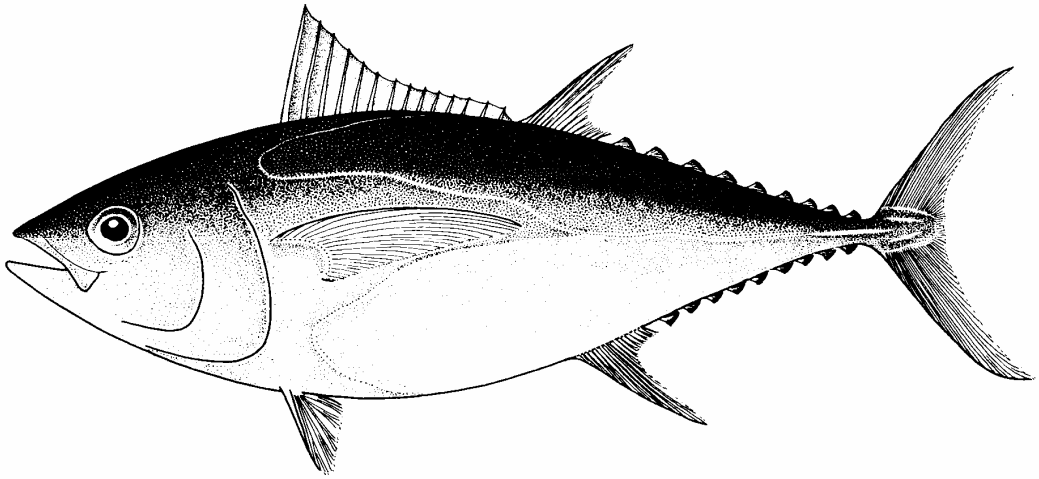
REPORT OF THE SIXTH MEETING OF THE TUNA FISHERY DATA COLLECTION COMMITTEE

16–20 November 2004
Brisbane, Queensland
Australia



Oceanic Fisheries Programme
Secretariat of the Pacific Community
Noumea, New Caledonia

Forum Fisheries Agency
Honiara
Solomon Islands

March 2005

TABLE OF CONTENTS

1. PRELIMINARIES

1.1 Appointment of Chairman and Rapporteurs

1. Mr Karl Staisch was reappointed chairman of the Tuna Fisheries Data Collection Committee[1] (DCC6) and Mr Tim Lawson was reappointed vice-chairman and head rapporteur. Mr Peter Sharples, Ms Deirdre Brogan and Mr Peter Williams were appointed rapporteurs for agenda items 3, 4 and 6 respectively.

1.2 Adoption of Agenda

2. The agenda was adopted as presented in Appendix 1.

2. REVIEW OF CATCH AND EFFORT LOGSHEETS

2.1 General

Change of title of all DCC data collection forms

3. The phrase in the title that appears at the top of all of the DCC forms is currently 'South Pacific Regional'. Given that the South Pacific Commission and the South Pacific Forum both decided to change their names in 1999, to the Pacific Community and the Pacific Island Forum respectively, it was considered that the phrase 'South Pacific' was no longer appropriate on the DCC forms. The term 'Western and Central Pacific Regional' was suggested, but this name is too similar to the name of the new Western and Central Pacific Fisheries Commission and the DCC wanted to avoid any confusion in this regard — the DCC forms have been developed by SPC and FFA and not by the WCPFC. It was therefore decided to change the phrase in the title of the all the DCC forms to 'SPC / FFA Regional'.

Trip number

4. At DCC5 in December 2002, it was proposed to add the trip number for all logsheets in order to more easily identify missing trips. It was agreed then that this change should be included in the next revision of any of the logsheets. Since all the logsheets will be changed (see paragraph 3), it was therefore agreed to add the trip number. The year and trip number fields will be used in conjunction with the Trip Log (see section 5.2) to determine logsheet coverage and identify missing trips.

---

[1] The Tuna Fishery Data Collection Forms Committee was established at the Ad Hoc Meeting on Tuna Fisheries Data Collection Forms, 11–14 December 1995, Brisbane, Australia (Anonymous, 1996), which was attended by staff of the Forum Fisheries Agency and the South Pacific Commission. The Committee is an internal SPC and FFA committee responsible to the Director of FFA and to the Director of the SPC Marine Resources Division. The second meeting of the Committee was held from 11 to 13 December 1996 in Brisbane, Australia (Anon. 1997); the third meeting was held from 9 to 10 December 1998 in Brisbane, Australia (Anon. 1999a); and the fourth meeting was held from 6 to 8 December 2000 in Brisbane, Australia (Anon. 2001a). During the fourth meeting, the name was changed to the Tuna Fishery Data Collection Committee. The fifth meeting was held from 2 to 6 December 2002 in Brisbane, Australia (Anon. 2003).

Number of Pacific island crew

1. The employment of Pacific island crew is a condition of licensing under the FSM arrangement. In order to monitor the employment of Pacific island crew, it was suggested that the number of Pacific island crew be recorded in the header of the logsheets. However, it was recognised that there may be better sources of this information, such as the crew lists that are submitted to port authorities and possibly the DCC Trip Log. FFA will therefore consider introducing procedures for obtaining crew lists and will report on this issue at the next meeting of the DCC. Also, the Trip Log will be modified accordingly (section 5.2).

2.2 Longline Logsheet

Hooks Between Floats

5. 'Hooks between floats' is currently recorded as one value for the entire trip. However, an analysis of changes in the number of hooks between floats among sets within a trip, based on observer data, revealed the following:

Sample Size (Number of trips)	644
% of trips where there was more than one value of "hooks between floats" used.	16.9%
% of trips where the difference in "hooks between floats" used was more than ± 1.	10.4%
% of trips where the difference in "hooks between floats" used was more than ± 2.	7.0%

6. Given that several fleets change the number of hooks between floats within a trip, it was decided to move 'hooks between floats' to be recorded for each set.

2.3 Longline Logbook

Trials of the draft longline logbook

7. A longline logbook was developed by the DCC in order to resolve several problems with the longline logsheet due to the limitation of space on a single A4-sized form. With the logsheet, vessel and trip information are recorded at the top of the form, and catch and effort data for each set are recorded on a single line of the form. In contrast, with the logbook, more detailed information on vessel and gear attributes are recorded on a whole page, and the catch and effort data for each set are also recorded on a whole page. In particular, more detailed information on the catches of non-target species can be recorded on a logbook, since the important non-target species can each be listed on the form.

8. Following DCC5 (December 2002), the draft longline logbook that was developed by the DCC was tested in Fiji, Kiribati, Samoa and Tonga. Ms Brogan presented the results of the trials, which were documented in Working Paper 2, *Trial of the Draft Longline Logbook*. The draft

longline logbook was tested on five vessels taking 11 trips and making 80 sets. Three trips were taken in Fiji, by two different captains; one in Kiribati, by one captain; four in Samoa, by three captains; and three in Tonga, by two captains. Thus, most of the trials involved offshore longliners targeting albacore in sub-tropical waters.

9. The trials were generally considered to be successful, with detailed information on gear attributes and the catches of non-target species being provided for most of the trips. However, there were several problem areas that were identified and, as a result, several changes were made to the longline logbook during DCC6. The revised longline logbook is presented in Appendix 6.

Implementation of the longline logbook

10. There was considerable discussion regarding the approach that should be recommended by the DCC regarding the implementation of the longline logbook by SPC and FFA member countries. The two main approaches that were proposed were: (1) make the logbook available for use on a voluntary basis over a two-year period, after which the logbook should become a condition of licensing and thus obligatory for all vessels; and (2) make the logbook available for use on a voluntary basis only, without ever making logbooks a condition of licensing.

11. It was noted that the trials were conducted with captains that agreed to do so on a voluntary basis, either because they were interested in collecting the additional information on the logbook, compared to the logsheet, for their own purposes or because they recognised the importance of collecting better data for research purposes, or for both reasons. However, it is not expected that most captains will show the same interest. It was therefore acknowledged that making the longline logbook obligatory may not result in any better information on catches of non-target species than is currently reported on logsheets. Observers could be used to verify the data recorded on the logbook, but the behaviour of fishers often changes when an observer is onboard; hence, the verification of data by observers would not be relevant to trips not covered by observers.

12. On the other hand, it was recognised that the more detailed data on catches of non-target species that would be provided on a logbook by cooperating captains would be extremely valuable for research. It was therefore agreed by the DCC participants that SPC and FFA member governments should be strongly encouraged to make the longline logbook available, both to domestic vessels and foreign vessels fishing under access agreements, and to promote its use on a voluntary basis as widely as possible.

13. It was further suggested that incentives be developed for the use of the longline logbook. The provision of logsheets is encouraged with subsidies for fuel in Tonga and subsidies for ice have been proposed in Samoa. Similar and perhaps more valuable subsidies could also be provided for the provision of logbooks.

14. The use of logsheets and/or logbooks will be affected by the standards and policies for the collection of operational catch and effort data that will eventually be adopted by the Western and Central Pacific Fisheries Commission. The Commission will probably establish standards for data collection forms that are similar to those developed by the SCTB Statistics Working Group, such that forms for recording operational catch and effort data should allow for all species that are caught to be recorded. However, it is uncertain whether the Commission will adopt a policy requiring all vessels to record catches of all non-target species. Both logsheets and logbooks would be required if the Commission decides that the recording of catches of target species and certain major non-target species is obligatory, but the recording of catches of other non-target species is voluntary.

2.4 Shark Longline Logsheet

Haul start time

15. ‘Set start time’ is recorded on the form, but not ‘haul start time’. It was agreed to include ‘haul start time’ on the form so that the soak time could be determined.

Target and bycatch species

16. The current form has fields for ‘other sharks’ and ‘other fish’, but not for non-fish species, such as marine turtles. It was agreed that certain of the fields for named species should be replaced with blank fields to allow for all species to be recorded. A subsequent analysis of observer data indicated that the catches of Galapagos Shark (*Carcharhinus galapagensis*), Black-tip Reef Shark (*Carcharhinus melanopterus*), Tiger Shark (*Galeocerdo cuvier*), Albacore (*Thunnus alalunga*) and Striped Marlin (*Tetrapturus audax*) were less frequent than the other species on the form and the fields for these species were replaced with blanks.

2.5 Pole-and-Line Logsheet

Location of schools chummed

17. It was suggested that for compliance and allocation purposes, it would be useful to include the location of each of the schools that were chummed. However, this would change the structure of the form, with one line representing a school rather than a day fished. It would not be practical to record the location and catch for each school chummed, given that vessels can chum several schools within a short time period.

2.6 Purse Seine Logsheet

End of set time

18. ‘Set start time’ is recorded on the purse-seine logsheet, but not ‘end of set time’, which could be used to better determine searching time. Furthermore, ‘end of set time’ is recorded on forms developed by IATTC for the eastern Pacific Ocean and it was recognised that the forms used in the EPO and WCPO should be harmonised as much as possible. It was therefore agreed to include ‘end of set time’ on the purse-seine logsheet.

Unloadings block

19. It was agreed at DCC5 that columns for ‘others’ and ‘rejects’ would be included in the block for ‘Unloadings to cannery, cold storage, carrier or other vessel’ when the purse-seine logsheet was next modified, and so these changes were agreed at DCC6.

2.7 Purse Seine Logbook

20. A purse seine logbook would allow for more detailed information to be recorded on vessel and gear attributes, searching time, the use of FADs and other information that could be used to measure fishing effort, as well as to record more detailed information on the catches of non-target

species and discards. However, given that the development and testing of a purse seine logbook will require considerable time and effort, it was decided to seek the opinion of the OFP Stock Assessment and Modeling Section regarding the need for a purse seine logbook.

21. Following the meeting, the head of the OFP Stock Assessment and Modeling Section, Adam Langley, advised that "*My view is that we aren't in a position to make such a recommendation at this time. I'm not opting out, but I think we don't analyse the purse-seine logbook data in sufficient data currently to identify the key data issues and think about how we would use additional data in improving/deriving CPUE indices for inclusion in stock assessments or for general fisheries monitoring. As an example, such issues could include "What is the area searched between sets?" We can use existing data to start to look at this by examining the distance/time between successive sets and midday positions recorded by logsheets. If this proved useful we might want to refine this further by collecting more detail on the effective range of searching by the vessel (electronics used, helicopter time, etc.), some of which might require additional data to be collected. A bit of a chicken and egg situation, but I think it needs some dedicated work to look at a range of possible indicators from the fishery and go forward on that basis. I did some of this sort of work in a preliminary way earlier this year, but didn't get too far. To do it properly would really require someone dedicated to such an analysis for a six-month period. In terms of catch, it would always be useful to have data from additional species, but given the difficulty of estimating yellowfin and bigeye catches, and the relatively small catches of other species, I can't see that we would be likely to get accurate catch data for other species. I think we have to continue to rely on the observer programme for this.*"

22. Given these views, a purse-seine logbook will not be developed at this time.

2.8 Handline Logsheet

23. No changes to the handline logsheet were required.

2.9 Daily FAD Fishing Logsheet

24. The form was developed in conjunction with the SPC Coastal Fisheries Programme for use in FAD research projects in the Cook Islands and Niue, but since those countries have instituted local data collection programmes, the Daily FAF Fishing Logsheet is no longer used on a regular basis. However, the form could be used by small-scale fishers in several countries and territories to monitor catches and catch rates, and to determine the value of small-scale fisheries in the economy. The form should be simplified and made more user-friendly.

2.10 Implementation of DCC Logsheets

Implementation

25. Working Paper 3, "Implementation of the South Pacific Regional Logsheet forms," was presented. The implementation of the logsheets is summarised in the table in Appendix 4. With respect to progress since DCC 5, the following points were noted:

- The most significant development in recent years has been the adoption of the regional standardized form by the distant-water Korean longline fleet (on Kiribati's insistence through their access arrangement).

- The implementation of standardized logsheet forms has in general, been successful; however, there are still a few fleets where vessels have not yet adopted the standardized forms and there are a number of purse seine vessels that are not using the latest version of the standardized forms.

26. The following were considered the most important gaps in implementation:

- Other than the United States purse seine fleet, there are still some purse seine vessels in the region that have not yet adopted the December 2000 version of the regional purse seine logsheet. Member countries should therefore be encouraged to introduce the latest version of the logsheet to all purse seine fleets during annual bilateral access negotiations.
- The Japanese fleets have adopted the regional standardized logsheets in the Federated States of Micronesia, but it does not appear to have been as successful in other member countries. At this stage, Japanese fleets operate also in Kiribati, Marshall Islands, Nauru, Palau, Solomon Islands and Tuvalu.
- It appears that many longline fleets based in the Solomon Islands are still using non-standard logsheets.

27. To formalize the introduction of new versions of the standardized logsheets, it was recommended that the following areas be targeted:

- The regional standardized logsheet forms should be included in National Tuna Management Plans in the future, with provision for reference to updates to these forms, when they occur.
- The regional standardized logsheet forms, with provision for reference to updates to these forms, when they occur, should be included in any legal (or otherwise relevant) documentation for the annual licensing of foreign and domestic fleets by each country.

28. It was agreed that SPC and FFA should take advantage of every opportunity to ensure that the DCC logsheets are implemented in the future.

3. OBSERVER PROGRAMMES

3.1 Status of Observer Programmes

29. The status of observer programmes is presented in Appendix 5.

3.2 Review of Observer Forms

30. Since the 5th Data Collection Committee new observer debriefing forms have been distributed and testing through the region. Consequentially, several aspects of observer data collection have been shown to require improvement. This, combined with the added demands of expanding observer programmes, different vessel coverage and the ever-changing needs of scientists and fisheries managers has resulted in an unusually large number of changes to observer forms this year. Some of these changes have important implications for observer data collection, observer training and future observer debriefing. The following sections outline those changes and the rationale behind them.

31. In general, more rather than less information was requested. As the forms have already been rationalised into efficient data collection tools, trying to squeeze more in without their becoming too

crowded and busy to be user-friendly is becoming increasingly difficult. Several small but effective changes were found, however, to provide the extra legible space needed. These changes were applied over all observer forms to give a new look with consistent approach.

GENERAL

Change of title of DCC observer data collection forms

32. All observer forms have had a name change from "South Pacific Regional ……" to "SPC/FFA Regional ……", as described in section 2.1.

Observer Forms Workbook Improvements

33. Observer forms workbooks contain all the forms that an observer needs for a set period at sea. To improve the calibre of instructional material that is readily available to the working observer, workbook improvements, as described in the following paragraphs, were agreed. Several of these will also help in efforts to evaluate and improve data quality.

34. Observer workbook instructions are to be modified to emphasise the observers' responsibility to ensure they take all the correct forms to sea with them.

35. To lessen confusion that may arise because different programmes, use different trip numbering schemes. Because some national observer programmes issue trip numbers to their observers when they serve a regional observer programme that also issues the observer its own trip number, the workbook instructions are to include an explanation of trip numbers and facility to record a second trip number will be made available on the front page of future workbooks.

36. The name of the observer's debriefer and their unique three letter code is to be included on the front of future workbooks.

37. Instructions on forms can be changed without DCC consent at any time as long as the change is intended to simplify the meaning rather than to reflect a change of protocol. If a clarity change is being considered, opinions of the change should be solicited from other DCC members.

38. Purse-seine observer workbooks will include extra instructions in the front to emphasise to observers that a PS–3 form must be filled out for every set regardless of whether it has been monitored and that for unmonitored sets the catch must still be filled out in the column allocated for the vessel's estimate of catch only. Among other things, this will ensure that there is no confusion with the observer's set numbering.

39. An explanation of relevant form changes is to be inserted inside the front of new workbooks.

Onboard Safety Equipment

40. The safety of observers at sea is always a concern for observer coordinators and observers often provide anecdotal information about vessel safety that suggests the safety of many fishing vessel crews in the Pacific should also be of concern. However, much safety information is more appropriately obtained by port-based inspectors rather than by asking observers to be on-board spies searching about to perform life-jacket counts, etc., hence, in effect, further jeopardising their safety. It was agreed that Observer General Information Forms (PS–1, LL–1, PL–1 and TR–1) be modified to encourage observers to collect only that safety equipment information that is readily available

and/or is directly relevant to their own safety. This will be an initial foray to gather empirical information of this type, likely to require significant review at the next DCC meeting, or equivalent, once initial trials have been made.

Travel form

41. As SPC now prints and distributes all observer workbooks, the travel and per diem form previously attached to the USMLT workbooks has been lost. The meeting agreed that a regional payment reconciliation form useful to all observer programme administrators be designed to be included in future workbooks.[2]

Placement form

42. Placement forms are used in some countries to provide a tool used by observer coordinators to ensure that there are no misunderstandings between observer, vessel owners and the vessel captain about (a) the role that is expected of the observer by the observer placement authority, (b) the obligations of the vessel hosting the observer to ensure the observer is able to carry out their duties, (c) the host vessel being safe for the observer, (d) the observer being properly equipped at time of boarding the vessel and (e) any special or unusual duties of the observer. Mention of this form was raised during discussion on observer safety on board vessels and it was agreed that a regional standard placement form be prepared for consideration for general use and for inclusion as a standard addition to observer workbooks.[3,4]

Code issues

43. Forms that previously used the FAO ASFIS code of "BLZ" for recording incidence of the Indo-Pacific blue marlin (*Makaira mazara*) will be changed to use the FAO ASFIS code of "BUM" for recording incidence of the blue marlin (*Makaira nigricans*). This is in recognition of recent findings that these two are the same species.

44. Some observer forms currently indicate the code "SHK" for use as a general shark code by observers unable to identify a shark to species level. This is not a correct FAO 3-alpha ASFIS code. Future observer forms will indicate the correct FAO 3-alpha ASFIS code of "SKH", which FAO list for use to indicate "various sharks nei (*Selachimorpha (Pleurotremata)*)".

---

[2] Such a form was completed before completion of this report and is included in the appendices for ease of distribution.

[3] Such a general form was prepared and circulated for approval. During the approval process it became apparent that it would be very difficult for a general form to accurately meet the needs of every programme. As such a form is still considered a useful inclusion that will encourage placement procedures where often they are lacking, a compromise was agreed that would include the general form unbound, in an A5 envelope, within the cover of all workbooks. Programmes that wished to replace this with their own placement form could easily do so on receipt of the workbooks. The placement form is also better suited as an unbound form, as it is to be split with one page for the Captain and the other page ideally being retained onshore and dispatched to the authority contracting the observer as soon as possible after the placement meeting, although situations exist where the observer may have to retain the form until end of trip. Versions translated into Mandarin and Korean will also be useful and produced once translators can be found.

[4] The general placement form developed is based on that already adopted by several programmes in the region. This form refers to another "Vessel Report on Observer" form that is issued to a vessel's Captain at the time of placement and invites comment on the observer performance (or, more importantly, miss-performance) during the trip. Hence, this form is also produced as a general form for unbound inclusion within the workbook. As the form has not been presented for DCC critique it will be made clear that the form is for the optional use by programmes that wish to use it.

45. Similarly for birds: previously, some forms used the general bird code "BRD" when the FAO code should be "BIZ".

46. The meeting was asked to consider introducing a new code that would distinguish sharks that have been finned in an EEZ where shark finning is illegal. As observers already use the codes "DFR (discarded - fins retained)" and "RFR (discarded – fins retained)" and collect accurate position data, it was deemed unnecessary to ask for further information on the forms, but that observers should be prompted to comment on such activity, if they understand that it is happening, in their trip reports.

47. The addition of fate code "DPU" (discarded species of special interest – unknown condition) as a supplement to the fate codes "DPA" (discarded species of special interest – alive) and "DPD" (discarded species of special interest – dead) was proposed at the meeting without objection.

48. To a question on how to deal with a situation where two fate codes correctly describe the fate of a catch item and if placing a dash in the appropriate field is adequate solution, it was explained, to the meeting's satisfaction, that observers are trained to choose the code that provides the most useful or important information to the majority of people that they expect will be interested in it. This is left to the observer's discretion, presuming that the observer is adequately trained and is in the best position to assess this not too frequent event. A dash should not be applied in this case.

Ship's time

49. To overcome problems that some observers have in converting ship's time to UTC time, it was proposed that observers be asked to state what time-zone it is that the ship's time is generated from, hence providing a simple means to verify important time data. However, the current ship's time and UTC time data fields on forms were introduced in part to alleviate difficulties that observers may have keeping track of the time-zone a vessel is currently using. This is because some vessels that do move their clocks as they move across time zones do not necessarily do so regularly or in time with usual conventions. It was agreed that the current form set-up is adequate, but where problems arise, these should be addressed vigorously in training and debriefing processes.

Incomplete trips

50. Complete trips are defined as being "from one full or partial unloading to the next full or partial unloading". Observers do not always complete a full trip, occasionally embarking on a vessel after it has commenced fishing or disembarking before the vessel heads to port for unloading. It was proposed that observers should have the means to indicate such trips on General Information forms and be expected to provide full explanation in their written report. Discussion on this point did not identify a clear need for such a change but the meeting agreed that the instructions on the back of forms should be adjusted, where necessary, to help ensure observers properly record when they embark or disembark a vessel at sea and what constitutes the start and end of an observer trip.

Trip numbering

51. When an observer from a national observer programme boards a vessel under a regional observer programme, both the programmes may assign different trip numbers to the observer. Confusion can arise when both programmes submit trip lists to the Regional Fisheries Database. The reasons for having different trip numbering systems are varied and the problem is not easily addressed through a single procedural guideline, however the meeting agreed that incorporating the

facility to record a second set number on the cover of the observer forms workbook would help prevent future such confusion.

Measuring instrument

52. A proposal to record the measuring instrument on a trip basis rather than a set basis as is currently required on purse seine and pole-and-line forms was rejected due to the need to know if a measuring instrument is changed during a trip due to breakage or loss. Standardising measuring instruments to ensure consistency in training and more consistent measurements was encouraged. The aluminium 1.5 metre callipers that have become popular throughout the region, backed up with a standard deck tape, are recommended. It was also agreed that the facility to record the type of measuring instrument that is used should be added to longline forms.

Standard measurements

53. This topic was revisited. At present, observers round length measurements down to the nearest centimetre and round weights to the nearest whole kilogramme. The questions asked were: why the difference? and is the resolution with regards to weights sufficiently fine when dealing with individual specimens? The issue on rounding is with observer training rather than the protocols. There would be less likelihood of confusion if observers could use the same protocol for both. However, rounding down lengths is a convention adopted by several fisheries bodies in the region for a considerable time. Although the justification is unclear, there is a history and large body of data collected under the convention with no firm argument to change it from a user's perspective. With regard to weight measurements, a kilogramme is a much greater proportion of most specimens that tuna fisheries observers deal with than is a centimetre, so to round in one direction only will allow doubling of the already potentially large error. Whether this 0.5 kilogramme is an acceptable margin of error was not answered from an analyst's perspective, but it is practically difficult to get weight data of finer resolution on a moving platform as is the usual situation for observers at sea. Very little weight data are collected by observers, who seldom carry weighing equipment or have it available on board. To date, the weight data collected have not been challenged. Hence, no change to the current protocol was recommended and the issue will remain one for observer training.

Departure and return date

54. It was agreed that instructions on the forms relative to trip departure and return dates should be improved to clarify issues with observers joining or leaving a vessel at sea.

LONGLINE OBSERVER FORMS

Change of title

55. All longline observer forms have had a name change from "South Pacific Regional ……" to "SPC/FFA Regional ……", as described in section 2.1.

Reconciliation with vessel logsheets

56. A proposal was tabled that the meeting consider a means to reconcile data on longline vessel logsheets with observer data in much the same way that observers on purse-seiners log the set time recorded by the vessel against that which they record themselves for future reconciliation purposes. However, reconciliation of these data has not been a major problem. In any case, the current illegal,

but nevertheless persistent tendency for many longline vessels to fill their logsheets out only once they have reached shore would make this a very difficult task. No further action was recommended.

FORM LL–1 • LONGLINE OBSERVER GENERAL INFORMATION

Captain and fishing master nationality

57. A proposal to modify the Captain and Crew section of FORM LL–1 to capture nationality of a longliner's captain and fishing master more succinctly was adopted.

Electronics

58. Several items listed under electronics in Form LL–1 are now such standard instruments on longliners that there is little point to asking observers to collect them. For other items, it is appropriate to know how much the instrument is being used, but there is little to be gained from knowing the make and model of the item. The meeting recommended that the electronics section be rationalised to reflect today's situation in this respect. In particularl, it recommended introducing a method to capture "usage", suggesting a set of codes be developed for this purpose.

59. Subsequent changes include: removal of wind speed/direction finder, make and model for radar depth sounder, GPS, sea surface temperature gauge, weather facsimile and the second radar and depth sounder fields. The item XBT (bathythermograph) was also added to the form after having been inadvertently dropped off during the DCC5 form revision.

60. A column has been introduced to Form LL–1 to record basic usage information for each item of equipment and a set of seven 3-alpha codes developed for this purpose: ALL - used all the time; TRA - used only in transit; OIF - used often but only in fishing; SIF – used, sometimes only in fishing; RAR - rarely used; BRO - broken now but used normally; NOL - no longer ever used.

61. The bracketed words "FFA type approved" have been removed from the label for the fields for VMS information as the regionally agreed FFA VMS system is now no longer the only VMS system used in the region. It was recognised that the limiting nature of this label could hinder the ability to track how widespread the use of other VMS systems is becoming.

62. The field labelled "Inmarsat services" is now labelled "Satellite Communication Services" to reflect that Inmarsat now has competition in this market.

Onboard Safety Equipment

63. The meeting agreed observers should record information about their host vessel's safety equipment on Form LL–1, as explained in paragraph 40.

Branchline diagram

64. A proposal to include a branchline was considered. The meeting decided that it was not appropriate to include it on form LL–1, but that diagrams could be included in a workbook guideline page and observers encouraged to include suitable diagrams in their trip report.

FORM LL–2 • LONGLINE OBSERVER SET INFORMATION (FORM LL-2/3)

Amalgamation of Forms LL–2 and LL–3

65. Form LL–2 is used to record set specifications and to log position and conditions during each setting process, while Form LL–3 is used to log activity and conditions during the hauling process. The protocol for maintaining these two forms can be unnecessarily burdensome on observers and may result in the collection of poorer quality data. The need to correlate the two forms during debriefing and other data quality control activities is also burdensome. A proposal to relieve this burden by amalgamating the two forms and removing unnecessary data collection chores in the process was presented. In support of the proposal, it was noted that much of the data that observers collect on the forms have not been used. It was also mentioned that several new developments (e.g., expanded use of VMS and remote sensing systems) have replaced the need for some observer-collected data items. On the other hand, reference was made to emerging new uses of the high-resolution catch, effort and position data that observers are traditionally relied upon to collect, as scientists grapple with the importance that the effects of seafloor topography have on fish populations and fishing behaviour.

66. The meeting viewed a draft design and agreed that a new amalgamated form be developed. The form will be referred to as FORM LL–2/3 (Set and Haul Information).

67. As a result of the amalgamation of Forms LL–2 and LL–3, the area on the back of the now single form is insufficient to hold all guidelines still required, and the basket diagram previously featured on the back of Form LL–2 is now relegated to an additional page in the workbook.

68. The new Form LL–2/3 has a box for an observer to draw the shape of the set as seen on a track plotter if one is available. This compensates in part for the potential loss of position information that will no longer be possible to collect on the rationalised form, although, in reality, little of this information was previously collected as this time is often prioritised for observer sleep. There is doubt that this information can be trapped in a database, but, space permitting, the concept will be trialed on the new form.

Change of targeting during setting of a single mainline

69. Concern was raised about how best to deal with the situation where vessels deliberately change their target species part way through a set, entailing a change in set specifications. Currently an LL–2 form only caters for one set of specifications. A second LL–2 form is needed to record a second set of specifications, but there is no clear protocol directing use of a second form. The meeting recommended that a protocol directing such sets to be treated as two separate sets, with two sets of forms, be adopted, and that this protocol be communicated to observers through a direction in the form instructions. This will be on the new LL–2/3 forms.

Unusual set details instructions

70. Instructions for Form LL–2 “Unusual Set Details” fell from the instruction sheet for no recorded or apparent reason in the year 2000. These are to be reinserted in the new Form LL–2/3.

Observer monitoring activity

71. The proposed new LL–2/3 form included an extra "Activity" column designed to provide means to calculate the amount of time during the haul that catch is actually monitored and sampled. Previously, observers have been asked to count baskets as a measure of catch monitoring; however, even when observers carried out this task correctly, the information was not being usefully captured. The regional observer database had been designed to expect incident-only information from LL–4s, the form on which it is most practical for an observer to record the number of baskets monitored. The LL–2/3 captures activity information already, which is compatible to current regional fisheries database philosophy. This particular area of the new LL–2/3 form was given little attention during the meeting proper, but it became apparent that this was an unfortunate oversight, as what was proposed does not adequately trap the percentage of catch or effort that has been monitored. The new LL–2/3 form will thus not include the proposed "Activity" column, but will include a field to capture the total number of baskets monitored, as calculated from page total tallies of baskets monitored during the filling of each Form LL–4 used during a set. This also provides a useful function for cross-checks during debriefs and data-quality control. There remains concern about the geographical portions of sets that are not monitored by observers, particularly as scientists become more interested in catch rates relative to the ocean floor structures, but addressing such issues will need to be deferred to the next DCC meeting.

Reference to Form GEN–3

72. During discussions on purse seine forms the meeting was informed how recent developments in observer debriefing and data quality control have led to marked improvements in observer data generally, but that Form GEN–3 is still not well used by observers. It was recommended that the wording on purse-seine Form PS–2 that asks the observer whether they have had cause to use a GEN–3 form should be altered to more forcefully encourage observers to properly utilise Form GEN–3. This is clearly equally apt for the same question on the longline form LL–2. The suggested approach is to request a reference to the description of the incident for which a Form GEN–3 needs to be filled. Adjustments will need to be made to the GEN–3 form[5] before this recommendation can be usefully incorporated in the manner intended, but, in the interim, the LL–2/3 form will display this question more boldly than before and ask for a page reference to any further description on the incident in the diary that all observers are encouraged to keep.

FORM LL–3 • LONGLINE OBSERVER HAUL INFORMATION (FORM LL-2/3)

73. This form has now been amalgamated with Form LL–2 into a new Form LL–2/3 – Longline Observer Set and Haul Information. The rational for this and the various changes that were consequently made are described in the FORM LL–2 section above.

---

[5] During post meeting form design, it became apparent that the DCC recommendation for change to the reference to Form GEN–3 that is present on Form PS–2 is not a practical solution without changes to the observer trip report template and current GEN–3. The former can and will happen, but without a DCC recommendation the latter cannot. During DCC6, Karl Staisch was asked if FFA, as the organisation that provides fisheries compliance and surveillance advice through the region, could investigate improvements to Form GEN–3. Upon his return to headquarters Karl duly reported that the relevant people had been consulted and no changes are necessary at this stage. However, deficiencies are being noticed by observer debriefers and national fisheries organisations, as the value of observer data becomes better recognised, and it is anticipated that GEN–3 will need changing for the next DCC meeting, or its equivalent.

FORM LL–4 • LONGLINE OBSERVER CATCH MONITORING

74. There were few changes required of this form. These included tidying up the wording for the recording of longline baskets monitored at the bottom of the form; removing the redundant length codes "PS" and "US" from notes on the back of the form, as these are used only in port sampling; removal of the duplicated fate code "RGO"; and replacing the species code "BLZ" that FAO previously assigned to blue marlin with the species code "BUM" that FAO now assigns.

FORM LL–5 • LONGLINE CONVERSION FACTORS

75. No further changes were proposed for this form

POLE-AND-LINE OBSERVER FORMS

Change of title

76. All pole-and-line observer forms have had a name change from "South Pacific Regional ……" to "SPC/FFA Regional ……", as described in section 2.1.

FORM PL–1 • POLE-AND-LINE OBSERVER GENERAL INFORMATION

Onboard Safety Equipment

77. A section on on-board safety equipment, as described in paragraph 40, is to be included in Form PL–1.

Reconciliation with vessel logsheets

78. A discussion on how to incorporate a means to reconcile pole-and-line observer data with the vessel's logsheet data, as is achieved through matching up vessel start of set times with observer start of set times for purse seiners, concluded that the nature of pole-and-line fishing would not allow for this and that such information is not as critical in pole-and-line fishing.

FORM PL–2 • POLE-AND-LINE OBSERVER DAILY LOG

79. No further changes were proposed for this form.

FORM PL–3 • POLE-AND-LINE OBSERVER CATCH DETAILS

80. No further changes were proposed for this form.

PURSE-SEINE OBSERVER FORMS

Change of title

81. All purse seine observer forms have had a name change from "South Pacific Regional ……" to "SPC/FFA Regional ……", as described in section 2.1.

FORM PS–1 • PURSE SEINE OBSERVER GENERAL INFORMATION

Onboard Safety Equipment

82. A section on on-board safety equipment, as described in paragraph 40 is to be included in Form PS–1.

Number of radio buoys

83. A prompt for observers to record the number of radio buoys a vessel carries was inadvertently left off the 2002 revision of observer forms. This prompt is to be replaced.

Capacity of Brail

84. Discussion on whether observers need to measure brails to get a more accurate assessment of capacity led to the explanation that observers currently rely on information from a vessel engineer or other officer to establish size of the brail, and that this information then becomes the standard measure for the observer to calculate total catch. Although observers have sometimes measured a brail in the past, it is generally considered that it is not easy to complete the task accurately and that vessels likely to cheat on the information will still easily do so by altering or switching brails. A few suggestions for alleviating this concern were proposed, including using regional standard brail sizes, providing scales to observers to weigh individual brails and use of scales in port by fisheries officers to calibrate brail sizes. These were briefly considered by the meeting and it was recommended that the topic should be investigated further at relevant catch assessment, MCS and DCC meetings. There was no recommendation to change current observer data collection protocols.

85. There was a recommendation to adjust the PS–4 form to acknowledge that one brail size or another could be sampled from and these changes needed to be reflected on the PS–1 form by naming "brail 1" and "brail 2" on the form, with some adjustments to the instructions.

Captain's license number

86. Observers collect information about the captain and crew of a vessel including their name, position on board and experience. A suggestion that the captain's license number also be recorded met with mixed response. In support, the license number provides a means to conclusively identify the captain and track his or her history, but there is concern that the act of seeking this information may unnecessarily risk creating friction between observer and captain, placing the observer's role towards that of a policeman, contrary to current philosophy of how observers are to be perceived. In most cases, such information could easily be checked by others at time of observer placement. The meeting agreed that a facility to collect the captain's license number be made available on Form PS–1, but that it should be clear that the observer is not compelled to collect this information.

Emphasise vessel capacity and crew number

87. The remaining discussion on Form PS–1 highlighted observer reporting errors for fish storage capacity and total vessel crew numbers. Simple changes to the form format, improved instructions and greater emphasis in training were recommended to address these.

FORM PS–2 • PURSE- SEINE OBSERVER DAILY LOG

Set numbers

88. To simplify cross-checking of data during debriefing, observers will be instructed to record the set number, as it is now recorded in the header of the Form PS–3 that is filled out for every set, in the comments field of each line entry on a Form PS–2 that has a corresponding activity code "1". Form PS–2, its instructions and future training are to be adjusted to accommodate this procedure.

Changes to activity codes

89. Discussion on the confusion related to activity codes "15R" and "15D" that should be used when replacing one beacon with another, but often get miss-used to indicate a beacon is being set for the first time, led to a recommendation that instructions be improved to reduce the confusion. Both instructions on back of the form and the wording for code descriptions on the front of Form PS–3 were adjusted accordingly.

90. The new activity code "16 – Transhipping or bunkering" was proposed and adopted to indicate when a vessel is not fishing because of these activities.

School association and detection codes when investigating a floating object

91. A recurring problem with observers recording school association, and school detection codes when there are no tuna beneath investigated floating logs, led to a recommendation to modify the code heading from the current "School Association" to include the word tuna to help clarify things for observers[6]. It was also suggested to introduce an extra school association code that states there is no tuna to have an association code. This would replace the current procedure of placing a dash in the school association field and the words "no tuna" in the comments field. It will also pre-empt errors from observers who insist on placing a school association code where one should not go, despite the title change, and allow the "how detected" code to inform how an object being investigated was found, even if there were no tuna associated with that object. The new school association code "9 – no tuna associated" will be incorporated on future Form PS–2s.

92. During form design, it became apparent that the adjustment to the "How detected" codes heading to "How were tuna detected", which was assumed would naturally ensue from the adjustment to the school association code, was unnecessary. The detection code, as it currently stands, will now complement the new school association code "9", described above, and will clearly

[6] The original suggestion was to use the new term "Tuna school association" but during post meeting form design and further discussion, a decision to put "tuna" in brackets after the current heading — i.e.: School association (tuna) — would achieve the same result without changing a term that is already widely used.

indicate how an object being investigated was found, even if there was no tuna subsequently found with it. This recommendation was thus not implemented in the redesign of Form PS–2.

93. While working through the issues described in the previous two paragraphs, the opportunity was taken to clarify the use of "How detected" codes in order to ease future observer training and provide more informative data. As the Form PS–2 fields for this code were grouped along with school association under the larger heading "School", there has been tendency to think of "how detected" as a characteristic of the school of tuna that was detected rather than a characteristic of the vessel behaviour (i.e., a characteristic of catch rather than effort). Hence, when a vessel stopped general searching to investigate a possible sign of fish, if no fish were subsequently found then there was no record made of what tool the vessel had used to successfully find that particular fish sign. Another problem with directly associating the "how detected" codes with the school of fish is that observers tend to record the last of a series of indicators that led to the fish, whereas the most important is usually the first (e.g., it is more important to know the vessel found a school because of a sign seen on radar than it is to know that the vessel could see the fish with sonar when investigating the school). To facilitate a better understanding of these codes by observers, the form fields have now been put into a column separate from the school association codes. That column has been moved in front of the school association codes to reflect the chronological order in which the information is normally acquired, and form instructions have been changed and upgraded accordingly.

Sightings tallies

94. It was recommended that adding a "No." box to each tally field in the sightings section at the bottom of Form PS–2, and to adjust the instructions, would make this area of the form more usable.

Reference to Form GEN–3

95. The wording on Form PS–2 that asks the observer if they have had cause to use a GEN–3 form needs to be altered for the reasons outlined in paragraph 72.

FORM PS–3 • PURSE-SEINE OBSERVER SET DETAILS

Compulsory filling of PS–3 forms

96. Purse-seine observer workbooks are to include extra instructions in the front to emphasise to observers that a PS–3 form must be filled out for every set, regardless of whether it has been monitored, and that for unmonitored sets, the catch must still be filled out in the column allocated for the vessel's estimate of catch only. A similar guideline is to be added to the PS–3 form instructions. Amongst other things this will ensure that there is no confusion with the observer's set numbering.

Recording vessel's record of retained non-target species

97. An extra column is to be added to capture the vessel's logsheet record, if any, of the number of fish of a non-target species that were kept. Similar columns already exist to capture the vessel's record of metric tonnage of target and non-target species for comparison against the observer's records and to help reconcile observer records against vessel logsheet records.

Code adjustments

98. The following code adjustments were recommended (see paragraphs 43 to 46):

- species code BUM to replace BLZ for blue marlin;
- SKH to replace SHK for general sharks;
- BIZ to replace BRD for general birds;
- fate code DPU (discarded species of special interest - unknown condition) should be added;
- DPQ (discarded – poor quality) to be added;
- RFR (retained trunk – fins retained (shark only)) to be added; and
- the definition for RHG to be adjusted from "retained – headed and gutted (marlin only)" to "retained – headed and gutted (billfish).

99. A suggestion to remove the fate code RHG entirely from the form because it was seldom used and could thus free up space in the list for other codes was not adopted.

100. Adding a completely new code to cater for fish that are transferred from another vessel was also considered unnecessary as this information is already captured on the PS–2 (new activity code 16) and on the GEN–1 forms and would require filling a PS–3 form for a fish transfer activity, which is not the purpose of the form.

101. There was also a suggestion to redefine the fate code "RWW – retained – whole weight" to be "RWW – retained – whole weight (for commercial catch only)" as some observers are using this fate code for marlin, rainbow runners, etc. The meeting could not see just cause for this redefinition as there may be correct use of this fate code for other than commercial species and its misuse should be rectifiable in training and debriefing.

Escaped tuna

102. After discussion about the value of the fate code "ESC" on the PS–3 form and a quick check of the database to find that it does get used (219 records at time of the meeting), it was recommended that, to ensure that observers note when tuna have escaped from the net and that they use the appropriate codes, the instructions will be amended to give observers guidance in this area.

Calculating tuna catch composition

103. Currently, and for the past few years, observers are asked to use length measurements from randomly collected specimens drawn evenly from throughout the set to evaluate the composition of skipjack, yellowfin and bigeye tuna in mixed species sets. They do so by using average lengths and length-weight conversion tables to calculate the relative proportions of these species in their sample and then extrapolate this to the entire set catch. While recognising that length-weight conversions are not precise and the small sample sizes could confer a significant margin of error[7], this was still considered a better tool for observers than no tool at all. Also, these errors would be systematic and

[7] Post-meeting tests on experimental data indicate that due to their characteristic low proportions in mixed sets, if using current protocols correctly, small bigeye and large yellowfin might only be seen in as few as three out of every hundred samples that observers collect from sets that contain these fish.

possibly adjustable. However, calculations are often not carried out correctly and now that data are quickly entered into databases, these same calculations are more easily, precisely and reliably carried out with computer. It was therefore proposed to drop the calculations from observers' lists of duties and for the forms to be adjusted accordingly. This would also ease the burden on debriefers to cross-check the calculations.

104. It was recognised that if these calculations were dropped, the old method of observer estimates would be re-instated, as these figures have always been utilised as an alternative comparison for other catch composition data sources. In the past, observers were encouraged to use their experience to make eye-estimates of tuna composition. It was decided to retain the calculations until a better tool has been developed[8], but to structure the forms so that observers can add eye-estimates of bigeye tuna and large yellowfin tuna if these are observed in the catch, as these are usually in such low proportions that current sample sizes cannot provide sensible assessments at the set level[9].

Using different brail sizes

105. A further complication to calculating the retained catch is encountered on vessels that use two different brail sizes. Observers can record these at the trip level (PS–1), but are not given the tools to record the brail size being used at the set level. Reports that two brail sizes can be used in a set led to a meeting recommendation that PS–3 and PS–4 forms and sampling protocols be redesigned to cater for this activity.

Cumulative landings

106. To provide comparison between the total weight on board, which is already calculated on the PS–3 Forms using the observer's set by set records, with what could be on board if the vessel's set by set records were used, it was recommended that a parallel facility be made available on the form to keep an up-to-date calculation using vessel records.

Observer recording of catch not recorded on logsheets

107. It was agreed that instructions need to be amended to explain to observers what to enter into the "Vessel (mT)" fields on Form PS–3 when no record of the set has been entered on the logsheet. The instructions will now read: "If the vessel has no record for this set, record a dash in this field. If the vessel records "0", record "0" in this field."

---

[8] During post-meeting discussions, it was explained that the calculation worksheets were also a valuable tool for giving observers a sense of ownership of the data and helping them understand the need for good sampling techniques and strict protocol. They have become an added incentive to ensure sampling is of a high quality. A contrary concern is that some observers, perceiving that the fish will otherwise not be represented in the assessments of catch they make by using these calculations, may be tempted to selectively draw fish to sample. In comparing these contrary implications and considering that a significant part of training is devoted to infusing observers with a sense of the need to be accurate with their work and their assessments, the calculation tool is far more in keeping with the accuracy philosophy than to put it to observers that one of the more vital issues that they work in can be addressed with vague estimates based on experience that most of them will not have for a long period of time. Until an alternative tool is developed the calculations remain the best we have.

[9] Correctly applied, current sampling protocols provide sensible indications of catch composition at a global level. However, issues with respect to small bigeye and large yellowfin in purse seine catches may require that different sampling protocols be adopted by observers, at least with a portion of the sets being monitored. The latest version of the forms should cater for such changes.

Questions

108. The usefulness of the questions on PS–3 relating to discards of target species, the number of non-target species caught and the school type was questioned, particularly in reference to a need to free up space on the form for other data. The meeting was reminded that the questions were introduced to remind observers on the job that these are important tasks needing to be carried out. They also provide tools for cross-checks during debriefing. Although the question on the number of bycatch species is not especially useful in debriefing, the question on target catch discards has been a useful catch-out question. It was felt that as long as space is not an issue, these questions can be retained on the form. Concern was expressed that the school type question does not give sufficient scope to observers to accurately describe all possible school types that could be encountered; hence, as more detailed information about school type is already recorded on the PS–2 forms, it was decided to drop this question from PS–3.

FORM PS–4 • PURSE SEINE OBSERVER LENGTH FREQUENCY

Form name

109. This form has been incorrectly named for many years and although that issue was not raised directly during the DCC meeting, the confusion the nomenclature causes is reflected in other issues raised (see next paragraph). The form has been renamed from the "South Pacific Regional Purse Seine Observer Length-Frequency" form to the "SPC/FFA Regional Purse Seine Observer Length Measurement" form to better reflect its purpose.

Description of sample types

110. The terms "Random sample" and "Length Frequency Sample" were introduced on the 2002 version of Form PS–4 to differentiate between standard species composition and length measurement sampling that observers are trained to undertake by default and the length measurement samples that they may otherwise collect. The terms have been confusing and misleading and the adoption of them and the associated instructions on the back of the forms has restricted the types of samples that observers can collect. There was also call to align terms used for observer sampling with those used for port sampling. This was not discussed in depth during the meeting and subsequent discussion during the form redesign revealed that agreement on new terms would not be easy. As an interim, the terms on Form PS–4 have been changed to "normal" to indicate that the standard species composition and length measurement sampling was being carried out and "other" to indicate when another sample type has been collected. The two terms are located under a heading "Sample type". When the sample type is "other", observers are now asked to specify what the other sample type was and some assistance for establishing this is provided in the instructions on the back of the form.

Calculating retained catch from average lengths

111. Discussion on the merits of using the average lengths calculated on this form to assess species composition (see paragraphs 103 and 104) resulted in a recommendation for some sampling protocol changes. These included more sampling of only yellowfin and bigeye from mixed tuna species sets and for observers to use their calculation worksheets to assess only the combined weight of yellowfin and bigeye (YFT/BET) when using the normal sampling protocols, as they have been trained to use for several years, then to provide an eye-estimate of the bigeye in those sets. Changes to the format of Form PS–4 and to the instructions are required to cater for these protocol changes[10].

Total number vs. sum of all brails

112. The tally of the number of brails brought onboard is a critical piece of information and there have been frequent requests from observers that they be able to tally brail fractions other than what is currently available on form PS–4. It was recommended that the forms be adjusted to more accurately record brail tallies and so the range of brail fractions has been increased (from including ¼, ½, ¾ and full to ⅛, ¼, ⅓, ½, ⅔, ¾, ⅞ and full brails). Changes to formatting and instructions have been made, including capacity to record the actual number for each tally of brails.

113. Noting that observers still have difficulties differentiating the terms "total number of brails" and "sum of all brails", as used on Form PS–4, it was recommended that further efforts be made to improve the handling of these terms. Instructions have been improved and a work area provided on the back of form PS–4 to assist in the calculation of the sum of all brails.

Description of total length

114. The description for the code "TL" was changed from "tip of snout to end of tail (no fork tail)" to read "total length – to end of tail (fish with no fork in tail)".

Column totals

115. To ease the task of calculating species numbers and summing the lengths for each species recorded on PS–4 forms, and thus improve the accuracy, it was agreed to include space for column totals at the bottom of each column of data collected on the form.

FORM PS–5 • VESSEL LOGSHEET and WELL LOADING RECONCILIATION

116. A proposal to remove Form PS–5 because it is often incorrectly completed and is no longer used for the purpose for which it was first designed (port sampler well selection and verification) was not accepted. A deciding factor to retain the form, unchanged except for title, was that it resembled data collection needs in the Eastern Pacific Ocean and could be useful to their needs.

[10] Therefore changes will also be required of the worksheets that are included in observers' purse seine workbooks.

TROLL OBSERVER FORMS

117. A request from New Zealand early in 2004 for a set of observer forms to be carried on troll vessels prompted the design of these forms based on our regional standards for other observer forms, the data types already maintained from previous observer efforts on board troll vessels, and the observer experience on troll vessels that is currently within the OFP. A set of three forms titled: "TR–1 – SPC/FFA Regional Troll Observer General Information", "TR–2 – SPC/FFA Regional Troll Observer Daily Log" and "TR–3 – SPC/FFA Regional Troll Observer Catch Monitoring" were presented to the DCC meeting and accepted as interim observer forms until they have been further field tested. Minor alterations were recommended as follows.

Change of title

118. All troll observer forms have had a name change from "South Pacific Regional ……" to "SPC/FFA Regional ……", as described in section 2.1.

FORM TR–1 • TROLL OBSERVER GENERAL INFORMATION

Onboard Safety Equipment

119. The section onboard safety equipment, as described in paragraph 40, was added to Form TR–1.

GENERAL OBSERVER FORMS

Change of title

120. All general observer forms have had a name change from "South Pacific Regional ……" to "SPC/FFA Regional ……", as described in section 2.1.

FORM GEN–1 • VESSEL AND AIRCRAFT SIGHTINGS AND FISH TRANSFER LOG

Change of title

121. Adjustments to the form were requested so that it can be used to collect information on fish dumping (see next paragraph) and other transfers at sea. To ensure the full purpose of GEN–1 is reflected, the title was changed to "Vessel and Aircraft Sightings / Fish, Bunkering and Other Transfers Logs".

Dumping fish

122. It was recommended to allow for "Fish dumping" to be recorded in the "Fish transferring and bunkering section" of this form and the title of this section be changed accordingly. The code "DF" for dumping fish was also added to the action codes (see paragraph 124).

Clarifying which vessel is receiving and which is giving

123. Because the vessel carrying an observer is not necessarily the one giving fish during a fish transfer operation, the field "Receiving vessel" in the fish transferring and bunkering section is not an adequate tool for collecting information on the other vessel involved. It was therefore recommended to change this field to "Other vessel".

Action code revision (from activity and transfer codes)

124. To indicate which direction fish or other items are being transferred, it was recommended to expand the activity and transfer codes. This has been achieved by "rationalising the activity and transfer" codes into "Action" codes, with the previous single codes "T", "S" and "B" (for transhipping, set sharing and bunkering, respectively) now expanded to six codes "TR", "SR", "BR", "TG", "SG" and "BG", with the second letter in each of these codes (R and G) indicating whether items were being received or given. The codes "OR" and "OG" for "other" were added as was the code "DF - dumping fish". The term "Action codes" replaces the previous "Activity and transfer codes" so that a single term is used in both the sightings and the transfer sections of this form and to avoid confusion with the "Activity codes" used in form PS-2.

FORM GEN–2 • SPECIES OF SPECIAL INTEREST

125. Several minor changes were recommended to bring this form more into line with other SPC/FFA Regional Observer Forms. These included defining the time requested as "Ship's time"; changing the "00:00 hrs" time format to read "hh:mm"; changing "Observer ID Number" to read "Observer Trip ID Number"; and moving the tags section to be placed more logically in association with the species landed section.

Species and codes additions

126. Humpback whale, sei whale, rough-toothed dolphin, Eastern Pacific green (or black) turtle, and their respective FAO codes, were added to the list of species on front of the form. The "all birds" code was corrected to "BRZ", the "all turtles" code was corrected to "TTX" and an "all dolphins" code was added. Finally, the species name and code for flatback turtle was added to the list on a post meeting request that pointed out that these have been encountered by observers in Papua New Guinea.

Number of species landed

127. A request to add an extra field to record the number of animals that were landed in the "species landed on deck section" was not accepted since the rest of that section is dedicated towards recording information for a single animal. Observers must use one GEN–2 form per animal of special interest that is landed.

FORM GEN–3 • VESSEL TRIP COMPLIANCE RECORD

Better use of Form GEN–3

128. The meeting was informed how recent developments in observer debriefing and data quality control have led to marked improvements in observer data generally, but that Form GEN–3 is one

form that is still not well used by observers. It was recommended that the wording on Form PS–2 that asks the observer whether they have had cause to use a GEN–3 form should be altered to more forcefully encourage observers to properly utilise Form GEN–3. The suggested approach is to request a reference to the description of the incident for which a Form GEN–3 needs to be filled. However, adjustments will need to be made to the GEN–3 form[11] before this recommendation can be usefully incorporated so the LL–2/3 form will simply display this question more boldly than before.

129. It was also agreed to have Form GEN–3 positioned more prominently in the observer workbook as a means to encourage its greater use.

Additions to list of issues for observers to report on [12]

130. The list of fourteen issues that observers were specifically asked to monitor and report has been increased to nineteen. Five new issues include miss-recording commercial species; recording bycatch and discards inaccurately; not providing observers with adequate accommodation, food and facilities onboard; high grading of the catch; and not reporting zone changes. Overlap among some of these issues may possibly lead to some confusion, but the additions will provide information pending a major review of the GEN–3 form.

FORM GEN–5 • STOMACH CONTENTS

131. No changes were proposed for this form.

FORM GEN–6 • POLLUTION REPORT

Observers advising vessel officers

132. The question on this form "If there were any infringements to the MARPOL Regulations did you advise the Captain of these infringements" goes against regional general policy that observers should report only and not advise. Observers are trained on this basis. Accordingly, there was a request that this question be removed from the form. However, it was decided that there was some merit to the educational aspect of observers in this situation and that the question could be left on as long as it is made clear to the observer that they have no obligation to advise vessel Captains and are generally encouraged not to. The form was adjusted appropriately.

---

[11] During post meeting form design, it became apparent that the DCC recommendation on Form LL–2/3 reference to Form GEN–3 is not a practical solution without changes to the observer trip report template and current Gen–3 form. The former can and will happen, but without a DCC recommendation the latter cannot. During DCC6, Karl Staisch was asked if FFA, as the organisation that provides fisheries compliance and surveillance advice through the region, could investigate improvements to Form GEN–3. Upon his return to headquarters, Karl duly reported that the relevant people had been consulted and that no changes are necessary at this stage. However, deficiencies are being noticed by national fisheries organisations as the value of the various aspects of observer data is more widely recognised and it is anticipated that GEN–3 will need changing for the next DCC meeting.

[12] Additions were made to GEN–3 following discussion at FFA's 8th MCS Working Group meeting; however a major revision of this form is still required.

DE-BRIEFING FORMS

133. Debriefing forms give observers feedback on the quality of the data that they have collected. The forms guide debriefers to check every single data field on the observer forms. As the debriefing forms are updated after the observer forms have been finalised, they are not contained in the DCC report. They can be found on the SPC website soon after the DCC report is posted. They can be found at: http://www.spc.int/OceanFish/Html/Statistics/Forms/index.htm

134. Although good progress has been made with installing regionally recognised and accepted observer debriefing processes, there are still not enough well-trained debriefers in place to adequately test current protocols and the associated forms. These forms are still under constant review and revision and it was not thought appropriate to formally approve and document specific debriefing form layouts at this time. However, the meeting recognised the great importance of this work and agreed that the current and developing forms should be accepted as an interim regional model. Participants looked forward to reviewing a more complete debriefing regime at the next DCC meeting.

4. PORT SAMPLING PROGRAMMES

4.1 Status of Port Sampling Programmes

135. The status of port sampling programmes is presented in Appendix 5.

4.2 Review of Port Sampling Forms

GENERAL

Field Staff Code

136. A field staff code will be added to all of the port sampling forms. This will help with better management of submitted data. The field staff code will be composed of the three (previously two) letter code given to all observers during basic training. Port samplers who have not attended basic training can be assigned these field staff codes after they have undergone port-side training.

Species Code

137. Adjustments were made to the FAO species code where required (see paragraphs 43 to 45).

LONGLINE PORT SAMPLING FORM

Field Staff Code

138. A field staff code was added as noted in the general section above.

Species code

139. Species code changes were made as noted in the general section above.

Circle Yes or No

140. The instructions will be amended to clarify that samplers need to answer this question on every single submitted form. This has been confusing in the past for samplers as these questions can only be answered at the end of the sampling session, whereas the sampler may come across the question a number of times during the sampling period, depending on the number of forms they have used.

141. The instructions have been amended to instruct the samplers to answer these questions at the end of the sampling period only, and to inform them that they must go back and circle every single submitted form with the same appropriate answer.

LONGLINE UNLOADING FORM

Species code

142. Species code changes were made as noted in the general section above.

LONGLINE UNLOADING AND DESTINATION FORM

New Form

143. An additional longline unloading form will be made available to better capture the economic value of the unloaded longline catch. This new form will track the total unloadings of one vessel to its final destination. The data will show the final destination and processed state of the catch, allowing countries to better assign an economic value to the catch.

POLE-AND-LINE PORT SAMPLING FORM

Field Staff Code

144. A field staff code was added as noted in the general section above.

PURSE-SEINE WELL LOADING FORM

145. No changes were proposed.

PURSE-SEINE AND POLE-AND-LINE UNLOADING FORM

146. No changes were proposed.

PURSE-SEINE PORT SAMPLING FORM

Field Staff Code

147. A field staff code was added as noted in the general section above.

Instruction changes

148. The instructions on the back of the form were amended after some national coordinators expressed a need for supplementary information to be added to guide samplers to choose appropriate wells to sample.

TROLL VESSEL PORT SAMPLING FORM

Field Staff Code

149. A field staff code was added as noted in the general section above.

Species code

150. Species code changes were made as noted in the general section above.

5. OTHER FORMS

5.1 Gamefishing Forms

151. No changes to the gamefishing forms were considered.

5.2 Trip Log

Total number of crew and number of Pacific island crew

152. It was agreed to add fields for 'Total number of crew' and 'Number of Pacific island crew' to monitor the employment of Pacific islanders (see section 2.1).

Observer onboard?

153. It was agreed to add a column for 'Observer onboard? (Y/N)' to improve the tracking of observer data.

5.3 Vessel Inspection Form

154. The Vessel Inspection form was originally developed for use by the National Fisheries Authority of Papua New Guinea. It was agreed to include the Vessel Inspection form in the report of DCC as a template for use by other national vessel inspection programmes.

5.4 Status of Revised Regional Register Application Forms

155. Since DCC5, the Regional Register Application form has been revised, approved by the Forum Fisheries Committee and implemented by FFA. At present there is also an application form for the VMS register maintained by FFA and the two application forms may be combined in the future.

6. DATA MANAGEMENT ISSUES

6.1 Provision of Compliance Forms by SPC to FFA

156. The compliance forms that are collected by observers and provided to SPC are routinely set aside for provision to FFA. It was suggested that SPC could consider entering the compliance forms in the future and then provide the electronic data to FFA. Other suggestions included the development of a compliance data entry form via the FFA web site (similar in concept to the FFA Regional Register), and developing a compliance-related database system for member countries to enter and query their data. It was agreed that SPC and FFA should advance these ideas during the inter-sessional period.

6.2 Provision of VMS Data by FFA to the OFP

157. Official approval for the provision of VMS data to OFP by the FFA member countries was received on 12 June 2004, in a fax to the SPC Director General from the FFA Director. The VMS data formats were subsequently agreed upon and sent to SPC on a CD, which arrived on 23 August 2004. The OFP intends to use these data to (i) compare with positions reported on logsheets and (ii) cross-check with logsheets to obtain an indication of the coverage provided by logsheets.

6.3 Entry of US Treaty and FSM Arrangement Observer Data by SPC

158. The proposal for SPC to entry US Treaty and FSM Arrangement observer data two years ago emanated from the lack of data entry staff at FFA to undertake the work. FFA now employ part-time data entry staff, with the hope that a permanent position will be allocated to this work in the future. It was also noted that FFA are in the process or recruiting a data quality position. It was agreed that there is now no requirement for SPC to process these data.

6.4 Electronic Data Forms

159. FFA noted that they will investigate the merits of their observers using hand-held or similar computer devices to enter data on-board vessels in the next few years, and will be seeking involvement from SPC in this endeavour.

7. OTHER BUSINESS

7.1 Global Environment Facility (GEF) project

160. It was noted that one of the key areas of the GEF project titled 'Oceanic Fisheries Management: Implementation of the Strategic Action Programme of the Pacific Island Developing States' – the SAP II Project – is fisheries monitoring, which includes assistance for coordination of scientific monitoring at the regional level and for enhancing national monitoring programmes, such as observer programmes, port sampling programmes and the collection and analysis of observer data. The indicative budget for the project – which also includes components on law, policy, compliance and stock assessment – is USD 8.5 million over five years. Assistance through the SAP II Project should be available to SPC and FFA member countries starting in 2005.

7.2 Next meeting of the DCC

161. The establishment of the Western and Central Pacific Fisheries Commission may necessitate a meeting of the DCC in 2005, particularly if the Scientific Committee, which is expected to meet in August 2005, considers data standards for the region. If a meeting in 2005 is not required, then the next meeting of the DCC will take place in November 2006.

8. CLOSING

162. The Chairman thanked the participants for their contributions and noted in particular the valuable input provided by the observers. The meeting was then closed with a vigorous round of applause.

REFERENCES

Anonymous. 1996. Report of the Ad Hoc Meeting on Tuna Fisheries Data Collection Forms, 11–14 December 1995, Brisbane, Queensland, Australia. Oceanic Fisheries Programme, South Pacific Commission, Nouméa, New Caledonia, and Forum Fisheries Agency, Honiara, Solomon Islands. 54 pp.

Anonymous. 1997. Report of the Second Meeting of the Tuna Fishery Data Collection Forms Committee, 11–13 December 1996, Brisbane, Queensland, Australia. Oceanic Fisheries Programme, South Pacific Commission, Nouméa, New Caledonia, and Forum Fisheries Agency, Honiara, Solomon Islands.70 pp.

Anonymous. 1998. Report of the Eleventh Meeting of the Standing Committee on Tuna and Billfish, 28 May – 6 June 1998, Honolulu, Hawaii, United States of America. Secretariat of the Pacific Community, Nouméa, New Caledonia. 108 pp.

Anonymous. 1999a. Report of the Third Meeting of the Tuna Fishery Data Collection Forms Committee, 9–10 December 1998, Brisbane, Australia. Oceanic Fisheries Programme, Secretariat of the Pacific Community, Nouméa, New Caledonia, and Forum Fisheries Agency, Honiara, Solomon Islands. 84 pp.

Anonymous. 1999b. Report of the Twelfth Meeting of the Standing Committee on Tuna and Billfish, 16–23 June 1999, Papeete, Tahiti, French Polynesia. Oceanic Fisheries Programme, Secretariat of the Pacific Community, Noumea, New Caledonia. 125 pp.

Anonymous. 2001a. Report of the Fourth Meeting of the Tuna Fishery Data Collection Committee, 6–8 December 2000, Brisbane, Australia. Oceanic Fisheries Programme, Secretariat of the Pacific Community, Noumea, New Caledonia, and Forum Fisheries Agency, Honiara, Solomon Islands. 101 pp.

Anonymous. 2001b. Report of the Thirteenth Meeting of the Standing Committee on Tuna and Billfish, 5–12 July 2000, Noumea, New Caledonia. Oceanic Fisheries Programme, Secretariat of the Pacific Community, Noumea, New Caledonia. 124 pp.

Anonymous. 2002. Report of the Fourteenth Meeting of the Standing Committee on Tuna and Billfish, 9–16 August 2001, Noumea, New Caledonia. Oceanic Fisheries Programme, Secretariat of the Pacific Community, Noumea, New Caledonia.

Anonymous. 2003. Report of the Fifth Meeting of the Tuna Fishery Data Collection Committee, 2–6 December 2002, Brisbane, Australia. Oceanic Fisheries Programme, Secretariat of the Pacific Community, Noumea, New Caledonia, and Forum Fisheries Agency, Honiara, Solomon Islands. 138 pp.

Oceanic Fisheries Programme. 2001. A Review of Turtle By-catch in the Western and Central Pacific Ocean Tuna Fisheries: a Report Prepared for the South Pacific Regional Environment Programme by the Oceanic Fisheries Programme, Secretariat of the Pacific Community. South Pacific Regional Environment Programme, Apia, Samoa. 26 pp.

APPENDIX 1. AGENDA

1. PRELIMINARIES

1.1 Appointment of chairman and rapporteurs
1.2 Adoption of the agenda

2. REVIEW OF CATCH AND EFFORT LOGSHEETS

2.1 General
2.2 Longline logsheet
2.3 Longline logbook
2.4 Shark logsheet
2.5 Pole-and-line logsheet
2.6 Purse seine logsheet
2.7 Purse-seine logbook
2.8 Handline logsheet
2.9 Daily FAD fishing logsheet
2.10 Implementation of DCC logsheets

3. OBSERVER PROGRAMMES

3.1 Status of observer programmes
3.2 Review of observer forms

4. PORT SAMPLING PROGRAMMES

4.1 Status of port sampling programmes
4.2 Review of port sampling forms

5. OTHER FORMS

5.1 Gamefishing forms
5.2 Trip log
5.3 Vessel inspection form
5.4 Status of revised Regional Register application forms

6. SPC/FFA DATA MANAGEMENT ISSUES

6.1 Provision of compliance forms by SPC to FFA
6.2 Provision of VMS Data by FFA to the OFP
6.3 Entry of US Treaty and FSM Arrangement data by SPC
6.4 Electronic data forms

7. OTHER BUSINESS

7.1 Global Environment Facility (GEF) project
7.2 Next meeting of the DCC

8. CLOSING

APPENDIX 2. LIST OF WORKING PAPERS

WP 1 Anonymous. 2003. Report of the Fifth Meeting of the Tuna Fishery Data Collection Committee, 2–6 December 2002, Brisbane, Australia. Oceanic Fisheries Programme, Secretariat of the Pacific Community, Noumea, New Caledonia, and Forum Fisheries Agency, Honiara, Solomon Islands.

WP 2 Trial of the Draft Longline Logbook

WP 3 An Update on the Implementation of the Regional Logsheet Forms in the Western and Central Pacific Tuna Fisheries

WP 4 Proposed Observer Form Changes

APPENDIX 3. LIST OF PARTICIPANTS

Forum Fisheries Agency

Mr Ramesh Chand — ramesh.chand@ffa.int
Ms Rachel Marsh — rachel.marsh@ffa.int
Mr Ambrose Orianihaa — ambrose.orianihaa@ffa.int
Mr Kaburoro Ruaia — kaburoro.ruaia@ffa.int
Mr Karl Staisch — karl.staisch@ffa.int

PO Box 629
Honiara
Solomon Islands

Tel: +677 21124
Fax: +677 23995

Secretariat of the Pacific Community

Ms Deirdre Brogan — deirdreb@spc.int
Mr Siosifa Fukofuka — siosifaf@spc.int
Mr Timothy Lawson — timl@spc.int
Mr Peter Sharples — peterbs@spc.int
Mr Peter Williams — peterw@spc.int

Oceanic Fisheries Programme
Secretariat of the Pacific Community
PO Box D5
98848 Nouméa
New Caledonia

Tel: +687 26.20.00
Fax: +687 26.38.18

OBSERVERS

Australia

Mr Craig Proctor — craig.proctor@csiro.au
CSIRO Marine Research
Hobart, Tasmania

Indonesia

Ms Lilas Sadiyah — lilas_sadiyah@yahoo.com
Research Center for Capture Fisheries
Jakarta

Inter-American Tropical Tuna Commission

Dr Michael Hinton — mhinton@iattc.org
La Jolla, California
United States of America

Marshall Islands

Mr Manasseh Avicks — manasseh@747@hotmail.com
Marshall Islands Marine Resources Authority — mavicks@mimra.com
Majuro

Papua New Guinea	Mr William Kewo Mr Noan Pakop National Fisheries Authority Port Moresby	wkewo@fisheries.gov.pg npakop@fisheries.gov.pg
Samoa	Mr Roseti Imo Fisheries Division Department of Agriculture, Forests, Fisheries and Meteorology Apia	roseti_imo@lesamoa.net
Solomon Islands	Mr George Diau Department of Fisheries and Marine Resources Honiara	gjobserver@hotmail.com
United States of America	Mr Gordon Yamasaki National Marine Fisheries Service Honolulu, Hawaii	gordon.yamasaki@noaa.gov

APPENDIX 4. STATUS OF IMPLEMENTATION OF SOUTH PACIFIC REGIONAL LOGSHEETS (AS AT NOVEMBER 2004)

SPC/FFA MEMBER OR ARRANGEMENT	GEAR	FLEET	LOGSHEETS RECEIVED?	STATUS OF IMPLEMENTATION OF SOUTH PACIFIC REGIONAL LOGSHEETS
American Samoa	Longline	Taiwan (DWFN)	Partial	Progressively more vessels from this fleet provide data on regional standard (as per Fiji)
		Mainland China	Partial	Progressively more vessels from this fleet provide data on regional standard (as per Fiji)
		Cook Islands	Yes	
		Vanuatu	Yes	
Cook Islands	Longline	Locally-based fleets	Yes	Local longline fleets are using Regional longline logsheet
FSM Arrangement	Purse seine	Vessels operating under the FSM Arrangement **FSM** **Marshall Islands** **Papua New Guinea** **Solomon Islands** **Kiribati** **Vanuatu**	 Yes Yes Yes Yes Yes Yes	Introduced during 1996. All fleets use the regional standard logsheets. **(1996 and 2000 version forms used)** **(1996 and 2000 version forms used)** **(1996 and 2000 version forms used)** **(1996 and 2000 version forms used)** **(1996 version forms used)** **(1996 and 2000 version forms used)**
Fiji	Longline	Fiji (domestic fleet) + locally-based joint-venture vessels	Yes	All vessels now use the regional longline logsheet.
		Mainland China (DWFN)	Partial	Progressively more vessels from this fleet provide data on regional standard (as per Pago Pago)
		Taiwan (DWFN)	Partial	Progressively more vessels from this fleet provide data on regional standard (as per Pago Pago)
	Pole-and-line	Fiji (domestic fleet)	(No)	This fleet use a customised form requiring baiting locations; No indication of recent fishing activities.
Federated States of Micronesia	Longline	Mainland China	Yes	This fleet now uses regional logsheets, albeit a slightly modified version.
		Domestic FSM fleet	Partial	Partial success. There are some vessels that are still using alternative forms.
		Guam-based US fleet	Yes	This fleet now uses regional logsheets
		Japanese longline	Yes	This fleet now uses regional logsheets. This is a version that the Japanese companies have provided. (One or two non-standard logsheets used).
		Taiwanese longline	Yes	This fleet now uses regional logsheets (translated).
	Pole-and-line	Japanese pole-and-line	Yes	This fleet now uses regional logsheets
	Purse seine	Domestic fleet (Yap Fishing Corporation)	Yes	Introduced (see FSM Arrangement)
		Domestic fleet (CFC)	Yes	Introduced (see FSM Arrangement)
		Japanese purse seine	Yes	This fleet now uses regional logsheets. **(Mostly 1996 version forms used, but some non-standard)**
		Korean purse seine	Yes	This fleet now uses the regional logsheets. **(1996 and 2000 version forms used)**
		Taiwanese purse seine	Yes	Regional logsheet translated and distributed by the Taiwanese Deep-Sea Tuna Boat-owners Association **(1996 and 2000 version forms used)**
Kiribati	Longline	Japan	No	No indication of introduction of new forms
		Korea	Partial	In the last year, some vessels have been using the regional standard
	Pole-and-line	Japan	No	No indication of introduction of new forms. No recent activity.
	Purse seine	Japan	Partial	Only a few trips received recently have been on regional standard forms (the rest on non-standard forms).
		Domestic PS vessel	Yes	Introduced (see FSM Arrangement)
		Korea	Yes	Introduced at regional level. **(1996 and 2000 version forms used)**
		New Zealand	Partial	**(2000 version forms used, but some vessels using non-standard forms)**

SPC/FFA MEMBER OR ARRANGEMENT	GEAR	FLEET	LOGSHEETS RECEIVED?	STATUS OF IMPLEMENTATION OF SOUTH PACIFIC REGIONAL LOGSHEETS
		Spain	Yes	This fleet uses the regional standard logsheet.
		Taiwan	Yes	Regional logsheet translated and distributed by the Taiwanese Deep-Sea Tuna Boat-owners Association **(1996 and 2000 version forms used)**
Marshall Islands	Longline	Mainland China	Yes	This fleet uses the regional standardized forms.
		Japan	Partial	Very few standard forms coming through, mainly as a result of FSM requirement to use standard forms.
		Domestic fleet		Fleet not active as at November 1996
		Taiwan	Yes	This fleet uses the regional standardized forms.
		Locally-based US fleet		No US vessels active as at November 1996
	Pole-and-line	Japan	No	No indication of introduction of new forms
	Purse seine	Japan	Partial	No indication of introduction of new forms, although there are one or two standard logsheets for trips in FSM waters that are received though Marshall Islands **(1996 and 2000 version forms used)**
		Korea	Yes	Introduced at regional level. **(1996 and 2000 version forms used)**
		New Zealand	Partial	**(2000 version forms used, but some vessels using non-standard forms)**
		Taiwan	Yes	Regional logsheet translated and distributed by the Taiwanese Deep-Sea Tuna Boat-owners Association. **(1996 and 2000 version forms used)**
Nauru	Pole-and-Line	Japan	No	No indication of introduction of new forms
	Purse Seine	Japan	Partial	No indication of introduction of new forms, although there are one or two standard logsheets for trips in FSM waters that are received though Nauru. **(1996 and 2000 version forms used)**
		Korea	Yes	Introduced at regional level **(1996 and 2000 version forms used)**
		Taiwan	Yes	Regional logsheet translated and distributed by the Taiwanese Deep-Sea Tuna Boat-owners Association. **(1996 and 2000 version forms used)**
New Caledonia	Longline	Japan	No	No activity in recent years
		Locally-based fleet	Yes	French translation of regional logsheet provided and used.
Nuie	Longline	Taiwan	No	No indication of introduction of new forms. No recent activity.
French Polynesia	Longline	Locally-based fleet	Yes	French translation of the regional standard used; data processed by SMR, Papeete.
		Korea	No	No indication of introduction of new forms No activity by this fleet in recent years.
Papua New Guinea	Longline	Japan	No	No recent fishing activity
		Locally-based fleet	Yes	Introduced for local longline fleet
		Taiwan	Yes	Regional forms used by this fleet
	Purse seine	Korea	Yes	Introduced at regional level. **(1996 and 2000 version forms used)**
		PNG (domestic)	Yes	All companies now using regional standard **(1996 and 2000 version forms used)**
		Philippines	Yes	This fleet uses the regional standard logsheet.
		Taiwan	Yes	Regional logsheet translated and distributed by the Taiwanese Deep-Sea Tuna Boat-owners Association. **(1996 and 2000 version forms used)**
Palau	Longline	Mainland China	Yes	Regional standard used by this fleet
		Japan	Yes	Regional standard now used by this fleet
		Taiwan	Yes	Regional standard used by this fleet

SPC/FFA MEMBER OR ARRANGEMENT	GEAR	FLEET	LOGSHEETS RECEIVED?	STATUS OF IMPLEMENTATION OF SOUTH PACIFIC REGIONAL LOGSHEETS
		Guam-based US fleet	No	No recent activity.
	Pole-and-line	Japan	No	No indication of introduction of new forms (No recent activity)
	Purse seine	Japan	Partial	Only a few trips received recently have been on regional standard forms (the rest on non-standard forms).
Samoa	Longline	Locally-based fleet	No	A local form is used by the fleet.
		Taiwan	No	No indication of introduction of new forms. No recent activity by this fleet in Samoa
Solomon Islands	Longline	Japan	No	No indication of introduction of new forms
Solomon Islands	Longline	Locally-based fleet	No	Data in recent years provided on non-standard form.
		Taiwan	No	Data in recent years provided on non-standard form.
	Pole-and-line	Japan	No	No indication of introduction of new forms . No recent activity.
		Locally-based fleet + Kiribati	(No)	(Data processed by Solomon Islands Fisheries Division)
	Purse seine	Korea	Yes	Introduced at regional level. **(1996 and 2000 version forms used)**
		Phillippines		No recent activity.
		Domestic fleet	Yes	Introduced (see FSM Arrangement)
		Taiwan	Yes	Regional logsheet translated and used by Taiwanese PS fleet. **(1996 and 2000 version forms used)**
Tonga	Longline	Domestic fleet	Yes	Regional logsheet is used by this fleet.
Tuvalu	Longline	Japan	No	No indication of introduction of new forms. No recent activity by this fleet.
		Korea	Partial	One standardized logsheet received from this fleet recently (the remainder are non-standard forms).
	Purse seine	Japan	Partial	Very few standard forms coming through, mainly as a result of FSM requirement to use standard forms.
		Korea	Yes	Standard form used throughout **(1996 and 2000 version forms used)**
		New Zealand	Yes	Standard form provided by vessels fishing in Tuvalu waters.
US Multilateral Treaty	Purse seine	US fleet	Yes	Latest version introduced in June, 2002 **(2000 version forms used)**
Vanuatu	Longline	Fiji	Yes	Regional logsheet is now used by this fleet
		Taiwan	(No)	No indication of introduction of new forms. Very few regional standard forms received.
		Vanuatu	Yes	Domestic fleet based in Fiji use the regional logsheet

APPENDIX 5. STATUS OF PORT SAMPLING AND OBSERVER PROGRAMMES

INTRODUCTION

The far-reaching, trans-boundary nature of Western and Central Pacific oceanic tuna species necessitates comprehensive regional cooperation in monitoring of these stocks. Port or dockside sampling and observer monitoring activities are inevitably linked through the nature of the data they collect and it is crucial that they are well coordinated both within and amongst programmes. This report will provide a tool for staff of these programmes, fisheries managers and others to keep abreast of developments in portside and at-sea data collection in the Western and Central Pacific Ocean (WCPO) region.

Port sampling programs have collected length and species composition data for WCPO stock assessment for over 40 years. In 2004 sampling was regularly carried out in 20 harbours in the region and seasonally in Australia (7 ports) and New Zealand (4 ports). Sampling will also start in several ports through the Philippines and Indonesia in 2005. These data are essential inputs to assessment analyses for Pacific Ocean tuna stocks.

Observer programmes in the region started nearly thirty years ago and have been developing slowly in regional and national organisations through the region ever since. Programmes were originally created to monitor compliance with licensing agreements and restrictions on incidental catches but were soon recognised for providing reliable, detailed information on catch discarded at sea, catch and bycatch statistics at the species level and fishing effort. Greater importance is being given to these types of information than ever before and observer programmes in the region are now expanding rapidly.

This report summarises status of port sampling and observer programmes in the region, programme by programme, with recently available information on programme size, level of activity, sampling strategies and protocols, difficulties, successes and trends. Those that find the report useful are invited to send comments, criticisms, updates or ideas for enhancement to the Port Sampler and Observer Coordinator, Oceanic Fisheries Programme (OFP), Secretariat of the Pacific Community (SPC): peterbs@spc.int.

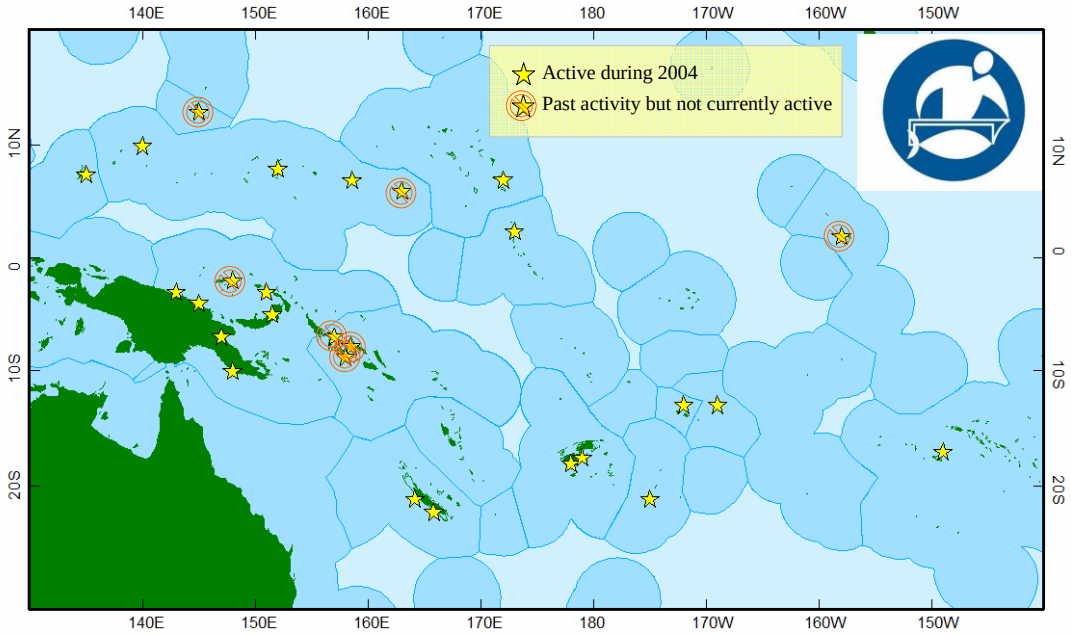
Port sampling and observer activity data for each country are presented in histograms. The gear types are abbreviated in these histograms as: PS = purse seine; LL = longline; PL = pole-and-line; and TR = troll.

Port sampling of longline, troll and pole-and-line vessels is measured as number of vessels sampled, while purse seine sampling is measured as number of wells sampled. For each port in which sampling takes place, there is a histogram depicting the annual level of sampling for different gear types. For countries that monitor unloadings in more than one port, there is also a histogram that shows the activity for all ports combined.

Observer activity is measured as the number of sea-days that observers have spent on their host fishing vessels. Coverage of longliners for each country is measured as all observer sea days on longliners against all logsheet days for vessels in that fishery, whereas coverage of purse seine and pole-and-line vessels by national programmes is measured as observer days in that country's EEZ against all logsheet days in that EEZ for vessels in those same fleets. At this time coverage by observers operating under regional arrangements is reported as region wide coverage only and no

attempt has been made to report the observer coverage of those vessels within each country's waters.

Sampling ports of the Central and Western Pacific Islands



Countries/states and programmes covered

American Samoa
Australia
Cook Islands
Federated States of Micronesia
Fiji
French Polynesia
Guam
Kiribati
Marshall Islands
Nauru
New Caledonia
New Zealand
Niue
Northern Mariana Islands
Palau
Papua New Guinea
Samoa
Solomon Islands
Tokelau
Tonga
Tuvalu
United States (Hawaii)
Vanuatu

US Tuna Treaty
FSM Arrangement
SPC Oceanic Fisheries Programme

Summary of port sampling activity in the WCPO for years 2002, 2003 and 2004

		2002	2003	2004
Longline samples	-	4299	3435	3356
Purse seine samples	-	599	542	494
Coverage of LL catch sampled	-	3.2%	3.4%	3.1%
Coverage of PS catch sampled	-	6.3%	9.7%	3.2%

All port sampling activity for Pacific Island National and Regional Programmes, as recorded in the regional fishery database maintained at the OFP, SPC. Coverage of longliners is measured as percentage of catch landed by vessels sampled against year book estimates of longline catch for the region. Coverage of purse seine catch is measured as percentage of catch from which the samples were taken (catch in sampled wells) against year book estimates of total purse seine catch for the region.
2004 estimates are provisional.

Summary of observer activity in the WCPO for the years 2002, 2003 and 2004

		2002	2003	2004
LL Observer trips started in year	-	126	121	130
LL Observer sea days	-	2368	1959	2308
% Observer coverage (observed hooks against total hooks set)	-	0.44	0.42	0.78
PS Observer trips started in year	-	160	189	187
PS Observer sea days	-	7015	7153	7279
% Observer coverage (observer days against total days fishing)	-	19.7	19.6	19.4
PL Observer trips started in year	-	122	135	4
PL Observer sea days	-	607	668	20
% Observer coverage (observed days against total days fishing)	-	12.8	29.4	3.5
TR Observer trips started in year	-	0	0	0
TR Observer sea days	-	0	0	0
% Observer coverage (observed days against total days fishing)	-	0	0	0

All observer activity for Pacific Island National and Regional Programmes as currently stored in the regional fishery database maintained at the OFP, SPC. Pole-and-line data is for the Japanese pole-and-line fleet operating south of 20°N only (raised from aggregate data provided to SPC).

ACKNOWLEDGEMENTS

Most importantly, thanks must go to all the port samplers and fisheries observers whose efforts to provide quality data, often under trying conditions, so often go unrecognised. Acknowledgements to those who provide information in this report are regularly updated in the footnotes. We apologise if, in oversight, we have omitted a source. Colin Millar, Emmanuel Schneitter and Peter Williams (OFP) contribute the data-extraction donkeywork to compile histograms.

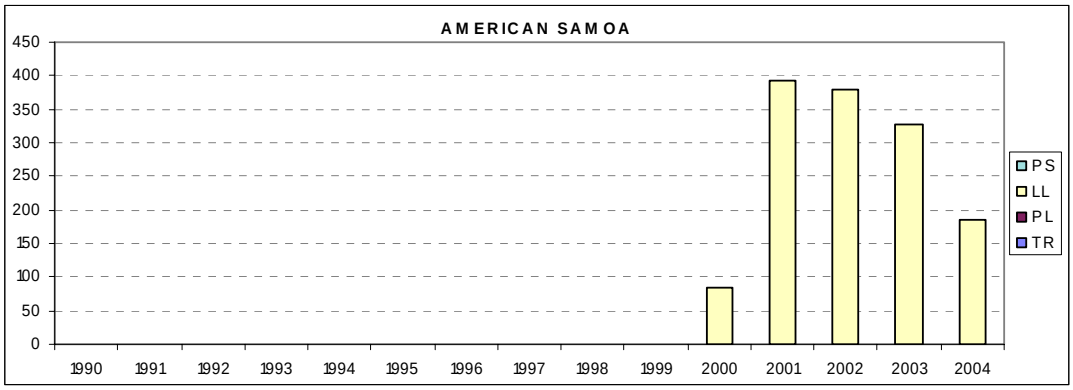
American Samoa [13]

(EEZ = 390,000 km^2)

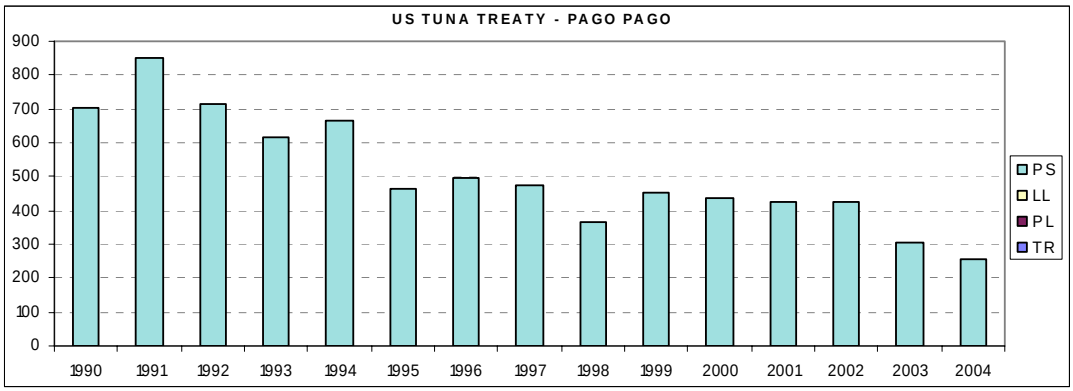
		2002	2003	2004
Longliners (domestic)	-	53	39	~40
Purse seiners (domestic)	-	0	0	0
Troll (domestic - commercial)	-	0	0	0
LL (domestic) samples	-	227	147	82
LL (other) samples	-	151	181	120
PS samples*	-	428	306	259
TR samples	-	5	12	7
Observers available at start of year	-	0	3	N/A
New Observers recruited during year	-	3	4	0
LL Observer trips started in year	-	3	N/A	N/A
LL Observer sea days	-	N/A	N/A	N/A
LL Observer coverage (%)	-	N/A	N/A	N/A

* longline (other), purse seine and troll samples are all from vessels fishing outside of American Samoan waters

Port sampling – The National Marine Fisheries Service port sampling team attempts to collect length measurement samples from every United States (US) vessel that unloads catch in Pago Pago. Most sampling is from purse seiners for which sampling strategy is to sample from a minimum of one set type per month per sampling area per vessel. Seasonal fish from the Sub-Tropical Convergence Zone albacore troll fishery are also sampled, as are US longliners. Data from these are sent to SPC in aggregate form. SPC and NMFS have provided funding and/or technical support in a variety of combinations to employ a third sampler off-and-on since 1999. The principal role of this sampler has been to sample Taiwanese longliners (Taiwan provided the funds for the SPC component of this sampling). The Department of Marine and Wildlife Resources (DMWR) conducts surveys of domestic alias, occasionally sampling landings from larger alias.



[13] Gordon Yamasaki (NMFS) keeps us aware of developments in Pago Pago. John Childers (NMFS) provided troll data.



Observers – American Samoa had never had its own observer programme. However, NMFS provides considerable support in Pago Pago for US Treaty observers, for which Pago Pago is the principal port of embarkation and disembarkation. Although an observer program was not established in Pago Pago, a voluntary program was initiated in 2002 when three U.S. longliners volunteered to take U.S. observers recruited from the NOAA, NMFS, Pacific Islands Regional Office (PIRO) office in Honolulu. In recent years the American Samoan government, with the help of the NMFS office in Hawaii, investigated plans to have up to twelve observers cover the seventy American Samoan longliners. However, though four observers were trained in Hawaii, various complications have delayed the start of this programme.

During 2004 the campaign continued with plans for the American Samoan programme to kick off in January 2005 and a goal of 50 observer trips in its first year. NMFS will endeavour to harmonise data collection with regional protocols.

By mid-2005 the planned American Samoa observer program still awaits various logistical issues to be sorted out before it can commence. Current plans to start in December 2005 are still uncertain. Other regional and national observer programmes are watching in anticipation, as they hope to utilise some of the extra logistical support that a local observer programme would confer on this busy transhipment and unloading port. Early discussions with NMFS have indicated their interest in assisting with placements and especially to help provide timely debriefing to the observers from different programmes that pass through Pago Pago. Meanwhile, observers from Hawaii continue to undertake occasional trips aboard the U.S. longliners prepared to take them voluntarily.

Australia *(Eastern Tuna and Billfish Fishery)* [14]

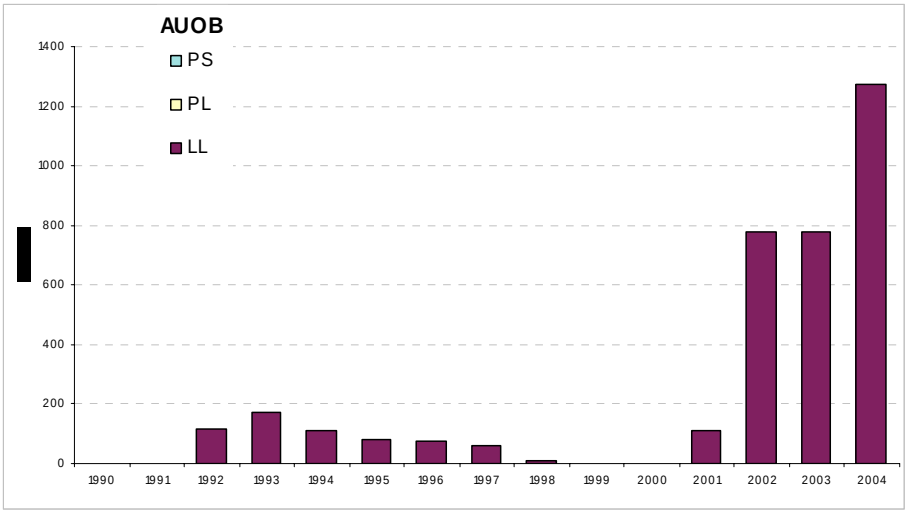
		2002	2003	2004
Longliners operating in this fishery*	-	152	150	122
Purse seiners operating in this fishery	-	2	3	3
Pole-and-line permits issued		(~90+ permits issued each year but no distinct fishery)		
% of longline catch dock-side sampled				
(of number YFT caught)	-	64.6%	67.6%	57.1%*
(of number BET caught)	-	80.8%	87.2%	58.8%*
(of number SWO caught)	-	77.1%	84.0%	62.6%*
% purse seine catch dock-side sampled	-	0	0	0
Observers available at start of year	-	9	8	9
New Observers trained during year	-	4	3	5
Observer trips started in year	-	236	225	148
Observer sea days	-	777	777	1275
Observer coverage (% of fishing days)	-	3.4	3.2	4.5

* - based on logbooks received; ** - 2004 dock-side sampling coverage rates are for first 6 months only

Port sampling – the Australian Fisheries Management Authority (AFMA) contracts out dock-side sampling of longline vessels in the Eastern Tuna and Billfish Fishery under research projects in which a significant proportion (60-70%) of the catch is weighed but just a few measurements taken. A National Recreation Fishing Survey was completed in 2003 and New South Wales Fisheries has monitored catch and effort data from gamefishing tournaments for the past seven years. Purse seine operators fish under a separate Skipjack Fishery management programme which covers eastern, southern and western fisheries and for which there has been no dock-side monitoring to date.

Observers – AFMA administers the Australian Fishing Zone (AFZ) Observer Programme that covers a wide range of vessels operating in the AFZ and in some of the adjacent CCAMLR statistical areas. The Observer Programme Administrator coordinates the programme from Canberra. The relevant stakeholders in each fishery determine observer programme requirements and priorities before they are implemented. The primary objective of the Observer Programme is to collect data on fishing operations, catches, and interactions with the environment by the vessel and its fishing gear. A tuna fisheries observer programme ran from the end of the 1980s until 1997, when the access agreement with the Japanese longline fleet was not renewed. In 2001 observers began working in the East Coast tuna fishery under the Threat Abatement Plan (TAP) for seabird bycatch in hook fisheries. The TAP work continues, covering most vessels operating south of 30ºS. In 2003 a market testing exercise that compared the price of privatising against current costs resulted in a decision to retain the service in house and on 1st July a total fishery programme with 5.1% (of hooks set) coverage objective was implemented in addition to the TAP programme.

[14] Most recent port sampling information provided by Rob Campbell (CSIRO Marine Research) and Kevin and Deidre Williams (WW Fisheries). Observer information provided by Martin Scott (AFMA).



On 1st July 2004, the AFZ Observer Program operated under a new cost structure, with 80% of costs being recovered directly from industry and 20% recovered directly from government in recognition of the community benefits associated with independent and accurate observer data.

In 2005 … a new management plan will come into effect soon …. so things will change.

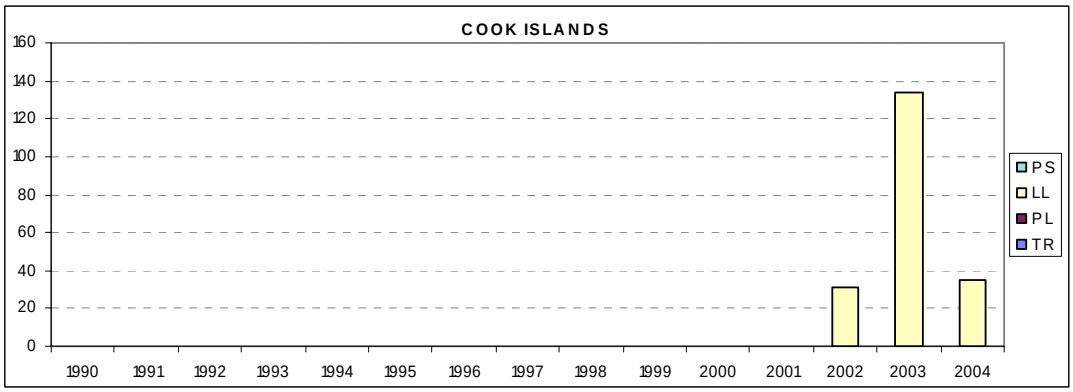
Cook Islands [15]

(EEZ = 1,830,000 km^2)

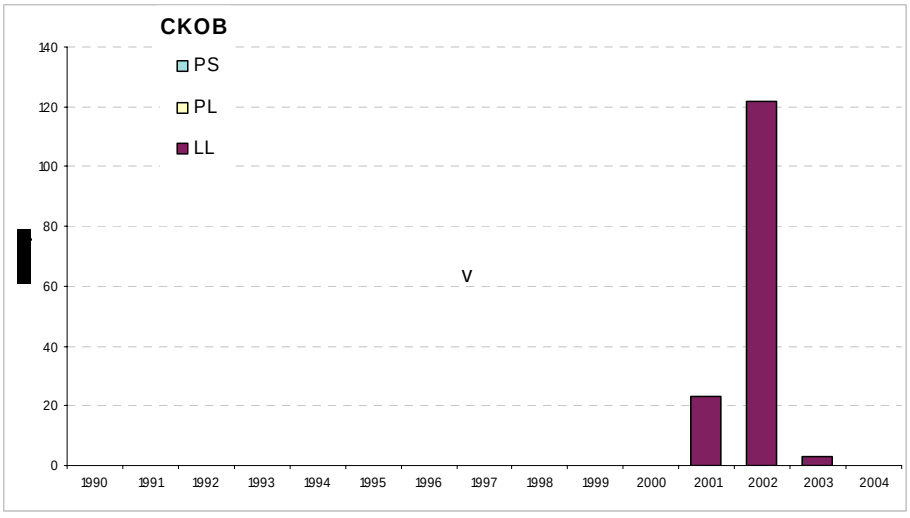
		2002	2003	2004
Longliners (domestic) in this fishery	-	12	33	17
Longliners (joint venture) in fishery	-	15	14	21
Purse seiners operating in this fishery	-	0	0	0
LL (domestic licensed) samples	-	23	124	27
LL (other) samples	-	8	10	8
Observers available at start of year	-	7	3	0
New Observers trained during year	-	12	10	10
LL Observer trips started in year	-	7	1	4
LL Observer sea days	-	129	4	36
LL Observer coverage (%)	-	15.1	0.1	N/A

Port sampling – The Ministry of Marine Resources (MMR) Observer Coordinator and other MMR staff began sampling activities during a period of rapid growth to the longline fleet (2001/2002). By the end of 2002 approximately half the fleet regularly unloaded in Rarotonga while those fishing in northern Cooks waters tended to unload in Pago Pago where they were sampled by NMFS staff. By 2005 Pago Pago sampling of Cook Island vessels had stopped due to unresolved political issues.

[15] Information supplied by ex-MMR Observer Coordinator, Andrew Jones; recent update from MMR's Jason Marurai.



Observers - The Cook Island Observer Programme operates under MMR. There are two distinct longline fisheries - the northern Cooks, landing frozen fish to Pago Pago canneries and the southern Cooks, exporting fresh fish to Japan and the USA. Although participants from the Cook Islands attended several regional observer-training workshops sponsored under US Treaty and AusAid funds administered by FFA, they previously only worked for the US Treaty observer programme. A small national observer programme was first proposed in 1997, but until 2002 just three trips were undertaken in the Cook Islands and these were carried out under the SPC Observer Programme. Two observer training workshops catering for over twenty-five participants were conducted in 2002 and 2003 with plans to meet 20% coverage of both fleets. At its peak in 2002 the programme managed a creditable 15% coverage but activity rapidly dwindled soon after.



Observer Sea Days x Year

By 2004, an inability to retain observers and poor fishing conditions brought about the end of the observer programme as originally envisaged. The national coordinator tried a new approach by training nine navy surveillance officers and an environmental officer so that they would have the potential to carry out some observer duties on locally based longline vessels. Four such trips took place ranging in length from 5 to 21 days.

In early 2005 MMR remains without a Coordinator. A review of the situation is being sought with the assistance of the OFP, SPC. Thought is being given to utilising observers from off-shore.

Federated States of Micronesia (FSM) [16]

(EEZ = 2,780,000 km^2)

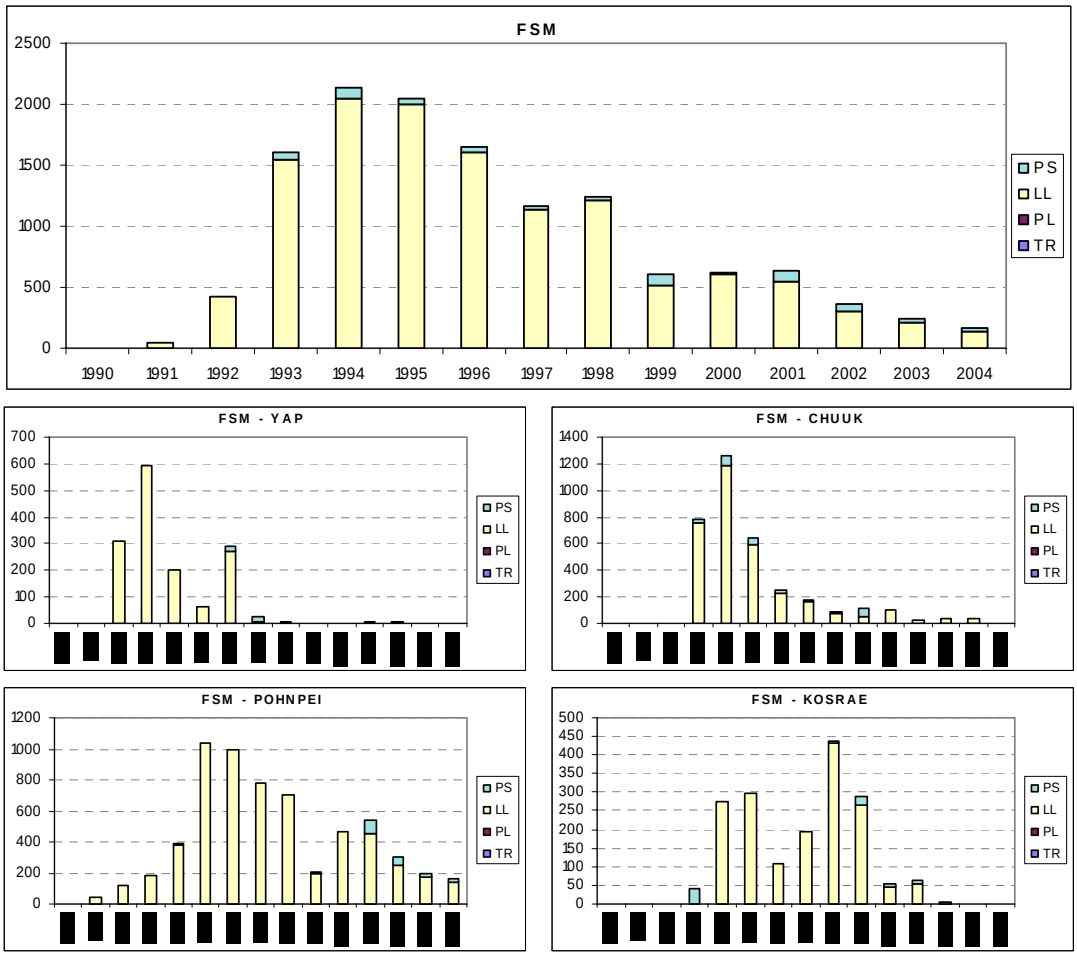
		2002	2003	2004
Longliners (domestic)	-	19	20	20
Longliners (other)	-	147	179	178
Purse seiners (domestic)	-	8	9	9
Purse seiners (other)*	-	143	127	137
Pole-and-line vessels (Japan)	-	37	37	32
LL (domestic) samples	-	107	77	48
LL (other) samples	-	200	140	96
PS (domestic) samples	-	3	0	2
PS (other) samples	-	54	24	25
PL (other) samples	-	0	0	0
Observers available at start of year	-	12	11	9
New Observers trained during year	-	0	2	0
LL Observer trips started in year	-	15	11	6
LL Observer sea days	-	261	141	98
LL Observer coverage (%)	-	2.5	0.8	1.2
PS Observer trips started in year*	-	12	10	7
PS Observer sea days**	-	419	242	216
PS Observer coverage in EEZ (%)	-	3.0	1.5	1.4
PL Observer trips started in year	-	2	2	0
PL Observer sea days**	-	58	91	0
PL Observer coverage in EEZ (%)	-	0	34.1	0

* non USMLT or FSMA vessels or trips; ** all sea-days by FSM (non USMLT/FSMA) observers regardless of EEZ;

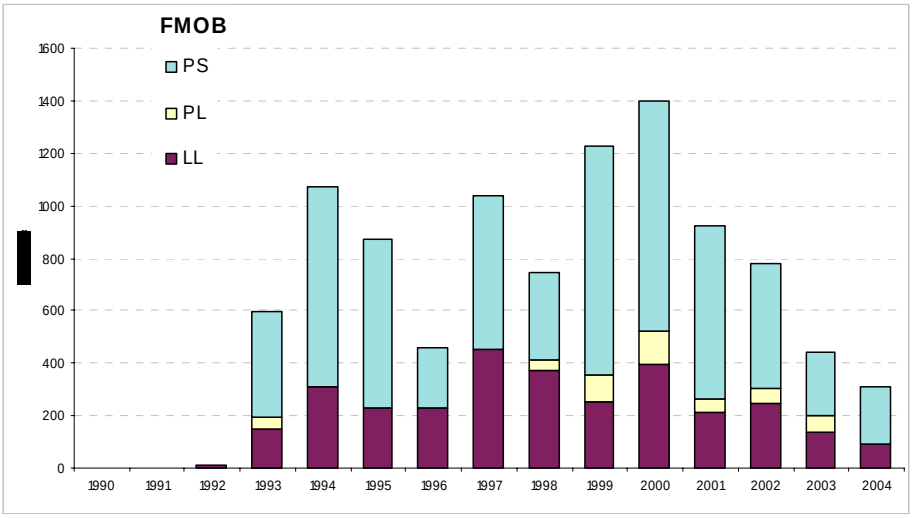
FSM supports a very varied fleet make-up with longline and purse seine vessels from Japan, Korea, Taiwan, China, Kiribati, Vanuatu, PNG, Marshall Islands, Philippines, Indonesia, the US and Belize with pole-and-line vessels from Japan and an occasional Australian shark longliner.

Port sampling – FSM's newly formed National Oceanic Resource Management Authority (NORMA – previously MMA or the Micronesian Maritime Authority) employed a single full-time port sampler in each of its four island states – Yap, Chuuk, Pohnpei and Kosrae – for several years. More recently only Pohnpei, Chuuk and Yap have been covered. Nearly all purse seine transhipment is now carried out in Pohnpei and very little transhipment is carried out in Kosrae. Port sampling coverage has fallen but remains within creditable levels with 92% of longliners sampled at some stage during 2004 and samples collected from a little under 80% of purse seiners that transhipped. All Japanese pole-and-line catch is unloaded in Japan. In 2005 NORMA has plans to employ a second port sampler in Pohnpei to assist with purse seine transhipments.

[16] Information has been drawn from SCTB17 Working Paper NFR-6, FSM Tuna Fishery Report (Steven Retalmai) and from the FSM country report to the 5th Regional Observer Coordinators' Workshop (Steven Retalmai).



Observers - The FSM Observer Programme operates under NORMA and is the longest running of Pacific Island national observer programmes, operating since the early 1990s. It was first established in an effort to gain insights into industrial tuna fisheries, with the goal of transposing the knowledge learnt into developing its own domestic tuna fishery but has since developed into a very capable scientific and compliance data collection unit. FSM has longliners from Japan, China and Taiwan and purse seiners from Japan, Korea, Taiwan and the United States. It also has its own domestic longliners and purse seiners. Overall coverage for combined gear types has seldom been above 3% (in recent years coverage of the longline fishery has been less than one per cent and coverage of the purse seine and pole-and-line fisheries around four to five percent). The long-term ideal is to have 20% coverage of all fishing trips (all gears combined). Several reasons have hindered FSM achieving better coverage, not least because their access agreement with Japan has been very restrictive as to the number of observer trips that can be carried out, using every loophole possible in the agreement to resist increasing observer coverage. The Taiwanese and Japanese longline vessels based in Guam pose difficulties for observer placement and coverage of this section of the fleet is particularly low.



In 2002 NORMA (then MMA) had twelve of the most experienced observers in the region but in 2003 these numbers fell to as low as seven and just nine were available by the end of that year. 2003 was a year of broadening focus, however, through comprehensive training in turtle awareness and how to assist fishermen adopt turtle handling and release practices. This training, sponsored by NMFS who are promoting such practices, was pilot for further such training for observers through the region; and so continued the pioneering spirit of the NORMA observer programme.

During 2004 continued depletion brought a need for recruitment just to maintain observer numbers.

In early 2005 observer training was held for sufficient new observers to regain pre-2004 numbers and refresh existing observers. Despite recognising need to expand in order to meet coverage goals, in 2005 the programme will continue to consolidate while directing effort towards the upgrade of select observers to SPC/FFA debriefing standards, a task likely to continue into 2006.

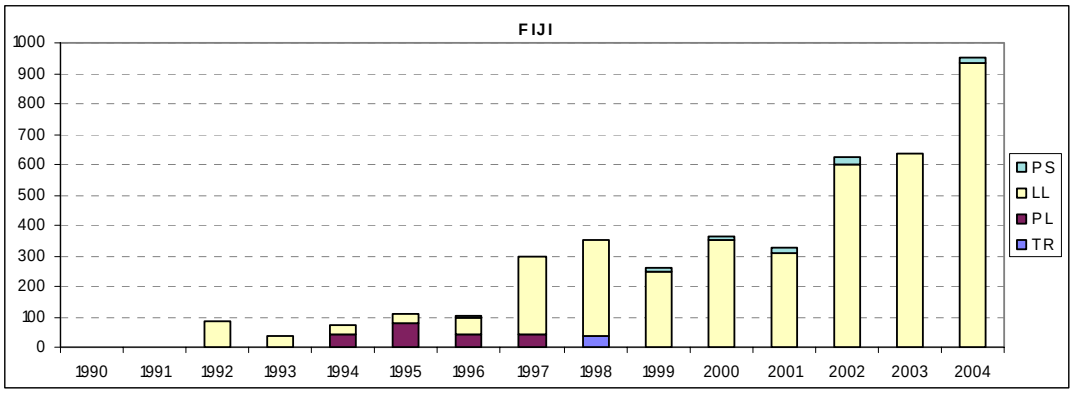
Fiji [17]

(EEZ = 1,290,000 km^2)

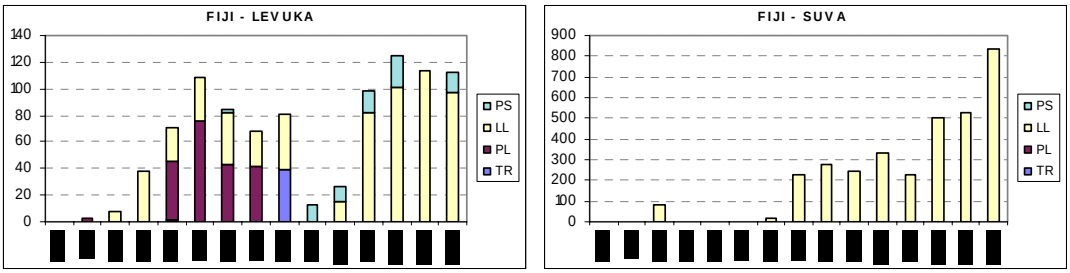
		2002	2003	2004
Longliners (domestic)	-	103	101	64
Longliners (other)*	-	49	48	45
Purse seiners (other)	-	2	0	0
Pole-and-line vessels (domestic)	-	2	1	1
Pole-and-line vessels (other)	-	0	0	13
LL (domestic) samples	-	413	443	719
LL (other) samples	-	189	196	217
PS (other) samples	-	24	0	15
PL (domestic) samples	-	0	0	0
TR (other) samples	-	0	0	0
Observers available at start of year	-	0	10	11
New Observers trained during year	-	24	2	0
LL Observer trips started in year	-	5	16	11
LL Observer sea days	-	75	271	252
LL Observer coverage (%)	-	0.3	1.0	0.9
PL Observer trips started in year	-	0	0	0
PL Observer sea days	-	0	0	0
PL Observer coverage (%)	-	0	0	0

* - Vessels based in Fiji but operating in high seas and adjacent EEZs

Port sampling – SPC has funded port-sampling in Levuka and Suva since the early 1990s. Sampling initially targeted albacore landings by foreign longliners and expanded to cover pole-and line vessels from 1994 until they ceased operations in 1997. In 1998 troll vessels from the SCTZ, unloaded and were sampled at Levuka instead of their traditional unloading port of Pago Pago and since 1999 there has been sampling of purse seine yellowfin and skipjack catches. The conclusion of a new Tuna Development and Management Plan (TDMP) in May 2002 placed great emphasis on better data collection and a comprehensive port-sampling programme recommenced in Suva. Sampling started by targeting the domestic longline fleet but expanded to cover transhipments of DWFN longliners. Coverage has been high but data quality has been erratic due to sampling protocol miss-understandings.



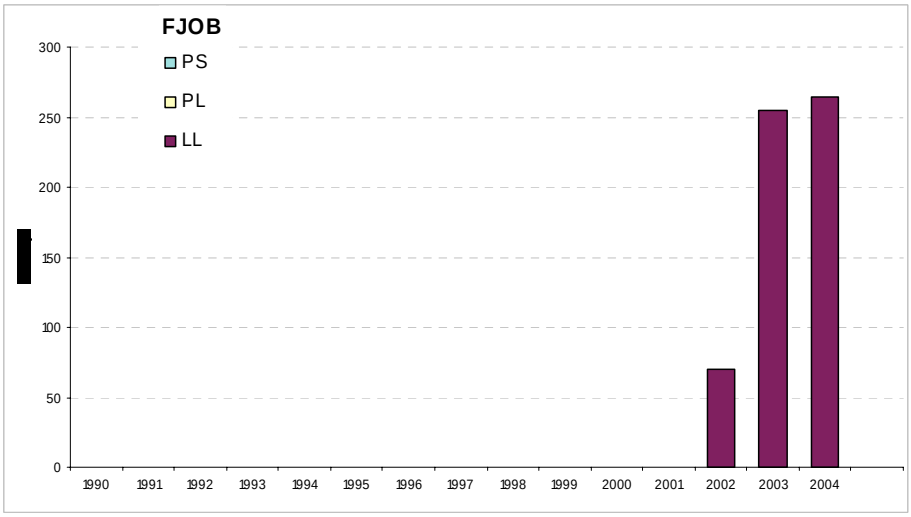
[17] Data provided by Apolosi R. Turaganivalu, Fisheries Division, Ministry of Agriculture, Fisheries and Forestry, Fiji



Observers – Early efforts to start a National Observer Programme failed but in mid-2002 the new TDMP emphasised a need for observer data, which led to further observer training and the appointment of a new National Fisheries Observer Coordinator (NFOC), supported by the OFP and funded by the Global Environment Facility (GEF). Fiji observers work primarily with tuna fisheries but may also be utilised in snapper, live reef fish and trial fisheries. At the end of 2003 lower than planned observer coverage led to a review of priorities in effort to change this situation.

During 2004 the Fiji National Fisheries Authority gazetting of the NFOC's post as a permanent part of its staff, as was agreed in the MOU covering initial funding, coincided with the incumbent's move to the private sector. Goals for 2004 (30 observer trips) were subsequently not reached.

In 2005 the observer programme has plans to undertake forty-eight observer trips. OFP support will continue, starting with a review of data collection activities early in the year and followed with technical assistance and debriefing to help improve data quality and increase observer coverage. Port-sampling activities in Levuka will continue to be supported by the OFP.

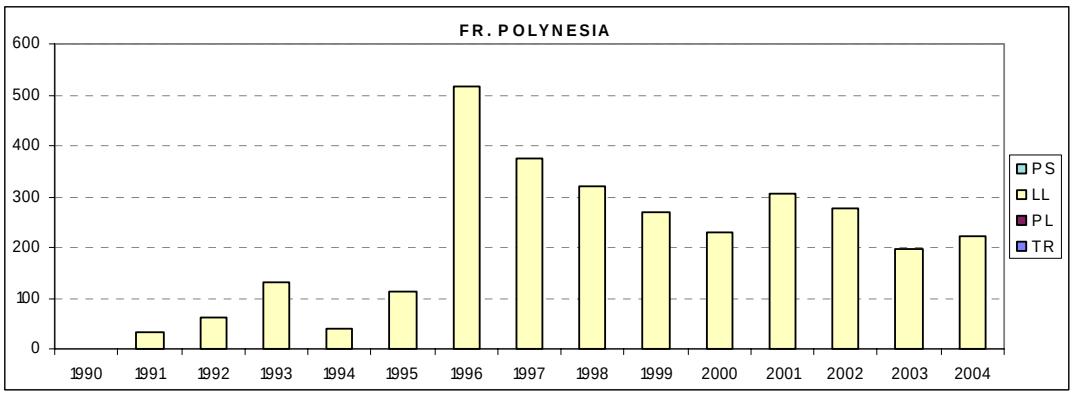


French Polynesia [18]

(EEZ = 5,030,000 km^2)

		2002	2003	2004
Longliners (domestic fresh tuna)	-	30	42	47
Longliners (domestic frozen)	-	16	22	25
Longliners (domestic "fresh/frozen")	-	2	4	4
Longliners (domestic "bonitier")	-	6	4	1
Longliners (other)	-	N/A	N/A	N/A
Pole-and-liners (domestic) in fishery	-	2	N/A	N/A
LL (domestic) samples	-	278	195	223
LL (other) samples	-	0	0	0
PL (domestic) samples	-	0	0	0
Troll samples	-	N/A	N/A	N/A
Observers available at start of year	-	0	3	3
New Observers trained during year	-	4	0	1
Observer trips started in year	-	14	21	20
Observer sea days	-	128	353	316
Observer coverage (% of fishing days)	-	2.5	5.2	5.2

Port sampling – There has been regular but low coverage sampling in Papeete for several years; very limited in recent years partly due to difficulties in accessing catch. Some of these difficulties have been overcome by the completion of a centralised unloading facility in Papeete though the nature of unloading direct to an assortment of buyers under the oversight of a business cooperative that is not fundamentally supportive of monitoring means that length-frequency measurement to regional standard protocols is not possible. However, significant increase in the number of vessels has created a need for better coverage. Further obstacles to length measurement sampling exist as a portion of the fleet now processes albacore at sea. Since October 2004, one sampler has carried out port-side length measuring on a regular basis but samplers are unable to sample all fish from each vessel they sample, as required in regional standard protocols. A satisfactory work-around for this has yet to be established. A planned second fishing port could further complicate sampling.

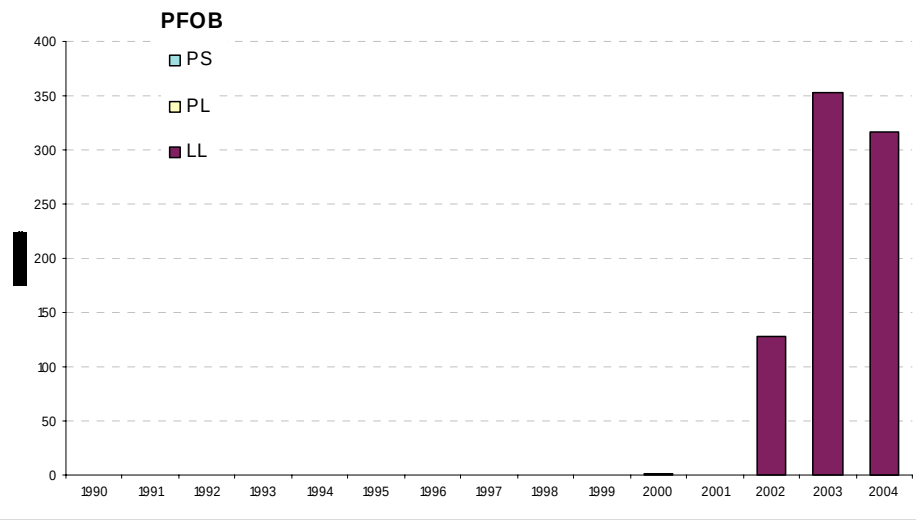


[18] Update information provided by ex-Service de la Pêche MSLO, Vatea Escande, Tahiti (August 2004) and more recently by current Service de la Pêche MSLO, Marie Yonger.

Observers – Since 2002 French Polynesia has had GEF funds for a Monitoring Supervisor/Liaison Officer (MSLO) and for training, equipping and contracting of observers on a trip-by-trip basis to work onboard the domestic longline fleet. The programme has increased to three observers who conduct observer trips along with the MSLO. They have no compliance function. In 2003 observer placements increased, particularly on medium fresh tuna boats (<20 m) and placements on larger freezer vessels began.

In 2004, the fall in production seen in 2003 (12%) continued. Eleven observers trip were conducted and one extra campaign to tag tuna carried out in May. By end of 2004, 55 trips and over one million hooks had been observed since the programme's inception with a steady 5% of fishing effort monitored during the previous two years.

In 2005, observers will be further involved with deploying the satellite archival tags currently held. This is the last year operating under the current funding arrangements however French Polynesia's Service de la Pêche has undertaken to fund the observer positions from the end of February 2006.



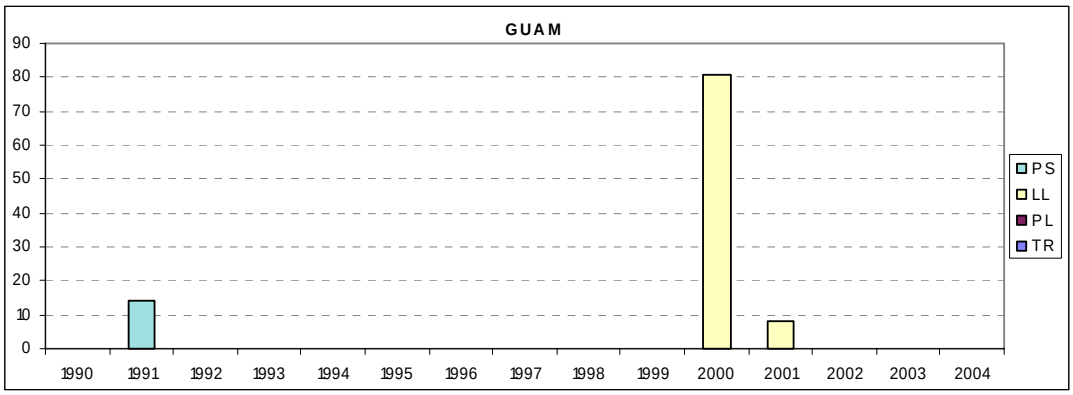
Guam

(EEZ = 218,000 km^2)

		2002	2003	2004
Longliners operating in this fishery	-	N/A	N/A	N/A
Purse seiners operating in this fishery	-	0	0	0
LL (domestic) samples	-	0	0	0
LL (other) samples	-	3	0	0
PS (licensed) samples	-	0	0	0
PS (other) samples	-	0	0	0
Observers available at start of year	-	0	0	0
Observer coverage (% of fishing days)	-	0	0	0

Port sampling – Guam has been a centre of unloadings and transhipments for the central and northern Pacific tuna fisheries for many years. However, as the fish unloaded or transhipped have

not been caught in Guam waters, there is no incentive to install a monitoring programme. A few US Treaty purse seine unloadings were sampled between 1988 and 1991 several efforts were made by SPC and the Federated States of Micronesia to install port-sampling programmes between 1996 and 2001 with just brief success in 2000. However, the Department of Commerce collects packing lists with weights of individual fish exported through Guam, which are now made available to SPC.



Observers – There is no observer programme in Guam, but observers from other programmes often embark and disembark from vessels that unload or tranship there.

Kiribati [19]

(EEZ = 3,550,000 km^2)

		2002	2003	2004
Longliners (domestic)	-	0	1	N/A
Longliners (other)	-	N/A	89	N/A
Purse seiners (domestic)	-	1	N/A	N/A
Purse seiners (other)	-	N/A	170	N/A
Pole-and-line vessels (other)	-	1	19	N/A
LL (domestic) samples	-	0	0	0
LL (other) samples	-	0	0	0
PS (domestic) samples	-	0	0	0
PS (other) samples	-	6	0	0
PL (other) samples	-	0	0	0
Observers available at start of year	-	15	12	12
New Observers trained during year	-	18	0	0
LL observer trips started in year	-	3	5	N/A
LL observer sea days	-	248	118	89+
LL observer coverage (%)	-	1.4	N/A	N/A
PS observer trips started in year*	-	6	4	3
PS observer sea days**	-	106	31	N/A
PS observer coverage in EEZ (%)	-	N/A	N/A	N/A

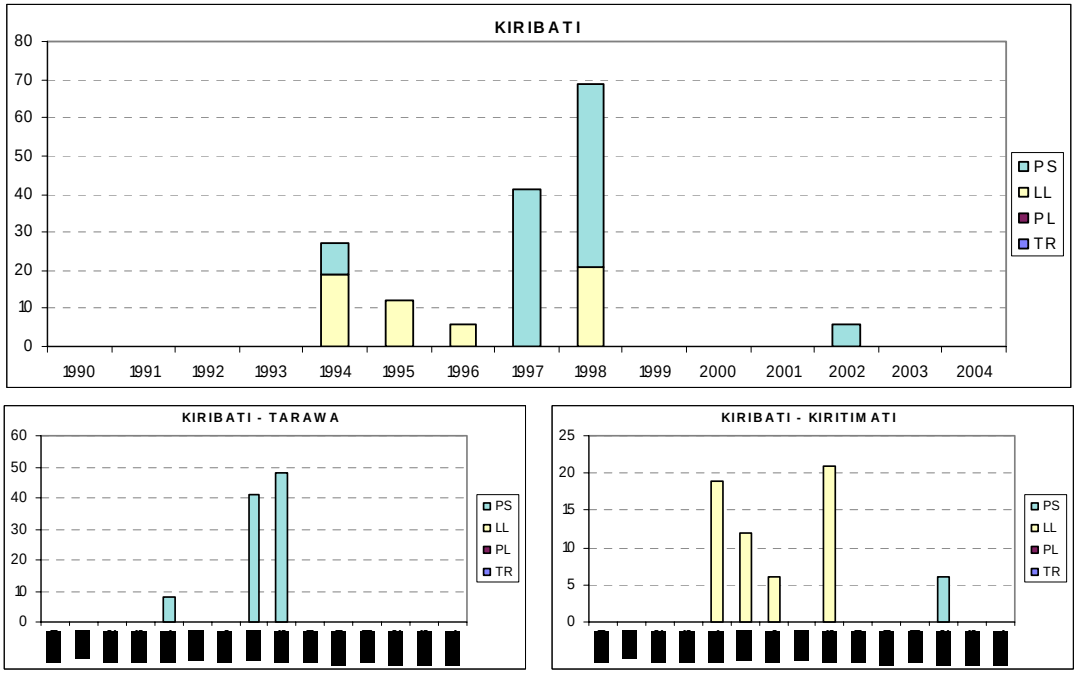
[19] Update information is drawn from the country report to the 5th Observer Coordinator's Workshop in December 2004 (Ioneba Temoai and Benaia Bauro).

PL observer coverage in EEZ (%)	-	N/A	N/A	N/A

* non USMLT or FSMA vessels or trips; ** all sea-days by FSM (non USMLT/FSMA) observers regardless of EEZ;

Port sampling – The Ministry of Natural Resource Development (MNRD) supports port-sampling in principal but has not had a regular sampling programme. Transhipment in Kiribati is sporadic, making it difficult to maintain an ongoing port sampling team. However, MNRD Fisheries staff have occasionally been used to carry out sampling on purse seiners in Tarawa and both longliners and purse seiners in Kiritimati under SPC-funded initiatives. The addition of trained observers available on a contract basis provides an increased pool of potential port samplers.

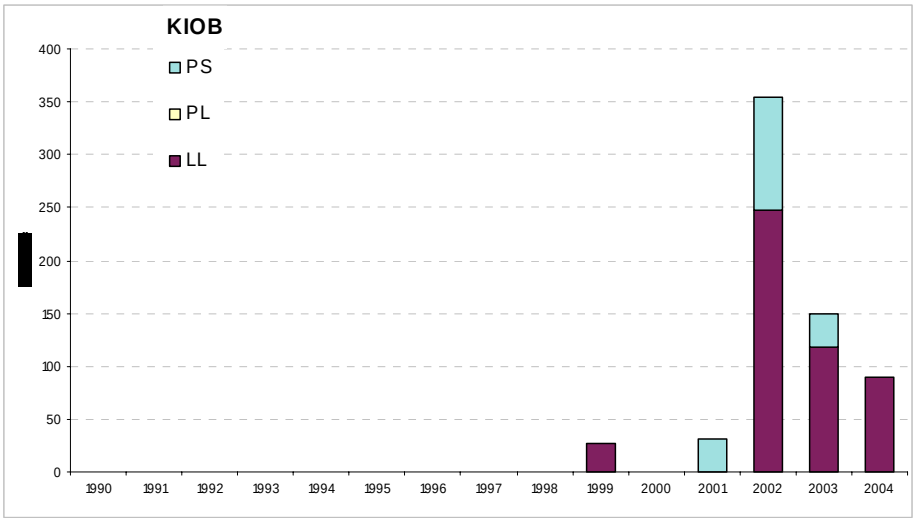
There was no further Kiribati port sampling activity until transhipments began again in Tarawa in May 2005 when the OFP responded to a request to help train observers and MNRD staff to carry out sampling there. Sampling commenced in early June. Coordination of sampling comes under the observer programme, now part of the new Fisheries Licensing and Enforcement Unit (FLEU), tasked to manage foreign fishing activities.



Observers - Kiribati has had a national observer programme since 1996, when FFA and SPC conducted one of the first national observer training courses to be held in the region. However, there have been many difficulties in effectively using the provisions provided in access agreements to enable good observer coverage of foreign vessels. Although Kiribati subscribes to Regional MCS recommendations of 20% coverage, from 1996 to 2001 just two observer trips were taken - one funded by SPC. Further training conducted in Tarawa (2001) and Kiritimati (2002) led to just limited improvement. During 2002 nine observer trips were carried out and at the end of that year a GEF funded Observer Coordinator was appointed with the help of SPC. The posting of a National Coordinator in neighbouring Marshall Islands in August 2003 has helped (many Kiribati licensed vessels transhipping in Majuro) but overall observer coverage, especially of the longline fishery, remains very low – less than one per cent. Nine non-FSMA observer trips were carried out in 2003. What has emerged as a very pleasing aspect of the Kiribati Observer Programme is that it has provided the regions only observer data from Korean distant water longliners – a valuable service.

In 2004, MNRD continued to experience observer logistics difficulties that contribute both to continued low observer coverage and unavailability of quality observer data from the observer effort that has been realised. A Kiribati presentation to the 5th Regional Observer Workshop at the end of 2004 summarised their situation as: the programme is in an early stage and needs to improve and increase coverage levels in coming years if it is to contribute to sustaining marine resources for future generations; a well qualified Observer Coordinator is needed to run the programme more efficiently and effectively.

Thus the Kiribati Observer Programme enters **2005**.



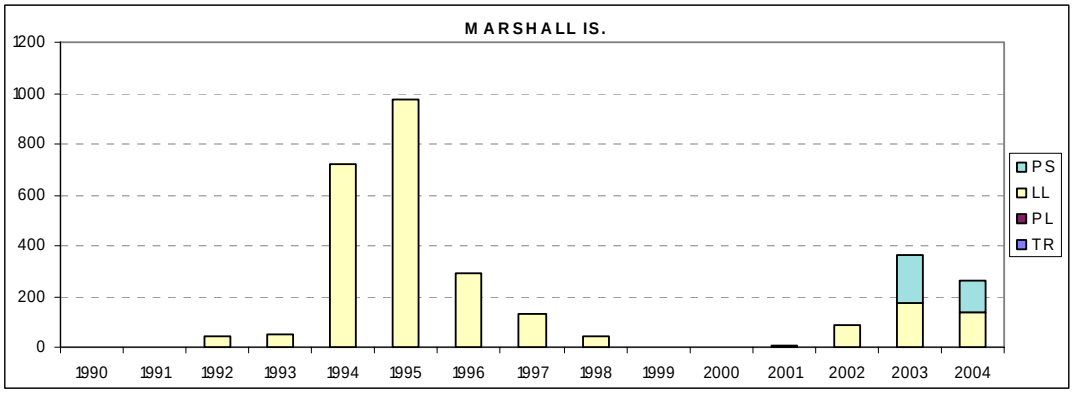
Marshall Islands

(EEZ = 2,131,000 km^2)

		2002	2003	2004
Longliners (domestic)	-	71		
Longliners (other)	-			
Purse seiners (domestic)	-	121		
Purse seiners (other)	-			
Pole-and-liners (other)	-	35		
LL (domestic) samples	-	0	0	0
LL (other) samples	-	101	176	149
PS (domestic) samples	-	0	42	33
PS (other) samples	-	0	146	114
Observers available at start of year	-		12	24
New Observers trained during year	-	0	12	0
LL observer trips started in year	-	0	0	23
LL observer sea days	-	0	0	330
LL observer coverage (%)	-	0	0	7.1
PS observer trips started in year*	-	0	0	3
PS observer sea days**	-	0	0	94
PS observer coverage in EEZ (%)	-	0	0	1.0

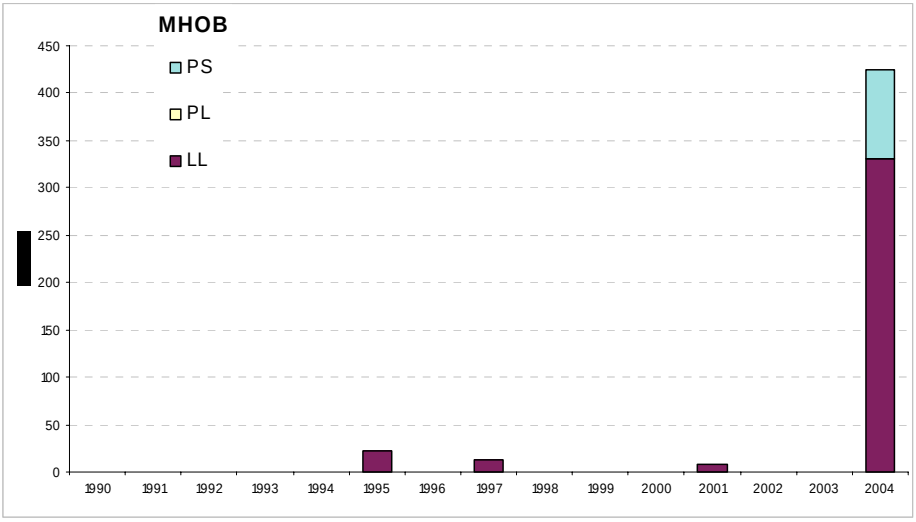
* non USMLT or FSMA vessels or trips; ** all sea-days by FSM (non USMLT/FSMA) observers regardless of EEZ;

Port sampling – In recent years, there has been a large amount of port sampling data collected from the purse seine fleets transhipping in Majuro although no routine port sampling of the longline catch has been undertaken. Sampling mainly utilises observers that were trained in two earlier basic training workshops. They are paid directly through the fishing vessel agents. Unfortunately, the quality of sampling data was erratic – good after an SPC visit to upgrade samplers, but deteriorating soon afterwards. The August 2003 recruitment of a National Port Sampling and Observer Coordinator in a joint funding arrangement with SPC, utilising GEF funds, will help to address this problem. By 2004 the Marshall Islands Marine Resource Authority (MIMRA) hopes to sample all landings and transhipments that occur in Majuro.



Observers – Two large observer-training workshops have been held, but only three successful trips (on longliners) have been carried out since 1995. The low level of observer activity has been due to poor selection of candidates for observer training courses and to observers being fully utilised for port sampling, due to recent high numbers of transhipments. Other factors have been unrealistic payment schedules and difficulties in funding observers through industry. In August 2003 MIMRA

recruited a new coordinator to help rectify earlier problems and has a commitment to achieve coverage levels of five to ten per cent by 2005.



In 2004 the consequences of having an effective coordinator in place became fully apparent (see observer effort graph). Since his recruitment twenty-four more observers have been trained by FFA/SPC and seven previously trained observers received refresher training. Observer coverage onboard purse seiners increased from 5.6% in 2002 through 16.4% in 2003 to 19.0% in 2004. However, much of the extra Marshall Island observer activity by has been in regional programmes (primarily the FSM Arrangement Observer Programme (FSMAOB)). Just four of twenty-one purse seine observer trips took place on bilateral arrangement vessels. Twenty-four longline observer trips were carried out in 2004, a notable boost over the previous none at all. Majuro also became a placement port for vessels fishing neighbouring waters and the Coordinator devoted much time and energy in placements and in logistical support for observers from Kiribati and for the FSMAOB. Occasional assistance was also given to observers from FSM, PNG, the Solomon, and US Treaty. Port sampling increased significantly in late 2003 then dropped a little in 2004 when the observers carrying out port sampling duties started going to sea.

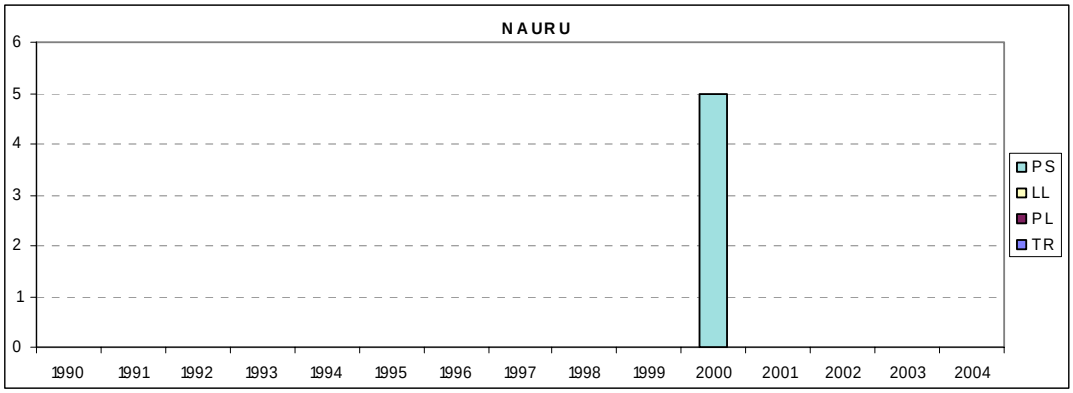
In 2005 MIMRA is seeking further funding support for the Observer and Port Sampler Coordinator post to focus on strengthening data quality control procedures and the provision of unloadings data. It is also considering expanding the observer role port-side boarding and inspection duties.

Nauru

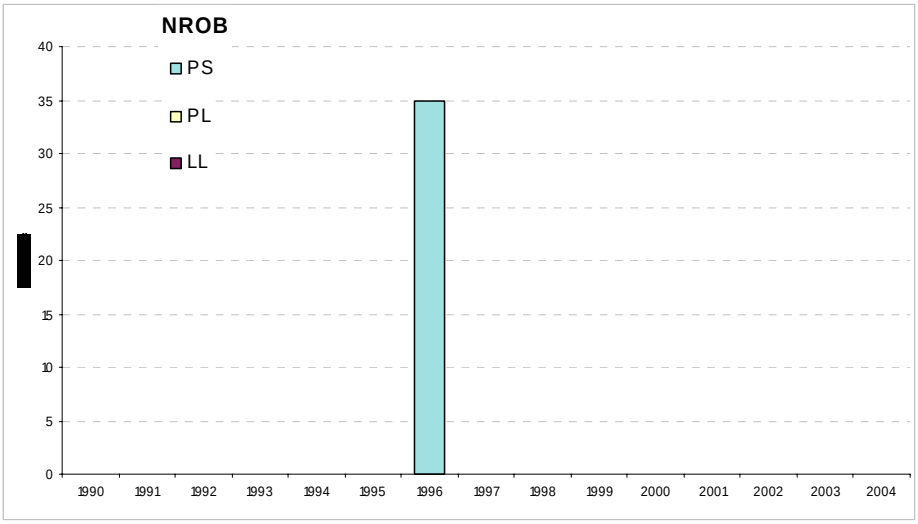
(EEZ = 320,000 km^2)

	2002	2003	2004
Longliners operating in this fishery	-		
Purse seiners operating in this fishery	- 129		
LL (domestic) samples	-		
LL (other) samples	-		
PS (licensed) samples	-		
PS (other) samples	-		
Troll samples	-		
Observers available at start of year	-		
New Observers trained during year	-		
Observer trips started in year	-		
Observer sea days	-		
Observer coverage (% of fishing days)	-		

Port sampling – In 2000 five vessels were sampled by Nauru Fisheries staff while receiving port sampling training from the OFP at the request of the Nauru government. There has been no further port sampling activity in Nauru.



Observers – One observer trip was carried out onboard a Japanese purse seiner in 1996, organised by the observer himself. Otherwise, there is no regular observer programme. However, Nauru does have some observers who have received regional training for the US Treaty and the FSM Arrangement observer programmes and observer coverage of the purse seine fleet when operating in the Nauru EEZ is likely to be comparable to fisheries operating in adjacent EEZs. Observer coverage of the longline fleet is negligible.



By end of 2004 there was just one observer who was sometimes available for work in regional observer programmes.

In 2005 Nauru intends to place observers on vessels with which it has bilateral arrangements and in preparation for this and to enlarge the pool that it has available to the regional observer programmes it has sent two people to attend FFA/SPC observer basic training in FSM.

New Caledonia [20]

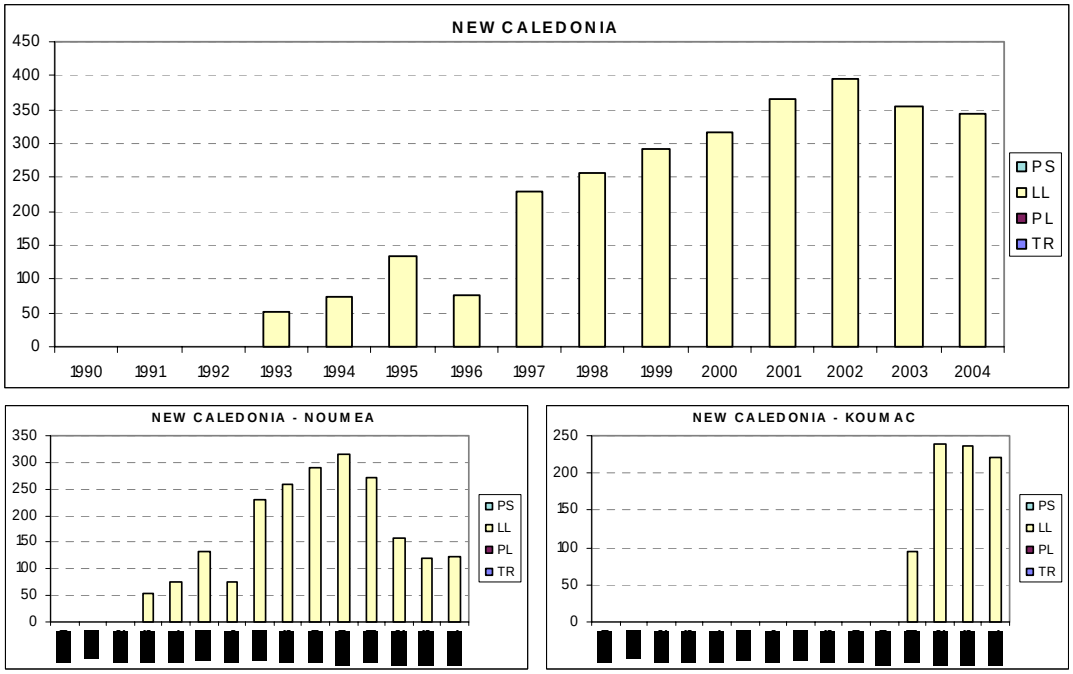
(EEZ = 1,740,000 km^2)

		2002	2003	2004
LL (domestic) operating in this fishery	-	25	28	28
LL (foreign) operating in this fishery	-	0	0	0
LL (domestic) samples	-	396	355	343
% of longline catch port sampled	-	N/A	69.5	77
Observers available at start of year	-	1	1	1
New Observers trained during year	-	0	0	0
Observer trips started in year	-	8	12	12
Observer sea days	-	90	136	141
LL Observer coverage (%)	-	4.8	5.2	3.9

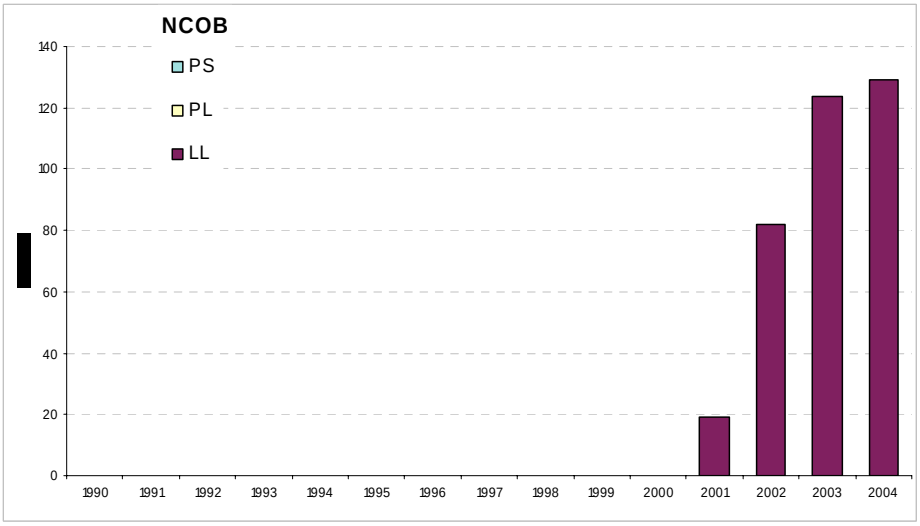
Port sampling – SPC, supported by the Service de la Marine Marchande et des Pêches Maritimes, has funded and conducted port sampling in Nouméa for more than 15 years. Prior to 1993 sampling was for specific projects and data was not collected in standard form. Between 1993 and 2002 piecework-contracted samplers, supervised directly by the OFP, SPC, undertook regular sampling. In 2002 the programme was expanded, with funding through SPC's PROCFish project, to cover the new longliner port of Koumac. Port sampling has and will predominantly cover the New Caledonia domestic longline fleet but has from time to time also sampled from Japanese longliners that occasionally tranship in Nouméa. Currently about 45% of vessels unloading in Nouméa and 100%

[20] Data provided by Geoffrey Bertrand, ex-Observer Coordinator, New Caledonia

of those unloading in Koumac are sampled. Until recently sampling has always been carried out by a pair of samplers but recent changes to unloading strategies in Nouméa have made length-measurement sampling difficult and so just one sampler currently collects unloading weights there.



Observers – During the OFP SPR TRAMP years 1995 – 2000 sporadic observer trips were carried out on the local fleet and then in 2001 New Caledonia's Marine Marchande conducted two pilot longline observer trips on domestic vessels as they prepared to install a new Observer Programme. In late 2002 a Monitoring Supervisor / Liaison Officer (MSLO) and one observer were recruited under EU-PROCFish funding. Observer placement, data quality control and data processing continued to be managed through the OFP.



In 2004 New Caledonia has eight fishing companies operating out of Nouméa and Koumac ports. The Service de la Marine Marchande et des Pêches Maritimes is preparing legislation to oblige vessel owners to carry observers on request. For now observers are taken on a voluntary basis and

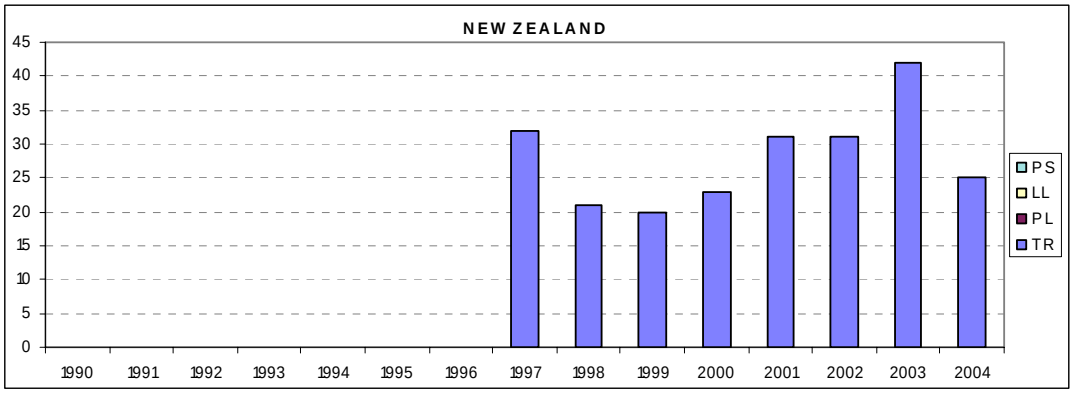
not all owners cooperate. Two new longliners have arrived and are awaiting crew to start fishing. This will lift New Caledonia's fleet to thirty active longliners.

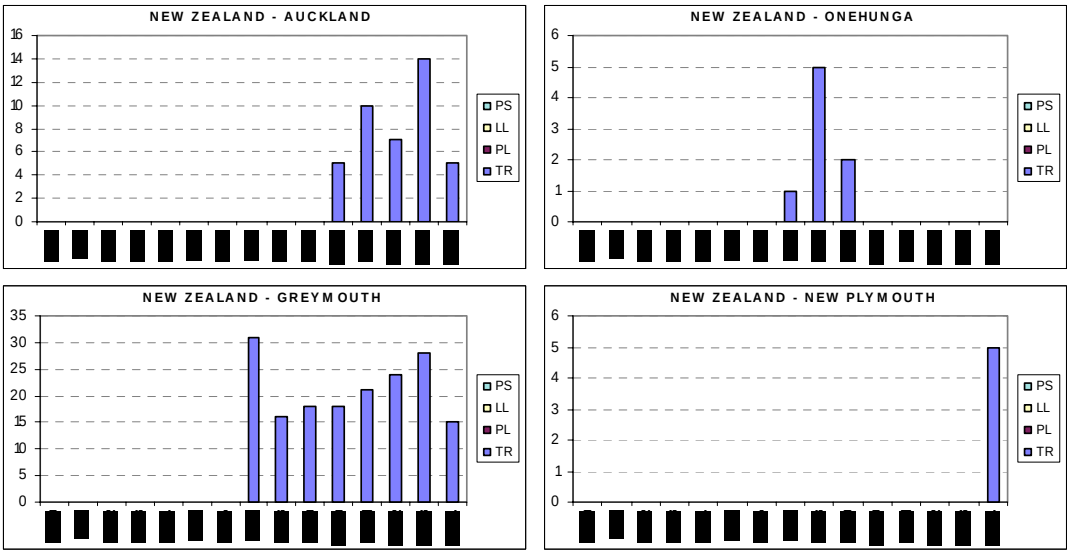
In 2005, there is hope that new legislation will facilitate more observer trips over more of the fleet. But meanwhile the majority of fishing companies in New Caledonia are struggling, economically. With these concerns and the frustration of waiting for fisheries monitoring supportive legislation the MSLO has elected to move on, his position filled by the New Caledonian Observer who will train the remaining port sampler in observer work, while maintaining present port sampling activity.

New Zealand (NZ)

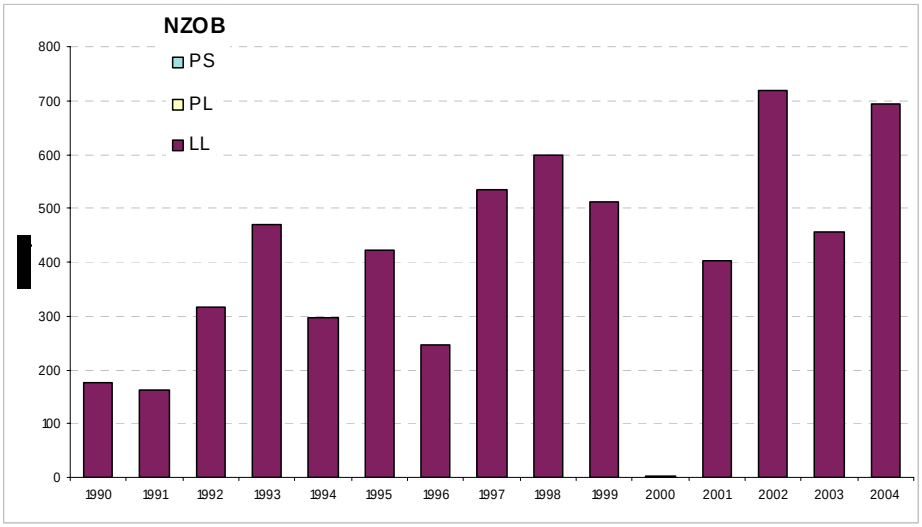
		2002	2003	2004
Tuna longliners (domestic)	-	N/A	N/A	N/A
Tuna longliners (joint venture)	-	N/A	N/A	N/A
Tuna purse seiners (domestic)	-	N/A	N/A	N/A
Troll vessels (domestic)	-	N/A	N/A	N/A
Troll vessels (other)	-	N/A	N/A	N/A
LL (domestic) samples	-	0	0	0
PS (domestic) samples	-	0	0	0
TR (domestic) samples	-	31	42	25
TR (other) samples	-	0	0	0
Tuna LL observer trips started in year	-	13	9	16
Tuna LL observer sea days	-	457	681	693
Tuna LL observer coverage (%)	-	N/A	N/A	N/A
Tuna PS observer trips started in year	-	0	0	0
Tuna PS observer sea days	-	0	0	0
Tuna PS observer coverage (%)	-	0	0	0
Tuna TR observer trips started in year	-	0	0	0
Tuna TR observer sea days	-	0	0	0
Tuna TR observer coverage (%)	-	0	0	0

Port sampling – Taiwanese funds administered by SPC were used from 1997 to 2000 to contract the National Institute of Water and Atmospheric Research to conduct sampling of albacore from the troll fishery in principal landing ports, a task since taken over by the NZ Ministry of Fisheries.





Observers – Trips were carried out on United States purse seine vessels as early as the late 1970s. The NZ Ministry of Fisheries operates the Observer Programme with a pool of around 50 observers, with 15 more trained each year to maintain numbers. Contracted on a trip-by-trip basis, most work in non-tuna fisheries. Tuna longline coverage has been low but constant since starting on Japanese vessels in 1987. With no foreign boats left in the fishery half the effort is now on domestic and half on joint-venture vessels. From 700 to 800 longline sea days are planned for 2002 through 2004.



During 2004 regional purse seine observer forms were used as templates for new NZ observer forms to use on the growing NZ purse seine fleet. New forms are well advanced but no observer trips have yet been undertaken. The OFP also produced a set observer troll forms in response to a request from NZ. The form design was based on the format of observer forms used on other fleets but the nature of the data prescribed for collection is based on that previously collected during SPC and NZ observer troll vessel trips. The forms were to be tested by NZ observers before being presented to the 6th Data Collection Committee for further comment. However, they were not used during 2004 and so were presented and accepted as trial forms only at that meeting.

In 2005 observer data related to tuna fisheries has been made available for inclusion in the Central and Western Pacific regional tuna fisheries data set held at SPC.

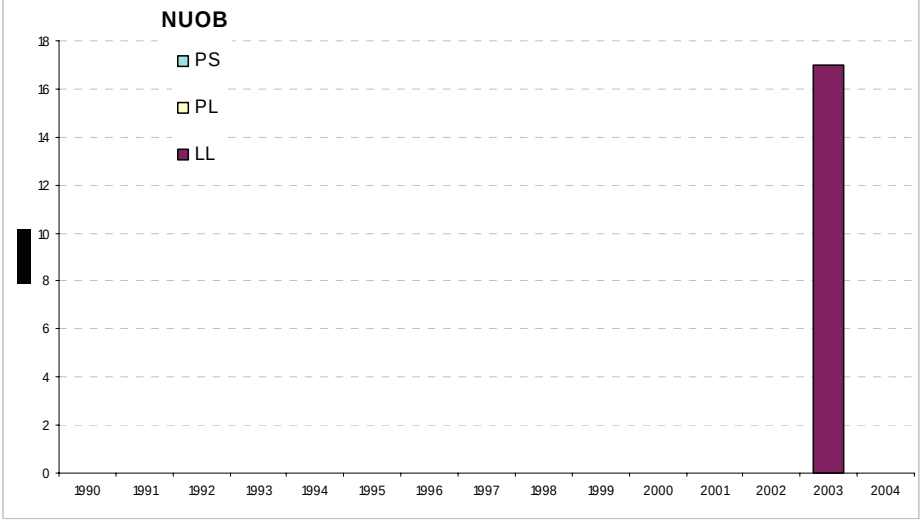
Niue

(EEZ = 390,000 km^2)

		2002	2003	2004
Longliners operating in this fishery	-	20	21	N/A
Purse seiners operating in this fishery	-	0	0	0
Observers available at start of year	-	1	1	3
New Observers trained during year	-	0	2	3
Observer trips started in year	-	0	1	0
Observer sea days	-	0	18	0
Observer coverage (% of fishing days)	-	0	N/A	0

Port sampling – There is no port sampling in Niue but with the 2005 opening of a new processing facility to handle landed fish there is scope to start such activity.

Observers – Niueans, have, over several years, been trained for and worked in the US Treaty Observer Programme but by end of 2002 just one remained and he was only sometimes available. In May 2003 two further regional trainees joined the ranks and one of these parted on the first Niue national observer trip in August 2003. This has been the only Niue national observer trip to date.



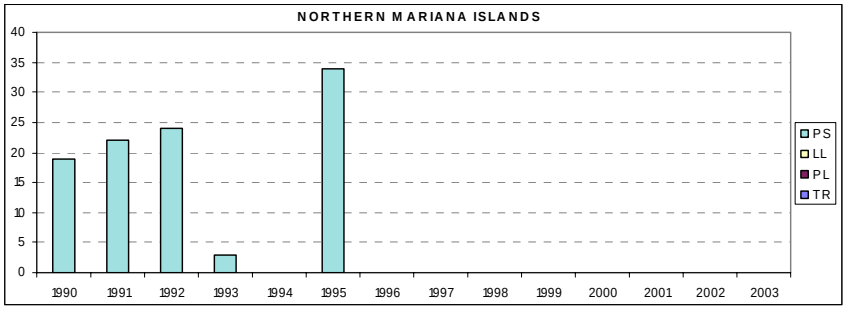
In January 2004 Cyclone Heta caused major damage on Niue, slowing the progress of a newly developing fishing fleet. However, by September the building of a new fish processing plant was almost complete and, in anticipation of a Niue fishing fleet soon to be offloading their catch there, three trainees were sponsored by FFA to an FFA/SPC observer basic training workshop in Tonga.

In 2005 Niue's Fisheries are undergoing some reorganisation.

Northern Mariana Islands

(EEZ = 777,000 km^2)

Between 1988 and 1995 the United States National Marine Fisheries Service sampled the portion of the US Treaty purse seine fleet that was based in the Northern Marianas from where it transhipped catch to canneries elsewhere. Sampling stopped when those vessels began transhipping in ports closer to fishing grounds or carrying their fish directly to canneries. There is currently no port sampling or observer programme in the Northern Marianas.



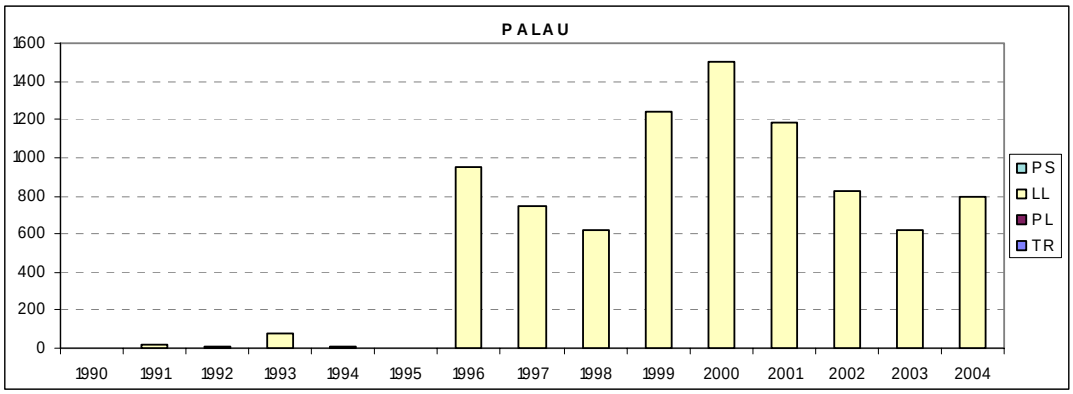
Palau [21]

(EEZ = 629,000 km^2)

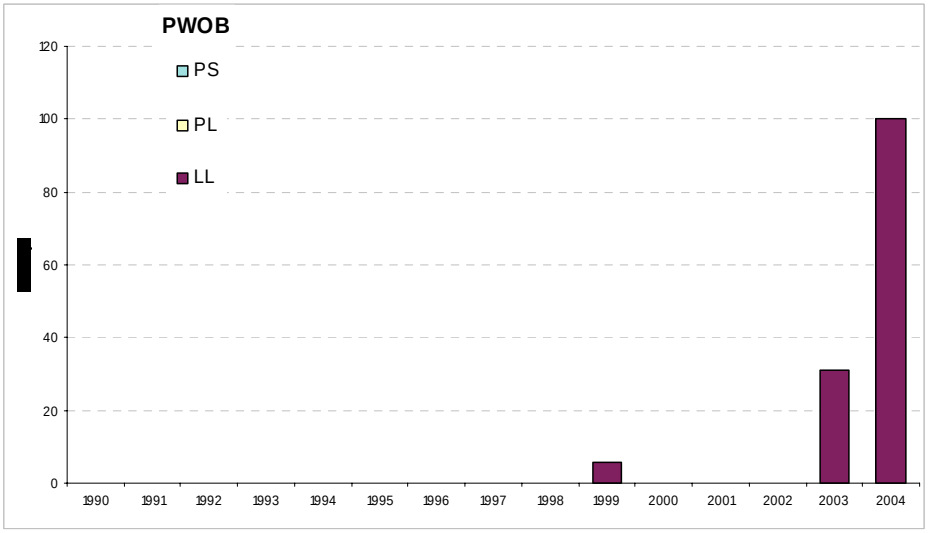
		2002	2003	2004
Longliners (domestic)	-	82	N/A	N/A
Longliners (other)	-	N/A	N/A	N/A
Purse seiners (other)	-	0	0	0
Pole-and-liners (other)	-	N/A	N/A	N/A
LL (domestic) samples	-	11	6	10
LL (other) samples	-	816	618	792
Observers available at start of year	-	0	0	2
New Observers trained during year	-	0	2	0
LL Observer trips started in year	-	0	1	5
LL Observer sea days	-	0	31	100
LL Observer coverage (%)	-	0	N/A	1.5

Port sampling – The Bureau of Oceanic Fisheries Management (BOFM) currently has an excellent port-sampling programme that is providing high-quality data to SPC's OFP on a monthly basis. Port-sampling coverage of the locally based foreign (Taiwanese and Chinese) and the Japanese offshore longline catch has approached 100 per cent in recent years. Currently, four port samplers cover the three off-loading ports, working in pairs.

[21] Most recent information has been provided by Rimirch Katosang, BOFM permanent observer - November 2004.



Observers – In 1996 Palau was amongst the first countries in the region to hold FFA/SPC national observer-training. From then to 2004 just two observer trips were carried out, both SPC initiatives. In 2002 the BOFM re-visited the idea of having an observer programme, seeking further assistance from FFA and SPC to investigate means to re-establish a programme in 2003. As a result, two participants were funded to and successfully completed training in November 2003 and commenced sea duties shortly after.



In 2004 the programme struggled on under uncertain funding arrangements but maintained two active observers – a seasonal observer used on part-time basis and a permanent BOFM observer.

In 2005 Palau has aspirations to work with regional partners to collect adequate and suitable data for science and sustainable management. It intends to increase observer coverage towards regionally agreed to levels and standards. Palau is actively seeking funds to enable it to recruit an Observer and Data Coordinator and once found will liaise with SPC and FFA to provide further observer training in Palau.

Papua New Guinea [22]

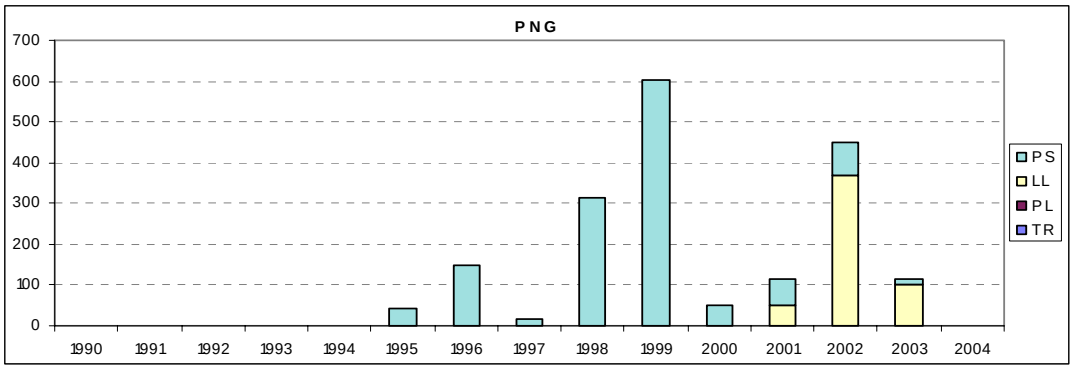
(EEZ = 3,120,000 km^2)

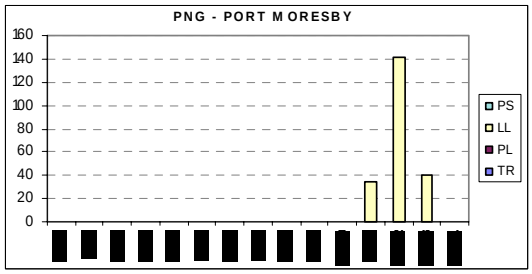
		2002	2003	2004
Longliners (domestic)	-	41	38	42
Shark longliners (domestic)	-	10	9	9*
Purse seiners (domestic)	-	19	5	16
Purse seiners (locally based foreign)	-	8	25	13**
Purse seiners (foreign)	-	103	107	76
Pump boats (bancas)	-	2		
LL (domestic) samples	-	362	102	106
Shark LL (domestic) samples	-	5	0	N/A
PS (domestic) samples	-	0	3	4
PS (other) samples	-	84	157	64
Observers available at start of year	-	51	59	56
New Observers trained during year	-	12	17	18
LL Observer trips started in year	-	20	18	19
LL Observer sea days	-	456	382	518
LL Observer coverage (%)	-	8.3	6.1	9.3
Shark LL observer trips started in year	-	N/A	3	N/A
Shark LL observer sea days	-	N/A	119	66
Shark LL observer coverage (%)	-	N/A	4.8	N/A
PS observer trips	-	69	111	74
PS (domestic) observer sea days	-	{	1198	{
PS (local based foreign) obs sea days	-	2660{	1880	3920{
PS (foreign) observer sea days	-	{	1381	{
PS (domestic) observer coverage (%)	-	N/A	108.8	N/A
PS (local based foreign) coverage (%)	-	N/A	50.8	N/A
PS (foreign) observer coverage (%)	-	N/A	7.1	N/A
PS Observer coverage (%) in EEZ	-	35.2	19.5	22.0

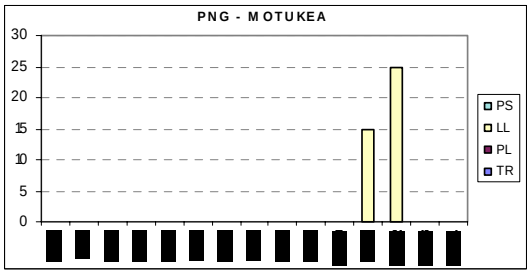
* 9 licensed but only 8 shark longliners currently active; ** Most of these vessels are small to medium sized vessels which fish in association with FADs, transfer their catch at sea and take most of their catch within archipelagic waters.

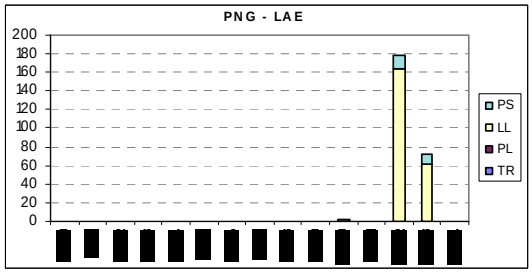
Port sampling – Port sampling in Papua New Guinea is carried out in Port Moresby (longliners), Lae and Rabaul (longliners and purse seiners), Madang, Kavieng and Wewak (purse seiners). Sampling was also carried out in Manus during an intense period of purse seine transhipments that began and ended during 1996. Trained observers working on a piecework basis for the National Fisheries Authority (NFA) carry out most port sampling and are usually supervised by provincial fisheries offices. The involvement of both the provincial offices and the NFA has led to problems in maintaining data collection and data quality but these problems are being resolved. Prior to 2000 port sampling activity was concentrated on purse seine caught fish brought to port by carrier vessels that operated in Papua New Guinea's mother ship operations, unique to the region. With a change in policy to have observers placed on 100% of catcher vessels operating in this mother ship fishery such port sampling activity ceased. In 2002 Rabaul sampling expanded to cover transhipping tuna and shark longliners. Port sampling increased in Wewak and Rabaul in the latter part of the 2003 to improve coverage of returning foreign seiners.

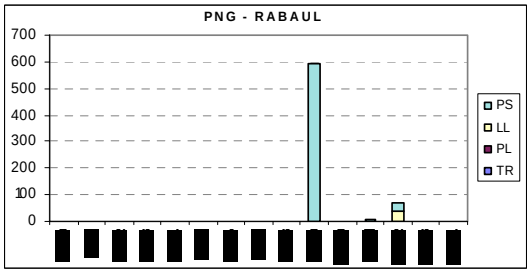
[22] Recent information from Ludwig Kumoru (Tuna Manager) and Noan Pakop (MCS Manager, ex-Observer Manager), National Fisheries Authority, PNG - November 2004).

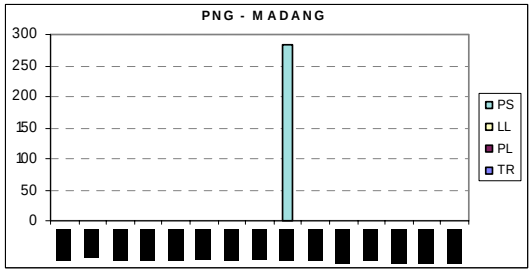

PNG
700
600
500
400
300
200
100
0
1990
1991
1992
1993
1994
1995
1996
1997
1998
1999
2000
2001
2002
2003
2004
PS
LL
PL
TR

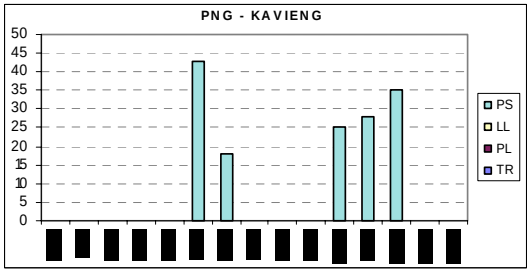

PNG - PORT MORESBY
160
140
120
100
80
60
40
20
0
PS
LL
PL
TR

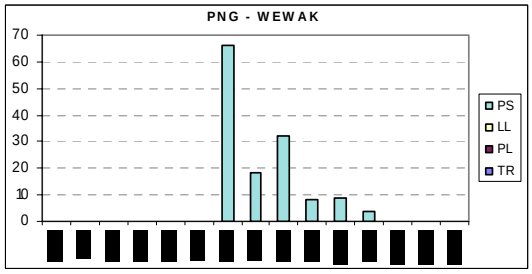

PNG - MOTUKEA
30
25
20
15
10
5
0
PS
LL
PL
TR

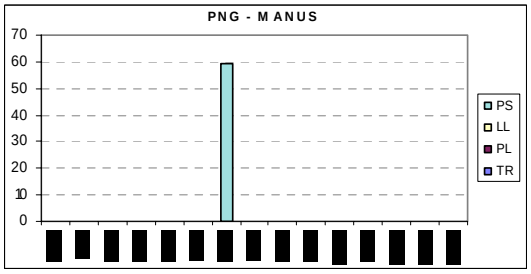

PNG - LAE
200
180
160
140
120
100
80
60
40
20
0
PS
LL
PL
TR

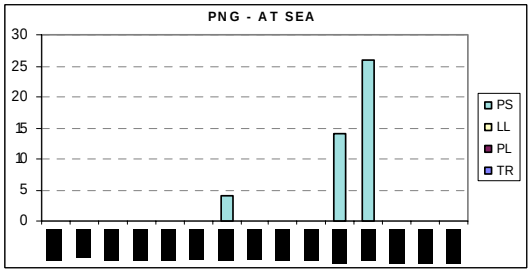

PNG - RABAUL
700
600
500
400
300
200
100
0
PS
LL
PL
TR


PNG - MADANG
300
250
200
150
100
50
0
PS
LL
PL
TR


PNG - KAVIENG
50
45
40
35
30
25
20
15
10
5
0
PS
LL
PL
TR

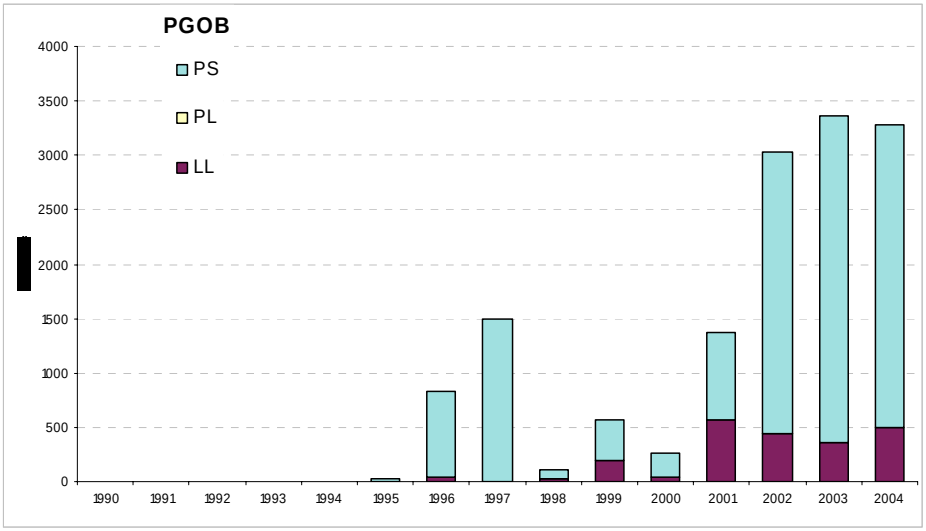

PNG - WEWAK
70
60
50
40
30
20
10
0
PS
LL
PL
TR


PNG - MANUS
70
60
50
40
30
20
10
0
PS
LL
PL
TR


PNG - AT SEA
30
25
20
15
10
5
0
PS
LL
PL
TR

In 2004 sampling of the newly developed Kavieng longline fleet will commence. Later in this year, an assessment, retraining and reorganisation of the port sampling team will be undertaken with the assistance of the OFP in an effort to upgrade the quality of data coming form these efforts.

Observers – The PNG Observer Programme is the largest and best-supported observer programme among the Pacific Island countries. In 2000 it was extensively reorganized as part of a restructure of the NFA and now active observers are based at ten PNG ports. An Observer Manager and Deputy Observer Manager are based in Port Moresby. Experienced observers train as senior observers to further support placements, debriefings and data quality control. They have both monitoring and compliance functions. Funding is through a combination of access agreement levies and direct cost recovery. Observers are stationed at major ports and landing points in the country, under the supervision of senior observers and provide coverage of the purse seine fishery (domestic and foreign), the longline fishery (tuna and shark),as well as transhipment of purse seine catch to carrier vessels/motherships, and FAD deployments. Observers are also utilised on prawn trawlers and in trial fishing operations. Target coverage are 100 per cent of the purse seiners fishing into mother ship operations; 20 per cent of all other domestic and foreign purse seiners; five per cent of all longliners; 20 per cent of the prawn trawl fisheries; and 100 per cent of all trial fisheries operations. Of these, the programme comes close to target in all but the "all other domestic and foreign purse seiners" category, which is running at about five per cent, as the number of available observers is not yet sufficient to achieve full coverage rates. Biological data collected are sent to SPC/OFP for entry and verification for incorporation into regional databases. In 2003 fifteen additional observers were trained, which was slower expansion than originally planned in recognition of the need to consolidate numbers while continuing to improve data handling processes, mainly with its senior observers. The programme's goal is to have a complement of 80 active observers.



During 2004 the programme advanced further towards its target coverage goals with further training. By end of year there were 64 fully operational observers. Quality goals were also attended to through a workshop for Senior Observers / debriefers.

In 2005 the PNG Observer Programme will at last reach the full complement of 80 plus observers required to achieve coverage goals. The programme will face new challenges and will have a new Observer Manager, Mr. Gisa Komangin, to help meet those challenges. Guidance from his predecessor will not be far away, however, as Mr. Noan Pakop, takes on the role of Manager, MCS.

Pitcairn

(EEZ = 800,000 km^2)

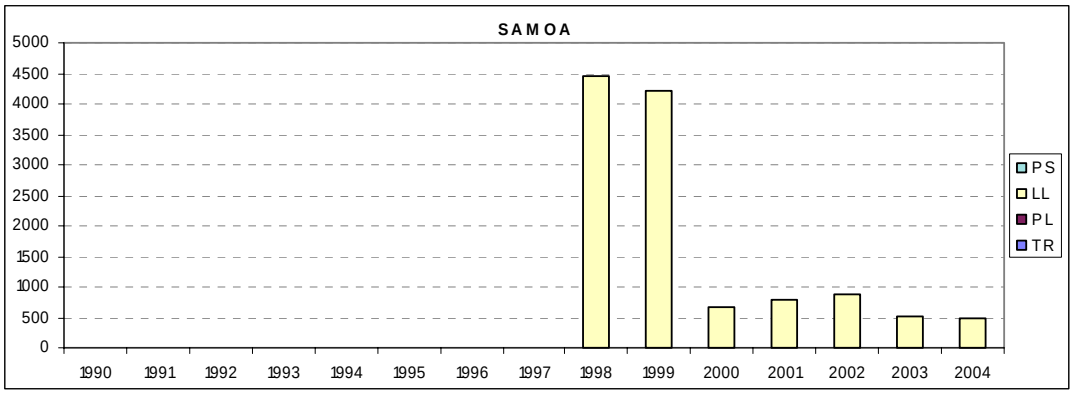
One SPC sponsored observer trip was undertaken in 1994 on a vessel charged with conducting a fisheries resource survey that looked very briefly at tuna resources. Otherwise, there are no tuna fisheries port sampling or observer programmes in Pitcairn.

Samoa [23]

(EEZ = 120,000 km^2)

		2002	2003	2004
Longliners (domestic, active)	-	68	24	38
LL (domestic) samples	-	882	507	469
Observers available at start of year	-	0	0	0
New Observers trained during year	-	0	0	1
LL observer trips started in year	-	0	0	0
LL observer sea days	-	0	0	0
LL observer coverage (%)	-	0	0	0

Port sampling – The Ministry of Agriculture, Forests, Fisheries and Meteorology (MAFFM) has carried out SPC-funded sampling since 1998. At first, nearly all Fisheries Division staff were employed in an effort to get maximum coverage of the rapidly growing alia fleet but as the fleet changed in structure the programme was modified. Since 2002, one MAFFM staff member now coordinates the activities of two samplers funded under SPC's EU-PROCFish project. Up to 50% of longline landings are sampled.



Observers – There was no national observer programme in Samoa up until 2004 and Samoans have not been very active in the US Treaty Observer Programme though several have attended regional observer training over the years. None are currently available. Several observer trips were carried out on the Samoan alia fleet by SPC SPR TRAMP observers.

[23] Information and data provided by Roseti Imo, Senior Fisheries officer – Research, Samoa Fisheries Division

During 2004 aspirations to start a Samoan Observer Programme, and positive response from OFP to a request to help get a programme started, led to observer training at an FFA/SPC sub-regional observer training workshop held in Tonga (EU funded through the OFP, PROCFish project).

In 2005 Samoa Fisheries are yet to get the machinery in place to start a National Observer Programme but the successfully trained observer is racking up some sea-time experience working for the US Treaty Observer Programme. In the meantime the National programme is waiting for amendments to the legislation so terms and conditions for the issuing of licenses can accommodate observer coverage. Particular issues associated with the Samoa unique small vessel fleet are limited space and observer safety. As with any new domestic observer programme there are a lot of operator issues: food; space; compensation.

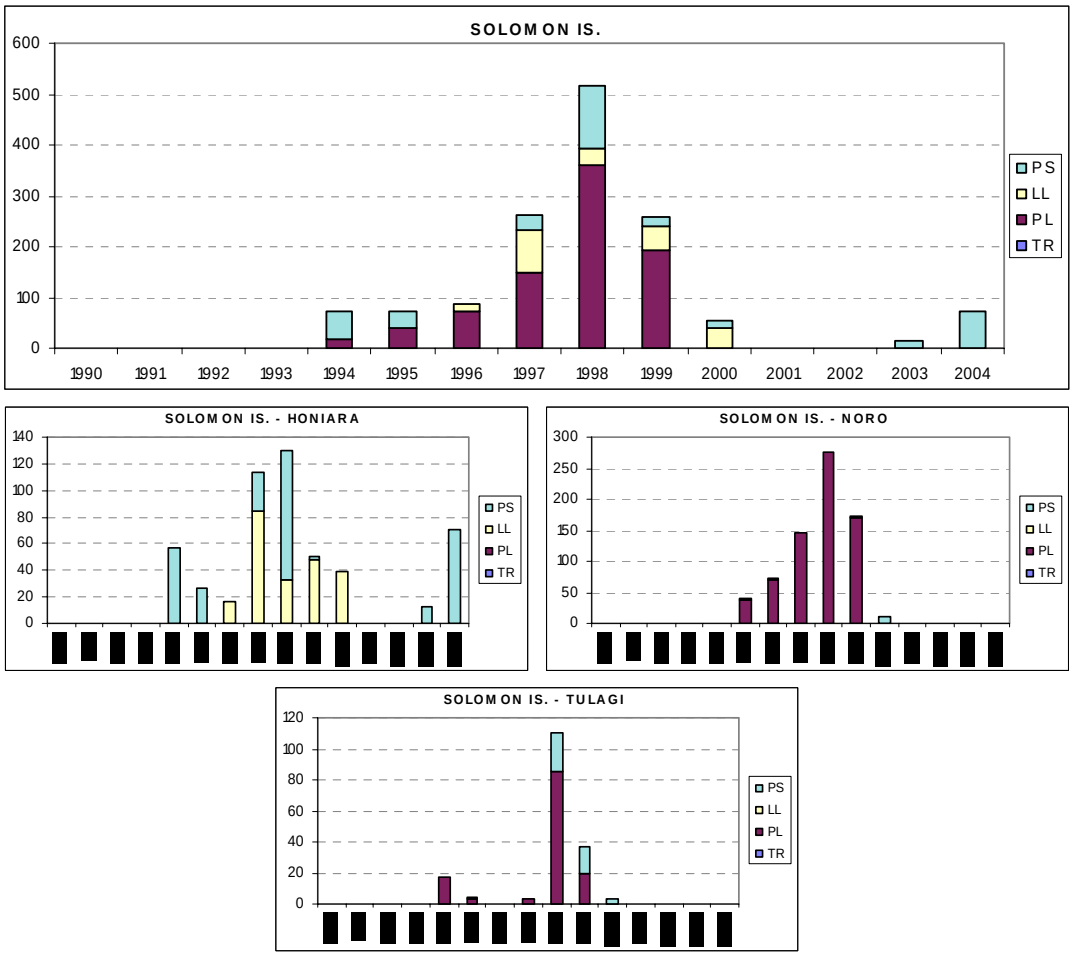
Solomon Islands

(EEZ = 1,340,000 km^2)

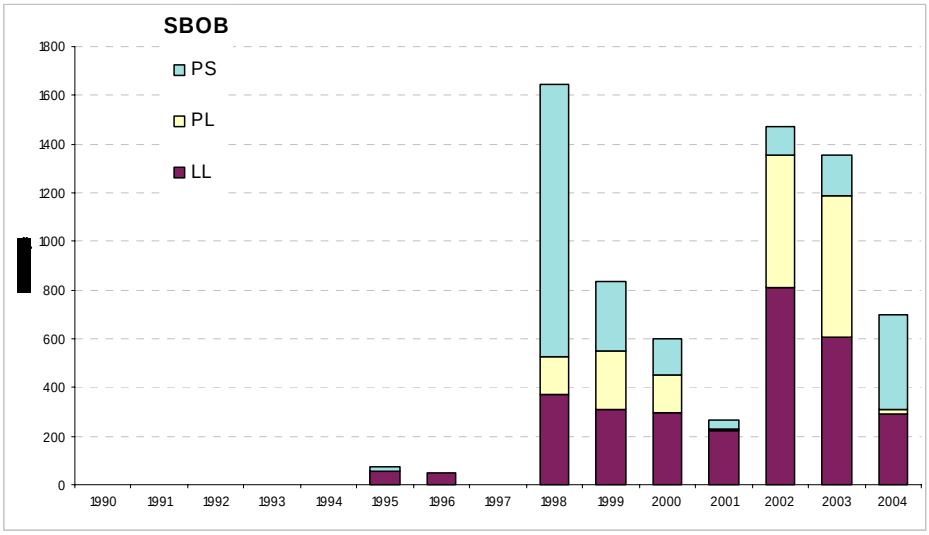
		2002	2003	2004
Longliners (domestic)	-	25	46	N/A
Purse seiners (domestic)	-	N/A	N/A	N/A
Purse seiners (other)	-	N/A	N/A	N/A
Pole-and-liners (domestic)	-	N/A	N/A	N/A
LL (domestic) samples	-	0	0	0
PS (licensed) samples	-	0	0	0
PS (other) samples	-	0	13	71
Observers available at start of year	-			
New Observers trained during year	-			
LL observer trips started in year	-	54	41	21
LL observer sea days	-	863	647	313
LL observer coverage (%)	-	100.1*	N/A	N/A
PS Observer trips started in year	-	6	13	25
PS Observer sea days	-	126	177	414
PS Observer coverage (%)	-	32.8	8.9	16.3
PL Observer trips started in year	-	117	109	4
PL Observer sea days	-	544	582	20
PL Observer coverage (%)	-	22.6	30.1	N/A

* Good observer coverage estimations for the Solomon Island longline fleet are not currently available due to problems in procuring logsheet data. Efforts are currently underway to rectify this situation.

Port sampling – The political upheaval of the past two years brought about a collapse of the fishing industry and the Fisheries Division's SPC-funded port sampling programme subsequently closed. Fishing is picking up again and there is need to establish sampling programmes in Honiara (longliners) and Noro (pole-and-liners and purse-seiners). Previously, two full-time port samplers operated in each of these ports and two also operated in the port of Tulagi. Operations are unlikely to restart in Tulagi, as damage caused during the unrest was substantial and irreparable.



Observers – As with the port sampling programme, observer activity stopped during the political unrest. However, observer activity picked up markedly once the troubles eased. The Solomon Islands Observer Programme has 12 observers, an Observer Coordinator and an Assistant Observer Coordinator. In contrast to most other observer programmes in the region, this programme concentrates on domestic vessels and is not covering the Japanese and Taiwanese vessels, or the shark longline vessels. The 2002 coverage rates reached 20 per cent for longliners and 20 per cent of the pole-and-liner vessels but the programme did not cover the foreign longline fleets. Ambitious 30 per cent longline, 40 per cent pole-and-line and 100 per cent purse seine, coverage goals prompted the training of 30 new observers in 2003.



2004 was a year of reform for many government institutions and fisheries did not escape. Several staff movements have led to strategy changes or delays. Observer work was stopped altogether for several months but was underway again late in the year.

In 2005 help is being sought from the OFP to set up a regular port sampling programme again.

Tokelau

(EEZ = 290,000 km^2)

		2002	2003	2004
Longliners operating in this fishery	-			
Purse seiners operating in this fishery	-	30		
Observers available at start of year	-			
New Observers trained during year	-			

Port sampling – Purse-seiners fishing in Tokelau waters may be sampled in Pago Pago.

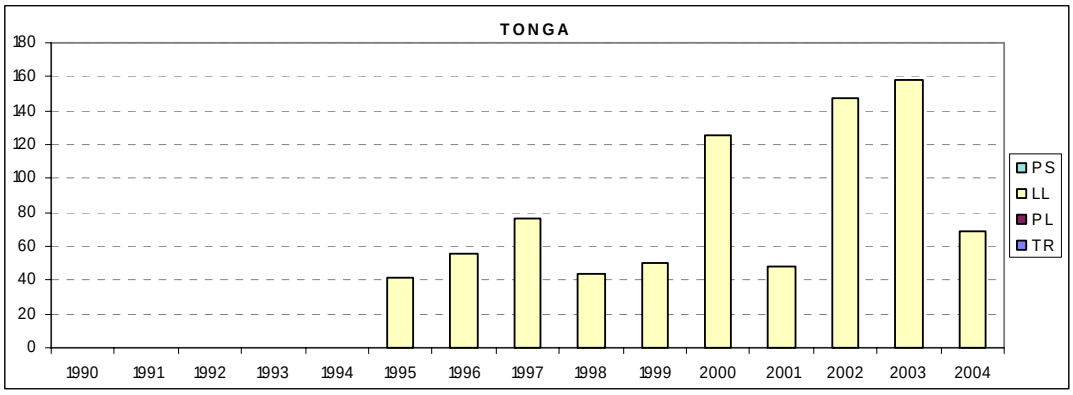
Observers – Tokelau observers have attended regional observer training workshops and work on US purse-seiners fishing in Tokelau and other waters under the US Treaty Observer Programme. There is no national observer programme.

Tonga [24]

(EEZ = 700,000 km^2)

		2002	2003	2004
Longliners (domestic tuna)	-	26	N/A	14
Longliners (other)	-	0	N/A	8
LL (domestic) samples	-	147	158	67
LL (other) samples	-	0	0	0
Observers available at start of year	-	0	0	11
New Observers trained during year	-	0	11	3
LL Observer trips started in year	-	0	8	11
Observer sea days	-	0	N/A	143
Observer coverage (%)	-	0	N/A	9.9

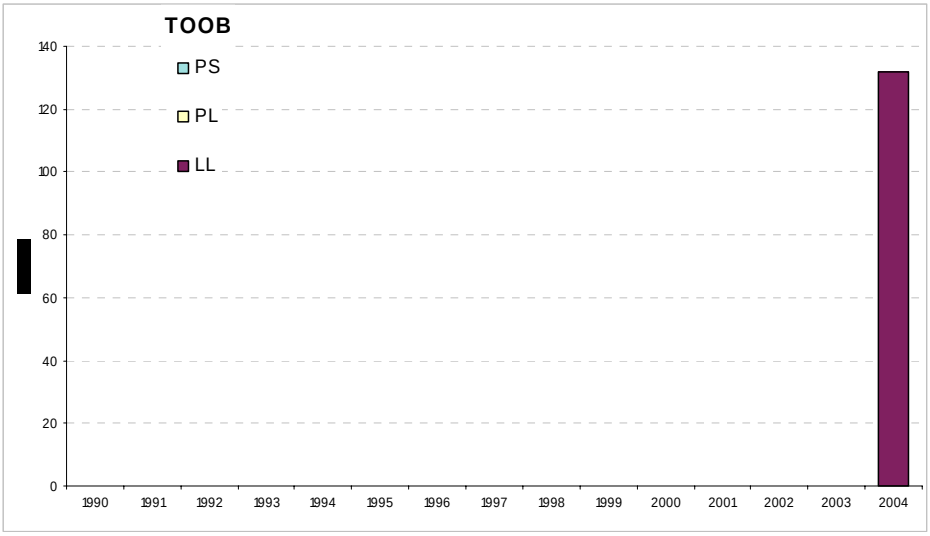
Port sampling – The Ministry of Fisheries, utilising SPC managed EU-PROCFish funds, employs two port samplers who attempt to port sample all longliners unloading in Tonga. Port samplers are also responsible for collecting unloadings data.



[24] Information and data provided by ‘Ana F. Taholo, Ministry of Fisheries, Kingdom of Tonga

Observers – There was no observer programme until 2003 although occasional observer trips, funded by SPC, were taken by port samplers who had attended regional observer training and been employed in the US Treaty Observer Programme. The Tonga Ministry of Fisheries initiated an observer programme in October 2003 with an introductory observer workshop conducted by SPC's Observer Trainer that was attended by three Ministry staff and eight others. The programme became established in earnest a year later when a full FFA/SPC observer basic training workshop, attended by 14 Tongans and participants from Niue and Samoa, was conducted in September 2004. This programme intends to prioritise observer placements first to covering the locally based foreign fleet with up to 100% coverage, then to monitor test fishing, and lastly to cover the local vessels.

During 2004 the programme experienced all the usual teething problems: getting management policies in place; industry reluctance and resistance to the programme through political interference; limited resources (funds, staff, etc.); staff turnover. However, the programme continued to move in the right direction.



In 2005 the foreign vessels have moved on. Focus will now concentrate on covering local vessels and getting new observers up to speed. The Ministry of Fisheries will seek the assistance of the OFP to carry out debriefings of these new observers whenever possible.

Tuvalu

(EEZ = 900,000 km^2)

		2002	2003	2004
Longliners (domestic)	-	61	20	
Longliners (foreign)	-			
Small domestic vessels (mostly troll)	-			50[25]
Purse seiners operating in this fishery	-	73	16	
Pole-and-line vessels	-	7	8	
Troll samples	-	0	0	0
Observers available at start of year	-	2	2	4
New Observers trained during year	-	0	2	20
Observer trips started in year	-	0	0	
Observer sea days	-	0	0	
Observer coverage (% of fishing days)	-	0	0	

Port sampling – No port sampling of large-scale commercial vessels takes place in Tuvalu, as these vessels do not come to port there but mostly unload their catch in Fiji, Korea, Taiwan and Japan. Local trollers bring catch to the domestic market.

Observers – Observers from Tuvalu have attended regional observer training workshops and work in the US Treaty Observer Programme. Tuvalu is considering establishing an observer programme, and has provisions for observer coverage written into a yet to be gazetted new fisheries act and planned for future access agreements with foreign fleets. Observer coverage of US Treaty and FSM Arrangement vessels is likely to be comparable to that of adjacent EEZs. Observer coverage of the foreign longliners is nil.

During 2004 twenty new observers were trained to be part of a Tuvalu National Observer Programme for which various preparations were made with assistance from the OFP and FFA.

In 2005 the various preparations for a National Programme made by the Tuvalu Fisheries Division are yet to receive government legislative approval. Unfortunately, the Fisheries Division has had recent major set-backs in its leadership ranks and is undergoing a period of reorganisation so a National Observer Programme is unlikely to take form soon.

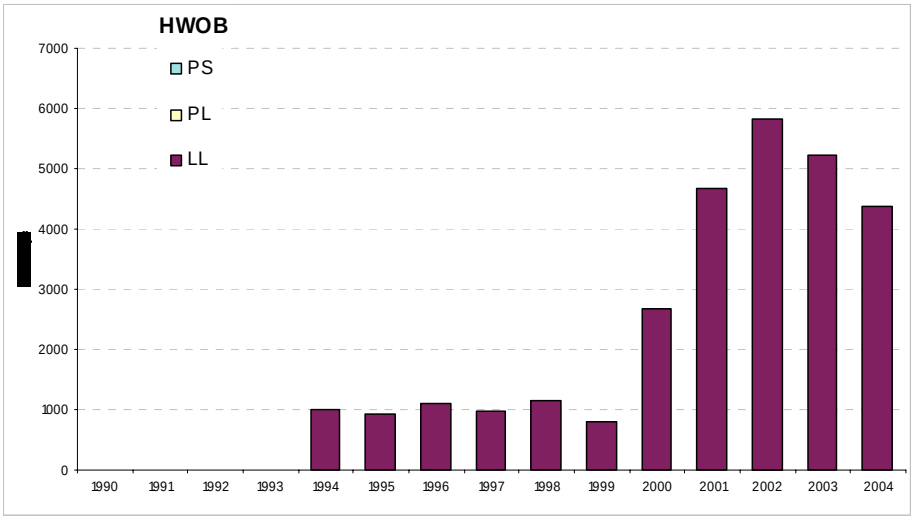
[25] The small scale tuna fishery is significant in terms of food security. Local fisheries include about 20 dories that fish full time and a further 30 that operate at artisanal levels (SCTB17 Working Paper NFR-28, Tuvalu Tuna Fisheries Report, August 2004)

United States of America, Hawaii

		2002	2003	2004
Longliners operating in this fishery	-	N/A	N/A	N/A
Purse seiners operating in this fishery	-	0	0	0
LL (domestic) samples	-	2		
LL (other) samples	-	1		
PS (licensed) samples	-			
PS (other) samples	-			
Troll samples	-			
Observers available at start of year	-			
New Observers trained during year	-			
Observer trips started in year	-			
Observer sea days	-			
Observer coverage (% of fishing days)	-			

Port sampling – There is no on-shore sampling of tuna catches in Hawaii. The fish auction (United Fishing Agency) provides the NMFS with piece counts, weights and prices for 100% of the fish that they handle. No other biological information is collected on a regular basis.

Observers – There has been an observer programme in Hawaii since 1996, but coverage levels increased considerably in 2000 in response to environmental concerns, principally regarding turtle mortality in the swordfish fishery. NMFS manages the programme and trains and certifies observers, but uses private observer service providers to employ contracted observers. The government has mandated 20% overall coverage, when averaged through the year, and, at times, coverage has been as high as 40%.

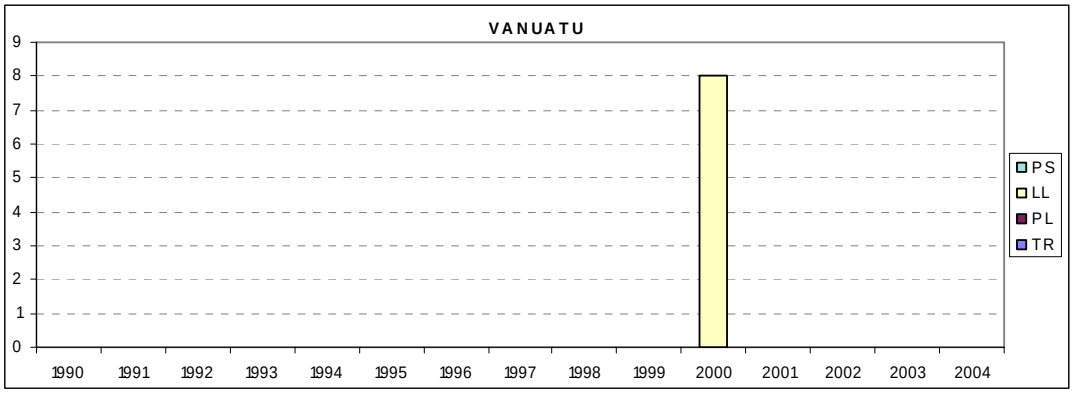


Vanuatu [26]

(EEZ = 680,000 km^2)

		2002	2003	2004
Longliners (domestic/joint venture)	-	66	83	83
Longliners (distant water)	-	58	58	58
Longliners (local skiffs and gamefish)	-	111	111	111
Purse seiners operating in this fishery	-	9	22	
LL (domestic) samples	-			
LL (other) samples	-			
PS (licensed) samples	-			
PS (other) samples	-			
Troll samples	-			
Observers available at start of year	-			
New Observers trained during year	-			
Observer trips started in year	-			
Observer sea days	-			
Observer coverage (% of fishing days)	-			

Port sampling – has taken place in Vanuatu only during brief periods: when Taiwanese longliners visited Port Vila in 2000; and again in 2003 and 2004 when five and six longliners respectively began operations out of Port Vila. Sampling of landed catch from other licensed longliners is occurring via the sampling programme implemented by the Department of Fisheries in Fiji, where much of Vanuatu's catch is unloaded.



Observers – There has been no Vanuatu Observer Programme but observers have trained at regional observer training courses and worked in the US Treaty Observer Programme. In 2003 Vanuatu placed its first domestic observer and has approached the OFP for assistance to establish a National Observer Programme.

In 2004 Vanuatu is working closely with Fiji to have Fiji observers authorised as Vanuatu observers aboard Vanuatu flagged and Vanuatu licensed vessels based in Fiji[26]

In 2005 observer coverage will commence once an agreement with Fiji is finalised[26].

[26] Most recent fleet information drawn from CTB17 Working Paper NFR-30, Vanuatu Tuna Fisheries Report.

Wallis and Futuna (EEZ = 300,000 km^2)

		2002	2003	2004
Longliners (domestic/joint venture)	-	N/A	N/A	N/A
Longliners (distant water)	-	N/A	N/A	N/A
Longliners	-	N/A	N/A	N/A
Purse seiners operating in this fishery	-	0	0	0
LL (domestic) samples	-			
LL (other) samples	-			
Observers available at start of year	-	0	0	0
New Observers trained during year	-	0	0	0
Observer trips started in year	-	0	0	0
Observer sea days	-	0	0	0
Observer coverage (% of fishing days)	-	0	0	0

Port sampling – has taken place in d.

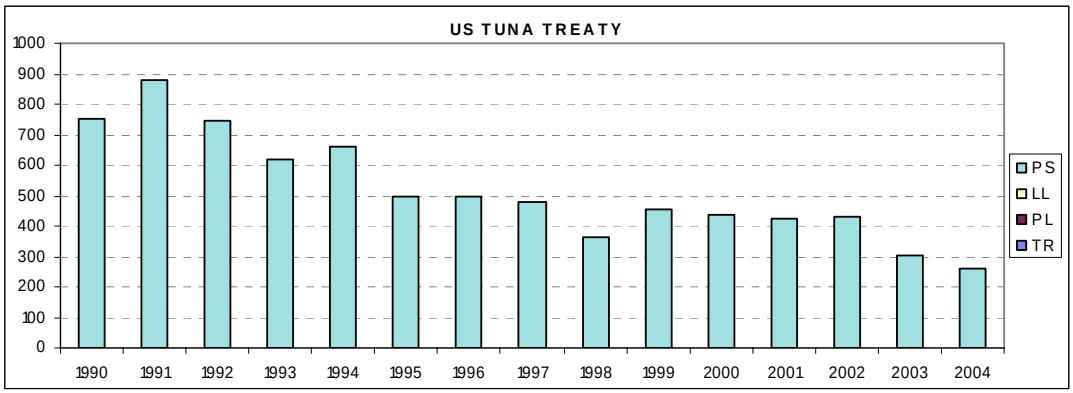
Observers – There has been no Observer Programme but an observer was being sought late in the year to monitor a trial longline fishing operation to take place early in 2005.

In mid-2005 the OFP tuna ecosystem diet studies team received several biological samples that were collected by a technician monitoring a longline trial fishing operation. Other information from that trip is yet to be received.

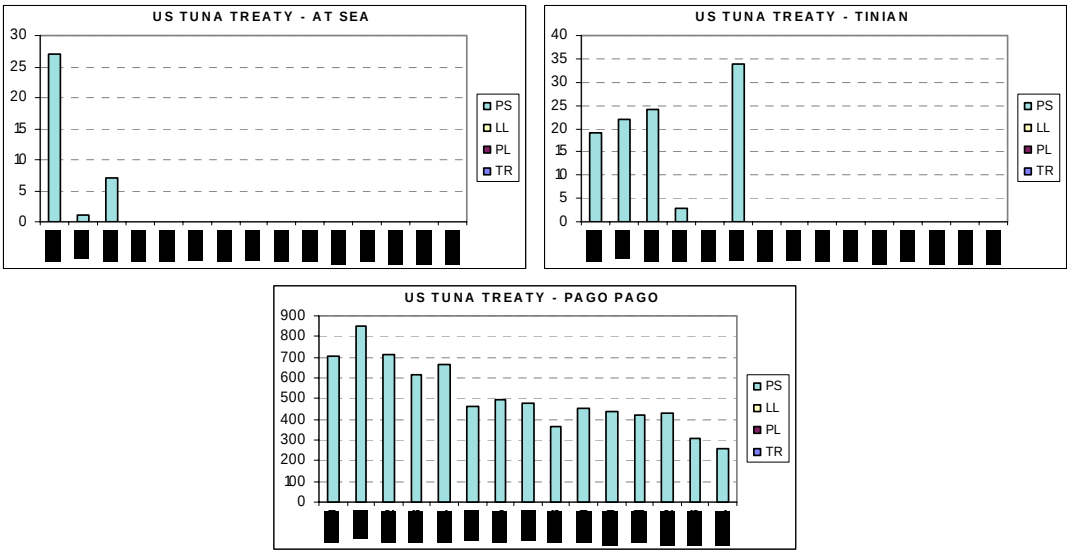
US Treaty (extended for a further 10 years from June15, 2003)

		2002	2003	2004
Purse seiners operating in this fishery	-	29	26	22
PS samples (number of fish measured)	-	42226	34990[27]	N/A
Observers available at start of year	-			
New Observers trained during year	-			
PS observer trips started in year	-	36	19	31
PS observer sea days	-	1818	1397	851
PS observer coverage (%)	-	32.2	29.2	22.4

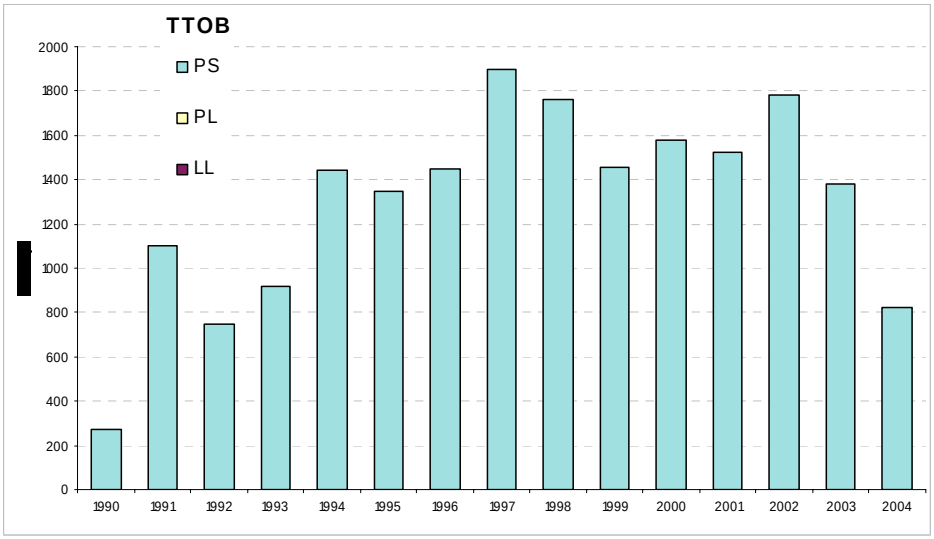
Port sampling – Port-sampling data are collected in American Samoa from Treaty vessels by two NMFS staff and provided through FFA to the OFP *every two months*. An attempt is made to sample 100% of the US purse seiners that unload in Pago Pago (89% of all unloadings in 2003). The strategy is to sample from a minimum of one set type per month per sampling area per vessel. There has been a reduction in total samples collected in recent years due to a reduction in overall effort by that fleet. The port samplers are very experienced and their ID work has stood audit well.



[27] 2003 sample numbers are for the first nine months only



Observers – The US Treaty Observer Programme began in 1988 and there have been over 400 observer trips on United States purse seiners. The programme places observers on approximately 20% of the fleets fishing trips annually. This target has been exceeded in several years. Observer data is provided to the OFP *on an annual basis*. From 2002 there has been a steady decrease in the size of the US fleet and so in observer activity but the coverage level has remained steady a just over twenty percent. During December 2003, historical data was reviewed using newly established observer evaluation forms to document completeness and usability of data based on seventeen primary data attribute, quality flags. The review, mainly of data collected from 1998 to 2001, concluded that most data was of usable quality and if not then was recognised for its weaknesses.



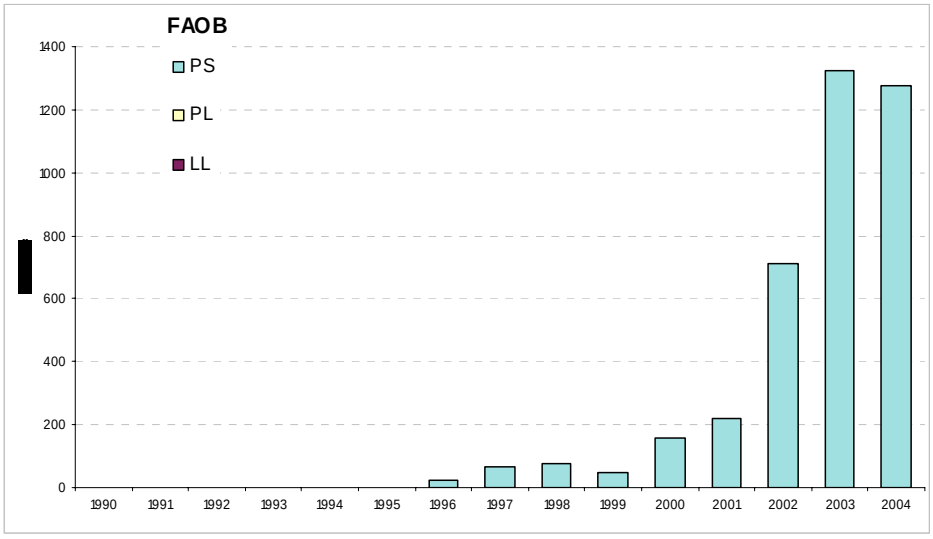
In 2004 the US purse seine effort in the western Pacific continued to drop as did observer effort.

In 2005 concerns the effect fishing pressure is having on the status bigeye and yellowfin stocks are expected to be reflected in new demands on observers and port samplers. Reviews of sampling protocols by both in this fleet are encouraged, in order to provide review models that could be carried to other fleets that are less well organised for monitoring purposes.

FSM Arrangement

		2002	2003	2004
Purse seiners operating in this fishery	-			
Observers available at start of year	-			
New Observers trained during year	-			
PS Observer trips started in year	-	23	40	43
PS Observer sea days	-	802	1460	1432
PS Observer coverage (%)	-	18.2	22.0	19.3

The FSM Arrangement (FSMA) has been in effect since 1996 and allows for access of fishing vessels flagged in FSMA member countries to fish in the waters of other FSMA member countries. Currently only purse seiners operate under the Arrangement. FFA administers the Arrangement and manages the FSMA Observer Programme. Target observer coverage is 20%. Observers are trained to the same standard as the US Treaty observers. There was a rapid increase in the number of vessels to join the Arrangement during 2002 and 2003 and this has reflected in a dramatic increase of observer effort on those vessels. Many of these vessels have been in the fishery for many years but are only now getting a significant amount of observer coverage as the rules governing observer coverage are managed much more tightly through FFA's management of the Arrangement than they tend to be under most bilateral arrangements.

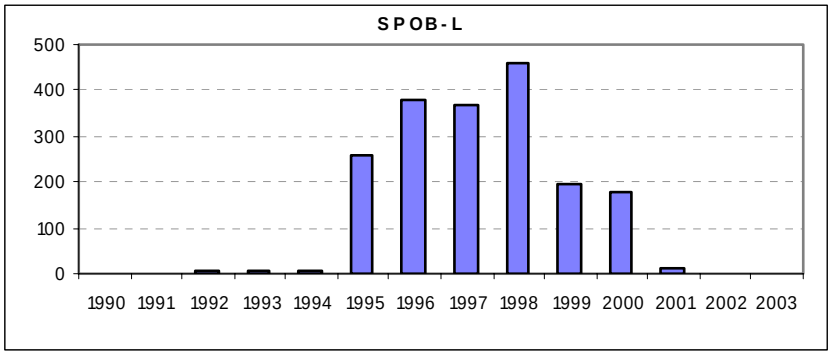


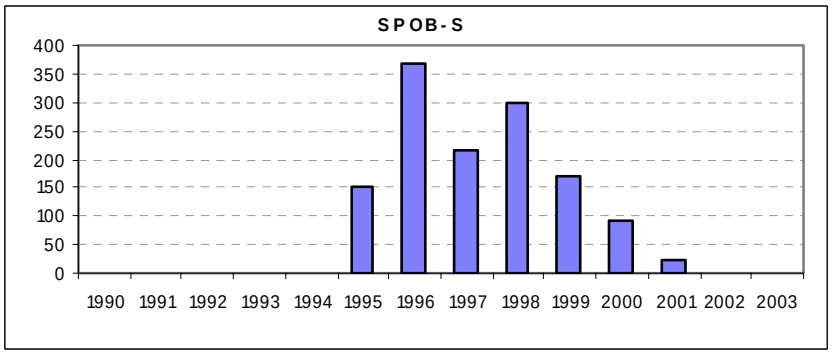
In 2004 the FSMA fleet remained relatively steady in size compared to the previous few years. Observer activity remained consistent at around twenty percent coverage.

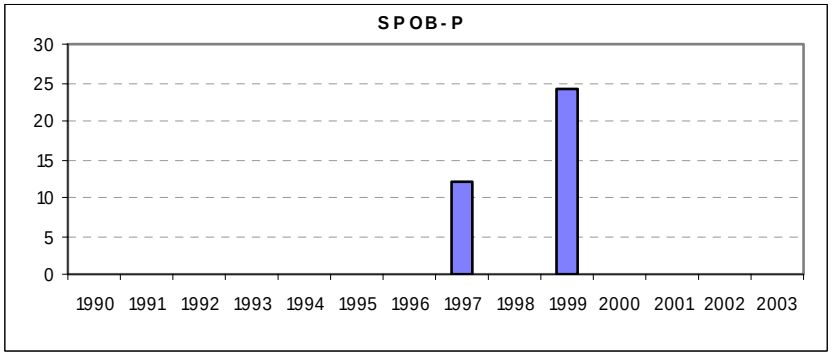
SPC Oceanic Fisheries Programme

Port sampling – The OFP has funded port-sampling programmes throughout the region since the mid 1980s, either through direct contracts with port samplers or through providing funds to fisheries divisions in various member states so that they could employ samplers. It currently funds sampling in Fiji, Kiribati, New Caledonia, Samoa and Tonga and continues to provide indirect support in varying levels to most other member states.

Observers – The OFP has funded occasional observer trips since the early 1980s. In 1995, the South Pacific Regional Tuna Resource Assessment and Monitoring Project (SPRTRAMP) was established within the OFP, with funding for the Port Sampling and Observer Co-ordinator, four full-time observers and five contracted observers. The SPC observers collected baseline data on every fleet operating in the region (except the Australian longline fleet). In 2000, SPRTRAMP came to an end, after the observers had taken 130 longline trips, 52 purse seine trips and 8 pole-and-line trips.







Observer Sea Days x Year

In 2002, the OFP enhanced its technical support for national port sampling programmes and observer programmes with the appointment of a Port Sampler and Observer Trainer and a Port Sampler and Observer Coordinator, in addition to the Fisheries Monitoring Supervisor. This team will provide training in conjunction with FFA, management support and assistance with data quality control. The emphasis for 2002 and 2003 is on the production of tools to improve feedback to observers and to improve data quality control. Training new observers will remain an important activity, in order to meet the increasing demand for observer data, but refresher training of experienced observers will become more important.

2005 is the final year of EU funding through the oceanic component of the PROCFish project that funds the Port Sampling and Observer Coordinator and the Port Sampling and Observer Trainer. With growing numbers of observers, new observer programmes still coming on line, fishing pressure on some tuna species coming under greater scrutiny and processes for improving and ensuring observer and port sampler data quality still not fully established, both these positions will be critical support positions in the region for some years to come. Focus for OFP staff during 2005 will be very much on data quality. Hence there will be fewer resources to assist with expansion of programmes this year. The usual support of new programmes in need will continue, however.

APPENDIX 6. SOUTH PACIFIC REGIONAL LOGSHEETS AND LOGBOOK

1. **Longline Logsheet**

2. **Pole-and-Line Logsheet**

3. **Purse-Seine Logsheet**

4. **Shark Longline Logsheet**

5. **Handline Logsheet**

6. **Daily FAD Fishing Logsheet**

7. **Longline Logbook**

REVISED: DEC 2004

SPC / FFA REGIONAL LONGLINE LOGSHEET

NAME OF VESSEL		FISHING PERMIT OR LICENCE NUMBER(S)		YEAR
NAME OF FISHING COMPANY	FFA REGIONAL REGISTER NUMBER	NAME OF AGENT IN PORT OF UNLOADING	PRIMARY TARGET SPECIES	TRIP NUMBER THIS YEAR
COUNTRY OF REGISTRATION	FFA TYPE APPROVED ALC (Y/N) ?		PORT OF DEPARTURE	DATE AND TIME OF DEPARTURE
REGISTRATION NUMBER IN COUNTRY OF REGISTRATION	INTERNATIONAL RADIO CALLSIGN		PORT OF UNLOADING	DATE AND TIME OF ARRIVAL IN PORT

- **ALL DATES AND TIMES MUST BE UTC / GMT**
- **ALL WEIGHTS MUST BE KILOGRAMS**

MONTH	DAY	ACTIVITY CODE	**01:00 UTC OR SET 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 OR TRANSIT
3 TRANSIT
4 IN PORT - PLEASE SPECIFY

NAME OF CAPTAIN	SIGNATURE OF CAPTAIN	DATE

SPC / FFA REGIONAL LONGLINE 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 Regional Register Number: Print the number issued by the Forum Fisheries Agency for inclusion of the vessel on the FFA Regional Register (e.g. "12345").

FFA Type Approved ALC (Y/N) ?: Print "Y" if the vessel has an FFA Type Approved Automatic Location Communicator (ALC) on-board. Print "N" if the vessel does not have an FFA Type Approved ALC onboard.

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.

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.

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 the 01:00 UTC Position. 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 or transit') 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. 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.

01:00 UTC or Set 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 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 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.

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 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, **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.

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: DEC 2004

SPC / FFA REGIONAL POLE-AND-LINE LOGSHEET

PAGE _____ OF _____

NAME OF VESSEL		FISHING PERMIT OR LICENCE NUMBER(S)	NUMBER OF CREW	YEAR	TRIP NUMBER THIS YEAR
NAME OF FISHING COMPANY	FFA REGIONAL REGISTER NUMBER	NAME OF AGENT IN PORT OF UNLOADING	PORT OF DEPARTURE	DATE AND TIME OF DEPARTURE	
COUNTRY OF REGISTRATION	FFA TYPE APPROVED ALC (Y/N) ?	• **ALL DATES AND TIMES MUST BE UTC / GMT**	PORT OF UNLOADING	DATE AND TIME OF ARRIVAL IN PORT	
REGISTRATION NUMBER IN COUNTRY OF REGISTRATION	INTERNATIONAL RADIO CALLSIGN	• **ALL WEIGHTS MUST BE METRIC TONNES**			

MONTH	DAY	ACTIVITY CODE	BAIT ONBOARD Y / N	01:00 UTC 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 Regional Register Number: Print the number issued by the Forum Fisheries Agency for inclusion of the vessel on the FFA Regional Register (e.g. "12345").

FFA Type Approved ALC (Y/N) ?: Print "Y" if the vessel has an FFA Type Approved Automatic Location Communicator (ALC) on-board. Print "N" if the vessel does not have an FFA Type Approved ALC onboard.

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.

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.

01:00 UTC Position: Print the 01:00 UTC position to the nearest thousandth of a minute of latitude and longitude (e.g. "08–22.334 N" and "165–45.556 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, 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, 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: DEC 2004

SPC / FFA REGIONAL PURSE-SEINE LOGSHEET

PAGE _____ OF _____

NAME OF VESSEL		FISHING PERMIT OR LICENCE NUMBER(S)			YEAR	TRIP NUMBER THIS YEAR
NAME OF FISHING COMPANY	FFA REGIONAL REGISTER NUMBER	NAME OF AGENT IN PORT OF UNLOADING		PORT OF DEPARTURE	PORT OF UNLOADING	
COUNTRY OF REGISTRATION	FFA TYPE APPROVED ALC (Y/N) ?	NUMBER OF FADS USED	TENDER VESSELS USED? (Y/N)	DATE AND TIME OF DEPARTURE	DATE AND TIME OF ARRIVAL IN PORT	
REGISTRATION NUMBER IN COUNTRY OF REGISTRATION	INTERNATIONAL RADIO CALLSIGN	• **ALL DATES AND TIMES MUST BE UTC / GMT** • **ALL WEIGHTS MUST BE METRIC TONNES**		AMOUNT OF FISH ONBOARD AT START OF TRIP	AMOUNT 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						DISCARDS					
			LATITUDE DDMM.MMM	N S	LONGITUDE DDDMM.MMM	E W				SKIPJACK WEIGHT	YELLOWFIN WEIGHT	BIGEYE WEIGHT	OTHER SPECIES NAME	OTHER SPECIES WEIGHT	WELL NUMBERS	TUNA SPECIES NAME	TUNA SPECIES WEIGHT	TUNA SPECIES CODE	OTHER SPECIES NAME	OTHER SPECIES NUMBER	OTHER SPECIES WEIGHT
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

TUNA DISCARD CODES

1 FISH TOO SMALL
2 FISH DAMAGED
3 VESSEL FULLY LOADED
4 OTHER REASON

UNLOADINGS TO CANNERY, COLD STORAGE, CARRIER OR OTHER VESSEL

START DATE	END DATE	CANNERY OR VESSEL & DESTINATIO	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 Regional Register Number: Print the number issued by the Forum Fisheries Agency for inclusion of the vessel on the FFA Regional Register (e.g. "12345").
FFA Type Approved ALC (Y/N) ?: Print "Y" if the vessel has an FFA Type Approved Automatic Location Communicator (ALC) on-board. Print "N" if the vessel does not have an FFA Type Approved ALC onboard.
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.
Number of FADs Used: Print the number of individual FADs that were investigated during the trip, regardless of which vessel may have deployed the FAD. Count each FAD once only, regardless of the number of times an individual FAD may have been investigated.
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.)
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 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 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.
Discards: If tuna were discarded, then print the name of the species, the amount discarded, and the Discard Code. If any other species was discarded, print the name of the species, and the number of fish discarded or the weight of fish discarded, whichever is appropriate.
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 unloading 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*.

REVISED: DEC 2004

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 REGIONAL 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	FFA TYPE APPROVED ALC (Y/N) ?	• ALL DATES AND TIMES MUST BE UTC / GMT • ALL WEIGHTS MUST BE KILOGRAMS				PORT OF UNLOADING	DATE AND TIME OF ARRIVAL IN PORT	
REGISTRATION NUMBER IN COUNTRY OF REGISTRATION	INTERNATIONAL RADIO CALLSIGN					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
START SET POSITION	LATITUDE			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
START HAUL POSITION	LATITUDE			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
	SET START TIME																											
	HAUL START TIME																											
	NUMBER 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	SILKY SHARKS																												
	GREY REEF SHARK																												
	OCEANIC WHITE TIP																												
	SILVERTIP SHARK																												
	BLACK TIP SHARK																												
	HAMMER HEAD SHARK																												
	BLUE SHARK																												
	BLACK TIP REEF SHARK																												
	TIGER SHARK																												
	GALAPAGOS SHARK																												
	OTHER SHARKS																												
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 OR TRANSIT
3 TRANSIT
4 IN PORT - PLEASE SPECIFY

NAME OF CAPTAIN	SIGNATURE OF CAPTAIN	DATE

REVISED: DEC 2004

SPC / FFA REGIONAL HANDLINE LOGSHEET

NAME OF VESSEL		FISHING PERMIT OR LICENCE NUMBER(S)		YEAR	TRIP NUMBER THIS YEAR
NAME OF FISHING COMPANY	FFA REGIONAL REGISTER NUMBER	NAME OF AGENT IN PORT OF UNLOADING	PORT OF DEPARTURE	DATE AND TIME OF DEPARTURE	
COUNTRY OF REGISTRATION	FFA TYPE APPROVED ALC (Y/N) ?		PORT 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 UTC / GMT**
- **ALL WEIGHTS MUST BE KILOGRAMS**

MONTH	DAY	ACTIVITY CODE	01:00 UTC OR FISHING 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
5 TRANSIT
6 IN PORT - PLEASE SPECIFY

NAME OF CAPTAIN	SIGNATURE OF CAPTAIN	DATE

SPC / FFA REGIONAL HANDLINE 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 Regional Register Number: Print the number issued by the Forum Fisheries Agency for inclusion of the vessel on the FFA Regional Register (e.g. "12345").

FFA Type Approved ALC (Y/N) ?: Print "Y" if the vessel has an FFA Type Approved Automatic Location Communicator (ALC) on-board. Print "N" if the vessel does not have an FFA Type Approved ALC onboard.

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.

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.

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 01:00 UTC Position. 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 or transit') 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. 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') 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.

01:00 UTC or Set Position: If fishing was undertaken, print the position at the start of fishing. If fishing was not undertaken during the day, print the position at 01:00 UTC. The position should be recorded to the nearest thousandth of a minute of latitude and longitude (e.g. "08–22.062 N" and "165–45.143 E").

Start and End Fishing Times: Print the UTC 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 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, 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.

REV: SPC / FFA DEC 2004

SPC / FFA REGIONAL DAILY FAD FISHING LOGSHEET

Location/Port:	Date: DD/MM/YYYY	Fishing area and FADs:	Boat, Skipper and Crew:
Departure Time:	Return Time:	Fuel and Amount:	

Time of Day (local time)	00 01	01 02	02 03	03 04	04 05	05 06	06 07	07 08	08 09	09 10	10 11	11 12	12 13	13 14	14 15	15 16	16 17	17 18	18 19	19 20	20 21	21 22	22 23	23 24	Total
Engine Hours																									
Trolling Inshore FADs																									
Trolling Offshore FADs																									
Trolling Open Water																									
Vertical Longline (VLL)																									
Drop-Stone																									
Palu-Ahi																									
Single Hook Drift Line																									
Jigging																									
Tuna-Hole Fishing																									
Other																									
Catch by Number																									
Catch by Weight (kg)																									

Weather	Bait Type: Amount (kg) or Pieces Used	Fishing Effort
Wind		No. of Trolling Lines
Sea		No. of VLLs and Hooks
Current or tic		No. of Other Lines and Hooks
Moon phase		Tied to FAD?

Species	Trolling Catch						Catch by Other Methods						Total	
	Inshore FAD		Offshore FAD		Open water		VLL		Drop-stone		Other:			
	No	Kg	No	Kg	No	Kg	No	Kg	No	Kg	No	Kg	No	Kg
Yellowfin Tuna														
Albacore Tuna														
Bigeye Tuna														
Skipjack Tuna														
Rainbow Runner														
Wahoo														
Mahi Mahi														
Barracuda														
Marlin														
Sailfish														
Shark														
Opelu														
Atule														
Triggerfish														
Other														
Other														
TOTAL														

Comments	Depth of Catch (VLL/drop-stone)

SPC / FFA REGIONAL DAILY FAD FISHING LOGSHEET INSTRUCTIONS

Location/Port:	Date: DD/MM/YYYY	Fishing Area and FADs:	Boat, Skipper and Crew:
Fishersville	*27/10/1998*	*FAD No. 7*	*John Jones (skipper)* *Jeff Jones* *Paul Catcher*
Departure Time: *0530*	Return Time: *1800*	Fuel and Amount: *55 litres of 2-stroke*	

Time of Day (local time)	00 01	01 02	02 03	03 04	04 05	05 06	06 07	07 08	08 09	09 10	10 11	11 12	12 13	13 14	14 15	15 16	16 17	17 18	18 19	19 20	20 21	21 22	22 23	23 24	Total
Engine Hours						/✓	✓	✓	✓/							✓	✓	✓							*6.0*
Trolling Inshore FADs						/✓												✓							*1.5*
Trolling Offshore FADs							✓	✓/	✓/							✓									*3.0*
Trolling Open Water								/✓									✓								*1.5*
Vertical Longline (VLL)									/✓	✓	✓	✓	✓	✓	✓										*6.5*
Drop-Stone										✓	✓	✓	✓	✓	✓										*6.0*
Palu-Ahi																									
Single Hook Drift Line																									
Jigging											✓	✓	✓												*3.0*
Tuna-Hole Fishing																									
Other																									
Catch by Number						*3*	*5*	*3*	*-*	*1*	*12*	*21*	*11*	*2*	*-*	*3*	*-*	*1*							*62.0*
Catch by Weight (kg)						*7*	*12*	*18*		*15*	*35*	*4*	*18*	*45*		*11*		*2.5*							*167.5*

Weather	*Fine and sunny*	Bait Type: Amount (kg) or Pieces Used	Fishing Effort
Wind	*5- 10 knots NE*	*30 Opelu*	No. of Trolling Lines *3*
Sea	*Slight*	*20 Atule*	No. of VLLs and Hook *2 x 20 hooks*
Current or tic	*0.5 kn to South*		No. of Other Lines and Hooks *3 (1 jig)*
Moon phase	*Last quarter*		Tied to FAD? *Yes*

Species	Trolling Catch						Catch by Other Methods						Total	
	Inshore FAD		Offshore FAI		Open water		VLL		Drop-stone		Other: *Jigging*			
	No	Kg	No	Kg	No	Kg	No	Kg	No	Kg	No	Kg	No	Kg
Yellowfin Tuna			*2*	*8.0*			*1*	*17.0*	*2*	*31.0*			*5*	*56.0*
Albacore Tuna							*2*	*34.0*					*2*	*34.0*
Bigeye Tuna							*1*	*27.0*					*1*	*27.0*
Skipjack Tuna	*2*	*4.5*	*6*	*15.0*									*8*	*19.5*
Rainbow Runner	*1*	*2.5*											*1*	*2.5*
Wahoo					*1*	*12.0*							*1*	*12.0*
Mahi Mahi	*1*	*2.5*	*1*	*3.0*	*1*	*3.0*							*3*	*8.5*
Barracuda														
Marlin														
Sailfish														
Shark														
Opelu											*32*	*6.5*	*32*	*6.5*
Atule											*9*	*1.5*	*9*	*1.5*
Triggerfish														
Other														
Other														
TOTAL	*4*	*9.5*	*9*	*26.0*	*2*	*15.0*	*4*	*78.0*	*2*	*31.0*	*41*	*8.0*	*62*	*167.5*

Comments

Plenty of birds working around the FAD with some baitfish and mahi mahi under the buoy

Depth of catch (VLL/drop-stone)

All tuna caught from 250- 300 m

SPC / FFA Regional Longline Logbook - Vessel Characteristics

Revised Dec 2004.

Logbook Number: 00001

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 / CM^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

Regional Longline Logbook – Vessel Characteristics

You will not be issued with your logbook until you have filled in and signed this form.

VESSEL NAME: **T**he full name of the vessel as marked on the country registration certificate.
COUNTRY REGISTRATION NUMBER: **T**he number marked on your country registration certificate.
FLAG : **T**he vessel's nationality or country of registration (sometimes a flag of convenience).
IRCS : **F**ill in your International Radio Call Sign.
YEAR BUILT : **S**tate the year the vessel was first built in.
COUNTRY / SHIPYARD WAS BUILT: **S**tate the country and the name of the shipyard in that country where the vessel was originally built.
VESSEL OWNER: **T**he full name of the vessel's owner.
OWNER'S CONTACT ADDRESS: **T**he postal address for the vessel owner.
ALC INSTALLED: **C**ircle Y(yes) if an automatic locator communicator has been installed.
IMMARSAT NUMBER: **G**ive the Immarsat contact number.
VESSEL LENGTH: **F**ill in the vessel's length and then circle to indicate if the length is in meters (m) or feet (ft) . Also circle to indicate if the vessel's length is the overall length or the registered length.
FISHING PERMIT OR LICENCES NUMBERS: **L**ist all fishing permit numbers and their expiry dates.

HULL MATERIAL: **T**ick one of the four give options to state the main type of material used in the hull.
ENGINE MODEL: **S**tate the engine make and model number.
TOTAL ENGINE POWER: **S**tate the engine power in horse-power (HP) or kilowatts (KW)
VESSEL CRUSING SPEED: **S**tate the vessel's top cruising speed in knots.
TOTAL FUEL CARRYING CAPACITY: **S**tate the vessel's total fuel carrying capacity in kiloliters (KL) or gallons (GAL).
FISH STORAGE CAPACITY: **S**tate the total storage available to store the catch in metric tonnes or cubic meters.
STORAGE METHOD: **T**ick one or more of the four options to indicate all storage methods used for the landed catch.

ELECTRONICS AND FISHING GEAR
Circle Y(yes) for every piece of equipment that is onboard the vessel.
Circle N (no) if the indicated piece of equipment is not onboard the vessel.
Please do not leave any line blank
MAINLINE
Indicate the type of material used in the mainline.
Indicate the total length of the mainline in nautical miles (nm)
FLOATLINE
Indicate the average length of the floatlines in meters (m).
BRANCHLINE
Indicate the average length of the branchline in meters (m).
Indicate if wire trace is being used in the branchline, before the hook.
COMMENTS: **U**se this area to fill any extra comments you have about the vessel, or other information required by your local Fisheries Department.
Captain's Name and Signature: **P**rint the Captain's name clearly, and then the Captain must sign this form before the logbook can be issued.

SPC / FFA Regional Longline Logbook - Daily Form

REVISED: DEC 2004.

Logbook Number 0001

VESSEL NAME	COUNTRY REGISTRATION NUMBER	LAST DEPARTURE PORT and DATE (DD / MM / YY)

	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)
MID-DAY POSITION	**12.00 hrs**							

If no set was made today indicate the vessel's activity by circling a number below.

3. TRANSIT **4**. BREAKDOWN **5.** BAD WEATHER **6**. IN PORT (SPECIFY) ……

TRIP NUMBER / YEAR

FISHING DETAILS	SHIP'S DATE dd / mm / yy	SHIP'S TIME (00. 00) hrs	LATITUDE dd°mm.	N S	LONGITUDE ddd°mm.	E W	COMMENTS / WIND SPEED / CURRENT / SST
START OF SET							
END OF SET							
START OF HAUL							COMMENTS / WIND SPEED / CURRENT / SST
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
Yellowfin ? 20 kg						Mahi Mahi					
Yellowfin > 20 kg						Escolar					
Bigeye ? 20 kg						Wahoo					
Bigeye > 20 kg						Opah					
Albacore						Sunfish					
Skipjack						Pelagic Stingray					
Striped Marlin						Snake Mackerel					
Blue Marlin						Barracuda					
Black Marlin						Bream					
Swordfish						Lancetfish					
Shortbilled Spearfish											
Sailfish											
Bluefin Bluefin											
Silky Shark											
Blue Shark						Green Turtle					
Oceanic Whitetip						Hawksbill Turtle					
Hammerhead sharks						Loggerhead Turtle					
Mako sharks						Leatherback Turtle					
Thresher Sharks						Olive Ridley Turtle					
						Marine Mammals ( )					
						Bird ( )					

Comments (Tag numbers / Cetacean interactions or sightings / Note number of any catch taken by cetaceans)

Tick to indicate if an observer was onboard today.

Print Captain's Name Clearly

Captain's Signature

SPC / FFA Regional Longline Logbook – Daily Form Instructions

Vessel Name: **T**he full name of the vessel as written on the country registration document.

Country Registration Number: **T**he number recorded on the vessel's country registration certificate.

Port and Date of Last Departure: **T**he full name of the port of the last departure, and the date of the last departure

Mid-Day Position:

Date **T**oday's ship's date.

Latitude **Y**our latitude position at mid-day.

Longitude **Y**our longitude position at mid-day.

UTC time **C**onvert your ship's mid-day (12.00 hrs) to UTC time. Hint: The UTC is often available on your GPS.

UTC date **C**onvert the ship's date at mid-day to the UTC date. Also, available on the GPS.

If no set was made today state the major activity of the vessel during the day by circling the relevant number for any activity your vessel was involved in today.

Trip number / year **N**umber your fishing trips throughout the year. For instance, the second trip made during 2007 will be recorded as "02 / 07".

Fishing Details

Fill in the following details for the start and the end of the set and the haul

Date **T**he ship's date the at the time of the activity.

Local Time **T**he ship's time at the time of the activity.

Latitude **T**he ship's latitude at the time of the activity.

Longitude **T**he ship's longitude at the time of the activity.

Comments: Wind speed / Current / SST **U**se this section for your own notes about the set / haul.

No. of Hooks between floats : **T**he standard number of hooks between two floats.

Total Number of Hooks set : **T**he total number of hooks set.

Total No. of Lightsticks set : **T**he total number of lightsticks set.

Vessel setting speed : **T**he average speed of the vessel during setting.

Line setting speed : **I**f a line shooter is used record the speed the line was set at in meters per second. You can convert knots per second to meters per second by dividing by 2.

Dist. Between Branchlines (m): **C**alculate the distance between the branchlines by multiplying your line setting speed by the branchline set interval (or number of seconds between the branchline attachments) or give an estimate of this distance.

Bait Species **T**he name of all bait species used. Circle the A if any of the bait used was live.

Species

Number Retained. **F**ill in the total number of each species retained.

Kg Retained. **C**onvert the total number of fish retained into total weight (kilograms).

No Disc. **F**ill in the total number of each species that was discarded.

Reason Disc **U**sing the supplied codes, note the reasons any species were discarded.

No. rel alive **F**ill in the total number of any species released alive.

Comments **U**se this area to mark down any comments you wish to make about the day's fishing or any other events that you would like to keep a record of.

Tick if there is an observer **T**ick this box every day a fishery observer is onboard the boat.

Print Captain's name clearly **P**rint the Captain's full name.

Captain's Signature **S**ignature of the Captain

APPENDIX 7. SPC / FFA REGIONAL OBSERVER FORMS

LL–1	•	**Longline General Information**
LL–2	•	**Longline Set Information**
LL–3	•	**Longline Haul Information**
LL–4	•	**Longline Catch Monitoring**
LL–5	•	**Longline Conversion Factors**
PL–1	•	**Pole-and-line General Information**
PL–2	•	**Pole-and-line Daily log**
PL–3	•	**Pole-and-line Catch Detail**
PS–1	•	**Purse-Seine General Information**
PS–2	•	**Purse-Seine Daily log**
PS–3	•	**Purse-Seine Set Details**
PS–4	•	**Purse-Seine Length Frequency**
PS–5	•	**Purse-Seine Well Loading**
GEN–1	•	**Vessel and Aircraft Sightings and Fish Transfer Log**
GEN–2	•	**Species of Special Interest**
GEN–3	•	**Vessel Trip Compliance Record**
GEN–6	•	**Pollution Report**

SPC/FFA REGIONAL LONGLINE OBSERVER GENERAL INFORMATION

FORM LL - 1

REVISED DEC. 2004

TRIP DETAILS

OBSERVER NAME	DEPARTURE (SHIP DATE AND TIME) D D / M M / Y Y / h h / m m	DEPARTURE PORT
OBSERVER TRIP ID NUMBER	RETURN (SHIP DATE AND TIME) D D / M M / Y Y / h h / m m	RETURN PORT

VESSEL

VESSEL NAME	COUNTRY REGISTRATION No.	
VESSEL OWNER	FLAG	INTERNATIONAL RADIO CALLSIGN
VESSEL CAPTAIN	FISHING MASTER	
FISHING PERMIT OR LICENCE NUMBER(S)		

CREW NATIONALITY

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

ELECTRONICS

		USAGE			USAGE			USAGE
RADAR	Y / N		GPS	Y / N		WEATHER FACSIMILE	Y / N	
DEPTH SOUNDER	Y / N		TRACK PLOTTER	Y / N		SST GAUGE	Y / N	

Please circle "Y" or "N" for every item

		USAGE	MAKE	MODEL	COMMENTS
SONAR *	Y / N				
RADIO BEACON DIRECTION FINDER	Y / N				
RADIO BUOYS - NON CALL-UP	Y / N				How many ?
RADIO BUOYS - CALL-UP	Y / N				How many ?
GPS BEACON	Y / N				How many ?
DOPPLER CURRENT METER	Y / N				
XBT (BATHYTHERMOGRAPH)	Y / N				
* *NEW -*					
VMS	Y / N	System Type		Seal #	Seal intact ? Y / N
SATELLITE COMMUNICATION SERVICES	Y / N	Phone #		Fax #	Email :
FISHERY INFORMATION SERVICES	Y / N	Phytoplankton Y / N		SST Y / N	Sea Height Y / N

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	
* *NEW -*		

MAINLINE:	MATERIAL	LENGTH	DIAMETER
		nM	mm

BRANCHLINE MATERIALS:		WIRE TRACE:
	1)	Y / N
	2)	
	3)	

SAFETY EQUIPMENT

LIFE JACKET	PROVIDED FOR OBSERVER:	Y / N / O	No. of LIFE BUOYS / LIFE RINGS
	SUITABLE SIZE:	Y / N	
AVAILABILITY (circle one)	Easy	Moderate	Hard

EPIRBS	Type	No.	LIFE RAFTS	1	2	3	4
Type 1			Carry capacity (No. of people)				
Type 2			Expiry or inspection due date (mm/yy)				

REFRIGERATION METHOD

BLAST FREEZE	Y / N	REFRIGERATED SEA WATER	Y / N	OTHER STORAGE (describe in trip report)
ICE	Y / N	CHILLED SEA WATER	Y / N	Y / N

OBSERVATIONS / COMMENTS
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
- TRA - used only in transit
- OIF - used often but only in fishing
- SIF - used - sometimes only in fishing
- RAR - rarely used
- BRO - broken now but used normally
- NOL - no longer ever used

GENERAL INFORMATION

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'.

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.

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
also read ***N.B.*** *for departure/return port*
(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.

N.B.: your observer trips start and end when you board and disembark the vessel/s you are observing catches on.

Partial trips - If your boat is met at sea, departure day / time is when transfering between boats. Departure port is "At sea".
If you transfer off your boat to another, day and time of arrival is when you transfer. Arrival port is "At sea".

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

VESSEL *and* CREW NATIONALITY

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 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.

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

Empty lines : These are to record new equipment not listed. Write about new equipment in "Comments" 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 : Is there a "vessel monitoring system" or ALC "automatic location communicator" on board.
System type : Write down the name of the manufacture :Trimble, Thrane Thrane, Furuno, JRC, Sailor
Seal number : Write down the number that is written on the VMS seal.
Seal intact ? A good (intact) seal is bright silver. A seal that has been interferred with has black crinkly lines through it.

Telephone / Facsimile / Email : If the vessel has a satellite phone and/or fax and/or email address, record them here.

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

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)

Mainline : Write down the material the mainline was made out of i.e monofilament, tarred kuralon,
Write down the total length of the mainline in nautical miles. You will need to ask the Captain to get this information.
Get the diameter of the mainline. Use small callipers to measure the width of the mainline.

Branchline : If there are more than one type of ***line*** material used in the branchline e.g. monofilament, nylon etc., record them all.

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

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

EPIRBS and Lifebuoys/life rings - count all you can find *Life raft* - find information on stickers or seals on the life-rafts

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

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 as much as possible about it in the trip report.

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 LONGLINE OBSERVER
SET and HAUL INFORMATION

FORM LL - 2 / 3

REVISED DEC. 2004

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 kts (circle one)		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 (tick to indicate)	
TUNA	
SWORDFISH	
SHARK	

ALL MUST BE RECORDED

START OF SET

SHIP'S DATE AND TIME	D D	M M	Y Y	h h	m m
UTC DATE AND TIME	D D	M M	Y Y	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

UNUSUAL SET DETAILS

BAIT USED				
SPECIES				
(KGS)				
HOOK NO.s				
NO. OF LIGHT STICKS USED:				

HAUL LOG

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

COMMENTS - use for comments from both setting and hauling. Use lower portion for personal workings if necessary.

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 ? **YES NO** *(circle one)*

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 and major changes only !) **This will be a new set with new *Start of Set Time* and *Set #***. Be careful, **during haul**, to change to the second Form LL-2/3 and start a new Form LL-4 for the different set, at the correct place.

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 opposite

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 - be sure to circle the correct units of speed - "m/s" or "kts"

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 these not available, ask captain, fishing master or bosun 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*" (see basket diagram)

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 - Tick to show the main species that the vessel is targeting during this 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. Because bycatch is retained does not mean it was targetted.

Unusual Set Details: The information that has been recorded in the "Longline Set Specifications" fields should represent the most common or average occurrence in the set. If this changes by much, sometimes, record the what the change is under "Unusual Set Details". Also note if the branchlines in the same basket are of different lengths.

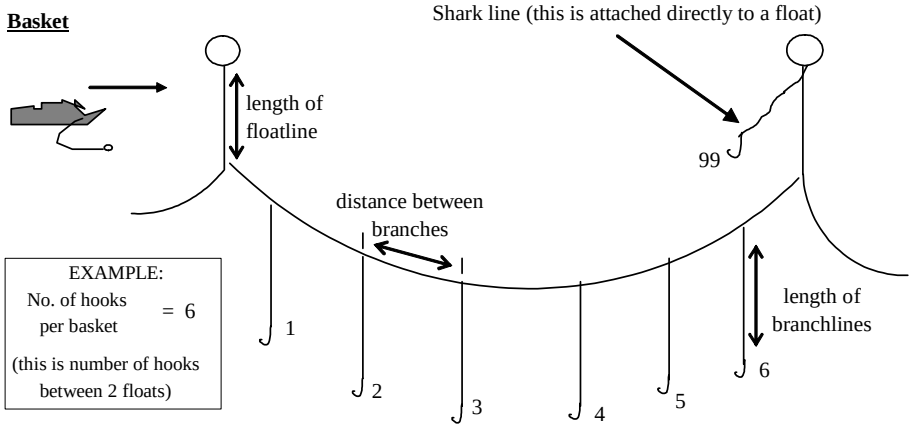
Start of Set, *Ship's date*, *Ships time*, *UTC date*, *UTC time*: At the start of each set you must record the time and date that the ship's clock (and your watch) are set to, and the UTC time and date as read from the GPS. At all other times use only Ship's time. Remember UTC date can be different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

Set Log and *Haul Log* - this form has some **very important** changes to the pre-2004 forms *Start* and *End* of *Set* and *Haul* to be completed 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*, *Kgs*: Record species and weight (in kgs) of each bait used.
Bait Used - *Hook No's*: 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 under "hook no's" alongside that bait species.
No. of Light Sticks Used: If lightsticks were used record the total number used in the set.

*Comment*s: Note special or significant conditions that affect setting strategy or cause problems - unusual wind/sea state; marine mammal contacts; accidents; any unusual/unexpected event. Also include events from *Soak Time*, even if asleep at this time but found out from crew later. Record reasons that observer monitoring stopped for 30 minutes or more.

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



SPC/FFA REGIONAL LONGLINE OBSERVER CATCH MONITORING

FORM LL - 4

REVISED DEC. 2004

OBSERVER NAME	OBSERVER TRIP ID NUMBER	SET No.	PAGE OF

VESSEL NAME	MEASURING INSTRUMENT	SHIP'S START OF SET DATE AND TIME					START OF HAUL DATE		
		D D	M M	Y Y	h h	m m	D D	M M	Y Y

CATCH DETAILS

SHIP'S TIME	HOOK No.	SPECIES CODE	CONDITION CODE CAUGHT	DISCARD	LENGTH (cm)	CODE	WEIGHT (kg)	CODE	FATE CODE	SEX M- F- I - U		COMMENTS and TAG NUMBERS

← Tally area

Baskets monitored while filling this page:	Total:

CATCH MONITORING

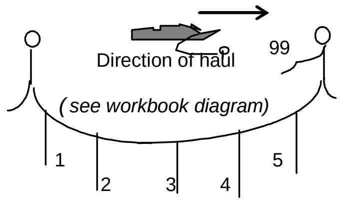
Notes on FORM LL - 4

OBSERVER NAME	OBSERVER TRIP ID NUMBER	SET No.:	PAGE OF
VESSEL NAME	SHIP'S START OF SET DATE AND TIME D D M M Y Y h h m m		START OF HAUL DATE D D M M Y Y

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	CONDITION CODE CAUGHT	CONDITION CODE DISCARD	LENGTH (cm)	LENGTH CODE	WEIGHT (kg)	WEIGHT CODE	FATE CODE	SEX M - F - I		COMMENTS and TAG NUMBERS
1720	*1*	*BET*	*A1*	—	*152*	*UF*	*85*	*WW*	*RGG*	*F*		*Gonad sample No.3*
*							*7*	*GG*				*example of 2 weights* *



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. An estimate is O.K. in such situations.

For shark hooks record hook number 99.

Record only when scales onboard. **Weight codes** describe the state of a fish at the time it was weighed. This can be different to the state of the fish recorded as part of fate code.

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 after processing. Put 2nd weight and code on a 2nd line (as in example).

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

Empty column is to be used for extra information when specially requested. Fill in the title before using this column.

Use the **COMMENTS** 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 .

Hook No: **99**. All lines that are attached to floats to catch sharks must be recorded as Hook No. 99

SHIP'S TIME	HOOK No.	SPECIES CODE	CONDITION CODE CAUGHT	CONDITION CODE DISCARD	LENGTH (cm)	LENGTH CODE	WEIGHT (kg)	WEIGHT CODE	FATE CODE	SEX M - F - I		COMMENTS and TAG NUMBERS

Condition codes which describe the animal's health, are needed for when it is first **CAUGHT** and **again** if it is **DISCARDED** (released, thrown away, escaped).

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

Length code describes what part of the fish or animal is being 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)
NM	- not measured

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	
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. 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

N.B. Avoid using group codes if a species code will work

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.**

Tally area	Baskets monitored while filling this page:	Total: *53*

SPC/FFA REGIONAL OBSERVER
CONVERSION FACTORS

FORM LL- 5

REVISED DEC. 2004

OBSERVER NAME	MEASURING INSTRUMENT	OBSERVER TRIP ID No.	PAGE OF
VESSEL NAME	MAKE, MODEL AND CAPACITY OF SCALES	SHIP'S START OF TRIP DATE	SHIP'S END OF TRIP DATE

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 97-03* — This is page 7	*7* *19*
VESSEL NAME	MAKE, MODEL AND CAPACITY OF SCALES	Don't forget !	Total number of LL-5s 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	PROCESSED WGT.		LANDED WEIGHT		COMMENTS
				UF	US	LF	PF	PS	TL	WHOLE	HEAD	TAIL	GUTS	FIN	(kg.)	CODE	(kg.)	CODE	
# 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

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

Both **Ship's Time** and **Species Code** must be recorded exactly as they are on Catch Monitoring Form (LL-4).

If using Form LL-5 but not using Form LL-4 (see * below), record sex in the comments field.

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)

Form LL-5 is to be used closely with the Catch Monitoring Form LL-4 but can be used to cover 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 on 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 LL-5.

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.

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

FORM PL - 1

REVISED DEC. 2004

TRIP DETAILS

OBSERVER NAME	DEPARTURE PORT	DEPARTURE (SHIP DATE AND TIME) DD MM YY hh mm
OBSERVER TRIP ID NUMBER	RETURN PORT	RETURN (SHIP DATE AND TIME) DD MM YY hh mm

VESSEL

VESSEL NAME	COUNTRY REGISTRATION No.	
VESSEL OWNER	FLAG	INTERNATIONAL RADIO CALLSIGN
VESSEL CAPTAIN	FISHING MASTER	
FISHING PERMIT OR LICENCE NUMBER(S)		

CREW NATIONALITY

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

ELECTRONICS

		USAGE			USAGE			USAGE
NAVIGATION RADAR	Y / N		GPS	Y / N		WEATHER FACSIMILE	Y / N	
DEPTH SOUNDER	Y / N		TRACK PLOTTER	Y / N		SST GAUGE	Y / N	

Please circle "Y" or "N" for every item

	USAGE	MAKE	MODEL	COMMENTS
BIRD RADAR	Y / N			
SONAR	Y / N			
* *NEW -*				
RADIO BEACON DIRECTION FINDER	Y / N			
RADIO BUOYS - NON CALL-UP	Y / N			How many ?
RADIO BUOYS - CALL-UP	Y / N			How many ?
GPS BEACON	Y / N			How many ?
DOPPLER CURRENT METER	Y / N			
XBT (BATHYTHERMOGRAPH)	Y / N			
* *NEW -*				
VMS	Y / N	System Type	Seal #	Seal intact ? Y / N
SATELLITE COMMUNICATION SERVICES	Y / N	Phone #	Fax #	Email :
FISHERY INFORMATION SERVICES	Y / N	Phytoplankton Y / N	SST Y / N	Sea Height Y / N

FISHING GEAR

		USAGE
AUTOMATIC POLING DEVICES	Y / N	
MAKE	MODEL	

OBSERVATIONS / COMMENTS

SAFETY EQUIPMENT

LIFE JACKET			No. of LIFE BUOYS / LIFE RINGS
	PROVIDED FOR OBSERVER:	Y / N / O	
	SUITABLE SIZE:	Y / N	
AVAILABILITY (circle one)	Easy	Moderate Hard	

EPIRBS	Type	No.	LIFE RAFTS	1	2	3	4
Type 1			Carry capacity (No. of people)				
Type 2			Expiry or inspection due				

OBSERVATIONS / COMMENTS, 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
TRA - used only in transit
OIF - used often but only in fishing
SIF - used - sometimes only in fishing
RAR - rarely used
BRO - broken now but used normally
NOL - no longer ever used

GENERAL INFORMATION

Trip Details

Observer Name : Print name in full - first name first and family name last (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 Port / Return Port : Record in both boxes even if it is the same port.
Departure (Ship date and time) : Date and time that vessel let go of mooring ropes or hauled anchor to leave port.
Return (Ship date and time) : The date and time when the vessel ties up or drops anchor in port.

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

For dates and times use SHIP'S DATES AND TIMES

Vessel and Crew Nationality

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").
International radio call-sign (IRCS) : The call sign the vessel uses for communications. It is sometimes painted on the side of the vessel but do not confuse it with a license number which may also be painted on the side of the vessel. Note in your report if this vessel has not got a proper IRCS.
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.
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.
Observations / Comments : Record a few notes if you think there is anything uniquely different about this vessel or its crew. If you need to write more you should do so in a separate section of your trip report then only put a brief note here and a reference to a page number in your trip report.

Electronics

Empty lines : These are to record new equipment not listed. Write about new equipment in "Comments" 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 : Is there a "vessel monitoring system" or ALC "automatic location communicator" on board.
Type of System: Write down the name of the manufacture eg Trimble, Furno, JRC
System type : Write down the name of the manufacture :Trimble, Thrane Thrane, Furuno, JRC, Sailor
Seal number : Write down the number that is written on the VMS seal.
Seal intact ? A good (intact) seal is bright silver. A seal that has been interferred with has black crinkly lines through it.
Telephone / Facsimile / Email : If the vessel has a fax, phone or email address record it here
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 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. Mention in the comments column if they were all being used or if they were still in good working order.

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
EPIRBS and Lifebuoys/life rings - count all you can find *Life raft* - find information on stickers or seals on the life-rafts

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 POLE AND LINE OBSERVER DAILY LOG

FORM PL - 2

REVISED DEC. 2004

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	ACTIVITY CODE	SCHOOL ASSOC.	SCHOOL DETECT	BAIT SPECIES 1	BAIT SPECIES 2	BAIT SPECIES 3	No. of BUCKETS	BEACON / PAYAO #	COMMENTS

START OF DAY

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

ALL MUST BE RECORDED

ACTIVITY CODES

1 Spraying, chumming or poling
2 Searching
3 Transit
4 No fishing - breakdown
5 No fishing - bad weather
6 In port - please specify
7 Anchored in bait grounds
8 Investigate free school
9 Investigate floating object
10D Deploy- raft, FAD or payao
10R Retrival - raft, FAD or payao
11 No fishing - drifting at day's end
12 No fishing - drifting with log
13 No fishing - other reason (please specify)
14 Bait fishing
15R Retrieve - Beacon (change only)
15D Deploy - Beacon (change only)

SCHOOL ASSOCIATION

1 Unassociated
2 Feeding on baitfish } Free schools
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)

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

FLOATING OBJECT AND SCHOOL SIGHTINGS	FLOATING OBJECT AND SCHOOL SIGHTINGS *Example* Tally / Total	Anchored floating objects (with **NO** school) Tally / Total	Anchored floating objects (with school) Tally / Total	Free floating objects (no anchor) (with **NO** school) Tally / Total	Free floating objects (no anchor) (with school) Tally / Total	Free schools Tally / Total	DID YOU OBSERVE ANY EVENTS TO RECORD ON FORM GEN-3 TODAY ?
	𝍸 / 6						**YES NO** *(circle one)*

OBSERVERS DAILY LOG

Notes on FORM PL-2

OBSERVER NAME	First name first and last name last. Be sure to print full name.
VESSEL NAME	Vessel's full name with no abbreviations. E.g., the "Captain Kalahari 3" should not be abbreviated to the "Capt. Kalahari".
OBSERVER ID NUMBER	This number is issued to you before you leave port and should be used on all forms. The number will not change for the entire trip. Place at the top of every Form or other paper collected.
PAGE OF	Number each Form PL - 2 sequentially. Continue until trip is completed. The last page number will be number for the "of" field. For example: If a total of 36 PL -2's forms were used during a trip, the fifth page used would be written as "page 5 of 36"

START OF DAY

SHIP'S DATE	Write the date that the officers and crew use on the vessel
SHIP'S TIME	Write the time that the officers and crew are using (the time that is on the ship's clock).
UTC DATE	Get the date from the GPS at the same time as you record the date the vessel is using. Note that the date on the GPS (UTC) could indicate a different date. Still report this date.
UTC TIME	Get "UTC time" from the GPS at the same time as you record "Ship's time". Note that "UTC time" (from GPS) will usually differ from "Ship's time" unless the vessel is using GMT/UTC.
SHIPS TIME	Record the "Ship's time" every time the activity changes (as often as necessary). Record all codes and other details for each activity.

ACTIVITY LOG

LATITUDE and LONGITUDE	Get this from the GPS and always record in degrees, minutes and minutes to 3 decimal places. This is how it is usually shown on the screen. If the GPS shows seconds instead of 3 decimal places of minutes, then record the seconds but note that you recorded seconds in the comments column.
Latitude	dd = degrees; mm = minutes; mmm = decimal minutes. If less than 10 degrees, always put zero in front of number (e.g.: "5" is written "05")
Longitude	ddd = degrees; mm = minutes; mmm = decimal minutes.
N / S and E / W	Check the GPS . This is very important ! Never forget to record N, S, E or W beside the position.
ACTIVITY CODE	These codes are on the front. Only use one activity code at a time even if two codes seem to fit. Choose the best one.. If there are two possible activities for the same time, record the code for the main activity on the sheet, then comment on the other activity in the comments column.
(Activity Code "1")	"Spraying, Chumming or Poling" starts when the vessel starts trying to attract fish by chumming bait, using sprayers or other means "Spraying, Chumming or Poling" ends when no more fish are being caught and vessel starts searching for another school or starts another activity (new Activity Code). Small periods (minutes) of not fishing are common (when vessel moves to catch up with fish for example) and should not mark the end of a Code "1" period.
SCHOOL ASSOC.	The "SCHOOL ASSOCIATION" codes are used to show if the school with a floating object, a marine mammal or whale shark or is a free school. If it is a free school then the "SCHOOL ASSOCIATION" codes show if it is feeding on a school of baitfish (not the vessel's bait) or not associated with anything.
DETECT	Use "HOW DETECTED" codes to **best** describe how your boat found the fish. If more than one code fits use the one that best describes how the fish were found.
BEACON/PAYAO #	Record the beacon or payao number used to mark a log, payao or FAD. Write a 'B' before a beacon number and write a 'P' before a payao number.
COMMENTS	Make notes about anything that you think has something to do with information on the daily log. If you need more room for writing this information put it in your diary and write "see Diary page no ??" in the comments.

BAIT FISHING

SPECIES 1, 2, 3	When the activity code is "14" (Bait fishing) record the three most common species that are caught. Use FAO species codes which should be provided. Only use the family group codes provided if you are unable to identify the bait down to species level.
NO. OF BUCKETS	Record the total number of buckets of bait that are lifted on to the boat to put into the bait wells.
IMPORTANT NOTES !	If the boat has run out of bait and so the boat changes activity, record "No More Bait" in the comment column in the line that you record the activity. The Activity Code "Bait fishing" starts when the vessel first starts to set any gear (not counting the lights) to catch bait. Bait fishing ends (the next Activity starts with a new code) when the bait catching gear is pulled back on board again.

FLOATING OBJECTS AND SCHOOL SIGHTINGS

IMPORTANT NOTES !	A floating object can be a tree, log, drum, FAD, payao or any other floating debris. Fish not associated with a floating object are free schools. Free schools can be either "feeding on bait fish" or completely on their own "unassociated".
Tally Total	During the day make a stroke every time you see something. At the end of the day add the strokes and write in the total.
Floating objects (with no school)	Make a stroke here every time you see a floating object that doesn't seem to have tuna with it.
Schools under floating objects	Make a stroke here every you see a floating object with tuna swimming around it.
Free schools	Make a stroke when you see tuna that has no floating object with it. These tuna may or may not be feeding on bait fish.

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

FORM PL - 3

REVISED DEC. 2004

VESSEL NAME	OBSERVER NAME	OBSERVER TRIP ID NUMBER	PAGE OF

SHIP'S DATE DD	MM	YY	SPRAYING, CHUMMING and POLING time:	START h h	m m	FINISH h h	m m	No. OF CREW POLING	MEASURING INSTRUMENT

COMMENTS

TARGET SPECIES				OTHER SPECIES				
SPECIES CODE	FATE CODE	CATCH mT	CATCH No.	SPECIES CODE	FATE CODE	CATCH mT	CATCH No.	COMMENTS
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	
∑ lengths		∑ lengths		∑ lengths		∑ lengths		∑ lengths	

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

CATCH DETAILS

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.
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.
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.
∑ 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. If using a deck tape ensure the **"0"** end of the tape is placed against a flat surface or has a nose block.
8. **Record length to the nearest centimetre below down. E.g.: a 69.9 cm fish is recorded as 69 cm.**
9. Make sure that you take good notes of other species and discards while you are measuring fish.
10. Don't forget to note species code, especially when there is a change of species while you are measuring.

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)

SPC/FFA REGIONAL PURSE SEINE OBSERVER GENERAL INFORMATION

FORM PS - 1 (pg 1)

REVISED DEC. 2004

TRIP DETAILS

OBSERVER NAME	DEPARTURE PORT	DEPARTURE (SHIP'S DATE AND TIME) D D M M Y Y h h m m
OBSERVER TRIP ID NUMBER	RETURN PORT	RETURN (SHIP'S DATE AND TIME) D D M M Y Y h h m m

VESSEL CHARACTERISTICS

VESSEL NAME	COUNTRY REGISTRATION NUMBER		FISHING PERMIT(S) OR LICENCE NUMBER(S)
VESSEL OWNER	VESSEL FLAG	INTERNATIONAL RADIO CALLSIGN	

No. of SPEED BOATS	No. of TOW BOATS	No. of LIGHT BOATS	MAKE / NET SKIFF ENGINE ; POWER hp	VESSEL CRUISING SPEED: kts

HELICOPTER MAKE MODEL	HELICOPTER - REGISTRATION NUMBER	HELICOPTER - EFFECTIVE RANGE KMS NM	HELICOPTER - COLOUR

FISHING GEAR

POWER BLOCK: MAKE MODEL	PURSE WINCH: MAKE MODEL	BRAIL CAPACITY (of first brail) **BRAIL 1** mT

NET - MAX. DEPTH: M Y F	NET - MAX. LENGTH: M Y F	NET - No. of STRIPS:	NET - MESH SIZE (of main body) CM IN	BRAIL CAPACITY (of second brail) **BRAIL 2** mT

BRAILING TYPE DESCRIPTION

ELECTRONICS, etc.

		USAGE	MAKE	MODEL	COMMENTS
BIRD RADAR	Y / N				
NEW -					
DEPTH SOUNDER	Y / N				
DEPTH SOUNDER	Y / N				
SONAR	Y / N				
TRACK PLOTTER	Y / N				
NEW -					
RADIO DIRECTION FINDER	Y / N				
RADIO BUOYS (NON CALL-UP)	Y / N				How many ?
RADIO BUOYS (CALL-UP)	Y / N				How many ?
GPS BEACON	Y / N				
ECHO SOUNDING BUOY	Y / N				
DOPPLER CURRENT METER	Y / N				
WEATHER SATELLITE MONITOR	Y / N				
NEW -					
VMS	Y / N	System Type		Seal #	Seal intact ? **Y N**
SATELLITE COMMUNICATION SERVICES	Y / N	Phone #		Fax #	Email:
FISHERY INFORMATION SERVICES	Y / N	Phytoplankton **Y N**		SST **Y N**	Sea Height **Y N**
NEW -					

OBSERVATIONS / COMMENTS / 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
TRA - used only in transit
OIF - used often but only in fishing
SIF - used - sometimes 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, investigating, etc.

GENERAL INFORMATION

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

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

OBSERVER NAME	Print first name and family name in full and in correct order (e.g. "John Masa" and not "Masa, John").
OBSERVER 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").
DEPARTURE (SHIP'S DATE and TIME) **RETURN (SHIP'S DATE and TIME)**	} Print date using "day day/ month month / year year" format. } 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 "03/01/96 - 13:05").
	USE SHIP'S TIME (and DATE)
DEPARTURE PORT / RETURN PORT: Record in both boxes …….. even if it is the same port.	***also read notes below***
N.B.:	an observer trip officially starts and ends only when the vessel on which the catch is actually observed is boarded and disembarked.
Partial trips	- If boat is met at sea "Departure Date and Time" is day of transfer from transit vessel to observed boat. "Departure Port" is "At sea".
Multiple trips	- If transferred off observed boat to another vessel to return to port "Return Date and Time" is day of transfer. Arrival port is "At sea".
	- If observing catch on 2 (or more) boats, each new observed boat must be a new trip with separate observer trip ID No. and new forms.

Vessel Characteristics

VESSEL NAME	Full name with no abbreviations. E.g.: a vessel with the name "Captain Paul John Smith" should not be abbreviated to Capt. P.J. Smith.
COUNTRY	Number given by the Country (Flag State) to where the vessel is registered.
REGISTRATION NUMBER	This can be found in the registration papers of the vessel. Do not confuse this with FFA Regional Registration Number
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. E.g.: K3453789H (Kiribati).
VESSEL OWNER	Name of Company or Person who owns the vessel. This should be in the Registration Papers.
VESSEL FLAG	Country where vessel is registered. E.g.: Japanese longliners are usually registered in Japan so their Flag State is Japan. But sometimes a vessel comes from one country and registers in another so has a different "Flag State" - known as a flag of convenience.
INTERNATIONAL RADIO CALL SIGN	This is the radio signature the vessel uses when contacting other vessel radios or shore based radios. The call sign usually should be the main number on the **hull** or side of the vessel. Try to confirm this before recording it.
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 TOW BOATS	Count the tow boats. Don't count speed boats if they are already counted.
NO OF LIGHT BOATS	These boats that have powerful lights on them and are used when making a set and hauling the net at night. The extra strong lights both help to attract fish around FADs and logs at night and offer visibility during night-time operations.
NET SKIFF ENGINE MAKE / POWER	The brand of the engine used in the net skiff and the power (horsepower - hp) of the engine. Get this from the skiff driver. E.g.: Caterpillar 3408 (400hp)
VESSEL CRUISING SPEED	Ask the captain for the cruising speed of the vessel. Remember it is not the top speed.
HELICOPTER MAKE/MODEL	Brand name and model of the helicopter. Ask the pilot if you need to.
REGISTRATION NO.	Registration No. of the helicopter. Written on the side or pontoons or ask the pilot for it.
EFFECTIVE RANGE of HELICOPTER	The distance the helicopter can fly from the vessel and return safely, without running out of fuel.
COLOUR of HELICOPTER	Main colour or colours of the helicopter

Fishing Gear

POWER BLOCK - Make	Brand of main power block on the vessel.	If these can not be seen, ask the captain, engineer or winch driver. Only fill in this information if sure it is correct. If unsure, record the information in your written report only, with a note.
- Model	The model of the block.	
PURSE WINCH - Make	Brand of main purse winch on the vessel.	
- Model	The model of the winch.	
MAX. NET DEPTH	Deepest depth of the net wall 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
MAX. NET LENGTH	The length of the net when it has been set.	
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 the 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, taking strips away makes it shallower). How many of these strips make up the net ? Ask the deck boss or engineer for this information.	
NET MESH SIZE OF MAIN SECTION	The mesh is a different size in different parts of the net. The mesh size required here is 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	
CAPACITY OF BRAIL	The capacity in **metric tonnes**. This is needed for the observer to estimate the catch brought onboard. If there is a second brail onboard (mostly on Japanese vessels) also record capacity of second brail.	**N.B.**: call these **BRAIL 1** and **BRAIL 2** - referred to in PS-4s
BRAIL TYPE	Describe the brailing operation **exactly**. This should include: how the mouth of the net was held open (i.e. with the skiff or by a boom); design of the actual brail (long or short handle, no handle, x-shaped, etc.); is the brail linked to a boom or the purse davit; etc. A full description of the brail type should be included in the observer's written report.	

Electronics

YES / NO	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 device listed.
USAGE	use codes (bottom front of form) to show how much each piece of equipment, for which "Y" is circled, is used
MAKE & 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	Is there a "vessel monitoring system" or ALC "automatic location communicator" on board ?
System type:	Write down the name of the manufacture :Trimble, Thrane Thrane, Furuno, JRC, Sailor.
Seal number:	Write down the number that is written on the VMS seal.
Seal intact ?	A good (intact) seal is bright silver. A seal that has been interferred with has black crinkly lines through it.
FISHERY INFORMATION SERVICES	Vessels may access "Fishery information services" to get instant or daily information on oceanographic features that affect fishing. Commonly accessed info., includes phytoplanton density, sea-surface temperature (SST) and sea height. Describe in written report.

Observations / Comments, Other gear, Unusual use of gear

Record notes if you think there is anything special about this boat 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 lots to write about (good) do so in diary and in a special section of the trip report. Only put brief note here with a reference to page numbers in diary and trip report.

SPC/FFA REGIONAL PURSE SEINE OBSERVER GENERAL INFORMATION

FORM PS - 1 (pg 2)

OBSERVER NAME	VESSEL NAME	OBSERVER TRIP ID NUMBER

WELL CONTENTS (if wells also used to store fuel, water or some item, other than fish, at some time in trip)

FUEL

WELL No.	P or S	CAPACITY (mT)	COMMENTS

WATER

WELL No.	P or S	CAPACITY (mT)	COMMENTS

OTHER

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

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

CREW	NAME	YRS.EXP	NATIONALITY

CREW	NAME	YRS.EXP	NATIONALITY

Total: ← **TOTAL NUMBER OF CREW (include Captain and officers)**

SAFETY EQUIPMENT

LIFE JACKET

PROVIDED FOR OBSERVER: Y / N / O

SUITABLE SIZE: Y / N

AVAILABILITY (circle one): Easy Moderate Hard

No. of **LIFE BUOYS / LIFE RINGS**

EPIRBS	Type	No.
Type 1		
Type 2		

LIFE RAFTS	1	2	3	4
Carry capacity (No. of people)				
Expiry or inspection due				

GENERAL INFORMATION

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.

WELL CONTENTS **(if wells also used to store fuel, water or some other item at some time in trip)**

FUEL **WATER** **OTHER**	Record all the well numbers and capacity of the wells which contain fuel under the "FUEL" section. Record the well numbers and capacity of the wells which contain water under the "WATER" section. Record the well numbers and capacity of the wells which contain other items (not fish) under the "OTHER" section.
WELL No.	Record the vessel's well number here. Ask the Chief Enginner or have a look at the vessel's well plan.
P or S	Indicate whether the well was on the port (P) or starboard (S) side.
WELL CAPACITY	State the fish carrying capacity of this well in metric tonnes. Ask the Chief Enginner to help you if necessary.
COMMENTS	If wells contain items other than fuel, water or fish state what those items are in the "Comments" section. If wells start with fuel or water but are then cleaned fish storage, state this in the comments column (include dates).
TOTAL POSSIBLE FISH STORAGE CAPACITY (in metric tonnes):	Add up the total possible fish storage capacity for all the vessel's storage wells put together, whether or not the well is also sometimes used for other things (fuel, water, etc.). Place the vessel's total fish carrying capacity in metric tonnes here. This is important information. Ask to see the vessel's well plan or get the Chief Enginner to help you if necessary.

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. (Captain's)	To be recorded if readily available but not necessary if obtaining it will in any way hinder other observer activities on board.
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 !

SAFETY EQUIPMENT **(obtain as much information as possible without**

LIFE JACKET	If observer has their own (or a fisheries) life jacket, the "O" must be circled. Otherwise circle the "Y" or "N" to show if the vessel showed the observer a life jacket that they could use in an emergency. Also circle the "Y" or "N" to show if the life jacket the vessel offered was a suitable size. Circle "easy" if the allocated life jacket was easily available, "moderate" if it was available but 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 of these that can be found
LIFE RAFTS	The required information should be on stickers or seals on the life-rafts - check carefully and report in written report if not found.

COMMENTS or DRAWING of WELL PATTERN

SPC/FFA REGIONAL PURSE-SEINE OBSERVER DAILY LOG

FORM PS - 2

REVISED DEC. 2004

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	BEACON / PAYAO #	COMMENTS (and **Set No.** - from PS-3)

START OF DAY

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

ALL MUST BE RECORDED

ACTIVITY and HELICOPTER CODES

1 Set ← record FAD, payao or beacon number if any
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 No fishing - Drifting at day's end
12 No fishing - Drifting with floating object
13 No fishing - Other reason (specify)
14 Drifting -With fish aggregatting lights
15R Change an already deployed beacon - retrieve old (15R)
15D - deploy new (15D)
16 Transhipping or bunkering
H1 Helicoptor takes off to search
H2 Helicopter returned from search

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)

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

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 / Total	Tally / No.	Tally / No.	Tally / No.	Tally / No.	Tally / No.	YES NO *(circle one)*	reported in diary pg # ____
IIII / 6							

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 the 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")

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.

Beacon / payao #: Record the number off any beacon used to mark a log, payao or FAD.
Record number of an anchored FAD or payao whenever a boat investigates or sets on it.
Write a "B" before a beacon number and write a "P" before payao numbers.

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

Floating object and school sightings: Through each day try to keep count of 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 significant 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.

Start of day: At the start of each day you must match the date and time on the ship's clock
(and observer's watch) to the UTC time and date as read from the GPS.

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 that scientists use to make corrections
to Ship's date and time when it is used incorrectly, as it often is. Once a day, record 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 Ship's date.
Observers should record Ship's time in all other forms and paperwork.

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 *activity code* "1", "8" or "9" also use *school association* (*tuna*) and *how detected* codes,
otherwise the school association (tuna) and how detected code fields must be dashed !
Only use codes 15R and 15D when a vessel changes a beacon already set on a FAD or log
- always use 15R on one line followed by 15D on the next and record both beacon numbers.
If using **code 16** remember that **transhipment** includes any transfer between vessels
Helicopter codes: Only use helicopter codes if the helicopter is used directly for searching
or fishing - not when it is running messages between boats or to shore.
Unless there is an accident every "H1" code should have a matching "H2" code.

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.)
Depth sounder/sonar - **do not** use *code 5* when investigating an already found object or fish
Anchored FAD / payao - use *code 7* only if FAD/payao found because its position is recorded

*School Association (**tuna**)*: Use the "School Association" code that best describes whether
tuna being targetted are with floating object, animal, feeding on baitfish or unassociated.
If it is an unusual **tuna** association please comment and make notes in your diary.

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 diary; record your diary page No. on this PS-2 form.
If there was no incident for the day circle **No**.

SPC/FFA REGIONAL PURSE SEINE OBSERVER SET DETAILS

FORM PS - 3

REVISED DEC. 2004

OBSERVER NAME	VESSEL NAME	PAGE OF

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

SET SEQUENCE TIMES

EVENT:	START OF SET (SKIFF OFF)	BEGIN PURSING (WINCH ON)	END PURSING (RINGS UP)	BEGIN BRAILING	END BRAILING	END OF SET (SKIFF ON BOARD)
TIME:						

CUMULATIVE LANDINGS (mT)

(a) ONBOARD TOTAL BEFORE THIS SET (from previous PS-3)		+ (b) TOTAL TONNAGE RETAINED THIS SET		= (c) NEW ONBOARD TOTAL ((a) + (b))	
	obs		obs		obs
	ves		ves		ves

SUM OF ALL BRAILS — see PS-4: BRAIL 1; BRAIL 2

SKJ - YFT - BET

SPECIES CODE	FATE CODE	OBSERV. (mT) ESTIMATED	VESSEL (mT) ESTIMATED
SKJ	RWW		
YFT	RWW		
BET	RWW		
YFT >80cm	RWW		

use worksheet — **CALCULATED**

SKJ	(mT)	*YFT only*	(mT)
(TUN)	(mT)	YFT/BET	(mT)

OTHER SPECIES

SPECIES CODE	FATE CODE	OBSERVER (mT)	OBSERVER NUMBER	VESSEL LOG (mT)	VESSEL LOG NUMBER	COMMENTS

QUERIES — Were there any discards of SKJ, YFT or BET ? *(circle one)* **YES NO**

How many species other than SKJ, YFT or BET were caught ?

(***Read the back of this form for guidelines on all form matters !!***)

TAGS — How many tags were recovered ? ➡

TAG #	SPECIES	LENGTH	WEIGHT	SEX

COMMENTS

SPECIES CODES

SKJ	Skipjack	ABU	Sergeant major	OCS	Oceanic whitetip
YFT	Yellowfin tuna	AMX	Amberjack	BSH	Blue whaler shark
BET	Bigeye tuna	BAR	Barracudas	FAL	Silky shark
		BAT	Batfishes	MAK	Mako shark
FRI	Frigate tuna	CXS	Bigeye trevally	SPN	Hammerhead sharks
BLT	Bullet tuna	DOL	Mahi mahi	THR	Thresher sharks
KAW	Kawakawa	RRU	Rainbow runners	RHN	Whale shark
		FLF	File fish	MAN	Manta ray
ALB	Albacore	TRI	Trigger fishes	MOX	Sunfish
		KYC	Drummer	SQU	Squid
WAH	Wahoo	MSD	Mackerel scad	FRZ	Frigate and bullet tuna
		PSC	Man - o - war fish	TUN	Tuna (unidentified)
BUM	Blue marlin	LOB	Triple tail	TRE	Trevally (unidentified)
BLM	Black marlin	BRZ	Pomfrets / ocean breams	UNS	Fish (unidentified)
MLS	Striped marlin				
SFA	Sailfish				
SSP	Short billed spearfish			BIZ	Bird (unidentified)
SWO	Broadbill swordfish				

Marine mammal and turtle codes are available on Form GEN-2

FATE CODES

RWW	Retained - whole weight
RHG	Retained - headed and gutted (billfish only)
RGG	Retained - gilled and gutted (kept for sale)
RPT	Retained - partial (e.g. fillet, loin)
RCC	Retained - crew consumption (onboard)
ROR	Retained - other reason (specify)
RFR	Retained trunk - fins retained (shark only)
DFR	Discarded trunk - fins retained (shark only)
DTS	Discarded - too small (tuna only)
DGD	Discarded - gear damage (tuna only)
DVF	Discarded - vessel fully loaded
DUS	Discarded - unwanted species
DSD	Discarded - shark damage
DWD	Discarded - whale damage
DPQ	Discarded - poor quality
DPA -	Discarded - alive (DPA)
DPD -	- species of - dead (DPD)
DPU -	special interest - unknown condition (DPU)
DOR	Discarded - other reasons (specify)

ESC = Escaped

PURSE SEINE LOG - SET DETAILS

Notes on FORM PS-3

Important

(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 a 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 in order of use, continue until trip is completed.
OBSERVER TRIP ID No.		This number is the same on all forms for a single observer trip.
START of SET DATE and TIME	**Observer (see PS-2**	The exact date and time that the observer recorded for this set on the PS-2
	Vessel (see logshee	The exact date and time that the vessel has recorded for this set in their Regional Purse Seine Log Sheet.

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, above.
	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.
	END BRAILING	Record the time when the vessel finishes brailing (put in a dash if no fish are caught).
	END SET (SKIFF ONBOARD)	When the skiff comes on board the set is over. Record the time. Also remember to record the activity change on PS -2.

CUMULATIVE LANDINGS (from both the observer (obs) records and the vessel (ves) records)	Observer cumulative total provides an up-to-date total of the catch on board. Vessel total gives a useful comparison. (a) Go to box (a) of this PS-3 form and copy in the total catch before this set. Find this in box (c) of the last PS-3 form. (b) for box (b) observer adds together the weights of all species on PS-3 that have a fate code starting with "R". vessel total comes from adding each species under retained catch on the logsheet line for this set. (c) Add box (a) and box (b) together to get a new total catch on board after this set. Record it in box (c) of this PS-3.

SUM of ALL BRAILS (*see PS-4*)	After calculating the total number of brails on PS-4S transfer your answer here.

SKJ / YFT / BET	**SPECIES CODES**		**Only** enter catch data for skipjack (SKJ), yellowfin (YFT) and bigeye (BET) tuna in this column.
	FATE CODE		For each tuna species enter every appropriate fate code in this column. Remember **to u**se a new line for each fate !! E.g.: In the same set, some SKJ could be RWW, while others are RCC, some others DTS and yet others DGD. Always use only one (the best - most informative) "fate code" when two codes could apply to the same group of fish. If tuna **ESCAPE** from net, record species = SKJ, YFT or TUN (if mixed or unknown); fate = "ESC"; and estimate of mT.
	ESTIMATED OBSERVER	*Estimates* (**mT**) *of SKJ, YFT and BET; & YFT >80cm; & discard tuna*	A best estimate in tonnes (mT) must be made for each tuna species caught. Record in report how estimates are made. Because they are few, BET are sometimes seen in catch but are not measured during good "normal" random sampling. When BET are present **always** record a best estimate of the amount of BET in this section, even if not sampled. It is also useful to estimate (in mT) the amount of large YFT (>80 cm) YFT if any are seen in the catch. Estimate the quantities of each species that are discarded using the most appropriate technique for the conditions.
	VESSEL log (mT)	*COPIED*	Copy the figures recorded on the Vessel logsheet. Do not change the observer figure to match the vessel figure and do not advise the vessel to change their figures to match the observer's if they are different. Only use (mT). If the vessel has no record for this set, record a dash in this field. If the vessel records "0", record "0" in this field.
	CALCULATED (mT)	*Use worksheets and these notes to calculate tuna species or species groups.*	Use "normal" sampling lengths from the PS-4 form and worksheet guidelines to calculate the weight of retained tuna. If sac is lifted on board with catch in it, estimate how many full or part brails and calculate catch using that estimate. First - always record estimates of each species, including BET, in the estimates section above this section. THEN: Usually, too few BET are in a "normal" sample to 'sensibly calculate' their weight with current sampling protocol, so: if BET are seen in the catch, whether or not any were measured, calculate YFT and BET together as YFT/BET (RWW); if YFT are in the catch but no BET whatsoever are observed, record YFT (RWW), as calculated in the worksheet. if there are only SKJ in the **sample**, but YFT and/or BET are seen in the **catch**, record TUN (RWW), as in worksheet.

N.B. Observer estimates are very important

OTHER SPECIES	**SPECIES CODE**		Record every species that lands on deck with the three letter FAO species code.
	FATE CODE		Use fate codes provided to say what happened to each species landed. Use one line per species or group. Rememeber that a species may be split into groups each with a different fate code. Eg: RRU RWW 2 mT **REMEMBER** - use only one (the best and most informative) code for each line. 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 of DOL and 0.04 mt WAH
		Number	Only record 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	

E.g.:

QUERIES	**Were there any discards of SKJ, YFT or BET ?**	Circle "YES" if any **tuna** were discarded **after** landing on board. **Remember**: weight of discarded tuna must be recorded with suitable fate code. Circle "NO" if no tuna were discarded after they were brought on board.
	How many species other than SKJ, YFT or BET were caught ?	Count the number of by-catch species landed. For example if wahoo, scad, trevally and rainbow runners were the only bycatch species landed during the set, put "**4**" in the box.

TAGS	**How many tags were recovered ?**	Number of tags found from the set. Look out for tags on tuna, billfish, sharks, turtles, birds, etc.
	TAG #, SPECIES, LENGTH, WEIGHT SEX	When a tag is recovered, record the **tag number** and the **species** name. Measure the correct **length** (see form PS-4). If possible, **weigh**. If possible, obtain the **sex** (cut it open **if appropriate**). Note tag colour, tagging organisation and any unusual features about the specimen condition in comments section..

tags are not seen often but are very important!

SPC/FFA REGIONAL PURSE-SEINE OBSERVER LENGTH MEASUREMENT

FORM PS - 4

REVISED DEC. 2004

OBSERVER NAME	VESSEL NAME	OBSERVER TRIP ID NO.	PAGE OF

SAMPLING DETAILS

SAMPLE TYPE — *Tick only one circle:* NORMAL *(random)* ( ) OTHER *(see back of form)* ( ) *if other please specify:*

BRAIL TIMES — start / end

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

Which brail size was sampled on this form ? *(circle one - see PS-1)* BRAIL 1 BRAIL 2

No. of BRAILS SAMPLED:

No. of SAMPLES from each BRAIL

MEASURING INSTRUMENT

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)
TW - TOTAL WIDTH (TIPS OF WINGS - RAYS)
TL - TOTAL LENGTH - TO END OF TAIL - (FISH WITH NO FORK IN TAIL)
CL - CARAPACE LENGTH (TURTLES)

BRAILS — tallies:

Full brails	7/8 brails	3/4 brails	2/3 brails	1/2	1/3	1/4	1/8	TOTAL BRAILS	SUM OF ALL BRAILS
No.	*No.*	*No.*	*No.*						*see back of form*

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	

	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	YFT/BET	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 (tick in only the one correct circle) - Normal	For standard species and length composition samples, tick normal. Species and size must be randomly collected. Target an average of 5 fish from every brail. If not possible then make sure average number is steady all through the set. For normal sampling do not measure fish collected from the net during net rolling and stacking.
- Other	If measuring fish other than normal species and size composition (usually on request), tick “Other” and explain what other is. Examples of "other" could be: BET / YFT composition; large only YFT; all discards; discards-too small; etc; only BET; etc; only bycatch; only BRAIL 1; etc. (also see 10 below).
Brail times (*start* and *end*)	Record when first brail came onboard (*start*) and when last brail came onboard (*end*) for transfer to Form PS-3.
Which brail size ?	Usually BRAIL 1., but sometimes a vessel uses two different sized brails (see PS-1). Sample one brail size on one form.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! (Note: it is preferable to sample both brail sizes on to their own forms)
No of Brails Sampled	In "normal" sampling this should equal "Total No." of brails but in case a brail or two are missed place a small mark on the form after measuring fish each brail. The number of brails that had fish measured can then be easily counted at end of brailing.
No. of samples from each brail	Record average number fish taken to be measured from each brail.
Measuring instrument	Record whether callipers, flat ruler or deck tape was used. N.B. - do not use tape measures.
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, competent observers are encouraged to maintain two forms during brailing of mixed tuna sets - one for "normal" species composition and the second for "other", non-SKJ tuna species composition.
Brails *(tallies) brought onboard*	Mark correct box for every full, 7/8, 3/4, etc., as it comes onboard. Count (tally) marks and write each total in bottom right boxes.
Total No. *of Brails*	a **simple** full count (tally) of all the brails that came onboard, wheher full or not full. Add numbers in the small 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.

MAIN BLOCK

Species Code 1- 150	Record species code (see the codes on form PS-3) of fish measured in the same order they are sampled.
Column totals	.. are to stop confusion arising if adding species and lengths across several columns when making average length calculations. First add totals from each column then add column totals together to get numbers required for average length calculations table.

AVERAGE LENGTH CALCULATIONS N.B. - in normal sampling of mixed tuna sets calculate average lengths of YFT and BET combined (YFT/BET)

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 up lengths of each species sampled: add columns; add columns together. In "normal" sampling add YFT and BET 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 carry out a "**Normal**" sample. Sample five **random**ly collected tuna from every brail that is brought onboard.
2	Spread your 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 in general try hard 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 there are problems mention it in the comments section.
3	Always get a random sample and don't choose fish just because they are the easiest size to handle or because 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 a deck tape, make sure the fish is on the tape straight when measuring. Never bend the tail down to measure but 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	Record the species code in the columns provided, especially when there is a change in species type. Do not use ditto marks !
10	If taking an "Other" sample, start a new PS-4 page, tick "**Other**" and write in what that other is. Most often this will be length measurements from every species still on deck after brailing is ended. Record this 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" would also include any target catch discards (SKJ-YFT-BET) if discarded for any reason. Usually an "Other" sample is collected after, or along with, a "Normal" sample but it could also be collected as an only sample.
11	Use average lengths (see "Average Length Calculations" above) along with the length-weight table and catch composition worksheets included in the Observer Workbook to assess the weight of SKJ, YFT and/or combined YFT/BET in the catch.
12	Competent observers are encouraged to evaluate mixed tuna sets and, if possible, carry out two samplings simultaneously. Do this by either: (1) first pulling 5 tuna from each brail for "normal" sampling followed by up to 5 more YFT/BET for "other - BET/YFT composition" sampling; or (2) sampling 5 tuna from every 2nd brail for "normal" sampling and 5 YFT/BET from the other brails for "other" sampling, all the way through the set. The 1st method is the preferred method but the second may be more practical on larger sets, which are those most likely to be sampled in this way.

CALCULATING SUM OF ALL BRAILS

How many ?	Full	7/8	3/4	2/3	1/2	1/3	1/4	1/8	
Full and part brails - get these numbers from the "No." boxes in the bottom right corner of each tally box on the front of this form									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
VESSEL LOGSHEET and WELL LOADING RECONCILIATION

(optional)

FORM PS - 5 (pg 1)

REVISED DEC. 2004

VESSEL NAME	OBSERVER NAME	OBSERVER TRIP ID	PAGE OF

OBSERVER (SEE NOTES)		**LOGSHEET** SET TIME		PORT WELLS											STARBOARD WELLS											OBSERVER'S		COMMENT
DATE	TIME	DATE	TIME	12	11	10	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	10	11	12	TOTAL	CUMUL. TOTAL	
TOTALS																													

Record ALL fish going into wells in metric tonnes. Use whole numbers (e.g.: 25).

Also record ALL fish removed from wells in negative metric tonnes in brackets (e.g.: (- 30)).

VESSEL LOGSHEET and WELL LOADING RECONCILIATION

Notes on FORM PS-5 (Page 1)

Form PS -5 is used by scientists to match vessel logsheet data with observer data and to improve port sampling strategy by letting scientists understand how fishermen move fish between wells. Be watchful tracking transfer of catch around wells. Record all transfers if possible, even if a well has fish mixed from more than one set. The information could still be useful.

Records are made on this form by an observer when there is any movement of fish (caught in set; transferred between wells or vessels) and whenever catch is recorded on a vessel logsheet.

For each set record the start "DATE" and "TIME" of set exactly as it is recorded on observer forms PS-2 and PS-3 ***AND*** exactly as it is recorded on the vessel logsheet. Record metric tonnes (mT) of catch that go in each well. (N.B. There are port and starboard wells and Well No.1 may be one central well or separate port and starboard wells - **EXAMPLE 1**

If vessel does not record catch at time of set the observer makes their own record on Form PS-5 and must check the logsheet for later records that they think match with this set.

Be alert to what happens on the bridge and on logsheets. The vessel may be waiting until end of day to record sets. ***If a vessel records nothing for a set*** write "No record" - **EXAMPLE 2**

If the vessel has one logsheet entry for two or more sets the observer must bracket his set details to the vessel set details. Record exactly as on forms and logsheets - **EXAMPLE 3**

It may get difficult to match a vessel logsheet record with observer records. The observer must then make a separate Form PS-5 entry just to cover the vessel logsheet record. In PS-5 "DATE" and "TIME" columns: score out the observer column, enter details from the vessel's logsheet in the logsheet column and add a brief comment along that line. - **EXAMPLE 4**

For ***movements of fish between wells or between vessels*** record the date in the observer column, leave the time blank (line through it) and note time in comments. - **EXAMPLE 5**
Note that when transfers of fish are made from well to well the "OBSERVER'S TOTAL" for that line should equal zero and the "CUMUL. TOTAL" remains the same. - **EXAMPLE 6**

Observer's Total : The observer calculated total. The amounts recorded as going into each well should add up to this total. If not explain why not on the line immediately underneath.

Cumulative total (CUMUL. TOTAL) should equal the total amount of fish on board. It is calculated by adding the observer's total to the previous cumul. Total on the line above.

Comment : Any comments about the transfer or loading of the catch in the wells and any reason given for transferring fish from one well to another.

OBSERVER (SEE NOTES ON BACK) DATE	OBSERVER TIME	LOGSHEET SET TIME DATE	LOGSHEET SET TIME TIME	PORT WELLS 12	11	10	9	8	7	6	5	4	3	2	1	STARBOARD WELLS 1	2	3	4	5	6	7	8	9	10	11	12	OBSERVER'S TOTAL	OBSERVER'S CUMUL. TOTAL	COMMENTS
18/03	0530	03/02	0600		40						Example 1															30		70	70	
19/03	0545	No record							8		Example 2																	8	78	
20/03	0840 }	04/03	}1500						12		Example 3																	12	90	Logsheet entry
21/03	1740 }								20	28											40					10		98	188	was 100 mT
22/03	0555	No record								12												40		4				56	244	
23/03	0740	No record					20																	20				40	284	
24/03	1635	No record										Example 4												5				5	289	
		15/03	1635	Vessel recorded 30 mT of SKJ in its logsheet today with no sensible set ID information and tonnage doesn't match previous sets																									from Lady Mac
25/03		15/02				50					Example 5				80										32			82	371	(because it is full) 0930
26/03					(-40)						Example 6															(-40)		0	371	transfer approx. 2100
TOTALS					0	50	20		40	40					80						40	40		29	32	0			371	

Record ALL fish going into wells in metric tonnes. Use whole numbers (e.g.: 25).

Also record ALL fish removed from wells in negative metric tonnes in brackets (e.g.: (- 30)).

Totals at bottom : When the page is finished add up catch in each well. Add all figures in a column. Don't forget to subtract the negative numbers for catch that was removed from a well. When the page is finished write each well total on the top line of a new page. Write "Totals carried over from page ?? in the comments column.

SPC/FFA REGIONAL PURSE SEINE OBSERVER
VESSEL LOGSHEET and WELL LOADING RECONCILIATION

(optional)

FORM PS - 5 (pg 2)

REVISED DEC. 2004

VESSEL NAME	OBSERVER NAME	OBSERVER TRIP ID	PAGE OF

OBSERVER (SEE NOTES)		LOGSHEET SET TIME		PORT WELLS												STARBOARD WELLS												OBSERVER'S		COMMENT
DATE	TIME	DATE	TIME	24	23	22	21	20	19	18	17	16	15	14	13	13	14	15	16	17	18	19	20	21	22	23	24	TOTAL	CUMUL. TOTAL	
TOTALS																														

Record ALL fish going into wells in metric tonnes. Use whole numbers (e.g.: 25).

Also record ALL fish removed from wells in negative metric tonnes in brackets (e.g.: (- 30)).

VESSEL LOGSHEET and WELL LOADING RECONCILIATION

Notes on FORM PS-5 (Page 2)

(Use Page 2 if your vessel has more than 12 starboard and 12 port wells)

Form PS -5 is used by scientists to match vessel logsheet data with observer data and to improve port sampling strategy by letting scientists understand how fishermen move fish between wells. Be watchful tracking transfer of catch around wells. Record all transfers if possible, even if a well has fish mixed from more than one set. The information could be useful

Records are made on this form by an observer when there is any movement of fish (caught in set; transferred between wells or vessels) and whenever catch is recorded on a vessel logsheet.

For each set record the start "DATE" and "TIME" of set exactly as it is recorded on observer forms PS-2 and PS-3 ***AND*** exactly as it is recorded on the vessel logsheet. Record metric tonnes (mT) of catch that go in each well. (N.B. There are port and starboard wells). **- EXAMPLE 1**

If vessel does not record catch at time of set the observer makes their own record on Form PS-5 and must check the logsheet for later records that they think match with this set.

Be alert to what happens on the bridge and on logsheets. The vessel may be waiting until end of day to record sets. ***If a vessel records nothing for a set*** write "No record" - **EXAMPLE 2**

If the vessel has one logsheet entry for two or more sets the observer must bracket his set details to the vessel set details. Record exactly as on forms and logsheets - **EXAMPLE 3**

It may get difficult to match a vessel logsheet record with observer records. The observer must then make a separate Form PS-5 entry just to cover the vessel logsheet record. In PS-5 "DATE" and "TIME" columns: score out the observer column, enter details from the vessel's logsheet in the logsheet column and add a brief comment along that line. **- EXAMPLE 4**

For ***movements of fish between wells or between vessels*** record the date in the observer column, leave the time blank (line through it) and note time in comments. **- EXAMPLE 5**
Note that when transfers of fish are made from well to well the "OBSERVER'S TOTAL" for that line should equal zero and the " CUML. TOTAL" remains the same. **- EXAMPLE 6**

Observer's Total : The observer calculated total. The amounts recorded as going into each well should add up to this total. If not explain why not on the line immediately underneath.

Cumulative total (CUMUL. TOTAL) should equal the total amount of fish on board. It is calculated by adding the observer's total to the previous cumul. Total on the line above.

Comment : Any comments about the transfer or loading of the catch in the wells and any reason given for transferring fish from one well to another.

OBSERVER (SEE NOTES ON BACK) DATE	OBSERVER TIME	LOGSHEET SET TIME DATE	LOGSHEET SET TIME TIME	PORT WELLS 24	23	22	21	20	19	18	17	16	15	14	13	STARBOARD WELLS 13	14	15	16	17	18	19	20	21	22	23	24	OBSERVER'S TOTAL	OBSERVER'S CUMUL. TOTAL	COMMENTS
03/03	0530	03/02	0600		40						Example 1															30		70	70	
04/03	0545	No record							8		Example 2																	8	78	
05/03	0840 }	04/03	}1500						12		Example 3																	12	90	Logsheet entry
05/03	1740 }								20	28											40					10		98	188	was 100 mT
15/03	1635	No record									Example 4													5				5	289	
		15/03	1635	Vessel recorded 30 mT of SKJ in its logsheet today with no sensible set ID information and tonnage doesn't match previous sets																								—	from Lady Mac
15/03	—	15/02	—			50					Example 5				80										32			82	371	(because it is full) 0930
17/03					(-40)						Example 6															(-40)		0	371	transfer approx. 2100
TOTALS					0	50	20		40	40					80						40	40		29	32	0		—	371	

Record ALL fish going into wells in metric tonnes. Use whole numbers (e.g.: 25). Also record ALL fish removed from wells in negative metric tonnes in brackets (e.g.: (- 30)).

Totals at bottom : When the page is finished add up catch in each well. Add all figures in a column. Don't forget to subtract the negative numbers for catch that was removed from a well. When the page is finished write each well total on the top li

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

FORM GEN - 1

REVISED DEC. 2004

OBSERVER NAME	VESSEL NAME	OBSERVER TRIP ID NUMBER	PAGE OF

VESSEL OR AIRCRAFT SIGHTINGS

UTC		OBSERVER'S VESSEL POSITION				SIGHTED VESSEL OR AIRCRAFT				COMPASS BEARING (degrees)	DISTANCE (Nautical Miles)	ACTION CODE (seen vess)	PHOTO FRAME #	COMMENTS
DATE	TIME	LATITUDE (dd° mm.mmm')	N S	LONGITUDE (ddd° mm.mmm')	E W	NAME	INTERNATIONAL CALLSIGN	FLAG	TYPE CODE					

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

DATE	TIME	OBSERVER'S VESSEL POSITION				OTHER VESSEL				FISH TRANSFERRED				ACTION CODE (host vess)	COMMENTS
		LATITUDE (dd° mm.mmm')	N S	LONGITUDE (ddd° mm.mmm')	E W	NAME	INTERNATIONAL CALLSIGN	FLAG	TYPE CODE	SKJ WGT.	YFT WGT.	BET WGT.	MIXED WGT.		

VESSEL AND AIRCRAFT TYPE CODES

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

FLAG COUNTRY CODES

- IF COUNTRY IS NOT IN LIST WRITE NAME OF COUNTRY

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

ACTION CODES

- FISHING INCLUDES ANY FISHING RELATED ACTIVITY NOT OTHERWISE COVERED HERE

FI FISHING
PF POSSIBLY FISHING
NF NOT FISHING
DF DUMPING FISH

RECEIVING

TR TRANSHIPPING FISH
SR SET SHARING
BR BUNKERING
OR OTHER ...specify...

GIVING

TG TRANSHIPPING FISH .... (from hold in one boat to hold in other)
SG SET SHARING…….. (from one boat's net to another boat's hold)
BG BUNKERING
OG OTHER _____

ALL DATES AND TIMES MUST BE UTC / GMT
ALL WEIGHTS MUST BE METRIC TONNES

VESSEL AND AIRCRAFT SIGHTINGS / FISH, BUNKERING and OTHER TRANSFERS

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 particular box you are trying to complete.	
Date/Time	Record the UTC/GMT Month Day and Time as given on the GPS.
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
	Mixed Weight	Some wells may be mixed and so it will be impossible to get separate species weights. Then get total weight of species. Indicate in comment s what the main species in the mix is.
	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 describes 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.

Telex Format Example.

To FFA Observer Co-ordinator

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

***flag** KO - **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
SPECIES OF SPECIAL INTEREST

FORM GEN - 2

REVISED DEC. 2004

OBSERVER NAME	VESSEL NAME	OBSERVER TRIP ID NUMBER	PAGE OF

The species was: Tick to indicate — LANDED ON DECK ☐ — INTERACTED WITH VESSEL'S GEAR ONLY ☐ — SIGHTED ONLY ☐

TIME OF LANDING (see PS-2, PL-2, LL-4)		Tick one !	SHIP'S DATE AND TIME DD	MM	YY	hh	mm	LATITUDE (dd°mm.mmm')	N S	LONGITUDE (ddd°mm.mmm')	E W
TIME OF INTERATION / SIGHTING											

SPECIES CODE	SPECIES DESCRIPTION

SPECIES LANDED ON DECK:

LANDED:	CONDITION CODE	CONDITION DESCRIPTION

DESCRIBE ONBOARD HANDLING	LENGTH (cm)	LENGTH CODE	SEX (M-F-I-U)

DISCARDED	CONDITION CODE	CONDITION DESCRIPTION

TAGS	*RETRIEVED*			*PLACED*		
	TAG NUMBER	TYPE	ORGANISATION	TAG NUMBER	TYPE	ORGANISATION

INTERACTIONS WITH VESSEL OR VESSEL GEAR:

VESSEL'S ACTIVITY DURING INTERACTION → SETTING ☐ HAULING ☐ TRANSITING ☐ OTHER (specifiy) ☐ .....

START OF INTERACTION:	CONDITION CODE	CONDITION DESCRIPTION	***END OF INTERACTION:***	CONDITION CODE	CONDITION DESCRIPTION

DESCRIBE THE INTERACTION

SPECIES SIGHTED

VESSEL'S ACTIVITY WHEN SIGHTED → SETTING ☐ HAULING ☐ TRANSITING ☐ OTHER (specifiy) ☐ .....

NUMBER SIGHTED	NUMBER OF ADULTS	NUMBER OF JUVENILLES	ESTIMATE THE OVERALL LENGTH(s) (From the head to the tail)

DISTANCE FROM VESSEL	SPECIES BEHAVIOUR WHEN SIGHTED
NM	

SPECIES OF SPECIAL INTEREST

TTL	LOGGERHEAD TURTLE	FAW	FALSE KILLER WHALE	DBO	BOTTLENOSE DOLPHIN
LTB	LEATHERBACK TURTLE	SHW	SHORT-FINNED PILOT WHALE	DCO	COMMON DOLPHIN
TUG	GREEN TURTLE	KPW	PYGMY KILLER WHALE	DRR	RISSO'S DOLPHIN
LEO	OLIVE RIDLEY TURTLE	MEW	MELON HEAD WHALE	DSI	SPINNER DOLPHIN
TTH	HAWKSBILL TURTLE	HUW	HUMPBACK WHALE	DSP	SPOTTED DOLPHIN
KEZ	EASTERN PACIFIC GREEN TURTLE (BLACK TURTLE)	SIW	SEI WHALE	DST	STRIPED DOLPHIN
				RTD	ROUGH-TOOTHED DOLPHIN
FBT	FLATBACK TURTLE	ODN	TOOTHED WHALES		
		MAM	ALL MARINE MAMMALS	DLP	ALL DOLPHINS
TTX	ALL TURTLES				
		RHN	WHALE SHARK	BRZ	ALL BIRDS

Observer Name	Print your name in full. First name first, then your family name (e.g "John Masa").
Vessel Name	Print the vessel's name in full. Do not use abbreviations.
Observer Trip ID Number	This is the number issued by your observer programme. It will be the same all trip.
Page__of ____	Number all the GEN-2 forms together,in sequence. Continue until the trip is complete.

THE SPECIES WAS:	
*Tick one box only - to indicate the **FINAL** encounter the species of special interest had with the vessel. For instance, if you sighted a species that was subsequently landed, tick landed only.*	
Time of landing (see PS-2, PL-2, LL-4)	For species landed on deck note start of set time recorded on PS- 2 or PL-2 forms. If on a longliner note the actual time of landing as noted on the LL-4.
Time of Interaction / Sighting	For species which were not landed on deck, note the time of the interaction or sighting.
Position (latitude / longitude)	Note start of set position for species landed on deck. If a species was only sighted or only interacted with gear, note position the vessel was in when species was first seen.
Species Code	Use the three-letter FAO species code.
Species Description	Use this field to describe some of the identifing features of the species. This may help us to correctly identify the species. Consider the colour, any distinctive markings, the shape of the head, fins, tail, the position of the blow hole and the place of the fins in relation to other body parts.

SPECIES LANDED ON DECK:			
USE THESE CONDITION CODES	**A0** - Alive. But you are unable to further categorise its condition.		
	A1 - Alive and healty.		
	A2- Alive, but injured or distressed.		
	A3 - Alive, but unlikely to live.	**D** - Dead	**U** - Condition unknown.
	A4 - Entangled, okay.	**D1** - Entangled, dead	**U1** - Entangled, unknown condition.
	A5 - Entangled, injured.	**D2** - Hooked, externally, dead.	**U2** - Hooked, externally, condition unknown
	A6 - Hooked, externally, injured.	**D3** - Hooked, internally, dead.	**U3** - Hooked, internally, condition unknown.
	A7- Hooked, internally, injured.	**D4 -** Hooked, unknown, dead.	**U4 -** Hooked, unknown, condition unknown.
	A8 - Hooked, unknown, injured.		
Condition description	Write a description of the condition of the species when landed / discarded. This may help to further assess the condition of the landed / discard species.		
Length / Length code	Measure the species using the regular length codes as outlined in your workbook.		
Sex (M-F-I-U)	M-male, F-Female, I -Indeterminate (checked but unsure), U -unknown (not checked).		

TAGS	
Record all details about any tags placed or found on the species here.	
Type of Tags	Record if it was a common dart, an archival (stitched inside body), or a pop-up (stiched to the outside of the body) tag.

INTERACTIONS WITH VESSEL OR VESSEL GEAR:	
For all interactions with the vessel or with the vessel's gear For instance, you may note whales or dolphins trapped inside a purse seine net or riding the bow waves of a vessel. Another type of interaction to be considered are species hooked on longlines but not landed onboard.	
Vessel's Activity	Tick to indicate the vessel's activity when the interaction was first noted.
Condition Code	Use the condition codes noted above to state the species description at the start and end of the interaction with the vessel or vessel gear.
Condition Description	Make some notes on the condition. This may help further define its condition.
Describe the Interaction	Make detailed notes on the interaction. If more space is needed use the observer's diary and mark the page number here.

SPECIES SIGHTED:	
Vessel's Activity	Tick to indicate the vessel's activity when the interaction was first noted.
Number Sighted	Record the total number of species sighted for this date and time.
Number of Adults	If more than one animal is involved, record the number of adults you can see.
Number of Juvenilles	If you can see juvenilles with the pod of whales or dolphins record the number here. Otherwise record all animals under "number of adults".
Species Behaviour	Describe the behaviour of the animal in the water. Use own words but some technical terms that may be helpful include: *wake riding* (swimming close behind boat); *bow riding* (swimming off the bow of the boat); *logging* (floating motionless in a group); *breaching* (launching themselves into the air head first and then falling back into the water with a splash); *lobtailing* (tail slapping); *playing* (having fun !); etc.
Distance from Vessel (NM)	Estimate the distance the species was from the vessel.

SPC/FFA REGIONAL OBSERVER VESSEL TRIP MONITORING RECORD

FORM GEN - 3

REVISED DEC. 2004

This form must be filled in for every trip

OBSERVER NAME	VESSEL NAME	OBSERVER TRIP ID NUMBER

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

		Yes	No
a)	*Record inaccurate positions on the vessel logsheet*		
b)	***Fish in areas that were not covered by any licence or access agreement***		
c)	*Mis-report catch in the vessel logs or weekly reports.*		
d)	***Not report catch of commercial species (including discards)***		
e)	*Not record bycatch and discards*		
f)	***Record bycatch and discards inaccurately***		
g)	*Target species other than those they are licenced to target*		
h)	***Use a fishing method other than the method they are licenced to use***		
i)	*Record one species as a different species.*		
j)	***Catch species of special interest***		
k)	*Breach MARPOL Regulations*		
l)	***Bunker or not report bunkering to national authorities***		
m)	*Transfer fish from or to another vessel at sea*		
n)	***Request that an event not be reported***		
o)	*Mistreat other crew*		
p)	***Hinder the observer in the carrying out of their duties***		
q)	*Not supply reasonable accomodation, food and facilities to the observer onboard the vessel*		
r)	***High grade or cull the catch***		
s)	*Not report position to countries when crossing from one zone to another*		

IF YOU ANSWERED YES TO ANY OF THE ABOVE PLEASE EXPLAIN BRIEF DETAILS IN THE AREA BELOW
INDICATE THE PAGE NUMBER OF YOUR DIARY OR REPORT IN WHICH A MORE COMPREHENSIVE EXPLANATION IS WRITTEN.

date	
date	
date	

	OBSERVER SIGNATURE

Vessel Trip Compliance Record

This check form must be completed at the end of every trip. It is important to ensure the information you collect is kept confidential from the vessel and any one else except officers authorised to receive observer reports back in port.

If unsure that a violation has been committed but suspect a vessel has violated its license agreement, write a full account of the incident, including all evidence that aroused suspicion. The officers you report to on return to port will determine if your suspicions are valid and may order further investigation. Although gut feelings on board are often correct, these, unfortunately are not enough to prosecute a vessel. There must be some incident or evidence to back up any suspicions.

Be friendly on board and have a harmonious trip if possible, but remember an observer must put new friendships aside when reporting on vessel compliance. Any attempt by the vessel to corrupt an observer is illegal and should be noted and reported. Whether money or gifts it is still bribery. If a vessel is caught fishing illegally and an observer has accepted gifts from that vessel then the observer could be accused of taking a bribe not to report the illegal fishing which could land them in prison.

Observer Name	The observer must print their first name first and last name (family name) last
Vessel Name	Full name - not abbreviated. E.g.: the F/V *Ivan Grimsby Korsakov* must not be abbreviated to *I.G.Korsakov*
Observer ID Number	Same number used on all forms and issued before leaving port. It will not change for the whole trip.

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

~ Record inaccurate positions on the vessel logsheet	The vessel log sheet should be filled out by the vessel captain or a designated officer daily or after each set. The observer has the right to ask to see this log at anytime (inspect this log at least once a day). Check if the vessel recorded position is the same as that recorded for the same time on observer daily logs. Discrepancies of anything more than 3 miles should be reported and the distance noted in the observer report.
~ Fish in areas that were not covered by any licence or access agreement	Be aware of the areas within EEZs that a vessel is not permitted to fish. Generally internal waters, territorial seas (12 miles from a land baseline) and archipelagic waters are off limits to purse seiners (some exceptions occur). Some countries (e.g.: Papua New Guinea) have areas where only specific types of vessel are permitted to fish. Local fishery divisions will help and FFA has listed the closure areas for US vessels in the US Treaty manual. These also apply to most DWFN purse-seiners.
~ Mis-report catches 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. Check vessel logs to ensure all sets are recorded and the catch has been logged correctly every day. If vessel and observer estimates are very different, be suspicious, watch carefully and report it on return.
~ Not report catch of commercial species **~ Not record catch of bycatch and discards** **~ Record bycatch and discards inaccurately**	Report any attempt by the vessel to not report any fish, shark and mammal species - retained or discarded. Report if vessel reports all main commercial species correctly but does not report bycatch, retained or discarded. Please 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. Recording discards may not be important to the vessel but it is a requirement that all species (not only commercial species) caught must be recorded correctly, whether they are retained or discarded. Also note if bycatch are recorded but recorded inaccurately.
~ Target species other than those they are licenced to target	The target species is mentioned on the vessel's fishing permit. Usually "Tuna" will be the target species. Note if the vessel spent time targeting a species other than what is marked on their permit. Did a vessel licensed for "Tuna and other species" target sharks for instance. Did they target reef fish?
~ Use a fishing method other than the method they are licenced to use	The licensed fishing method will be marked on the vessel's fishing permit. Note if they used a fishing method other than that described on the permit. The most common violation in this area is hand lining near a reef. Give a full description of what type of gear was used and what species, if any, were caught.
~ Record one species as a different species	Vessels may record one species as another to lower the value of their catch to try to negotiate lower licence fees. 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. However, as there is insufficient information available for BET, it is VERY IMPORTANT to report if this occurs. Good observer reporting of these species is essential.
~ Catch or attempt to catch species of SPECIAL **interest**	Includes all species of whales, dolphins turtles, dugongs and seals. Write a short report on the fate of any marine mammal that a vessel deliberately sets on. Describe if an animal: managed to escape by own means; was hauled onboard distressed or dead; was released; and if released or escaped was it injured or unharmed. Anything about a vessels' attitude to such animals is important. All deliberate and accidental catch of marine mammals should also be reported in Form PS-3 (the daily set log) and Form GEN-2 (species of special interest).
~ Breach MARPOL regulations	MARPOL is an international Convention for the prevention of pollution from ships. Rubbish thrown overboard into the sea represents a threat to all marine life and to other vessels. All mariners should be aware of the two basic principles. It is illegal to: 1. discharge any plastic product, netting, nylon line into the ocean anywhere. 2. discharge unprocessed perishable garbage within 12 nautical miles of land or a reef. If a vessel is within 12 miles of land then no unprocessed rubbish is permitted to be discharged over the side. If the vessel is more than 12 miles then only food scraps, paper, glass, metals or crockery is permitted. Perishables (no plastic) processed with an onboard grinder may be dumped no closer than 3 miles from land. Report in comments what vessel does with its rubbish and whether it has an incinerator on board.

SPC/FFA REGIONAL OBSERVER POLLUTION REPORT

FORM GEN-6

REVISED DEC. 2004

OBSERVER NAME	VESSEL NAME	OBSERVER ID NUMBER	PAGE OF

- fill in one form for each pollution incident -

INCIDENT DETAILS

Ship's DATE and TIME DD	MM	YY	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			
Old Fishing gear			
General Garbage (within 12 miles of shoreline)			

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 specifiy			

Other comments:

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

Was the Captain aware of the MARPOL Regulations ? **Y / N**

If there were any infringements to the MARPOL Regulations did you advise the Captain of these infringements ?

N.B.: Observers are not expected to advise. Usually they only observe and report.

Y / N / NP

(NP = Not Possible due to language barrier)

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

If yes state the photo frame number -

MARPOL Regulations - 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 at anytime.

It is illegal for any vessel to dump any form of rubbish into the sea within 12 nautical mile of the sea 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 (dd/mm/yy)	Date pollution seen in day, month and year.	*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 offending vessel from host vessel. The radar can be used to get an extact distance in nautical miles. Otherwise give best estimate and note if it is the observer's or someone else's.

WASTE DUMPED OVERBOARD	
Material	Tick each correct box to show which types of materials were dumped. Only tick two or more materials if vessel has dumped more than one material type 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 separately.
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; etc.
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 distance.

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.

Supplementary notes on Marpol Regulations

Note: Vessels may dump garbage as close as 3 nautical miles to the shore if they have a 'comminuter' onboard (a machine that shreds garbage to tiny pieces).

Otherwise they cannot dump garbage within 12 nm of the coast. Report on all vessels dumping within 12nm of the coast. We can check if they have a comminuter onboard later.

Country Codes

AS	American Samoa	NR	Nauru
AU	Australia	NC	New Caledonia
CK	Cook Islands	NZ	New Zealand
FM	Fed. States of Micronesia	NU	Niue
FJ	Fiji Islands	MR	Northern Mariana
FR	France	PW	Palau
PF	French Polynesia	PG	Papua New Guinea
GU	Guam	PH	Philippine
ID	Indonesia	RU	Russia
IW	International Waters	SB	Solomon Islands
JP	Japan	TW	Taiwan
TO	Kingdom of Tonga	TK	Tokelau
KI	Kiribati	TV	Tuvalu
KR	Korea	US	United States
CN	Mainland China	VU	Vanuatu
MY	Malaysia	WS	Samoa
MH	Marshall Islands		

APPENDIX 8. SPC / FFA REGIONAL UNLOADING AND PORT SAMPLING FORMS

1. **Longline Unloading Form**

2. **Longline Unloading Destination Form**

3. **Longline Port Sampling Form**

4. **Purse-Seine and Pole-and-Line Unloading Form**

5. **Pole-and-Line Port Sampling Form**

6. **Purse-Seine Port Sampling Form**

7. **Purse-Seine Well Loading Form**

8. **Troll Port Sampling Form**

SPC / FFA REGIONAL LONGLINE UNLOADING FORM

REVISED: DEC 2004

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.											
			Wt.											
	NAME	FLAG	EXPORT No.											
			Wt.											
	REG. No	AGENT	LOCAL No.											
			Wt.											
	NAME	FLAG	EXPORT No.											
			Wt.											
	REG. No	AGENT	LOCAL No.											
			Wt.											
	NAME	FLAG	EXPORT No.											
			Wt.											
	REG. No	AGENT	LOCAL No.											
			Wt.											
	NAME	FLAG	EXPORT No.											
			Wt.											
	REG. No	AGENT	LOCAL No.											
			Wt.											
	NAME	FLAG	EXPORT No.											
			Wt.											
	REG. No	AGENT	LOCAL No.											
			Wt.											
	NAME	FLAG	EXPORT No.											
			Wt.											
	REG. No	AGENT	LOCAL 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*).
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.
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.

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: DEC 2004

VESSEL NAME	COMPANY OR AGENT HANDLING UNLOADING	COMPLETED BY	PORT	PAGE OF
COUNTRY OF REGISTRATION	COUNTRY REGISTRATION NUMBER	RETURN TO PORT DATE (DD / MM / YY)	FIRST DAY OF OFFLOADING (DD / MM / YY)	

SPECIES	FRESH EXPORT								LOCAL, CANNERY OR OTHER PROCESSING MARKETS					
	JAPAN		USA		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 ECONOMIC UNLOADING FORM

The Longline Economic 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

VESSEL NAME: **W**rite in the full name of the vessel as recorded on the country registration certificate.
COMPANY OR AGENT: **T**he full name of the company or agent handling the unloading.
PORT: **T**he name of the port where the unloading took place.
COMPLETED BY: **T**he name of the person who has filled in this form.
PAGE : **I**f more than one page is required for one unloading mark down the page numbers.
REGISTRATION NUMBER: **T**he vessel's registration number as written on the county registration certificate.
COUNTRY OF REGISTRATION: **T**he name of the country issuing the registration certificate.
RETURN TO PORT DATE: **T**he date the vessel first returned to port and tied up at the dock.
OFFLOADING DATE: **T**he date of the first day of unloading.

SPECIES UNLOADED AND DESTINATION

SPECIES	FRESH EXPORT								LOCAL, CANNERY OR OTHER PROCESSING MARKETS					
	JAPAN		USA		OTHER		OTHER		LOCAL MARKET		CANNERY NAME / COUNTRY UTS / FIJI		OTHER	
	NO.	KG / LB	NO.	KG / LB	NO.	KG / LB	NO.	KG / LB	NO.	KG / LB	NO.	KG / LB	NO.	KG / LB
Yellowfin	12	345							2	30				
BET	4	120												
ALB											28	392		

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. You may use the FAO species codes instead of the name. Some of these are noted below.

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.

- FRESH EXPORTS:

Use these columns if the unloaded fish are exported from the country for the fresh 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 exported as non-fresh exports, for canneries 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 fresh exports.

Some common species codes.

FAO Species Codes

YFT – Yellowfin	**SKJ** – Skipjack	**MLS** – Striped Marlin	**WAH** – wahoo
BET – Bigeye	**BUM** – Blue Marlin	**SWO** - Swordfish	**DOL** – Mahi mahi
ALB – Albacore	**BLM** – Black Marlin	**SFA** - Sailfish	**LAG** - Moonfish

SPC / FFA REGIONAL LONGLINE PORT SAMPLING FORM

REVISED: DEC 2004

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

VESSEL NAME:	COUNTRY OF REGISTRATION:	REGISTRATION NUMBER:

DATE - START OF TRIP: (DEPARTED PORT)	D D	M M	Y Y	DATE - 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 (**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		SPECIES	LENGTH CM	LENGTH CODE	WEIGHT KG	WEIGHT CODE	EXPORT CODE	OTHER
1								26							
2								27							
3								28							
4								29							
5								30							
6								31							
7								32							
8								33							
9								34							
10								35							
11								36							
12								37							
13								38							
14								39							
15								40							
16								41							
17								42							
18								43							
19								44							
20								45							
21								46							
22								47							
23								48							
24								49							
25								50							

CIRCLE "Y" OR "N" TO ANSWER (Every submitted form must be circled twice.)	
WERE ALL THE YFT, BET AND ALB UNLOADED AND ALL SAMPLED ?	Y N
WERE ALL SWO, MLS, BLZ, BLM AND SFA UNLOADED AND ALL SAMPLED ?	Y N

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

Eg: *FSH ||| ||| ||| ||| ||| ||| ||| ||| ||| / = 41*

BILLFISH LENGTH CODES	
LF	LOWER JAW TO CAUDAL FORK
PF	PECTORAL TO CAUDAL FORK
PS	PECTORAL TO SECOND DORSAL
NM	NOT MEASURED

OTHER SPECIES LENGTH CODES	
UF	UPPER JAW TO CAUDAL FORK
US	UPPER JAW TO SECOND DORSAL
PS	PECTORAL TO SECOND DORSAL
NM	NOT MEASURED

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

SPECIES	YFT	BET	ALB	SWO	MLS	BLZ	BLM	SFA	OTHER SPECIES
NUMBER									
SUM LENGTHS									
SUM WEIGHTS									

NOTES ON LONGLINE PORT SAMPLING FORM

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

VESSEL NAME:	COUNTRY OF REGISTRATION:	REGI:

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

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

PAGE OF Number pages out of the total 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 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 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) and assistant (person writing measurements on form), if there is one.
Staff id code : Fill in the sampler's and the assistant's unique Field Staff ID Code as issued by your supervisor.

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

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.

Country of Registration (flag) and **Registration Number**: The country in which the vessel is registered and registration number that 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	CODE	WEIGHT KG	CODE	EXPORT CODE	OTHER *Specify here*

Length: (cm) must be rounded down to whole centimetres (e.g. 69.9cm is recorded as 69cm)
(See "Length Codes" on front of form.)

Export code: "LO" for local only if fish is **not** to be exported. Else use one of the country codes below to show destination of fish.

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) must be recorded to nearest kilogram (e.g. 58.7kg is written as 59kg, 55.5kg as 56kg, 52.3kg as 52kg) 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

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

Important !

Try to record every fish even if you are unable to sample it. If possible also check the vessel for fish that are kept back for crew's use. Record fish not sampled in the space provided below **(see example*)**

Typical example of a record for yellowfin landed for export to Japan

	SPECIES	LENGTH CM	CODE	WEIGHT KG	CODE	EXPORT CODE	OTHER
25	*YFT*	*125*	*UF*	*56*	*GG*	*JP*	

CIRCLE "Y" OR "N" TO ANSWER
(Every submitted form must be circled twice.)

WERE ALL THE YFT, BET AND ALB UNLOADED AND ALL SAMPLED ?	(Y) N
WERE ALL SWO, MLS, BLZ, BLM AND SFA UNLOADED AND ALL SAMPLED ?	Y (N)

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

Eg: *When asked why no marlin unloaded the Captain said it was unloaded to Grabit Co., Fishtown on 2nd of March*

Eg: *FSH* 𝍸 𝍸 𝍸 𝍸 𝍸 𝍸 𝍸 𝍸 / = *41*

Important ! - Always try to record unmeasured fish along with the measured fish using the length code **NM**. Only use this comments section, as with this example, when it is not practical to record each fish.

Circle "Y" (yes) or "N" (no) for both questions. If a few fish are kept back for the crew 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. Both of these questions must be answered on all submitted forms. **Hint**: You will give the exact same answer on every form you use for one unloading, and you won't be able to answer the questions until the end of sampling. Fill in all these questions at the end of the unloading.

***Example**: Forty-one of these low valued species were rapidly unloaded to bins while other export species were being measured.

	YFT	BET	
NUMBER			
SUM LENGTHS			
SUM WEIGHTS			

Number (Port sampler should always add these)

Sum of Lengths and **Sum of Weights**
(Adding these is optional for port samplers. Results are used by staff who enter data into computers, to check that they have made no mistakes)

Only add up for each species recorded on **this** form Don't include counts that you have in "Record Counts of Fish Not Sampled and Comments" box

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

REVISED: DEC 2004

PORT	COMPLETED BY	MONTH	YEAR	PAGE OF

LOADING DATES		NAME OF CARRIER, COOLSTORE OR CANNERY	DETAILS OF CARRIER VESSEL					
FIRST DAY	LAST DAY		FLAG	REGISTRATION No.	SHIPPING COMPANY	CAPTAIN	PERMIT No.	DESTINATION

IF ANSWER IS YES FILL THE OTHER FIELDS IN THAT LINE.	YES or NO	PORT OF LOADING / COOLSTORE NAME	LOADING DATES		WEIGHT OF EACH SPECIES (mT)				SKJ / YFT BET	OTHER Sp.	TOTAL
			START	END	SKJ	YFT	BET	YFT / BET			
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)				SKJ / YFT BET	OTHER Sp.	TOTAL	FULL OR PART UNLOADING
FIRST DAY	LAST DAY	NAME	FLAG	REGISTRATION No.	START	END	SKJ	YFT	BET	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
MONTH	The month during which unloading took place
YEAR	The calendar year
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 day the carrier, cannery or coolstore (that is named in this section) started loading and the 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 county that the vessel is registered in (also called Vessel Nationality)
REGISTRATION No.	The registration number of the fishing vessel given by the FLAG country
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 START / END	(of fish that were loaded at another port or were loaded from a coolstore at this port) The day the carrier started and the day it finished loading fish in the previous port …. or The day the cool store started and the day it finished loading fish on to the carrier at this port.

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	Start of the fishing trip that has just finished catching fish for this unloading
	END	End of fishing trip that has just been completed (day of arrival in this port)

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.

SPC / FFA REGIONAL POLE-AND-LINE PORT SAMPLING FORM

REVISED: DEC. 2004

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

VESSEL NAME:	COUNTRY OF REGISTRATION:	REGISTRATION 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

SORTING - VERY IMPORTANT !

TICK **O**NE 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

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	
∑ lengths		∑ lengths		∑ lengths		∑ lengths		∑ lengths		∑ 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.

*All dates to be recorded using 2-digit number for each of day "*D D*", month "*M M*" and year "*Y Y*" in that order.*
To do this put a "0" in front of single digit numbers. E.g.: write the "3rd of January", 1996 as 03 01 96.

HEADER INFORMATION

PORT ..... The port of unloading
SAMPLER ..... The first and last name of the person measuring the fish
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*)
COUNTRY OF REGISTRATION. The vessel nationality
REGISTRATION NUMBER ..... A number issued to the vessel by the country of registration (flag country)
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

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.

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.

$\sum$ LENGTHS (= sum of lengths): - Add up lengths in the column directly above. This is used for data entry checking.

SPC / FFA REGIONAL PURSE SEINE PORT SAMPLING FORM

REVISED: DEC 2004

PORT:	SAMPLER'S NAME	Staff id code	ASSISTANT'S NAME	Staff id code	PAGE OF

CARRIER OR CANNERY:	VESSEL NAME:	COUNTRY OF REGISTRATION:	REGISTRATION No.:

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:	
WEIGHT 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				
∑ 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 your measure more than 150 fish use extra forms. Every single form you submit must have all the header details filled in entirely. 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.
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 brand new page one and number your pages in sequence until you have finished your sample. When your sample is finished go back and fill in the total number of pages in that sample i.e page 1 of 5, where 5 is the total number of pages for the sample.
COUNTRY OF REGISTRATION	**T**he nationality of the vessel as note on the county registration certificate or license.
DATE OF DEPARTURE	**T**he date the vessel left port at the beginning of their last trip.
DATE OF ARRIVAL	**T**he date the vessel returned to port at the end of the trip.
DATE OF SAMPLE	**T**he date the sample was taken. This is an important data field, don't forget to fill it in.

SET DETAIL INFORMATION - get this information from vessel logsheets.

For selected wells which meet the appropriate selection criteria, transcribe every line with that well number from the logsheet.
It is very important that you write out all the logsheet details from the logsheet straight onto your port sampling form. Don't forget the well numbers at the end. If there is no information for any 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 SAMPLE When there is no pre-selection of species by the sampler, the most common type of sample.
NON-RANDOM SAMPLE 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 that 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

SPECIES and LENGTH DATA - *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 . (i.e. 67.9 cm will be recored as 67 cm.)

DATA ENTRY VERIFICATION (*do 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
∑ LENGTHS FOR EACH SPECIES (∑ = 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 set details of the well indicate it is an appropriate well for sampling.

WELL SELECTION CRITERIA FOR HIGHLIGHTED SET DETAIL INFORMATION

School Association Only sample wells where all the set details show the same school association.
Date of Set: *First Choice: Sample wells where all the set details show the same calender month.

Second Choice Sample wells where all the set details have dates seven days before or seven days after the same calender m

Third Choice : Sample wells where all the set details have the dates from the same calender quarter (i.e Jan - March)

Fishing Area :*First Choice: set details showing sets made in the same 5° x 5° area

Second Choice: sets details showing sets made in the same 5° x 10° or 10° x 5° area

Third Choice: sets details showing sets made in the same 10° x 20° or 20° x 10° area

SOUTH PACIFIC REGIONAL PURSE SEINE WELL LOADING WORKSHEET

REVISED SPC/FFA DEC. 2000

PORT:	SAMPLER:	ASSISTANT:	PAGE OF
VESSEL NAME:	COUNTRY OF REGISTRATION:	REGISTRATION NUMBER:	

DATE AT START OF TRIP: (departed from port)	DD	MM	YY	DATE AT END OF TRIP: (arrived in port)	DD	MM	YY	DATE OF SAMPLE	DD	MM	YY

SET DATE	SET POSITION		SCHOOL ASSOC	SET START TIME	SKJ	YFT	SKJ + YFT	OTHER SPECIES	WELL No.
	LATITUDE	LONGITUDE							

Notes for PURSE SEINE WELL LOADING WORKSHEET

The Well Loading Worksheet can be used to record information about purse seine sets and the wells in which the catch was stored in order to help find good wells for species composition and length frequency sampling. This is useful if there are going to be many wells sampled. It may also be useful when it is very difficult to find suitable wells for sampling and a port sampler needs to go carefully through the logsheet set by set. Normally, however, the sampler can collect enough information about the wells that they will sample directly onto the Purse Seine Port Sampling Form.

*All dates are to be recorded using 2-digit number for each of day "*D D*", month "*M M*" and year "*Y Y*" in that order. To achieve this place a "0" in front of single digit numbers. E.g.: write the 3rd of January, 1996 as 03 01 96.*

GENERAL INFORMATION

PORT	The port of unloading
COMPLETED BY	The first and last name of the person who completed the form
DATE	The date the form was completed
VESSEL NAME	The name of the fishing vessel
VESSEL NATIONALITY	The county of registration
PERMIT	The permit issued to the purse seiner by the port country
PREVIOUS PORT OF ENTRY	The port from which the vessel the began trip
DATE OF DEPARTURE	The date the vessel left the previous port at the beginning of the trip
DATE OF ARRIVAL	The date the vessel returned to port at the end of the trip
FISHING AREA	The northern, southern, western and eastern boundaries of the fishing area, recorded to the nearest degree of latitude and longitude

WELL LOADING DATA

Use this area to collect information about all successful sets (i.e., not for sets from which no fish were caught).
The information needed is found in the Vessel Logsheets which should be made available by the captain / fishing master.

If the catch from a set is stored in more than one well and the amounts stored in each well are available, then the amounts stored in each well should be recorded on separate lines, one line for each well in which the catch was stored. For example, if the catch from a set is stored in three wells, and the amounts stored in each well are available, then the catch from the set should be recorded on three lines, one line for each well. If the catch is stored in more than one well, but the amounts stored in each well are not available, then use a single line and, in the well column, list all the wells used.

DATE	The date the set was made
LATITUDE	The latitude at which the set was made, to the nearest minute, e.g. *2°23'S*
LONGITUDE	The longitude at which the set was made, to the nearest minute, e.g. *149°46'E*
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
SKJ	The amount (metric tonnes) of skipjack caught
YFT	The amount (metric tonnes) of yellowfin caught
SKJ + YFT	The amount (metric tonnes) of mixed skipjack and yellowfin caught, if they are not estimated separately
OTHER SPECIES	The amount (metric tonnes) of other species caught
WELL No.	The number of the well in which the catch was stored, e.g. *P2* (for well number 2, port side). If the catch from the set was stored in more than one well, and the amounts stored in each well are not available, then list all the wells in which the catch was stored; e.g. *P2, S2* (for port well number 2 and starboard well number 2).

SPC / FFA REGIONAL TROLL VESSEL PORT SAMPLING FORM

REVISED DEC 2004

PORT:	SAMPLER:	Staff id Code	ASSISTANT:	Staff id Code	PAGE OF

VESSEL NAME:	COUNTRY OF REGISTRATION:	REGISTRATION 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.
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
COUNTRY OF REGISTRATION	Country that the vessel is registered in (also known as "Flag" country)
REGISTRATION NUMBER	The number allocated to the fishing vessel by country of registration
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".**
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)

APPENDIX 9. OTHER FORMS

1. **Gamefish Tournament Data Sheet**

2. **Gamefishing Individual Vessel Logsheet**

3. **Fishing Trip and Port Visit Log**

4. **Papua New Guinea Compulsory Vessel Inspection and Checklist**

Tournament - Individual Fish Weights

Competition Name

Weight please circle appropriate box: kg / lbs

Day and date	Striped marlin	Black marlin	Blue marlin	Sailfish	Wahoo	Dolphin fish	Shortbill spearfish	Spanish mackerel	shark (sp?)	Yellowfin tuna	Dogtooth tuna	Skipjack tuna	Bigeye tuna	Other
../../..														
../../..														
../../..														
../../..														
../../..														

Gamefishing Individual Vessel Logsheet - Troll (5 days)

Please complete - even if no fish are caught

Name, address and port of person filling out data sheet:	Please record Kept / Released	Vessel Name:	Units of weight: kg / lbs

DATE dd/mm/yy	Time start fishing	Number of lines fished	Hours fished	Number of strikes	Catch totals - Number by species									
					Species	Number caught (Kept / Rel)	Species	Number caught (Kept / Rel)	Species	Number caught (Kept / Rel)	Species	Number caught (Kept / Rel)	Species	Number caught (Kept / Rel)

DATE dd/mm/yy	Species	Weight	DATE dd/mm/yy	Species	Weight	DATE dd/mm/yy	Species	Weight	DATE dd/mm/yy	Species	Weight	DATE dd/mm/yy	Species	Weight

Species codes

ALB	Albacore
BLZ	Blue marlin
BLM	Black marlin
SFA	Sailfish
SSP	Shortbilled spearfish
MLS	Striped marlin
SWO	Swordfish
WAH	Wahoo
COM	Spanish mackerel
DOL	Mahi mahi (dolphin fish)
TRE	Trevally
SNK	Barracouta
RRU	Rainbow runner
SKJ	Skipjack tuna
DOT	Dogtooth tuna
YFT	Yellowfin tuna
BET	Bigeye tuna
SHK	Shark
OTH	Other

Please post results to:
Oceanic Fisheries Programme,
Secretariat of the Pacific Community,
PO Box D5 98848, Noumea Cedex,
New Caledonia.
or Fax to: 687 263818

REV: SPC/FFA
DEC 2004

SPC / FFA REGIONAL FISHING TRIP AND PORT VISIT LOG

PAGE_____OF _____

NAME OF VESSEL	GEAR TYPE	COUNTRY OF REGISTRATION	YEAR
NAME OF FISHING COMPANY		REGISTRATION NUMBER IN COUNTRY OF REGISTRATION	INTERNATIONAL RADIO CALLSIGN

PERIOD OF ACTIVITY		FISHING TRIP AND PORT VISIT CODE	IF FISHING TRIP:				IF PORT VISIT:	COMMENTS
DATE FROM DD / MM / YYYY	DATE TO DD / MM / YYYY		LOGSHEET PROVIDED ?	OBSERVER ONBOARD?	TOTAL NUMBER OF CREW	NUMBER OF PACIFIC ISLAND CREW	NAME OF PORT	

FISHING TRIP AND PORT VISIT CODES

1 FISHING TRIP
2 IN PORT - UNLOADING CATCH
3 IN PORT - PREPARING FOR NEXT TRIP
4 IN PORT - MAINTENANCE
5 IN PORT - REPAIRS
6 IN PORT - BAD WEATHER
7 IN PORT - OTHER (PLEASE SPECIFY)
8 IN TRANSIT TO ANOTHER PORT

NATIONAL FISHERIES AUTHORITY
PO Box 2016, Port Moresby, National Capital District, Papua New Guinea
Telephone: 3090444, Facsimile: 320 2061, Email: nfa@fisheries.gov.pg

Division of Monitoring, Control and Surveillance

COMPULSORY VESSEL INSPECTION and CHECKLIST

PNG Licence No: | Date:

A: VESSEL VERIFICATION

Vessel Name:		Type:
Flagging Arrangement:	Country Registration number:	International radio call sign (IRCS):
Company owner:	Country:	
Charterer:	Country:	
Vessel captain:	Nationality	
Type of licensing arrangement:		
Vessel ownership arrangement		

B: VESSEL MARKINGS

1. PNG license No. is clearly displayed on both sides and top of wheelhouse ? **Yes** **No**

Remarks:

2. All utility boats (e.g.: skiffs, dinghies, speedboats, towboat) that are carried by the licensed vessel to support its fishing operations properly comply with the license marking requirements ?

Skiff **Yes No n/a**	Dinghies (No. =) **Yes No n/a**	Helicopter **Yes No n/a**
Tow boat **Yes No n/a**	Speed boats (No .=) **Yes No n/a**	Other **n/a** ( ) **Yes No**

3. Are this vessel's payaos all clearly and permanently marked correctly ? **Yes** **No**

For the options: **Yes**, **No**, or **n/a** please circle the appropriate response

C: ASSOCIATED SUPPORT CRAFT (including carrier vessels)

List support boats:	Name	Usage	Size: Capacity if a fish carrier	Size: GRT	Size: LOA (m)
	a)				
	b)				
	c)				
	d)				
	e)				

Helicopter:	**Yes** **No**	Make:	Model:	Year:

D: SIZE CHARACTERISTICS

Gross registered tonnage:	Net tonnage:	Maximum loading capacity: mT	Total well volume: (m3)	Vessel cruising speed: kts.

Well (hold) capacity and usage (also get Captain to have the attached **well layout map** filled out)

	Port or Centre "P" or "C" (eg: 1C)	m3	USAGE If fish storage note type of cooling and optimum temperature (°C) (ice, chilled seawater, brine, blast freezing, dry freezer hold)	Star-board	m3	USAGE
Main deck	1			1S		
	2			2S		
	3			3S		
	4			4S		
	5			5S		
	6			6S		
	7			7S		
	8			8S		
	9			9S		
	10			10S		
Upper deck or more wells				S		
				S		
				S		
				S		
				S		

E: ELECTRONICS

		MAKE	MODEL	COMMENTS (use code - see * below)	USE CODE
NAVIGATIONAL RADAR # 1	Y N				
NAVIGATIONAL RADAR # 2	Y N				
BIRD RADAR	Y N				
DEPTH SOUNDER # 1	Y N				
DEPTH SOUNDER # 2	Y N				
SONAR	Y N				
GPS	Y N				
TRACK PLOTTER	Y N				
RADIO BEACON DIRECTION FINDER	Y N				
RADIO BUOYS - NON CALL-UP	Y N			How many ?	
RADIO BUOYS - CALL-UP	Y N			How many ?	
SATELLITE BUOYS	Y N			How many ?	
REMOTE ECHO SOUNDING BUOYS	Y N			How many ?	
DOPPLER CURRENT METER	Y N				
SEA SURFACE TEMP. GAUGE	Y N				
WIND SPEED / DIRECTION FINDER	Y N				
WEATHER FACSIMILE	Y N				
NOAA WEATHER SATELLITE MONITOR	Y N				
VMS (FFA TYPE-APPROVED)	Y N			Seal intact ? Y N	
FIXED BINOCULARS	Y N				
SATELLITE / HF TELEX	Y N			Telex number:	

Please circle "**Y**" or "**N**" for every item

FISHERY INFORMATION SERVICES		DATA SOURCE	USE CODE
BATHYTHERMOGRAPH DATA USED	Y N		
ALTIMETRY DATA USED	Y N		
OTHER #1	( )		
OTHER #2	( )		

*** USE CODES**

Ask Captain to indicate how much each instrument or service is used. Use the following one-letter usage codes to show the response:

I = Intensive
O = Occassional
R = Rarely
N = Not used or not working

INMARSAT SYSTEM	Y N	Phone number:	Fax number:	Email:

F: FISHING GEAR SPECIFICATIONS

F1: PURSE SEINE	YES NO	- if "NO" then skip the rest of section "F1"

SINGLE SEINER **GROUP SEINER**

(circle one)

If this vessel is a group seiner then ensure that the names and the capacity of the associated carrier vessels are included in the ASSOCIATED SUPPORT CRAFT section (section C).

POWER BLOCK	Make:	Model	Rated power	Sheave diamet cm
PURSE WINCH	Make:	Model	Rated power	Hauling speed m/sec
PURSE CABLE	Section length (m): Skiff end — m — m — m — Seiner end Section diameter (mm): mm mm mm			
NET SKIFF ENGINE	Make:	Model	Horsepower:	

NET	Maximum net depth m	Maximum net depth m	No. of net strips	Hanging ratio %:
	Average mesh size of body mm	Net material:		
	Average mesh size of bunt mm	Mesh type: (circle one) **knotted** **unknotted**		

BRAILER	Type:	Capacity 1 mT	Capacity 2 mT
FADs	Maximum No. of FADs used:	FAD materials:	
LIGHTS	Number used:	Type:	Power: kWt

HELICOPTER	Make:	Model	Registration number:
	Effective range: kms.	Colour:	

COMMENTS:

F2: LONGLINE

YES NO - if "NO" then skip the rest of section "F2"

MAINLINE

Possible materials include: nylon, kuralon,

Material:	Type:	Diameter: mm	Length m

Mainline storage: (circle one) **vessel bin** **baskets** **drum**

Branchline average length m	Number of sections: **1 2 3 4** (circle one)	Trace type: **monofilament wire** (circle one)

Possible types include: monolfilament, multi-strand twisted monofilament, braided

MAKE-UP of BASKET (BRANCH LINES and FLOATS)

Please circle "**Y**" or "**N**" wherever possible

Description of multi-section branchlines

Mainline end — Section 1. — Section 2. — Section 3. — Section 4. — Hook end

	Section 1.	Section 2.	Section 3.	Section 4.
Material:				
Type:				
Length:	m	m	m	m

Maximum No. of hooks set:	Maximum No. floats set:	Average length of float lines: m

MAINLINE HAULER	Y N	**MAINLINE SHOOTER**	Y N	**BAIT CHUTE USED**	Y N
BRANCH LINE HAULER	Y N	**AUTOMATIC BAIT THROWER**	Y N	**TORI POLES USED**	Y N
TIME / DEPTH / TEMPERATURE RECORDERS (TDRs or MINILOGS) USED		Y N	**SHARK LINES ON FLOATS**		Y N

F3: PRAWN TRAWL

YES NO - if "NO" then skip the rest of section "F3"

WINCH

Make:	Model	Rated power	Hauling speed m/sec

NET

Warp length: m	No. of trawls towed:	Total No. trawl nets on board:

Average mesh size of body mm	Material of net body:

Average mesh size of codend mm	Material of codend:

F4: OTHER FISHING GEAR SPECIFICATIONS - please specify (.....)

GILLNETS	Y N	**VERTICAL LONGLINES / DROPLINES**	Y N	**OTHERS**	
BOTTOM LONGLINES	Y N	**FISH TRAPS**	Y N	(.....)	Y N
HANDLINES	Y N	**TRAWL NETS**	Y N	(.....)	Y N

Brief description of gear including numbers of each type, basic materials and lengths, depths, if appropriate:

Name of Captain or Person-in-Charge, if not the Captain	Position of Person-in-Charge, if not the Captain	
I, as the above named Captain / Person-in-Charge, agree that the above details are an accurate description of this vessel at time of this inspection.	**Yes No** (circle one)	Signature of Captain or Person-in-Charge

G: AWARENESS of PNG LICENSING CONDITIONS, REQUIREMENTS and PROHIBITIONS

1. License on board - Is the original or is a copy of the current license on board ? **original** **copy** **none** (circle one)

2. Crew Vessel licensed to carry total of: [ ] Number of citizens (PNG Nationals): [ ] Vessel's crew number at inspection time: [ ]

3. License conditions and endorsements - Has the Captain / Person-in-Charge read and understood ……

a) the Conditions on the back of the license ?

b) the Special Conditions, Prohibited Areas (attachment B) ?

c) the Endorsement to License (attachment G) ?

d) the Requirements for Markings ?

Yes No (circle one)	Signature of Captain or Person-in-Charge

4. Transhipment - Is the Captain Person-in-Charge aware that the license conditions require

a) the Captain / Person-in-Charge to request permission to tranship fish or to re-provision 72 hours in advance ? (Condition 5 - Attachment D)

b) that once permission has been granted then an Observer or NFA Fishery Officer must be on board the vessel before transhipment or re-provisioning can start ?

Yes No (circle one)	Signature of Captain or Person-in-Charge

5. Catch recording - Does the Captain / Person-in-Charge know he is responsible to ensure all catch is recorded

a) daily on the Logsheets supplied by NFA ?

b) using his own or his Master Fisherman's best estimate of total catch and of the catch composition

Yes No (circle one)	Signature of Captain or Person-in-Charge

6. Formal Clearance - Does the Captain / Person-in-Charge know he must report to port for formal clearance:

a) on entering PNG waters before meeting any other vessel

b) before departing the country, after the last transhipment, reprovisioning or other meeting with any other vessel

Yes No (circle one)	Signature of Captain or Person-in-Charge

7. Offences and Penalties - Is the Captain Person-in-Charge aware that:

a) failure to comply with these and any other terms and conditions of the License, National Laws and Regulations may, in addition to any judicial penalties that may be incurred, result in the suspension or loss of the license either temporarily or permanently.

b) as Captain / Person-in-Charge of the vessel he will be charged for offences under the Fisheries Management Act if found in breach of any of these conditions.

Yes No (circle one)	Signature of Captain or Person-in-Charge

ACTIONS TAKEN

1. Major discrepancies identified

2. Corrective actions taken

CERTIFICATION

In accordance with section 48 of the Fisheries Management Act, 1

I, ……, a gazetted Fisheries Officer of the National Fisheries Authority, do declare

that I have inspected the vessel, ……, on …… at ……
and I am satisfied that all necessary requirements have been met.

All the conditions of the license were fully explained to the Captain / Person-in-Charge of the F/V ……..
who signed the below statement to the effect that the license conditions were fully understood and that they would be complied with.

This vessel was …… on …… at ……
(write in "cleared" or "not cleared") (date) (port)

(signature of Fisheries Officer)

(signature of Witness)

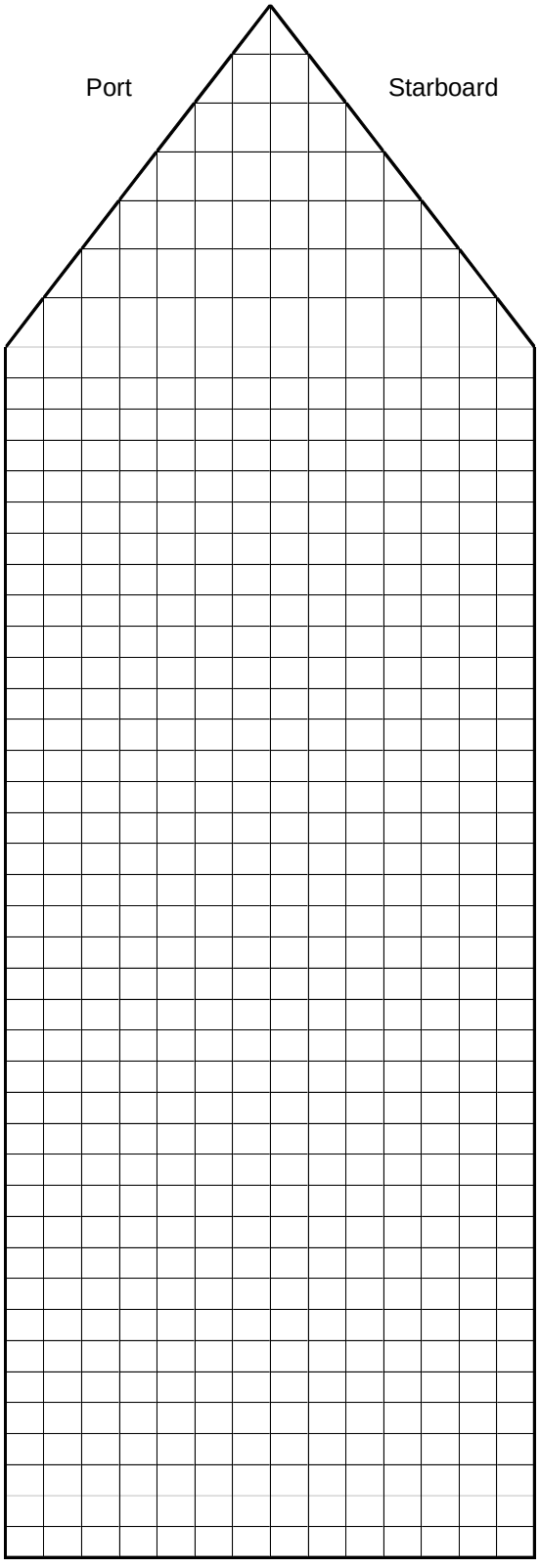
STATEMENT

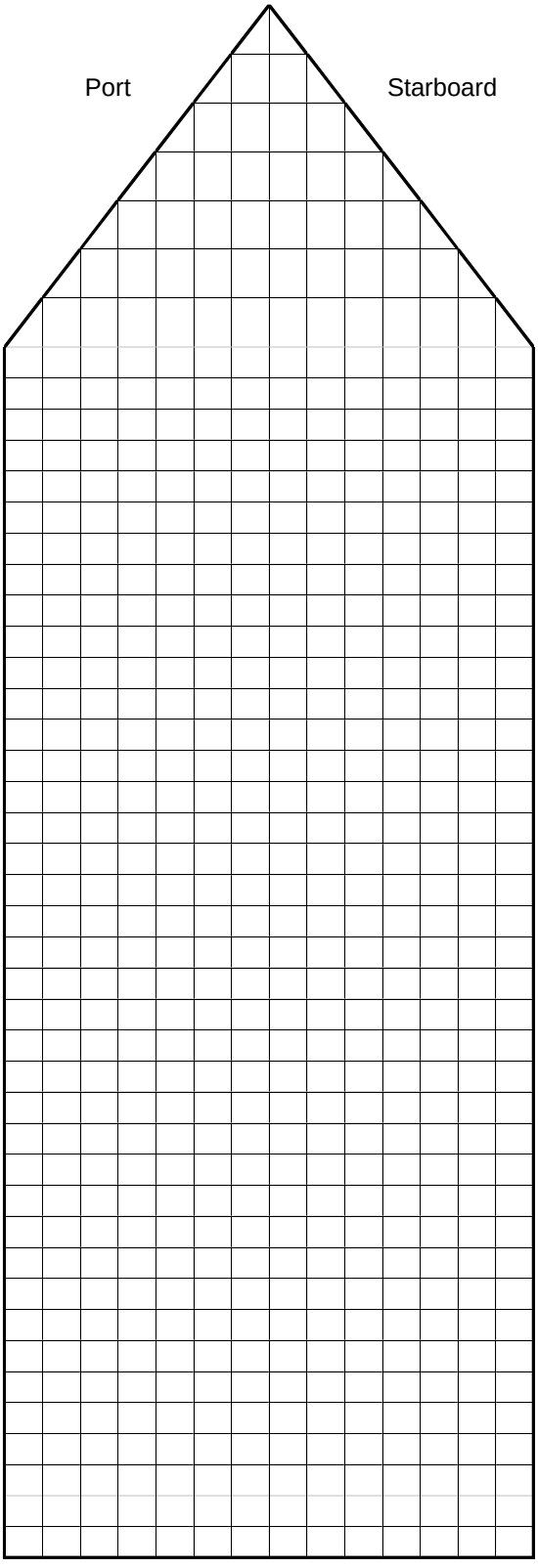
I, ……, ……
(name of Captain or Person-in-Charge) (title / position held)

of the fishing vessel, ……, do declare that I fully understand what the Fishery Officer has explained today and will comply with the conditions of the license.

(signature of Captain or Person-in-Charge)

(date)

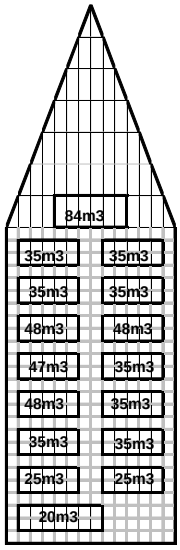




<u>Level 1</u>. upper / lower / only
(circle one)

<u>Level 2</u>. upper / lower
(circle one)

Example:
<u>Deck 1</u>. upper / lower / only



1. Mark (outline) each well (hold) in its position on the vessel.
2. Indicate the capacity for each well in cubic metres (m3).
3. If there is one level of wells (most vessels) use "**Level 1**" maps above and circle "only".
   If some wells (holds) are over the top of other wells use "**Level 1**" and the "**Level 2**" maps.
   Circle the word "upper" or "lower" on each map to show if wells are on top or underneath.