel register number. May be on the vessel's licence.
REGISTRATION: COUNTRY AND NUMBER Record the country of registration (flag) and the vessel's reg. number.
IRCS .... Fill in the International Radio Call Sign
DATE AT START OF TRIP ..... The date the vessel left port at the beginning of the trip
DATE AT END OF TRIP ..... The date the vessel returned to port at the end of the trip
DATE OF SAMPLE ..... The day the sample was taken. The first date of sampling if sampling was over several days.

FISHING AREA - get this information from vessel logsheets !

Write down the two lines of latitude and the two lines of longitude between which fishing took place . Usually this is a box which surrounds the area that the fishing took place throughout a trip but if sampling a large, distant water, pole-and-line boat this will be the 5° x 5° square or other area identified as being where the sampled fish came from.

CALIBRATE YOUR CALLIPER Before every port sampling session. Record any reading errors here in milimeters. If the callipers is recording 29.7 cm when it shoud be 20cm record a calibration of - 3 mm. See extra trainiing notes.

SORTING - Only ONE box must be ticked.

Normal practice is to try to sample the fish before they get sorted during the unloading process.
To do this collect specimens entirely at random spread all through the unloading.
This will give a good sample to be used for species composition and length frequency analyses.
TICK THE UPPER BOX in this case.

Sometimes fish is sorted into different species before the port sampler can collect specimens to measure.
The sampler must collect specimens of each species from all through the catch but must TICK THE SECOND BOX.
The sampler must also be sure to collect the unloading weight of each species when unloading is complete.

If sorting is also by size class before measuring, sample fish from each size class separately. TICK THE THIRD BOX.
The sampler must be sure to collect the total unloading weight of each size class and species at the end of unloading.

Always try to measure fish before they are sorted if possible !

WEIGHT OF CATCH. The weight of all fish unloaded must be obtained and recorded in this table.

Try to get the unloading weight of each individual species.

If the catch has bigeye tuna that is **not separated** from yellowfin tuna, record the combined YFT & BET weight.
If skipjack and other tunas are not sorted during unloading then the MIXED TUNA weight will need to be recorded.
Recording weight of MIXED TUNA should only be a last resort if individual species weights cannot be obtained.
If there are difficulties with weights then write a brief note about it in the spare lines on the table.

SIZE CLASS

If fish can only be measured after it has been sorted then there are TWO IMPORTANT REQUIREMENTS.

1. Each size class must be recorded in the right hand column of the WEIGHT OF CATCH table.
   The weight of each size class must then be recorded in the correct species columns alongside the recorded size class.

2. The lengths of fish from only one size class should be entered in each column when recording measurements.
   Each column must have the size class of the fish in it noted at the top of the column.

SPECIES and LENGTH DATA Take length measurements from the tip of the upper jaw to the fork of the tail.
SPECIES Species codes, for example: SKJ; DOL; YFT; RRU
LENGTH The length, in centimetres, rounded to the nearest centimetre down. I.e.: 67.9 cm becomes 67 cm.
Σ LENGTHS (= sum of lengths): - Add up lengths in the column directly above. This is used for data entry checking.

12.5 SPC / FFA REGIONAL ARTISANAL FORMS

- SPC / FFA Regional FAD Deployment Form (ART-1 page 1)
- SPC / FFA Regional FAD Maintenance Form (ART-1 page 2)
- SPC / FFA Regional Vessel Identification Form (ART-2)
- SPC / FFA Regional Vessel Fishing Activity (ART-3)
- SPC / FFA Regional Logsheet (ART-4)
- SPC / FFA Regional Sampling (ART-5)

SPC / FFA REGIONAL STANDARD ARTISANAL TUNA FORM ART-1
FAD: DEPLOYMENT REGISTRY

REVISED DEC 2016

COUNTRY:	ISLAND:	DISTRICT OR PROVINCE:	VILLAGE:

FAD NAME, LOCATION, BATHYMETRIC and DEPLOYMENT INFORMATION	
DEPLOYMENT LOCATION (*this is the same as TUF-ART's "area fished"*)	DEPLOYMENT DATE (YYYY/MM/DD):
FAD NAME AND NUMBER:	ESTIMATED DATE THAT FAD WAS LOST (YYYY/MM/DD):
LATITUDE (DD° MM.MMM N/S):	DEPLOYMENT DEPTH (m):
LONGITUDE (DDD° MM. MMM E/W):	DISTANCE FROM SHORE (m):

FAD DETAILS						
FAD TYPE: (circle one)→	LAGOON	NEARSHORE SURFACE	NEARSHORE SUBSURFACE	OFFSHORE	OFFSHORE SURFACE	OTHER
FAD DESIGN: (circle one)→	INDIAN OCEAN	SPAR BUOY	BAMBOO RAFT	CUSTOM	IF OTHER PLEASE SPECIFIY …	

FAD FLOATING ELEMENTS (if INDIAN OCEAN DESIGN)	
NUMBER OF PRESSURE FLOATS USED:	NUMBER OF PURSE SEINE FLOATS USED:

FAD MOORING ROPE						
FLOATING ROPE LENGTH (m):	FLOATING ROPE DIAMETER (mm):		FLOATING ROPE TYPE:		FLOATING ROPE - NO. OF STRANDS:	
SINKING ROPE LENGTH (m):	SINKING ROPE DIAMETER (mm):		SINKING ROPE TYPE:		SINKING ROPES - NO. OF STRANDS:	
AGGREGATOR TYPES: (circle one or more)→	NONE	COCONUT FOND	BAMBOO	NETTING	PLASTIC STRAPS	OTHER
SUPPLEMENTARY BUOYANCY USED:	YES / NO		NUMBER OF FLOATS:		PRESSURE RATING OF FLOATS (m):	
LENGTH OF CHAIN (m):			DIAMETER OF CHAIN (mm):			

FAD ANCHORING SYSTEM						
ANCHOR TYPES: (circle one or more)→	GRAPNEL	ANCHOR	DISCARDED MACHINERY	CEMENT DRUMS	CEMENT BLOCK	OTHER
ANCHOR WEIGHTS (record the weight in kg)→						

FAD CONNECTING PARTS			
NUMBER OF SWIVELS USED:	SIZE OF SWIVELS (mm):	NUMBER OF SHACKLES USED:	SIZE OF SHACKLES (mm):
NUMBER OF THIMBLES/ CONNECTORS USED:	SIZE OF THIMBLES/CONNECTORS (mm):	OTHER CONNECTORS USED:	OTHER CONNECTORS USED:

FAD: DEPLOYMENT REGISTRY	FORM ART-1(pg1)i
Country: Record the full name of the country where the FAD was deployed.	
Island: Record the full name of the island where the FAD was deployed, if different to country name.	
District or Province: Record the name of the district or province off where the FAD was deployed.	
Village: Record the name of the closest village to where the FAD was deployed (if appropriate).	
FAD NAME, LOCATION, BATHYMETRIC and DEPLOPYMENT INFORMATION	
Deployment Location: Record the area the FAD was deployed into. This must be the same as the TUF-ART "area fished". A FAD is considered as a fishing area in TUF-ART, but the island, region, area will aslo be added to the database. For more information consult the Artisanal Monitoring Guide.	
FAD Name and Number: Record the agreed name of the FAD and its number. It is best to have and to refer to a national naming system for FADs before doing this.	
Latitude: Record the FADs latitude position in degrees, minutes and decimal minutes. Note if the position was north or south of the equator.	
Longitude: Record the FADs longitude position in degrees, minutes and decimal minutes. Note if the position was east or west of the 180th meridan.	
Deployment Date: Record the date the FAD was first deployed using the day/month /year format.	
Estimated Date that the FAD was lost: When releveant, record the date the FAD was lost.	
Deployment Depth : Record in meters the total depth of the water column where the FAD was deployed.	
Distance from Shore: Record in meters the distance the FAD was deployed away from the shore line	
FAD DETAILS	
FAD Type: Circle one option to show what type of FAD was deployed.	
FAD Design: Circle one option to show what FAD design was used.	
FAD FLOATING ELEMENTS (if Indian Ocean Design)	
Number of pressure floats used: Record the total number of pressure floats used.	
Number of purse-seine floats used: Record the total number of purse-seine floats used.	

*** See the Artisanal Monitoring Manual for more explanation on any of the equipment mentioned on this form ****

FAD MOORING ROPE
Floating Rope Length: Record in meters the total length of the upper mooring rope.
Floating Rope Diameter: Record in millimeters the upper rope's diameter.
Floating Rope Type: Record the type of rope used in the upper moorings (e.g. nylon e.t.c)
Floating Rope - no of strands: Record the number of strands in the mooring rope (e.g 3-strand, 8-strand e.t.c)
Sinking Rope Length: Record in meters the total length of the lower section of the mooring rope.
Sinking Rope Diameter: Record the diameter in millimeters of the lower section of the mooring rope.
Sinking Rope Type: Record the type of rope used in the lower section of the moorings (e.g XXXXX).
Sinking Rope - No of strands: Record the total number of strands in the lower section of the rope. (e.g 12-strand e
Aggregator Types: Circle one or more to indicate the type of material(s) attached to the FAD.
Supplementary Buoyance Used?: Circle Yes or No to indicate if extra buoyancy was added the FAD or not.
Number of floats: Record the total number of floats that were added to the top section of the mooring rope.
Pressure Rating of Floats: Record the pressure rating of the floats in meters
Length of Chain: Record in meters the total length of the chain that links the buoy to the upper mooring rope.
Diameter of Chain: Record the diameter of the chain that links the buoy and upper mooring rope in millimeters.
FAD ANCHORING SYSTEM
Anchor Types: Indicate by circling one or more of the options which type of materials were used as anchors.
Anchor Weights: For any circled anchor type indicate the total weight of the anchor type in kilograms.
FAD CONNECTING PARTS
Number of swivels used: Record the total number of swivels used (swivels are normally placed between the chain and the rope).
Size of Swivels: Record in millimeters the size of the swivels.
Number of Shackles used: Record the total number of shackles used (normally placed between all connections).
Size of Shackles: Record the size of the shackles in millimeters.
Number of Thimbles/Connectors used: Record the total number of thimbles (or connectors) that have been used
Other Connectors Used: Record the name(s) of any other types of connectors that have been used (rope connector, hardware connectors etc).

SPC / FFA REGIONAL STANDARD ARTISANAL LINE FISHERY FORM ART-1
FAD: COST AND MAINTENANCE SCHEDULE

REVISED MARCH 2014

FAD NAME:	FAD NUMBER:	CURRENCY: (e.g., AUD, NZD, USD, PGK, SBD)

TOTAL COST OF FAD MATERIALS	
PRESSURE FLOATS:	SUPPLEMENATRY BUOYANCY:
PURSE SEINE FLOATS:	CHAIN:
FLOATING ROPE:	ANCHORING SYSTEM :
SINKING ROPE:	CONNECTING PARTS:
AGGREGATOR:	IF OTHER PLEASE SPECIFY …

TOTAL COST OF FAD RIGGING	
NUMBER OF MAN HOURS TO RIG FAD:	EQUIPMENT HIRE:
PAID LABOUR:	IF OTHER PLEASE SPECIFY …

TOTAL COST OF FAD DEPLOYMENT	
NUMBER OF MAN HOURS TO DEPLOY:	VESSEL HIRE:
PAID LABOUR:	FUEL:
IF OTHER PLEASE SPECIFY …	IF OTHER PLEASE SPECIFY …

FAD MAINTENANCE SCHEDULE, ACTIVITY and COST		
DATE:	MAINTENANCE ACTIVITY:	COST:
DATE:	MAINTENANCE ACTIVITY:	COST:
DATE:	MAINTENANCE ACTIVITY:	COST:
DATE:	MAINTENANCE ACTIVITY:	COST:
DATE:	MAINTENANCE ACTIVITY:	COST:
DATE:	MAINTENANCE ACTIVITY:	COST:
DATE:	MAINTENANCE ACTIVITY:	COST:

FAD COST AND MAINTENANCE SCHEDULE FORM ART-1(pg2)i
FAD Name: Record the FAD name; preferable as agreed under a national FAD naming scheme.
Fad Number: Record the FAD number, making sure to following any sequential numbering for replaced FADS.
Currency: Record the currency that will be used to record the monetary amounts on this form (normally this will be the local currency).

TOTAL COSTS OF FAD MATERIALS
Pressure Floats: Record the total cost of all pressure floats used in the construction of this FAD.
Purse-Seine Floats: Record the total cost of all purse-seine floats used in the construction of this FAD.
Floating Rope: Record the total cost of the floating rope used in the upper section of the mooring rope.
Sinking Rope: Record the total cost of the sinking rope used in the lower section of the mooring rope.
Aggregator: Record the total cost of any aggregator(s) used in the construction of this FAD.
Supplementary Buoyancy: Record the total cost of any extra buoyancy used in the construction of this FAD.
Chain: Record the total cost of any chain used in the construction of the FAD.
Anchoring: Record the total cost of any anchoring used in the construction of this FAD.
Connecting Parts: Record the total cost of any connecting parts used in the construction of this FAD.
If other please specify ... If there were other fad material costs record the type of item and the cost.

TOTAL COST OF FAD RIGGING
Number of Man Hours to Rig FAD: Record the total number of hours of labour that were required to rig the FAD.
Equipment Hire: Record the cost of hiring any equipment (vehicle, etc).
Paid Labour: Record the total cost of the man hours to rig the FAD.
If other please specify... If there were other Fad rigging costs record the type of item and the cost.

TOTAL COST OF FAD DEPLOYMENT
Number of Man Hours to Deploy: Record the total number of hours of labour that were required to deploy the FAD.
Paid Labour: Record the total cost of any paid man hours to rig the FAD.
If other please specify ... If there are other costs involved with deploying the FAD mark the name of the item and the total cost.
Vessel Hire : Record the total cost to hire the vessel to deploy the FAD.
Fuel: Record the total cost of the fuel used to deploy the FAD.

FAD MAINTENANCE SCHEDULE, ACTIVITY and COST
Date: Record the date that any maintainance were carried out on the FAD. Use this format (YYYY-MM-DD).
Maintenance Activity: Record the type of activity that was done (e.g. checks, repairs, modifications).
Cost: Record the total cost of the maintenance. Include any transport, labour and equipment costs.

SPC / FFA REGIONAL STANDARD ARTISANAL LINE FISHERY — FORM ART-2

VESSEL IDENTIFICATION FORM

REVISED DEC. 2016

VESSEL IDENTIFICATION

VESSEL'S NAME:				
ISLAND CODE: *(fisheries to allocate)*		UNIQUE VESSEL ID: *(fisheries to allocate)*		
NATIONAL VESSEL REGISTRATION NUMBER: *(if any)*				
MOORING / DOCKING:			LATITUDE (dd mm.mmm) N / S	LONGITUDE (ddd mm.mmm) E / W
TYPE	LOCATION	GPS POSITON →		

OWNER'S DETAILS

OWNER'S NAME:			
OWNER'S POSTAL ADDRESS:			
OWNER'S ISLAND NAME, REGION, COUNTRY:			
ELECTRONIC CONTACT DETAILS:	PHONE NUMBER	EMAIL ADDRESS	
NUMBER OF OTHER SMALL-SCALE VESSELS THE OWNER HAS *(if any)*			

VESSEL SPECIFICATIONS

VESSEL MAKE: *(name of the manufacturer, if any)*					IS THIS A CHARTER FISHING VESSEL?	Y / N
HULL MATERIALS: *(circle 1)* →		FIBREGLASS	WOOD	STEEL / ALUMINIUM	OTHER	
VESSEL'S LENGTH: *(vessel length overall in meters)*						
VESSEL'S APPEARANCE →		MONO-HULL or CATAMARAN		CABIN Y / N	MAIN COLOUR	
VESSEL'S MAIN MODE OF POWER: *(circle one)*		SAIL	PADDLE	INBOARD MOTOR	OUTBOARD MOTOR	
INBOARD MOTOR:	SIZE Hp	FUEL TYPE: *(circle one)* →		2- STROKE	4-STROKE	DIESEL
OUTBOARD MOTOR(S):	NUMBER OF OB MOTORS	AVERAGE SIZE OF OB MOTORS (Hp)		NO. of AUXILLARY MOTORS		AVERAGE SIZE OF AUXILLARY MOTORS (Hp)

VESSEL ACTIVITY

VESSEL ACTIVITY: *(circle all that apply)*	CURRENTLY NOT SEA-WORTHY	FISHED LAST YEAR	EXPECTED TO FISH THIS YEAR	
REPAIRS REQUIRED:				
HOW OFTEN IS THE VESSEL USED FOR FISHING? *(circle 1)*	MOST DAYS	WEEKLY	MONTHLY	RARELY OR NEVER
IF MOST DAYS, HOW MANY TRIPS A DAY NORMALLY?	ONE	TWO	THREE	MORE THAN THREE
WHERE DOES THE VESSEL USUALLY FISH? *(circle 1)* →	INSIDE LAGOON	OUTSIDE LAGOON	INSIDE AND OUTSIDE	OTHER
WHAT FISH DOES THE VESSEL USUALLY TARGET? *(circle 1)* →	REEF	TUNA	OTHER PELAGIC	REEF AND PELAGIC

SEA SAFETY

WHAT SAFETY EQUIPMENT DOES THE VESSEL HAVE? *(circle all safety equipment that are normally on the vessel, and state the expiration date where appropriate)* →	LIFEJACKET	LIFE RAFT	FIRST AID KIT	WATER CONTAINER
	ENGINE TOOLS AND SPARES	BAILING DEVICE	ANCHOR AND ROPE	SPARE FUEL
	AUXILIARY MOTOR	PADDLE	SAIL	SHADE CLOTH OR TARPAULIN
	FLARES	MIRROR	LASER	TORCH / FLASHLIGHT
EPIRB (radio beacon)	GPS	ECHO SOUNDER	RADIO	COMPASS
DATE OF EXPIRATION *(i.e. for the life raft, flares or EPIRBS).*				

FORM

DATE COMPLETED (YY/MM/DD)	FORM FILLED BY:	*OTHER COMMENTS*

SPC / FFA REGIONAL STANDARD ARTISANAL LINE FISHERY **FORM ART-2i**

VESSEL IDENTIFICATION FORM

Revised Dec. 2016

VESSEL IDENTIFICATION	VESSEL NAME: *(enter vessel name)*	Record the vessel name. Include any numbers (i.e. Tamara 3). The vessel's name will be recorded on the logsheet form and so it is important that the vessel name on this identification form matches the vessel idetification form.
	ISLAND CODE: *(fisheries to allocate)*	Record a 3-letter code representing the island a sub-group of the island (i.e. province here). SPC can provide this code if necessary. As an example the island code for Funafuti is 'FUN'.
	UNIQUE VESSEL ID: *(fisheries to allocate)*	Record a unique 4-digit vessel identification number for the vessel. (i.e. 0002)
	NATIONAL VESSEL REGISTRATION NUMBER (if any)	If there is a separate national vessel registration system in place (that is not suitable for the Ministry of Fisheries) link the vessel to national vessel registration system by recording the number here.
	MOORING DOCKING : TYPE, LOCATION, GPS POSITION	Record the type of docking used: (TYPES = Moorings, Anchor, Jetty, Wharf, Trailer, Beach). Provide an appropriate physical location (mailing address or known area / beach name) for where the vessel is normally kept when not fishing. Also provide a GPS location of the mooring/docking area.

OWNER's DETAILS	OWNER NAME:	Record the full name of the vessel owner as it would appear on his/her passport. The Christian name or the given name should be written first and then the surname. Avoid the use of initals. The owner's name will be recorded on the logsheets, so it is important that the name is recorded in the exact same way on both forms. If the vessel owner is not a person, record the most relevant family name or the company name here.	
	OWNER's POSTAL ADDRESS:	Write in the full postal address where the vessel owner can be contacted by regular mail.	
	ISLAND NAME, COUNTRY:	Write the name of the island where the owner lives and then the name of the country.	
	ELECTRONIC CONTACT DETAILS:	PHONE : Record a phone number where the owner can be contacted here.	EMAIL Record any email address where the owner can be contacted here.
	NUMBER OF OTHER SMALL-SCALE VESSELS OWNED:	If the owner has any other small-scale vessels mark the number here, and fill in a form for each vessel.	

VESSEL SPECIFICATIONS	VESSEL MAKE: *(name of the manufacturer if any)*	Record the name of the boat builder if the vessel was commercially made. An example might be Quintrex, Charlie's yard etc. If the vessel was not made by a boat builder i.e. a home-made canoe, just dash this data field.
	IS THIS A CHARTER FISHING BOAT ?	Circle Y if the vessel is only / or normally used as a charter fishing boat. A charter vessel is one that is mainly used to carry paying customers.
	HULL MATERIALS: *(circle 1)*	Simply circle one type of material to indicate the main hull material.
	VESSEL LENGTH: *(enter vessel length in meters)*	Record the 'length overall (LOA)' of the vessel in meters. Length overall is the maximum length of a vessel's hull when measured parallel to the waterline. If an actual 'LOA' length is not available, then record a good estimate.
	VESSEL APPEARANCE: *(circle one)*	Circle to indicate if the there are one (mono-hull) or two hulls (catamaran). Circle Y if the vessel has any type of cabin. For information different types of cabins are: regular type - a fisher can stand up inside, cuddy cabin - smaller, with no space to stand, or bimin (open on sides with poles holding tarpaulin over head). Record the main colour of the hull.
	VESSEL'S MAIN MODE OF POWER: *(circle one)*	Simply circle to indicate the main type of power that is used to move the vessel. If two types of power are used i.e. a paddle and a sail then circle the most common method used to propel the vessel during fishing.
	FUEL TYPE (Circle one)	Circle one choice to show what fuel the vessel was using.
	INBOARD MOTOR SIZE	Outboard vessels are built into the boat. Record the size of the inboard motor in horsepower.
	OUTBOARD MOTOR(S)	Outboard motors are attached to the outside of the vessels. Record the total number of any outboard engines, and the record the average horsepower for these outboard motor(s).
	AUXILLARY MOTORS	Auxillary motors are normally carried as a reserve or safety motor and are attached to the outside of the vessels. Record the total number of any auxillary outboard engines, and then record the average horsepower for these auxillary outboard motor(s).

VESSEL ACTIVITY	VESSEL ACTIVITY *(circle all that apply)*	Circle **all** choices to show if the vessel was sea-worthy on the day the form was filled. Then, indicate if the vessel was generally used for fishing in the previous 12-months. Do not circle this choice if the vessel was rarely used for fishing during the previous 12-months. Indicate if the owner intends to use the vessel for fishing in the following 12-months. When answering this question be conscious of whether the vessel is currently sea-worthy, and the type repairs that are required (see below).
	REPAIRS REQUIRED	Ask the owner if there are any major or minor repairs to be made on the boat. Record what type of repairs are required and note, if possible, the approximate date the owner hopes to complete the repairs.
	HOW OFTEN IS THE VESSEL USED FOR FISHING?	Show by circling one option how often the vessel usually fishes. Circle 'most days' if the vessel fishes at least 3-4 times a week. Circle monthly if the vessel only fishes about 1-3 times a month.
	IF MOST DAYS, HOW MANY TRIPS A DAY NORMALLY	If the vessel usually makes more than one trip per day, record the average number of trips it usually undertakes during any day or any 24-hour period. If the vessel regularly fishes at night then these trips should be counted.
	WHERE DO YOU USUALLY FISH? *(circle one)*	Circle one choice to indicate the broad area / zone where the vessel usually fishes. This should relate to the vessel's fishing practices in the previous three-months, while also considering the owner's intentions for the vessel for the following year.
	WHAT FISH DOES THE VESSEL USUALLY TARGET? *(circle one)*	Circle to indicate the main type of fish the vessel generally targets. This should consider the type of fish the vessel targetted over the last few months, while aslo considering the owner's intentions for the vessel for the following year. Use the comments below to explain any mixed fishing or extended periods of mixed use like transport and fishing.

SEA SAFETY	WHAT SAFETY EQUIPMENT DOES THE VESSEL HAVE? *(circle all safety equipment)*	Circle each safety equipment that the vessel normally has on-board.
	DATE OF EXPIRATION	If possible record the date of expiration for any of the relevant safety equipment. This may be difficult to do without inspecting the equipment, but the information is helpful when available.

COMMENTS: Use this area to record extra notes on the vessel. Include comments that will help identifiy the vessel. Describe the vessel's cabin if any. Include more on the vessel's design. Record the actual boat design name and attach a photo of the boat. Explain more on the vessel's fishing practices like how often it usually fishes, and what type of fish it targets. For instance, does it change the target species during some months etc etc.

SPC / FFA REGIONAL STANDARD ARTISANAL LINE FISHERY — FROM ART-3
VESSEL FISHING ACTIVITY

REVISED DEC 2016

YEAR	COUNTRY CODE	LANDING SITE	RECORDER - *name or code*

Vessel Activity Count ***Vessel Activity Count***

DATE MM DD	START TIME hh mm	END TIME hh mm	MOTOR	PADDLE	SAIL	FISHING ACTIVITY CODE	Date MM DD	START TIME hh mm	END TIME hh mm	MOTOR	PADDLE	SAIL	FISHING ACTIVITY CODE

FISHING ACTIVITY CODES								
	1 Normal	3 Industrial Vessel Unloading	5 Community Fishing Event	7 No Fuel	9 Competition Day
	2 No Survey	4 Adverse Weather	6 Community Obligations (Not-Fishing)	8 Sunday	10 Other - pls specify

SPC / FFA REGIONAL STANDARD ARTISANAL LINE FISHERY **FORM ART-3i**
VESSEL FISHING ACTIVITY

REVISED DEC 2016

EXAMPLE FORM

Vessel Activity Count

Date MM DD	START TIME hh mm	END TIME hh mm	MOTOR	PADDLE	SAIL	FISHING ACTIVITY CODE
April 14th	07.00	08.15	8	1		1
	11.15	12.45	5	1		
April 15th	NO SURVEY					2
April 16th	07.00	08.40	7	0		1
	11.20	13.05	5	1		
	17.20	19.25	1	1		
April 17th	07.05	08.55	8	2		1
	11.30	13.20	7	1		
April 18th	No Fishing Community Clean Up Day					6
April 19th	NO SURVEY					2
April 20th	NO SURVEY					2

Year: Record the year using a four-digit format (YYYY)

Country Code: Record the country code using the ISO 3166-1 standard for country codes.

Landing Site: Record the name of the landing site as agreed in your national sampling design document.

Recorder - name or code: Record the name of the person recording the information or use the 3-letter field staff code which can be provided by SPC.

Date: Record the date the vessel fishing activity count was recorded (month, day)

Start time: Record the time you arrived at the landing site to carry out the vessel fishing activity count. **End time**: Record the time you left the landing site and stopped counting vessel activity.

Fishing Activity Code : Samplers should describe the nature of the vessel activity every day of the year, even on days when no survey is undertaken. How this can be achieved should be described under the national sampling design document.

1 - ***Normal day***

2 - ***No Survey***

3 - ***Industrial vessel unloading***

4 - ***Adverse Weather***

5 - ***Community Fishing Event***

6 - ***Community Obligations - Not Fishing***

7 - ***No fuel***

8 - ***Sunday***

9 - ***Competition Day***

10 - ***Other pls specify***

Remember - It can happen that there will be no vessels fishing on normal day, most especially at landing sites with only a few vessels. This should not be recorded as a normal day. Record fishing code 1 and zero under the vessel activity count.

REVISED DEC. 2016

Trip Information

LANDING SITE	VESSEL NAME	DEPARTURE DATE and TIME YY MM DD hh mm	PAGE NO ..... OF .....
RECORDER - name or code	VESSEL OWNER	RETURN DATE *(if different)* **and TIME required** YY MM DD hh mm	
NO. OF CREW - not skipper- Male / Female	SKIPPER'S NAME	BOAT POWER - circle one MOTOR PADDLE SAIL	

Fishing Events

FISHING EVENT No. 1

FISHING AREA			DID YOU FISH WITHIN ONE MILE of a FAD ?	Y N	No. of FISH LOST or DAMAGED by SHARKS THIS EVENT?		NUMBER	DID YOU CATCH FISH ? Y / N		
			SPECIES	NO.	KG	END USE CODE	SPECIES	NO.	KG.	END USE CODE
FAD NAME (if relevant)										
FISHING METHOD										
HOURS FISHING THIS EVENT	NUMBER OF									
	LINES	HOOKS								

FISHING EVENT No. 2

FISHING AREA			DID YOU FISH WITHIN ONE MILE of a FAD ?	Y N	No. of FISH LOST or DAMAGED by SHARKS THIS EVENT?		NUMBER	DID YOU CATCH FISH ? Y / N		
			SPECIES	NO.	KG	END USE CODE	SPECIES	NO.	KG.	END USE CODE
FAD NAME (if relevant)										
FISHING METHOD										
HOURS FISHING THIS EVENT	NUMBER OF									
	LINES	HOOKS								

Trip Costs

ITEMS	ESTIMATE FOR THIS TRIP			GEAR PURCHASED LAST 7 DAYS
	AMOUNT USED	UNIT	AMOUNT PAID	
FUEL		L / GAL		
ICE		KG / LB		
BAIT		KG / LB		
OTHER				

END USE CODES

1 COMMUNITY MARKET	2 PROVINCIAL MARKET	3 URBAN MARKET	4 RESTAURANT
5 HOME CONSUMPTION	6 GIVEN AWAY	7 COMMUNITY DONATION	8 OTHER - PLS SPECIFY

SPC/ FFA REGIONAL STANDARD ARTISANAL LINE FISHERY	FORM ART-4i
Rev Dec. 2016	FISHING LOGSHEET

Trip Information

Landing Site: Record the name of the place the vessel normally departs and returns to. A list of recognised landings site names are available from your local Fishery Officer.

Recorder - name or code: Record the name of the person filling in the form. Field staff codes are available from SPC.

Number of Crew (male), (female): Record the total number of crew by their gender (do not include the Skipper).

Vessel Name: Record the name of the vessel.Use the same name every time the same vessel is encountered.

Vessel Owner: Record the vessel owner's name in full on every form.

Skipper's Name: Record the full name of the Skipper/Captain. If this is the same as the vessel owner, mark a dash.

Departure Date and Time: Record the date (year-month-date : hour: minute) the vessel departed.

Return date (if different) **and Time** required**:** Record the return time the vessel landed (hour: minute), and if the return date is different to the departure date that also (year-month-day). If the return date is the same, just add a dash.

Boat Power: Circle once to indicate the main source of power for the vessel.

Page Number: Record the page numbers, normally this will be filled in as page 1 of 1.

FISHING EVENTS

A fishing event is a period of fishing done in the same area, with the same fishing gear. When a vessel moves to a newarea, or uses newgear this is a recorded as a newfishing event.

Catch and Effort Information

Did you fish within one mile of the FAD? This is a cross-check question**.** Circle Y for yes if the fisher circled around or fished within one nautical mile of a floating or anchored FAD at any point during the fishing event. Normally, fishing around the FAD with zero catch should be recorded as a seperate fishing event.

No of fish lost or damaged by sharks this event? Tally the number of fish that were damaged by shark bites, along with any fish that were lost when sharks cut off the fishing lines.

Did you catch fish? This is a cross-check question. Record whether the vessel caught fish to properly capture all zero catch trips, or trips where the fisher does not declare their catch is recorded properly.

Fishing Area : Record the area the vessel was fishing in. Fishing areas must be defined at the national level under the sampling design document.

FAD Name - If the fishing has been on a FAD record the FAD name here.

Fishing Method: Record the type of fishing gear that was used. Use the standard English names. A standardised list with graphics is available in the monitoring manual.

Total hours fishing: Record the total times (in multiples of half hours) spent fishing for this fishing event.

Lines: Record the total number of fishing lines used during the fishing event.

Hooks : Record the total number of hooks deployed during the fishing event.

Catch

Species - Record the name of all the species that were caught. Use the 3-letter FAO code or the common name.

NO. Number - Record the total number of fish that were landed for each species type.

KG : Record an eye-estimate of the total weight of each species landed in kilograms.

END USE CODES Record what the skipper expects will happen to the fish that were landed. See the codes on the front of the form.

Trip Costs

How much did you use? Record the amount (in litres, gallons/kilograms, pounds) of fuel, ice and / or bait that was used during the trip. Include any other items that were purchased for the trip like cigarettes, food items etc. **How much did you pay**? Record in the local currency amount how much the vessel paid for fuel/ice or bait before this trip.

Gear purchased in the last seven days Record and describe any fishing gear that was bought by the vessel in the last seven days. Record the total cost in the local currency amount. Don't worry if you have already recorded this question for the same vessel during the last seven days. Record the information every time the vessel is interviewed.

SPC / FFA REGIONAL STANDARD ARTISANAL LINE FISHERY SAMPLING FORM

FORM ART-5

REVISED DEC 2016

LANDING SITE	VESSEL NAME	DEPARTURE DATE and TIME					PAGE NO. ……OF…..
		YY	MM	DD	hh	mm	

CALLIPER CALLIBRATION + / - mm

FISHING EVENT No. ☐ FISHING EVENT No. ☐ FISHING EVENT No. ☐

	SPECIES CODE	LENGTH	SPECIES CODE	LENGTH	SPECIES CODE	LENGTH
1						
2						
3						
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12.6 ARCHIVED FORMS

- SPC / FFA Regional Longline Logsheet
- SPC / FFA Regional Shark Longline Logsheet
- SPC / FFA Regional Handline logsheet
- SPC / FFA Regional Interim Troll logsheet
- SPC / FFA Regional Longline Logbook
- SPC/ FFA Regional Observer Troll General Form (TR-1)
- SPC/FFA Regional Daily Log (TR-2)
- SPC/FFA Regional Catch Details (TR-3)
- SPC/ FFA Regional Troll Port Sampling Form
- SPC/FFA Regional Purse-Seine Port Sampling Form
- Regional Gamefish Tournament Data Sheet
- Game fishing Individual Vessel Logsheet
- Fishing Trip and Port Visit Log
- Papua New Guinea Compulsory Vessel Inspection and Checklist

REVISED: MARCH 2014

SPC / FFA REGIONAL LONGLINE LOGSHEET

PAGE _____ OF _____

NAME OF VESSEL	FISHING PERMIT OR LICENCE NUMBER(S)	YEAR

NAME OF FISHING COMPANY	FFA VESSEL REGISTER NUMBER	NAME OF AGENT IN PORT OF UNLOADING / NAME of CARRIER VESSEL and DESTINATION WHEN TRANSHIPPING AT SEA	PRIMARY TARGET SPECIES	TRIP NUMBER THIS YEAR
COUNTRY OF REGISTRATION	WCPFC IDENTIFICATION NUMBER		PORT OF DEPARTURE	DATE AND TIME OF DEPARTURE
REGISTRATION NUMBER IN COUNTRY OF REGISTRATION	INTERNATIONAL RADIO CALLSIGN		PLACE OF UNLOADING / TRANSHIPPMENT	DATE AND TIME OF UNLOADING / TRANSHIPPMENT

- **ALL DATES AND TIMES MUST BE IN NAUTICAL TIME**
- **ALL WEIGHTS MUST BE KILOGRAMS**
- **START A NEW LOGSHEET AFTER FULL OR PARTIAL UNLOADING OR TRANSHIPMENTS**

MONTH	DAY	ACTIVITY CODE	START OF SET OR NAUTICAL NOON TIME POSITION				SET START TIME	NUMBER OF HOOKS	HOOKS BETWEEN FLOATS	ALBACORE			BIGEYE			YELLOWFIN			SHARK		STRIPED MARLIN		BLUE MARLIN		BLACK MARLIN		SWORDFISH		OTHER SPECIES		
			LATITUDE DDMM	N S	LONGITUDE DDDMM	E W				No RET	KG RET	No DISC	No RET	KG RET	No DISC	No RET	KG RET	No DISC	No RET	No DISC	No RET	KG RET	No RET	KG RET	No RET	KG RET	No RET	KG RET	NAME	No RET	KG RET
							PAGE TOTAL																								
							TRIP TOTAL																								

ACTIVITY CODES
1 A SET
2 A DAY AT SEA BUT NOT FISHED AND NOT IN TRANSIT - PLEASE SPECIFY
3 TRANSIT
4 IN PORT - PLEASE SPECIFY

NAME OF CAPTAIN	SIGNATURE OF CAPTAIN	DATE

SPC / FFA REGIONAL LONGLINE LOGSHEET INSTRUCTIONS

*(NEW: **Nautical time** is the vessel's time related to its longitude position. Nautical time zones change with every 15 ° of longitude).*

Block One: Vessel Identification and Trip Information

Country of Registration and Registration Number in Country of Registration: Print the name of the country in which the vessel is registered (e.g. "Japan") and the registration number issued by the country in which the vessel is registered (e.g. "ME1-808").

FFA Vessel Register Number: Print the number issued by the Forum Fisheries Agency for inclusion of the vessel on the FFA Regional Register (e.g. "12345"). *Unique Vessel Identifier:* Print the vessel's UVI number.

Fishing Permit or Licence Number(s): If the vessel fished under one or more bilateral access agreements, then print the fishing permit number issued by each of the coastal states in whose waters the vessel fished during the trip. If the vessel fished under a multilateral treaty, then print the fishing permit number issued to the vessel under the multilateral treaty. If the vessel is registered in the coastal state, then print the fishing licence number issued by the coastal state.

Name of Agent in Port of Unloading: Print the name of the agency or agencies which represented the vessel in the port or ports in which the vessel unloaded the catch recorded on the logsheet. In case of transhipment at sea, print the name of the carrier and destination of the unloaded catch.

Year and *Trip Number This Year*: Print the year in which the vessel departed from port at the start of the trip and the number of trips the vessel has taken this year (including this trip). The start of a trip is defined to occur when a vessel transits to a fishing area after unloading part or all of the catch, regardless of whether the unloading took place in port or at sea. The end of a trip is defined to occur when a vessel unloads part or all of the catch, regardless of whether the unloading took place in port or at sea.

Place of Unloading/Transhipment: Specify the name of the port where the catch was unloaded, or the GPS position where transhipment occurs at sea.

Date and Time of Departure and Date and Time of Unloading/Transhipment : Specify the start date and time when the catch was unloaded in port, or when transhipment of catch occurs at sea. Use nautical time and this format (YYYY-MM-DD: hh:mm).

Primary Target species: Print the primary target species for this trip.

Block Two: Catches

Complete at least one line of Block Two for each set that was made during the trip. If no sets were made during the day, then provide the Month, Day, Activity Code, and the vessel's position at nautical noon-time. If necessary, use more than one line to record the catch of other species.

Month and *Day*: The day should correspond to the day on which the crew started the set; record the day number and not the day of the week.

Activity Code: Use Activity Code 1 ('A set') if the line in Block Two corresponds to a set of the longline gear in the water. Use Activity Code 2 ('A day at sea but not fished and not in transit – please specify') if the vessel was at sea, but the longline gear was not placed in the water that day and the vessel was **not** in transit, please describe the activity on the line that refers to that day. Use Activity Code 3 ('Transit') if no sets were made and the vessel spent most of the day in transit. Use Activity Code 4 ('In port - please specify') if no sets were made and the vessel spent most of the day in port. If no code exists, please describe the activity on the form.

Start of Set or Nautical Noon Time: If set was made, print the position for the start of the set. If no sets were made during the day, print the position for the vessel at nautical noon time. The position should be recorded to the nearest minute of latitude and longitude (e.g. "08–22 N" and "165–45 E").

Set Start Time: Print the UTC time when the crew started placing the longline gear in the water.

Number of Hooks: Print the total number of hooks that were set.

Hooks between Floats: Print the number of hooks used between successive two floats.

Albacore, *Bigeye* and *Yellowfin*: Print number of fish caught and retained under *No RET*. Print the total amount of the whole weights for albacore, and the gilled-and-gutted weights for bigeye and yellowfin, of all fish that were caught and retained, in kilograms, under *KG RET*. Print number of fish that were discarded or released under *No DISC*. Record small tuna (< 9kg / 20lbs / tuna too small for commercial markets) in the "Other species" column.

Shark: Print the number of fish caught and retained, **excluding** fish from which only the fins were retained and not the body, under *NO RET*. Print the number of fish discarded or released/struck off (live or dead), **including** fish from which only the fins were retained and not the body, under *No DISC*.

Striped Marlin, *Blue Marlin*, *Black Marlin*, and *Swordfish*: Print number of fish caught and retained under *No RET*. Print total amount of the processed weights of all fish that were caught and retained, in kilograms, under *KG RET*.

Other Species: Print the full name of the species under *NAME*. Print the number of fish caught and retained under *No RET*. Print the total amount of the processed weights of all fish that were caught and retained, in kilograms, under *KG RET*. When more than one 'other' species occurs in a set, use additional lines on the logsheet. If a species of special interest (such as a marine turtle, marine mammal or sea bird) is caught, then record the capture on a separate line. Record small tuna (< 9kg / 20lbs / tuna too small for commercial markets) in this "Other species" column.

Vessels Sighted: If other fishing vessels are sighted, write the name of the vessel, and other identifiers, such as the vessel type, on one line of the logsheet.

Whale Predation: If any fish were predated by whales, write the number of fish predated by whales on one line of the logsheet.

REVISED: MARCH 2014

SPC / FFA REGIONAL SHARK LONGLINE LOGSHEET

PAGE _____ OF _____

NAME OF VESSEL		FISHING PERMIT OR LICENCE NUMBER(S)				YEAR	TRIP NUMBER THIS YEAR
NAME OF FISHING COMPANY	FFA VESSEL REGISTER NUMBER	LENGTH OF FLOAT LINE	LENGTH OF BRANCHLINE	MAINLINE MONOFILAMENT? (Y/N)	BRANCHLINE MONOFILAMENT?(Y/N)	PORT OF DEPARTURE	DATE AND TIME OF DEPARTURE
COUNTRY OF REGISTRATION	UNIQUE VESSEL IDENTIFIER	• ALL DATES AND TIMES MUST BE IN NAUTICAL TIME • ALL WEIGHTS MUST BE KILOGRAMS • START A NEW LOGSHEET AFTER FULL OR PARTIAL UNLOADING				PLACE OF UNLOADING	DATE AND TIME OF ARRIVAL IN PORT
REGISTRATION NUMBER IN COUNTRY OF REGISTRATION	INTERNATIONAL RADIO CALL SIGN					PRIMARY TARGET SPECIES	NUMBER OF HOOKS BETWEEN FLOATS

		MONTH	DAY	ACTIVITY	MONTH	DAY	ACTIVITY	MONTH	DAY	ACTIVITY	MONTH	DAY	ACTIVITY	MONTH	DAY	ACTIVITY	MONTH	DAY	ACTIVITY	MONTH	DAY	ACTIVITY	MONTH	DAY	ACTIVITY	MONTH	DAY	ACTIVITY	MONTH	DAY	ACTIVITY
NAUTICAL NOON TIME POSITION	LATITUDE			N/S			N/S			N/S			N/S			N/S			N/S			N/S			N/S			N/S			N/S
	LONGITUDE			E/W			E/W			E/W			E/W			E/W			E/W			E/W			E/W			E/W			E/W
START HAUL POSITION	LATITUDE			N/S			N/S			N/S			N/S			N/S			N/S			N/S			N/S			N/S			N/S
	LONGITUDE			E/W			E/W			E/W			E/W			E/W			E/W			E/W			E/W			E/W			E/W
	SET START TIME																														
	HAUL START TIME																														
	No. OF HOOKS SET																														

	CATCH INFORMATION	NO. RET	KG RET	NO. DISC	NO RET	KG RET	NO. DISC	NO RET	KG RET	NO. DISC	NO RET	KG RET	NO. DISC	NO RET	KG RET	NO. DISC	NO RET	KG RET	NO. DISC	NO RET	KG RET	NO. DISC	NO RET	KG RET	NO. DISC	NO RET	KG RET	NO. DISC	NO RET	KG RET	NO. DISC
TARGET SPECIES	GREY REEF SHARK																														
	SILVERTIP SHARK																														
	BLACK TIP SHARK																														
	HAMMER HEAD SHARK																														
	BLUE SHARK																														
	BLACK TIP REEF SHARK																														
	TIGER SHARK																														
	GALAPAGOS SHARK																														
	OTHER SHARKS																														
CMM	SILKY SHARKS																														
	OCEANIC WHITE-TIP																														
BYCATCH SPECIES	SWORD FISH																														
	BLACK MARLIN																														
	BLUE MARLIN																														
	STRIPED MARLIN																														
	SAIL FISH																														
	ALBACORE TUNA																														
	YELLOWFIN TUNA																														
	BIGEYE TUNA																														
	OTHER FISH																														

ACTIVITY CODES
1 A SET
2 A DAY AT SEA BUT NOT FISHED AND NOT IN TRANSIT - PLEASE SPECIFY
3 TRANSIT
4 IN PORT - PLEASE SPECIFY

NAME OF CAPTAIN	SIGNATURE OF CAPTAIN	DATE

SPC / FFA REGIONAL SHARK LONGLINE LOGSHEET INSTRUCTIONS

*(NEW: **Nautical time** is the vessel's time related to its longitude position. Nautical time zones change with every 15 ° of longitude).*

Block One: Vessel Identification and Trip Information

Country of Registration and Registration Number in Country of Registration: Print the name of the country in which the vessel is registered (e.g. "Japan") and the registration number issued by the country in which the vessel is registered (e.g. "ME1-808").

FFA Vessel Register Number: Print the number issued by the Forum Fisheries Agency for inclusion of the vessel on the FFA Vessel Register (e.g. "12345"). *Unique Vessel Identifier:* Print the vessel's UVI number.

Fishing Permit or Licence Number(s): If the vessel fished under one or more bilateral access agreements, then print the fishing permit number issued by each of the coastal states in whose waters the vessel fished during the trip. If the vessel fished under a multilateral treaty, then print the fishing permit number issued to the vessel under the multilateral treaty. If the vessel is registered in the coastal state, then print the fishing licence number issued by the coastal state.

Name of Agent in Port of Unloading: Print the name of the agency or agencies which represented the vessel in the port or ports in which the vessel unloaded the catch recorded on the logsheet. In case of transhipment at sea, print the name of the carrier and destination of the unloaded catch.

Year and *Trip Number This Year*: Print the year in which the vessel departed from port at the start of the trip and the number of trips the vessel has taken this year (including this trip). The start of a trip is defined to occur when a vessel transits to a fishing area after unloading part or all of the catch, regardless of whether the unloading took place in port or at sea. The end of a trip is defined to occur when a vessel unloads part or all of the catch, regardless of whether the unloading took place in port or at sea.

Date and Time of Departure and Date and Time of Unloading (Arrival). Specify the start date and time of the vessel's trip departure and trip arrival or unloading in port. Use nautical time and this format (YYYY-MM-DD: hh:mm).

Place of Unloading: Specify the name of the port where the catch was unloaded, or the GPS position where unloading occurs at sea.

Hooks between Floats: Print the number of hooks used between successive two floats.

Primary Target species: Print the primary target species for this trip.

Block Two: Catches

Complete at least one line of Block Two for each set that was made during the trip. If no sets were made during the day, then provide the Month, Day, Activity Code, and print the vessel's position when the vessel's nautical time is at noon or mid-day. The position should be recorded to the nearest thousandth of a minute of latitude and longitude (e.g. "08–22.062 N" and "165–45.143 E").

Month and *Day*: The day should correspond to the day on which the crew started the set; record the day number and not the day of the week.

Activity Code: Use Activity Code 1 ('A set') if the line in Block Two corresponds to a set of the longline gear in the water. Use Activity Code 2 ('A day at sea but not fished and not in transit – please specify') if the vessel was at sea, but the longline gear was not placed in the water that day and the vessel was **not** in transit, please describe the activity on the line that refers to that day. Use Activity Code 3 ('Transit') if no sets were made and the vessel spent most of the day in transit. Use Activity Code 4 ('In port - please specify') if no sets were made and the vessel spent most of the day in port. If no code exists, please describe the activity on the form.

Start of Set or Nautical Noon Time Position: If a set was made, print the position of the start of the set. If no sets were made during the day, print the position at nautical noon time. The position should be recorded to the nearest minute of latitude and longitude (e.g. "08–22 N" and "165–45 E").
Set Start Time: Print the vessel's nautical time when the crew started placing the longline gear in the water.
Haul Start Time: Print the vessel's nautical time when the crew picked up the longline gear.

Number of Hooks: Print the total number of hooks that were set.
Albacore, *Bigeye* and *Yellowfin*: Print number of fish caught and retained under *NO RET*. Print the total amount of the whole weights for albacore, and the gilled-and-gutted weights for bigeye and yellowfin, of all fish that were caught and retained, in kilograms, under *KG RET*. Print number of fish that were discarded/struck off (live or dead) under *NO DISC*.
Shark: Print the number of fish caught and retained, **excluding** fish from which only the fins were retained and not the body, under *NO RET*. Print the number of fish discarded or released/ struck off (live or dead), **including** fish from which only the fins were retained and not the body, under *NO DISC*.

Striped Marlin, *Blue Marlin*, *Black Marlin*, and *Swordfish*: Print number of fish caught and retained under *NO RET*. Print total amount of the processed weights of all fish that were caught and retained, in kilograms, under *KG RET*. Print number of fish that were discarded/struck off (live or dead) under *NO DISC*.
Other Species: Print the number of fish caught and retained under *NO RET*. Print the total amount of the processed weights of all fish that were caught and retained, in kilograms, under *KG RET*. When more than one 'other' species occurs in a set, use additional lines on the logsheet. If a species of special interest (such as a marine turtle, marine mammal or sea bird) is caught, then record the capture on a separate line. Print number of fish that were discarded/struck off (live or dead) under *NO DISC*.

Vessels Sighted: If other fishing vessels are sighted, write the name of the vessel, and other identifiers, such as the vessel type, on one line of the logsheet.

Whale Predation: If any fish were predated by whales, write the number of fish predated by whales on one line of the logsheet.

REVISED: MARCH 2014

SPC / FFA REGIONAL HANDLINE LOGSHEET

PAGE _____ OF _____

NAME OF VESSEL	FISHING PERMIT OR LICENCE NUMBER(S)	YEAR	TRIP No. THIS YEAR
NAME OF FISHING COMPANY / FFA VESSEL REGISTER NUMBER	NAME OF AGENT IN PORT OF UNLOADING	PORT OF DEPARTURE	DATE AND TIME OF DEPARTURE
COUNTRY OF REGISTRATION / UNIQUE VESSEL IDENTIFIER (UVI)		PLACE OF UNLOADING	DATE AND TIME OF ARRIVAL IN PORT
REGISTRATION NUMBER IN COUNTRY OF REGISTRATION / INTERNATIONAL RADIO CALLSIGN		PRIMARY TARGET SPECIES	RANGE IN LENGTH OF HANDLINES (METRES)

- **ALL DATES AND TIMES MUST BE IN NAUTICAL TIME**
- **ALL WEIGHTS MUST BE KILOGRAMS**
- **START A NEW LOGSHEET AFTER FULL OR PARTIAL UNLOADING**

MONTH	DAY	ACTIVITY CODE	START OF SET OR NAUTICAL NOON TIME POSITION				START FISHING TIME	END FISHING TIME	NUMBER OF HOOKS	BIGEYE			YELLOWFIN			SKIPJACK			SHARK		STRIPED MARLIN		BLUE MARLIN		BLACK MARLIN		SWORDFISH		OTHER SPECIES		
			LATITUDE DDMM.MMM	N S	LONGITUDE DDDMM.MMM	E W				No RET	KG RET	No DISC	No RET	KG RET	No DISC	No RET	KG RET	No DISC	No RET	No DISC	No RET	KG RET	No RET	KG RET	No RET	KG RET	No RET	KG RET	NAME	No RET	KG RET
									PAGE TOTAL																						
									TRIP TOTAL																						

ACTIVITY CODES

1 FISHING IN THE VICINITY OF A FAD/LOG
2 FISHING - TROLLING (NOT IN THE VICINITY OF A FAD/LOG)
3 FISHING, BUT NOT ON A FAD/LOG OR TROLLING, PLEASE SPECIFY
4 A DAY AT SEA BUT NOT FISHED AND NOT IN TRANSIT, PLEASE SPECIFY
5 TRANSIT
6 IN PORT - PLEASE SPECIFY PORT NAME AND ACTIVITY

NAME OF CAPTAIN	SIGNATURE OF CAPTAIN	DATE

SPC / FFA REGIONAL HANDLINE LOGSHEET INSTRUCTIONS

*(NEW: **Nautical time** is the vessel's time related to its longitude position. Nautical time zones change with every 15 ° of longitude).*

Block One: Vessel Identification and Trip Information

Country of Registration and Registration Number in Country of Registration: Print the name of the country in which the vessel is registered (e.g. "Japan") and the registration number issued by the country in which the vessel is registered (e.g. "ME1-808").

FFA Vessel Register Number: Print the number issued by the Forum Fisheries Agency for inclusion of the vessel on the FFA Regional Register (e.g. "12345"). Unique Vessel Identifier. Print the vessel's UVI number.

Fishing Permit or Licence Number(s): If the vessel fished under one or more bilateral access agreements, then print the fishing permit number issued by each of the coastal states in whose waters the vessel fished during the trip. If the vessel fished under a multilateral treaty, then print the fishing permit number issued to the vessel under the multilateral treaty. If the vessel is registered in the coastal state, then print the fishing licence number issued by the coastal state.

Name of Agent in Port of Unloading: Print the name of the agency or agencies which represented the vessel in the port or ports in which the vessel unloaded the catch recorded on the logsheet. In case of transhipment at sea, print the name of the carrier and destination of the unloaded catch.

Year and *Trip Number This year*: Print the year in which the vessel departed from port at the start of the trip and the number of trips the vessel has taken this year (including this trip). The start of a trip is defined to occur when a vessel leaves port to transit to a fishing area or to transit to another port to complete unloading. The end of a trip is defined to occur when a vessel enters port to unload part or all of the catch.

Place of Unloading: Specify the name of the port where the catch was unloaded, or the GPS position where unloading occurs at sea.

Date and Time of Departure and Date and Time of Unloading (Arrival): Specify the start date and time when the catch was unloaded in port, or the date and time of transhipment if unloading occurs at sea. Use the vessel's nautical time and this format (YYYY-MM-DD: hh:mm)

Range in Length of Handline(s) (metres): Print the range in the lengths (metres) of the handlines used during this trip.

Primary Target species: Print the primary target species for this trip.

Block Two: Catches

Complete at least one line of Block Two for each fishing period undertaken during the trip. If no fishing was undertaken during the day, then provide the Month, Day, Activity Code, and the vessel's position at nautical noon-time. If necessary, use more than one line to record the catch of other species.

Month and Day: The day should correspond to the day on which the crew started fishing; record the day number and not the day of the week.

Activity Code: Use either Activity Code 1 ('Fishing in the vicinity of an Anchored FAD'), Activity Code 2 ('Fishing - Trolling') or Activity Code 3 ('Fishing, but not on Anchored FAD or Trolling') in Block Two for days when the handline gear is placed in the water. If fishing is not conducted in the vicinity of an anchored FAD or trolling, please describe the fishing association (e.g. "fishing on a sea mount"). Use Activity Code 4 ('A day at sea but not fished and not in transit, please specify') if the vessel was at sea, but the handline gear was not placed in the water that day and the vessel was not in transit, please describe the activity on the form. Use Activity Code 5 ('Transit') if no fishing was undertaken and the vessel spent most of the day in transit. Use Activity Code 6 ('In port - please specify port name and activity') if no fishing was undertaken and the vessel spent most of the day in port. If no code exists, please describe the activity on the form.

Start of Set or Nautical Noon Time Position: If fishing was undertaken, print the position at the start of fishing. If no set was made during the day print the vessel's position when the vessel's nautical time is at noon or mid-day. The position should be recorded to the nearest thousandth of a minute of latitude and longitude (e.g. "08–22.062 N" and "165–45.143 E").

Start and End Fishing Times: Print the vessel's nautical time when the crew started placing the handline gear in the water and when the crew finished fishing.

Number of Hooks: Print the total number of hooks that were used. This corresponds to the number of lines fishing if single-hook lines are used.

Bigeye, Yellowfin and Skipjack: Print number of fish caught and retained under NO RET. Print the total amount of the whole weights for albacore, and the gilled-and-gutted weights for bigeye and yellowfin, of all fish that were caught and retained, in kilograms, under KG RET. Print number of fish that were discarded or released under NO DISC.

Shark: Print the number of fish caught and retained, excluding fish from which only the fins were retained and not the body, under NO RET. Print the number of fish discarded or released/ struck off (live or dead) including fish from which only the fins were retained and not the body, under NO DISC.

Striped Marlin, Blue Marlin, Black Marlin, and Swordfish: Print number of fish caught and retained under NO RET. Print total amount of the processed weights of all fish that were caught and retained, in kilograms, under KG RET.

Other Species: Print the full name of the species under NAME. Print the number of fish caught and retained under NO RET. Print the total amount of the processed weights of all fish that were caught and retained, in kilograms, under KG RET. When more than one 'other' species occurs in a set, use subsequent lines on the logsheet.

REVISED: MARCH 2014

SPC / FFA REGIONAL TROLL LOGSHEET

PAGE _____ OF _____

NAME OF VESSEL		FISHING PERMIT OR LICENCE NUMBER(S)		YEAR
NAME OF FISHING COMPANY	FFA VESSEL REGISTER NUMBER	NAME OF AGENT IN PORT OF UNLOADING	PRIMARY TARGET SPECIES	TRIP NUMBER THIS YEAR
COUNTRY OF REGISTRATION	UNIQUE VESSEL IDENTIFIER (UVI)	• **ALL DATES AND TIMES MUST BE IN NAUTICAL TIME** • **ALL WEIGHTS MUST BE KILOGRAMS** • **START A NEW LOGSHEET AFTER FULL OR PARTIAL UNLOADING**	PORT OF DEPARTURE	DATE AND TIME OF DEPARTURE
REGISTRATION NUMBER IN COUNTRY OF REGISTRATION	INTERNATIONAL RADIO CALLSIGN		PLACE OF UNLOADING	DATE AND TIME OF ARRIVAL IN PORT

MONTH	DAY	ACTIVITY CODE	START OF SET OR NAUTICAL NOON TIME POSITION				NUMBER OF LINES	HOURS FISHED	ALBACORE			SOUTHERN BLUEFIN or PACIFIC BLUEFIN				SKIPJACK			YELLOWFIN			OTHER SPECIES		
			LATITUDE DDMM	N S	LONGITUDE DDDMM	E W			No RET	KG RET	No DISC	SPECIES CODE	No RET	KG RET	No DISC	No RET	KG RET	No DISC	No RET	KG RET	No DISC	NAME	No RET	No DISC
								PAGE TOTAL																
								TRIP TOTAL																

ACTIVITY CODES
1 FISHING OCCURRED ON THIS DAY
2 A DAY AT SEA BUT NOT FISHED AND NOT IN TRANSIT, PLEASE SPECIFY
3 TRANSIT
4 IN PORT - PLEASE SPECIFY

NAME OF CAPTAIN	SIGNATURE OF CAPTAIN	DATE

SPC / FFA REGIONAL TROLL LOGSHEET

INSTRUCTIONS

*(NEW: **Nautical time** is the vessel's time related to its longitude position. Nautical time zones change with every 15 ° of longitude).*

Block One: Vessel Identification and Trip Information

Country of Registration and Registration Number in Country of Registration: Print the name of the country in which the vessel is registered (e.g. "Japan") and the registration number issued by the country in which the vessel is registered (e.g. "ME1-808").

FFA Vessel Register Number: Print the number issued by the Forum Fisheries Agency for inclusion of the vessel on the FFA Vessel Register (e.g. "12345"). *Unique Vessel Identifier:* Print the vessel's UVI number. *Fishing Permit or Licence Number(s)*: If the vessel fished under one or more bilateral access agreements, then print the fishing permit number issued by each of the coastal states in whose waters the vessel fished during the trip. If the vessel fished under a multilateral treaty, then print the fishing permit number issued to the vessel under the multilateral treaty. If the vessel is registered in the coastal state, then print the fishing licence number issued by the coastal state.

Name of Agent in Port of Unloading: Print the name of the agency or agencies which represented the vessel in the port or ports in which the vessel unloaded the catch recorded on the logsheet. In case of transhipment at sea, print the name of the carrier and destination of the unloaded catch.

Year and *Trip Number This Year*: Print the year in which the vessel departed from port at the start of the trip and the number of trips the vessel has taken this year (including this trip). The start of a trip is defined to occur when a vessel leaves port to transit to a fishing area or to transit to another port to complete unloading. The end of a trip is defined to occur when a vessel enters port to unload part or all of the catch.

Date and Time of Departure and Date and Time of Unloading (Arrival). Specify the start date and time when the catch was unloaded in port. Use nautical time and this format (YYYY-MM-DD: hh:mm)

lace of Unloading: Specify the name of the port where the catch was unloaded, or the GPS position where unloading occurs at sea.

Primary Target species: Print the primary target species for this trip (assumed to be albacore).

Block Two: Catches

Complete one line of Block Two for each day during the trip. If a set was made, print the position of the start of the set. If no sets were made during the day, print the position at nautical noon time. The position should be recorded to the nearest minute of latitude and longitude (e.g. "08–22 N" and "165–45 E").

If necessary, use more than one line to record the catch of other species.

Month and *Day*: The day should correspond to the day at sea; record the day number and not the day of the week.

Activity Code: Use Activity Code 1 ('Fishing occurred on this day') if any fishing occurred during this day. Use Activity Code 2 ('A day at sea but not fished or transit') if the vessel was at sea, but the troll gear was not placed in the water that day and the vessel was **not** in transit. Use Activity Code 3 ('Transit') if no fishing was undertaken and the vessel spent most of the day in transit. Use Activity Code 4 ('In port - please specify') if no fishing was undertaken and the vessel spent most of the day in port. If no code exists, please describe the activity on the form.
Start of Set or Nautical Noon Time Position: If a set was made, print the position of the start of the set. If no sets were made during the day, print the position for the vessel's nautical noon time. The position should be recorded to the nearest minute of latitude and longitude (e.g. "08–22 N" and "165–45 E").
Number of Lines: Print the number of lines that were used for the majority of the fishing period during this day.
Hours fished: Print the total number of hours that the troll gear was in the water during this day.

Albacore, *Southern Bluefin, Skipjack* and *Yellowfin*: Print number of fish caught and retained under *NO RET*. Print the total amount of the estimated whole weights for albacore, southern bluefin, skipjack and yellowfin, of all fish that were caught and retained, in kilograms, under *KG RET*. Print number of fish that were discarded or released/ stuck off (alive or dead) under *NO DISC*. In the case of significant discards, write the reason for discards on a separate line.

Other Species: Print the full name of the species under *NAME*. Print the number of fish caught and retained under *NO RET*. Print the total amount of the processed weights of all fish that were caught and retained, in kilograms, under *KG RET*. Print number of fish that were discarded or released/struck off (live or dead) under *NO DISC*.

When more than one 'other' species occurs in a set, use additional lines on the logsheet. If a species of special interest (such as a marine turtle, marine mammal or sea bird) is caught, then record the capture on a separate line.

SPC / FFA Regional Longline Logbook - Daily Form

REVISED: NOV 2007

TODAY's DETAILS	Vessel Name						Trip Number / Year	
MID-DAY TIME and POSITION	SHIP'S TIME	SHIP'S DATE (DD / MM / YY)	LATITUDE (DD . MM)	N S	LONGITUDE (DDD . MM)	E W	UTC TIME (00.00 hrs)	UTC DATE (DD / MM / YY)
	12.00 hrs	/ /	°		°			/ /
CIRCLE TODAY's ACTIVITY	**1.** Fishing **2**. Not Fishing & not in Transit (specify) **3**. Transit **4**. Breakown **5**. Bad Weather 6. Other pls							

For days with "1. Fishing" please fill in all the fishing details below.

FISHING DETAILS	SHIP'S TIME	SHIP'S DATE	LATITUDE	N S	LONGITUDE	E W
	(00.00 hrs)	DD / MM / YY	(DD ° MM)		(DDD ° MM)	
START OF SET		/ /	°		°	
END OF SET		/ /	°		°	
START OF HAUL		/ /	°		°	
END OF HAUL		/ /	°		°	

TICK PRIMARY TARGET SPECIES → TUNA ◯ SWORDFISH ◯ SHARK ◯ IF ALIVE CIRCLE A

NO. OF HOOKS BETWEEN FLOATS		VESSEL SETTING SPEED (knts)		1.BAIT SPECIES	A	
TOTAL NUMBER OF HOOKS SET		LINE SETTING SPEED (m/s)		2. BAIT SPECIES	A	
TOTAL NO. OF LIGHTSTICKS SET		DIST. BETWEEN BRANCHLINES (m)		3. BAIT SPECIES	A	

SPECIES		Number Retained	Kg. Ret.	No. Disc.	Reason Disc.	No. Rel Alive	SPECIES		Number Retained	Kg. Ret.	No. Disc	Reason Disc.	No. Rel Alive
Yellow fin ≤ 20k	**YFT**						Mahi Mahi	**DOL**					
Yellow fin >20k	**YFT**						Escolar	**LEC**					
Bigeye ≤ 20kg	**BET**						Wahoo	**WAH**					
Bigeye >20kg	**BET**						Opah (moonfish)	**LAG**					
Albacore	**ALB**						Sunfishes	**MOP**					
Skipjack	**SKJ**						Pelagic Stingray	**PLS**					
Striped Marlin	**MLS**						Snake Mackerel	**GES**					
Blue Marlin	**BUM**						Barracudas	**BAR**					
Black Marlin	**BLM**						Breams	**BRZ**					
Swordfish	**SWO**						Lancetfishes	**ALI**					
Bluefin tunas	**TPZ**												
Sailfish	**SAI**												
Shortbilled spearfish	**SBS**						TURTLES						
Silky Shark	**FAL**							Unidentifie **TTX**					
Blue Shark	**BSH**							Green **TUG**					
Oceanic Whitetip Shark	**OCS**							Hawksbill **TTH**					
Hammerhead sharks	**SPN**							Loggerhead **TTL**					
Mako sharks	**MAK**							Leatherback **DKK**					
Thresher Sharks	**THR**							Olive Ridley **LKV**					
							Marine Mammals ( )						
							Bird ( )						

*Comments : T*ag numbers / whale interactions or sightings / number of catch taken by whales / weather conditions.

Captain's Signature

SPC / FFA Regional Longline Logbook - Vessel Characteristics

Revised Nov 2007

VESSEL NAME	COUNTRY REGISTRATION NUMBER	FLAG	IRCS
YEAR BUILT	COUNTRY / SHIPYARD WHERE BUILT		
VESSEL OWNER	OWNER'S CONTACT ADDRESS		

ALC INSTALLED ?	IMMARSAT NUMBER	VESSEL LENGTH	Circle to indicate if the length is:
Y **N**			(m) / (ft) Overall / Registered

FISHING PERMIT OR LICENCES NUMBERS: LIST ALL.

Tick √ to indicate the Hull Material.

STEEL ( ) ALUMINIUM ( ) WOOD ( ) FIBREGLASS ( )

OTHER - PLEASE SPECIFY: .....

ENGINE MODEL	TOTAL ENGINE POWER - HP / KW	VESSEL CRUSING SPEED in KNTS

TOTAL FUEL CARRYING CAPACITY - KL / GAL	FISH STORAGE CAPACITY - MT / M^3

Tick √ to indicate the Storage Method. You may tick more than one.

ICE ( ) REFRIDGERATED SEAWATER ( ) BRINE ( ) AIR (Coils) ( )

CIRCLE Y IF ONBOARD or CIRCLE N IF NOT ONBOARD

GPS BEACON	Y	N
DOPPLER CURRENT METER	Y	N
SEA SURFACE TEMP GAUGE	Y	N
SATELLITE SEA SURFACE IMAGES	Y	N
TORI POLE MITIGATION DEVICE	Y	N
LINE SHOOTER	Y	N
AUTOMATIC BRANCHLINE THROWER	Y	N
AUTOMATIC BRANCHLINE ATTACHER	Y	N
BAIT CHUTE	Y	N

MAINLINE

MATERIAL

LENGTH (NM)

FLOATLINE

LENGTH (m)

BRANCHLINE

LENGTH (m)

WIRE TRACE **Y** **N**

COMMENTS

PRINT CAPTAIN'S FULL NAME CLEARLY

CAPTAIN'S SIGNATURE

PRINT ISSUING OFFICER'S FULL NAME CLEARLY

ISSUING OFFICER SIGNATURE

(Only sign when page is complete)

OBSERVER PROGRAMME:

SPC/FFA REGIONAL TROLL GENERAL INFORMATION

FORM TR - 1

REVISED DEC. 2009

TRIP DETAILS

OBSERVER

NAME	START OF TRIP LOCATION	START OF TRIP (SHIP DATE AND TIME) DD MM YY hh mm
NATIONALITY / TRIP ID NUMBER	END OF TRIP LOCATION	END OF TRIP (SHIP DATE AND TIME) DD MM YY hh mm

VESSEL NAME	FISHING PERMIT OR LICENCE NUMBER(S)	VESSEL DEPARTURE PORT	VESSEL DEPARTURE DATE DD MM YY

VESSEL

VESSEL OWNER		COUNTRY REGISTRATION No.	FLAG
VESSEL CAPTAIN	NATIONALITY	LENGTH: M / F	IRCS or WIN # (if no IRCS)
ID document : No. :		GROSS TONNAGE: mT	FISH HOLD CAPACITY: mT

CREW NATIONALITY

OTHER CREW:	:	How many? :
OTHER CREW:	:	How many? :
OTHER CREW:	:	How many? :

ELECTRONICS

		USAGE
DEPTH SOUNDER	Y / N	
GPS	Y / N	
TRACK PLOTTER	Y / N	

Please circle "Y" or "N" for every item

		USAGE	MAKE	MODEL	COMMENTS
BIRD RADAR	Y / N				
SONAR	Y / N				
NEW -					
SST GAUGE	Y / N				

VMS - 1	System:	Y / N	ALC			Seals Intact	Y / N
VMS - 2	System:	Y / N	ALC			intact	Y / N

COMMUNICATION SERVICES	PHONES	SATELLITE:	Y / N	Phone	MOBILE:	Y / N	Phone #
	OTHER	FACSIMILE:	Y / N	Fax #	EMAIL:	Y / N	Email:

INFORMATION SERVICES	WEATHER	WEATHER FAX	Y / N	SATELLITE MONITOR	Y / N
	OTHER	Y / N	Phytoplankton Y / N	SST	Sea Height

CODE GROUP

Is this vessel part of a code group ?	Y / N	*Comments / other vessels:*
Total other vessels in code group =		

FISHING GEAR

	USAGE		Comments:	No. of LINES USED	STERN	AFT OUTRIGGERS Port	AFT OUTRIGGERS *Stbd.*	FWD OUTRIGGERS Port	FWD OUTRIGGERS Stbd.
MECHANICAL HAULERS	Y / N								
WEIGHING SCALES	Y / N			USUAL					

REFRIGERATION METHOD

BRINE	Y / N	BLAST FREEZER	Y / N
ICE	Y / N	REFRIGERATED SEA WATER	Y / N

WASTE DISPOSAL

Y / N

DESCRIBE:

SAFETY EQUIPMENT

LIFE JACKET PROVIDED FOR OBSERVER: Y / N / O

SUITABLE SIZE: Y / N

AVAILABILITY (circle one) Easy Moderate Hard

EPIRBs (No)	Total	Exp.	**LIFE RAFTS**	1	2		4
406			No. of people and inspection due date(d) or last date L)				
other							

OBSERVATIONS / OTHER GEAR / UNUSUAL USE OF GEAR

(write brief notes here and a full description in trip report).

USAGE CODES (for "USAGE" columns

ALL - used all the time in fishing
TRA - used all the time
OIF - used only in transit
SIF - used often but only in fishing
RAR - rarely used
BRO - broken now but used normally
NOL - no longer ever used

N.B. - fishing can be searching, setting, retrieving, deploying, investihgating, etc.

N.B.: Wherever there is a **Y** / **N** (yes or no) option for an item, either the "**Y**" or the "**N**" **must be circled**

Trip Details

Observer Name : Print first name and family name in full (e.g. "John Masa").

Observer Trip ID Number : Print number issued by the authority sending you on this trip.
(e.g. John H. Masa, on his third trip in 1996 might be issued Trip ID Number: "JHM 96-03").

Departure (Ship Date and Time) } Print date using "day day/ month month / year year" format.
Return (Ship Date and Time: } Print time using 24 hour "hour hour : minute minute" format. } use SHIP'S TIME
(e.g. Print five past one on the afternoon on 3rd of January, 1996 as "03/01/96 - 13:05").

Departure Port / Return Port : Record in both boxes even if it is the same port.

Vessel and Crew

Vessel Name, Vessel Owner, Vessel Captain, Fishing master : Print full names whenever possible.

Country Registration : Number issued by country in which the vessel is registered (e.g. "ME1-808").

Flag : Name of country in which vessel is registered (e.g. "Belize") even if it comes from another country, such as Korea.

International radio call-sign (IRCS) : Do not confuse with Registration No. Note in report if vessel has no proper IRCS.

Fishing Permit or Licence Number(s) : If the vessel fished under one or more bilateral access agreements, then print the fishing permit number issued by each of the coastal states in whose waters the vessel fished during the trip. If the vessel fished under a multilateral treaty, then print the fishing permit number issued to the vessel under the multilateral treaty. If the vessel is registered in the coastal state, then print the fishing licence number issued by the coastal state.

Crew : Report the nationality of each crew member.

Total number of crew : This is to include the Captain and Fishing master.

Observations / Comments : Record notes if you think there is anything special about this boat or its crew compared to others. If you need to write more about this do it in your diary and a special section in your trip report then only put a brief note here with a reference to page numbers in your diary and trip report.

Electronics (**circle "Y" or "N" (yes or no) to show if each item is present or not present on board**)

Empty rows : These are to record equipment you think are important but are not listed in this section. If nothing, circle "N".

Usage : Use the "**Usage codes**" listed at the bottom of the form to record how much use each item gets during your trip. As for all codes select the best (most informative) code when it seems that more than one code can work. "**UU**" always gets first priority if appropriate. Be sure to add *Comments* on new equipment or new use of equip.

Comments : If equipment is new or used differently write brief notes here and a reference to more in your diary and/or report.

VMS type: If only 1 system record next to VMS-1. If 2 systems record FFA approved at VMS-1 and other system at VMS-2.

ALC make and model: Record manufacture's name (e.g. Thrimble, Thrane and Thrane, Furno, etc) and the model if possible

Seal intact ?: A good (intact) seal is bright silver. A seal that has been interferred with has black crinkly lines through it.

Communication services: If vessel uses satellite and/or mobile phone and/fax and /or email address, record contact details.

Fishery Information Services : Vessels may receive real-time information on some oceanographic features. Circle Y or N to show if they are getting information on sea-surface temperature, phytoplanton densities or sea height. If they are receiving another type of information record that in the blank field. Record the name and/or address (url) of the website from which their information is received.

Code groups (**Vessels may fish in groups, sharing information that helps improve catch and safety.**)

Scientists working in stock assessment need to know which vessels make up code groups at different times. Circle Y or N to show if this vessel is part of a code group. Enter the total number of vessels in the code group. Use *comments* section to record names (if possible) of other boats in the code group and note how the code group cooperates.

Fishing Gear (**circle "Y" or "N" (yes or no) to show if each item is present or not present on board**)

Comments / other gear : Comment if equipment is not working, not used or used in an unusual way. Also comment if fishing gear is a different design to equipment you are used to seeing on other longliners and record the make, model and special characteristics of this new gear.

Weighing scales : If there is any weighing scales on-board that is used to weigh the retained fish circle Y (yes)

Empty rows : These are to record equipment you think are important but are not listed in this section. If nothing, circle "N".

Line distribution : What are the usual (during the trip) and maximum number of lines trolled from each area of vessel ?

Refrigeration Method (**circle "Y" or "N" to show which refrigeration systems are used on board**)

Methods : N.B.: There may be more than one refrigeration method

Refrigerated seawater : N.B.: This may also be called "Chilled seawater"

Safety Equipment (obtain as much information as possible without intruding)

Life jacket : if your own (or fisheries) circle "**O**". Else circle "**Y**" or "**N**" to show if vessel showed you one for your own use Was it a good size ? Was it (*easy*) available, available but not easy (moderate) to get to, or (*hard*) to find

Lifebuoys/life rings - count all to be found. *EPIRBS* - count total and count any with expired battery renewal dates.

Life rafts - find info on labels on life-rafts. If **after careful check**, dates are not found, record "ND" for not displayed'.

Observations / Comments, Other Gear, Unusual Use of Gear

Record notes if you think there is anything special about this boat or its crew compared to others.
Comment if equipment is not working, not used or used in an unusual way. Describe fishing gear if different to equipment you see on other longliners and record make, model, special characteristics and ***usage*** of this new gear.
If you have lots to write about (good) do so in your diary and in a special section in your trip report then only put a brief note here with a reference to page numbers in your diary and trip report.

SPC/FFA REGIONAL TROLL OBSERVER DAILY LOG

FORM TR - 2

PAGE OF

REVISED: 2009

VESSEL NAME: | OBSERVER NAME: | OBSERVER TRIP ID NUMBER:

SHIP'S DATE and TIME at START of FISHING

D D M M Y Y h h m m

UTC DATE and TIME at START of FISHING

D D M M Y Y h h m m

Target species: (In order of priority)
1.
2.
3.

Lure / bait arrangement (In order of priority)
1.
2.
3.

Total bait used = kg.

SHIPS TIME	LATITUDE (dd°mm.mmm')	N S	LONGITUDE (ddd°mm.mmm')	E W	WIND (kts)	WIND (°)	SEA (0-8-M-R-V)	CLOUD (%)	SST	No. of LINES	OTHER VESSELS	NO. of FISH	
START													
END													

COMMENTS

SCHOOLS SEEN DURING DAY

Tally

No.

DID YOU OBSERVE ANY EVENTS TO RECORD ON FORM GEN-3 TODAY ?

YES NO (circle one)

Reported in journal pg #

OBSERVER'S DAILY LOG

Observer Name and *Vessel Name*: Always print each of these names out **in full** (e.g. an observer name "John Masa", and a vessel name "Hai Hsiang No. 959") *Observer Trip ID Number*: Number issued by the authority you are working for. (e.g. John Masa, on his 3rd trip in 1996 may get Trip ID No.: "JHM 96-03").	*Page of*: Number Form PS-2's through **At end of trip** check pages are all there (again (e.g. if there are 36 pages then the first page w " Page 4 of 36 " and the last page will be " Pa

Target Species: Record the main species being targeted by the vessel here. If there is only one target specis put a line through the other data fields.

Lure / bait arrangement (in order of priority): Record the main type of lure used. If only one type of lure or bait arrangement is used put a dash through more comprehensively in the written report.

Total Bait Used: Record the total amount of bait used during the day.

Ship's Date and Ship's Time at start of Fishing: is the date and time used by crew on board normally. The observer's watch should be set to this date a

UTC Date and UTC Time at start of Fishing: is standard data and time that scientists use to make correcions to Ship's data and time when it is used inc Ship's and UTC date and time at the same moment. UTC time is normally got from the GPS. Remember that UTC date is **sometimes** different from the time on all other forms and paperwork.

DAILY LOG RECORD: Try to take an hourly record from the start of fishing to the end of fishing each day. However, checking the catch comes fir

Ship's Time: Make a record hourly. Fill in the ship's time

Latitude, Longitude, N, S, E, W. Record position as degrees, minutes and minutes to three decimal places, which is usually as it is displayed on a GPS. decimal minutes. For latitude below 10° put a zero in fron of the number (e.g. write 5° as 05°). Never forget to enter north or south and east or west co 28.239'W)

Wind (kts) (°): Record speed in knots and direction in degrees of the compass (e.g. for a 15 knot easterly wind, under (kts) print "15" and under (°) pri second then (kts = 2 X m/sec) approximately.

Sea conditions (C-S-M-R-V)

C = Calm, S = Slight, M = Moderate, R = Rough; V = very rough. Judge this yourself. A guide is the wind. If it has been blowing at the same pace for a 10-20 kts is moderate; 20-40 kts is rough; and anything over 40 kts is usually very rough.

Cloud (%). Estimate the total amount of the sky overhead that is covered with cloud.

SST: Record the sea surface temperature every time you make a record. Make sure you use the same instrument every time to record the temperature. I make a note in the comments.

No. of lines: Count the number of lines out fishing.

Other Vessels: Count the number of other troll fishing boats that you can see when making your hourly record.

No. of Fish: Make a record of the number of fish that were landed since the last record. The first record should obviously be zero.

Did you observe any events to record on form GEN-3 Today? Circle Yes if any infringements, as listed on Form GEN-3, were observed. Write note on page No. on this TR_2 form. If there was no incident for the day circle **No.**

SOUTH PACIFIC REGIONAL TROLL OBSERVER CATCH MONITORING

FORM TR-3

REVISED DEC. 2009

OBSERVER NAME	OBSERVER TRIP ID NUMBER	PAGE OF

VESSEL NAME	SHIP'S DATE AND TIME - START OF FISHING - END OF						
	DD	MM	YY	hh	mm	hh	mm

CATCH DETAILS

	SHIP'S TIME	SPECIES CODE	LENGTH (cm)	CODE	CONDITION CODE CAUGHT	LET GO	WEIGHT (kg)	CODE	FATE CODE		COMMENTS / TAG NUMBERS
1											
2											
3											
4											
5											
6											
7											
8											
9											
10											
11											
12											
13											
14											
15											
16											
17											
18											
19											
#											
21											
#											
#											
#											
#											
#											
#											
#											
#											
#											
#											
#											

Period sampled Tally of species not sampled

from:		Comments:
to:		

Page total for each species caught:	*Sp. code*	*No.*	*Sp. code*	*No.*	*Sp. code*	*No.*	*Sp. code*	*No.*	*Sp. code*	*No.*

NOTES ON TR - 3

CATCH MONITORING

OBSERVER NAME	OBSERVER TRIP ID NUMBER	PAGE OF
VESSEL NAME	SHIP'S DATE AND TIME - START OF FISHING - END OF FISHING (DD MM YY, hh mm, hh mm)	

This header should be filled in completly, as described in the notes for FORM TR-2.

CATCH DETAILS

	SHIP'S TIME	SPECIES CODE	LENGTH (cm)	LENGTH CODE	CONDITION CODE CAUGHT	CONDITION CODE LET GO	WEIGHT (kg)	WEIGHT CODE	FATE CODE	GIRTH (to 0.5 cm)		COMMENTS / TAG NUMBERS
	0700	ALB	102	UF	A1	—	25	WW	RGG	67.5		Gonad sample No.3
1							72	GG				example of 2 weights *
2		ALB										
7		ALB										
8		SBF										
9		SBF										
10		ALB										
11		ALB										
	SHIP'S TIME	SPECIES CODE	LENGTH (cm)	LENGTH CODE	CONDITION CODE CAUGHT	CONDITION CODE LET GO	WEIGHT (kg)	WEIGHT CODE	FATE CODE	GIRTH (to 0.5 cm)		COMMENTS / TAG NUMBERS
		ALB										
16												
17												
18												
19												
20												
21												
22												
23												
24												
25												
26												
27												
28												
29												
30												

Ship's time: Record regularly when fish are biting and at least at the beginning of each period of biting.

This time is correlated with the fishing data recorded on Form TR-2

Record only when there are weighing scales onboard.
Weight codes describe the state of a fish at the time it is weighed.

Code	Description
WW	Whole weight
GG	Gilled and gutted
GH	Gutted and headed
GT	Gilled, gutted and tailed
GX	Gutted, headed and tailed
GO	Gutted only (gills left in)
FW	Fillets weight
TW	Trunk weight

* If possible weigh before and then again after processing. Put second weight and code on a second line (as in example).

Girth: measured with a tape measure around deepest part of the body

Empty column is to be used for extra information when specially requested. Fill in the title before you use this column.

Use the **COMMENTS / TAG NUMBERS** column for other information you think important about a particular catch item e.g. - to record sample numbers if collecting samples, or to record number of photograph if taking photos, or, most importantly, to record released or captured tag numbers.

Length codes describe the actual measurement being collected from a fish.

Code	Description
TL	- tip of snout to end of tail
UF	- upper jaw to fork in tail
LF	- lower jaw to fork in tail
US	- upper jaw to 2^{nd} dorsal fin
PF	- pectoral fin to fork in tail
PS	- pectoral fin to 2nd dorsal fin
TW	- total width (tips of wings - rays)
CL	- carapace length (turtles)
NM	- not measured

Condition codes describe the health of a fish when it first gets **CAUGHT** and again if it is **LET GO** or is thrown away.

Code	Description
A0	Alive (not categorized into A1, A2, A3)
A1	Alive, healthy
A2	Alive - injured, distressed
A3	Alive, but dying
D	Dead
U	Condition unknown

Fate codes descibe whether the fish was kept (retained) or thrown away / released (discarded). Also - how and/or reason processed / discarded. Important to select one **most informative** code !

Code	Description
RGG	Retained - gilled and gutted (for sale)
RGT	Retained - gilled gutted and tailed (for sale)
RWW	Retained - whole
RPT	Retained - partial (e.g. fillet, loin, trunk)
RFR	Retained - both fins and trunk (sharks)
RHG	Retained - headed and gutted (billfish)
RSD	Retained - but shark damaged
RCC	Retained - for crew consumption
RGO	Retained - gutted only.
ROR	Retained - other reason (specify)
DFR	Discarded trunk - fins retained (sharks)
DGD	Discarded - gear damage (tuna only)
DSD	Discarded - shark damage
DWD	Discarded - whale damage
DUS	Discarded - uneconomic species
DDL	Discarded - too difficult to land
DSO	Discarded - (struck off before landing)
DTS	Discarded - too small (target species)
DPQ	Discarded - poor quality
DPA	Discarded - species of special interest - **alive** (DPA)
DPD	Discarded - species of special interest - **dead** (DPD)
DPU	Discarded - species of special interest - **unknown condition** (DPU)
DOR	Discarded - other reason (specify)
ESC	Escaped

Species codes. Use the FAO 3-letter codes. Common species are listed here but you should carry a full list of FAO species codes.

Code	Common Name	Code	Common Name
SBF	Southern bluefin	LMA	Long finned Mako shark
PBF	Pacific bluefin	SMA	Short finned Mako shark
YFT	Yellowfin	BSH	Blue shark
BET	Bigeye	RRU	Rainbow runner
ALB	Albacore	WAH	Wahoo
SKJ	Skipjack	DOL	Mahi mahi
MLS	Striped Marlin	SFA	Sailfish
BLZ	Blue Marlin	SSP	Short-billed Spearfish
BLM	Black Marlin		

Tally species not sampled:

Period sampled	Tally of species not sampled:	
from: 0930	ALB	ЖЖ ЖЖ Ж ЖЖ ЖЖ ЖЖ ЖЖ ЖЖ Ж ЖЖ ЖЖЖ
to: 1055		ЖЖ ЖЖ ЖЖ ЖЖ |||

Page total for each species caught:	ALB	113	SBF	2

Attempt to measure all fish caught.
If this is not possible, during periods of high catch rates or bad weather, choose four periods during the day to collect lengths, girths and weights of at least 25 randomly collected of the principal fish species being caught.
Also record relevant data of all incidental species caught.
Tally fish caught but not sampled, as shown in example at left.

Page totals - get these by adding the sampled fish (in lines 1 to 30) to the tallied fish shown in this example.

SPC / FFA REGIONAL TROLL VESSEL PORT SAMPLING FORM

REVISED DEC 2009

PORT:	SAMPLER:	Staff id Code	ASSISTANT:	Staff id Code	PAGE OF

VESSEL NAME:	FFA VID NO.	IRCS	REGISTRATION — COUNTRY AND NUMBER

DATE AT START OF TRIP: (DEPARTED FROM PORT)	D D	M M	Y Y	DATE AT END OF TRIP: (ARRIVED IN PORT)	D D	M M	Y Y	DATE OF SAMPLE:	D D	M M	Y Y

FISHING AREA: FROM LATITUDE		N / S	TO LATITUDE		N / S	FROM LONGITUDE		E / W	TO LONGITUDE		E / W

SPECIES CODE	LENGTH (cm)	SPECIES CODE	LENGTH (cm)	SPECIES CODE	LENGTH (cm)	SPECIES CODE	LENGTH (cm)	SPECIES CODE	LENGTH (cm)	SPECIES CODE	LENGTH (cm)
1		26		51		76		101		126	
2		27		52		77		102		127	
3		28		53		78		103		128	
4		29		54		79		104		129	
5		30		55		80		105		130	
6		31		56		81		106		131	
7		32		57		82		107		132	
8		33		58		83		108		133	
9		34		59		84		109		134	
10		35		60		85		110		135	
11		36		61		86		111		136	
12		37		62		87		112		137	
13		38		63		88		113		138	
14		39		64		89		114		139	
15		40		65		90		115		140	
16		41		66		91		116		141	
17		42		67		92		117		142	
18		43		68		93		118		143	
19		44		69		94		119		144	
20		45		70		95		120		145	
21		46		71		96		121		146	
22		47		72		97		122		147	
23		48		73		98		123		148	
24		49		74		99		124		149	
25		50		75		100		125		150	

SPECIES:						
NUMBER:						
SUM OF LENGTHS:						

COMMENTS

SPC / FFA REGIONAL TROLL VESSEL PORT SAMPLING FORM INSTRUCTIONS

If more than 150 fish are sampled from a single unloading, use additional forms. If using additional forms be sure to fill in all fields on the extra pages, **especially fill in the port, vessel name and date of sample,** which must be re-entered exactly as they appear on the first page.

GENERAL INFORMATION

PORT	The port of unloading
SAMPLER	First and last name of person measuring the fish
Staff ID Code	Fill in your three (or two) letter staff id code. If only one person is doing the sampling then fill that person's name in here.
ASSISTANT	First and last name of person recording measurements, if different from the sampler
Staff ID Code	Fill in your three (or two) letter staff id code.
PAGE OF	Number forms (pages) out of the total that are used each sampling session. If only one page is used in a session that page should be " PAGE ***1*** OF ***1*** " but three will be " PAGE ***1*** OF ***3***, PAGE ***2*** OF ***3*** and PAGE ***3*** OF ***3*** "
VESSEL NAME	Name of the fishing vessel
FFA VESSEL VID NO	FFA Vessel Registration Number, often on the vessel's licence.
IRCS	International Radio Call Sign. Often painted on the vessel's hull.
REGISTRATION — COUNTRY AND NUMBER	The country (flag) where the vessel is registered and the registration number.
DATE AT START OF TRIP	Record dates using two digits for each of day, month and year, in that order
DATE AT END OF TRIP	(DD MM YY). Do this by placing a "0" in front of single digit numbers.
DATE OF SAMPLE	**E.g.: write the 3rd of January, 1996 as "03 01 96".** The date of the sample is the first date of the sample
FISHING AREA	Record the northern and southern most limits of latitude and eastern and western most limits of longitude to the nearest whole degree if possible.

SAMPLING DATA

SPECIES The following species codes are used:

ALB	Albacore tuna, *Thunnus alalunga*	MLS	Striped marlin, *Tetrapturus audax*
SKJ	Skipjack, *Katsuwonus pelamis*	BUM	Blue marlin, *Makaira mazara*
YFT	Yellowfin tuna, *Thunnus albacares*	BLM	Black marlin, *Makaira indica*
BET	Bigeye tuna, *Thunnus obesus*	SFA	Sailfish, *Istiophorus platypterus*
WAH	Wahoo, *Acanthocybium solandri*	SSP	Shortbill spearfish, *Tetrapturus angustirostris*
DOL	Mahimahi, *Coryphaena hippurus*		

LENGTH The length (in centimetres) must be **rounded down** to whole centimetres (e.g. 69.9cm is to be recorded as 69cm)

(**All species** should be measured "from the tip of the upper jaw to the fork of the tail"
except billfish which should be measured "from the tip of the lower jaw to the fork of the tail".)
N.B. Only entire specimens (not headed and/or tailed) are to be measured.

SUM OF LENGTHS Is the sum of the lengths of each species that are recorded on that form (page) only. (This figure is used to verify that sampling data has been correctly entered)

SPC / FFA REGIONAL PURSE SEINE PORT SAMPLING FORM

REVISED: DEC 2009

PORT	SAMPLER'S NAME	Staff id code	ASSISTANT'S NAME	Staff id code	PAGE OF

CARRIER OR CANNERY	NAME OF VESSEL	FFA VID NO.	IRCS	REGISTRATION — COUNTRY AND NUMBER

DATE AT START OF TRIP (departed from port)	D D	M M	Y Y	DATE AT END OF TRIP (arrived in port)	D D	M M	Y Y	DATE OF SAMPLE	D D	M M	Y Y

SET DETAILS (to be obtained from Vessel Logsheets)

MONTH	DAY	LATITUDE ddmm.mmm	N S	LONGITUDE dddmm.mmm	E W	SCHOOL ASSOC.	SET START TIME	SKIPJACK WEIGHT	YELLOWFIN WEIGHT	BIGEYE WEIGHT	OTHER SPECIES NAME	OTHER SPECIES WEIGHT	WELL NUMBERS

SAMPLING STRATEGY (very important)

Please tick correct box		
		RANDOM SPECIES - species composition and length frequency sample
		NON-RANDOM SPECIES - length frequency sample only

N.B. Record all weights in metric tonnes (MT)

SAMPLED WELL

WELL NUMBER	
EIGHT OF FISH IN WELL	

SPECIES and LENGTH DATA

SPECIES CODE	LENGTH	SPECIES CODE	LENGTH	SPECIES CODE	LENGTH	SPECIES CODE	LENGTH	SPECIES CODE	LENGTH	SPECIES CODE	LENGTH
1		26		51		76		101		126	
2		27		52		77		102		127	
3		28		53		78		103		128	
4		29		54		79		104		129	
5		30		55		80		105		130	
6		31		56		81		106		131	
7		32		57		82		107		132	
8		33		58		83		108		133	
9		34		59		84		109		134	
10		35		60		85		110		135	
11		36		61		86		111		136	
12		37		62		87		112		137	
13		38		63		88		113		138	
14		39		64		89		114		139	
15		40		65		90		115		140	
16		41		66		91		116		141	
17		42		67		92		117		142	
18		43		68		93		118		143	
19		44		69		94		119		144	
20		45		70		95		120		145	
21		46		71		96		121		146	
22		47		72		97		122		147	
23		48		73		98		123		148	
24		49		74		99		124		149	
25		50		75		100		125		150	

DATA ENTRY VERIFICATION

	SKJ	YFT	BET	OTHER
NUMBER OF EACH SPECIES				
Σ LENGTHS FOR EACH SPECIES				

SCHOOL ASSOCIATION CODES

1 Unassociated
2 Feeding on baitfish
3 Drifting log, debris or dead animal
4 Drifting raft, FAD or payao
5 Anchored raft, FAD or payao
6 Live marine mammal
7 Live whale shark
8 Other

Notes for PURSE SEINE PORT SAMPLING FORM

The Purse Seine Port Sampling Form is used to record lengths of fish that are unloaded from purse-seiner vessels at the end of a trip.
Only use the form to sample fish from wells where the set details for every set loaded into the well can be obtained. Also, these set details must include the date, the position and the school association, and meet the selection criteria as outlined below.

HEADER INFORMATION

If you measure more than 150 fish, use extra forms. Every form you submit must have all the header details filled in . All dates should be recorded using the 2-digit number format for each of day 'D D', month 'M M' and year 'Y Y' in that order.

PORT **T**he name of the port where the vessel unloading took place.

SAMPLER: STAFF ID CODE **T**he first and last name of the person measuring the fish, and their 3 (or 2) letter staff id code. If only one person is doing the sampling then mark that person's name here.

ASSISTANT: STAFF ID CODE **T**he first and last name of the person recording the data, and their 3 (or 2) letter staff id code.

PAGE _ OF _ **N**umber your pages in sequence until you have finished your sample. A sample includes all the fish you will sample from the same well using the same sampling protocol. If you change wells or change your sampling protocol, start a new page 1 and number your pages in sequence until you have finished your sample.

CARRIER or CANNERY **T**he nationality of the vessel as noted on the county registration certificate or license.

NAME OF VESSEL Fill in the full name of the vessel. Be careful with the spelling and make sure you include any numbers.

FFA VID NO. FFA's Vessel Register Number. Will normally be shown on the vessel's licence.

IRCS International Radio Call Sign. Often painted on the sides of the vessel.

REGISTRATION — COUNTRY AND NUMBER This may be on the vessel's bow, or if not check the registration papers in the bridge.

DATE OF DEPARTURE **T**he date the vessel left port at the beginning of its last trip.

DATE OF ARRIVAL **T**he date the vessel returned to port at the end of the trip.

DATE OF SAMPLE **I**f the well unloading takes place over more than one day put the first date of unloading here.

SET DETAILS - Get this information from vessel logsheets.

For selected wells that meet the appropriate selection criteria, transcribe every line with that well number from the logsheet.
It is very important that you write out <u>all the logsheet details</u> from the logsheet straight onto your port sampling form. Don't forget the well numbers at the end. If there is no information for a data field on the logsheet, place a dash on your form.

SAMPLING STRATEGY - ***(Hint: Only do a non-random sample when directed to do so by your supervisor.)***

RANDOM SPECIES Tick when there is no pre-selection of species by the sampler, the most common type of sample.

NON-RANDOM SPECIES Tick when the sampler pre-selects the type of species they intend to sample.

SAMPLED WELL Record the 'WELL NUMBER' that was sampled and the 'WEIGHT OF FISH IN WELL'.
Record all weights in metric tonnes.

Random Sampling
Five fish must be taken from ***every*** net unloaded from the well, until the very last net.

<u>SPECIES AND LENGTH DATA</u> - *Take length measurements from the tip of the upper jaw to the fork in the tail.*

SPECIES Species codes, for example: SKJ; DOL; YFT; RRU.

LENGTH The length, in centimetres, rounded down to the nearest centimetre (e.g. 67.9 cm will be recorded as 67 cm).

<u>DATA ENTRY VERIFICATION</u> (D*o this to help check that your data has been entered properly.)*

NUMBER OF EACH SPECIES Add up the total number of each species recorded on this form.

Σ LENGTHS FOR EACH SPECIES (Σ = sum of) Add up the lengths of each species separately. Don't mix them.

A Sampler's Guide to Selecting Appropriate Wells for Sampling

• Secure a copy of the vessel logsheet and, if available, the vessel well plan. • Ensure the well numbers are recorded on the vessel's logsheet. If they are not, return the logsheet to the captain, and ask that they are filled in. • You can use the 'Well Loading Worksheet' to select an appropriate well or follow the numbered steps below. The best approach is to check the set detail information for every well before the vessel starts unloading. Alternatively, you can check the set details of the next well to be unloaded. Wells filled with fish from just one set are good wells to sample, but the sampler should try to sample all wells that are appropriate for sampling.
See your Port Sampling Manual for more details.

1. Decide which well you want to sample, then glance down the 'well numbers' column on the logsheet.

2. When you spot the well number of the well you want to sample, highlight it. Then, highlight that entire line on the logsheet. Check to see if the same well number is written on any other lines on the logsheet. Highlight those lines also.

3. You can now see all the set details for the well clearly.

4. Check to see if the set details of the well indicate it is an appropriate well for sampling.

<u>WELL SELECTION CRITERIA FOR HIGHLIGHTED SET DETAIL INFORMATION</u>

School Association: *Only* sample wells where all the set details show the same school association.

Date of Set: <u>First Choice</u>: Sample wells where all the set details show the same calender month.

<u>Second Choice:</u> Sample wells where all the set details have dates 7 days before or 7 days after the same calender month.

<u>Third Choice</u>: Sample wells where all the set details have the dates from the same calender quarter (i.e Jan.–March).

Fishing Area:<u>First Choice</u>: Set details showing sets made in the same 5° x 5° area. <u>Second Choice</u>: Set details showing sets made in the same 5° x 10° or 10° x 5° area. <u>Third Choice:</u> Set details showing sets made in the same 10° x 20° or 20° x 10° area.

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