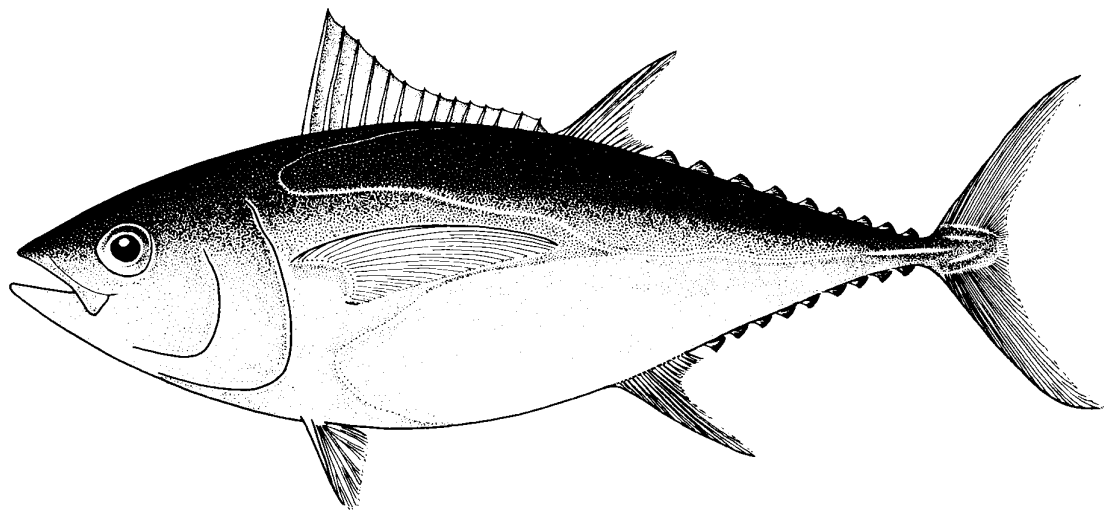


REPORT OF THE FIFTH MEETING OF THE TUNA FISHERY DATA COLLECTION COMMITTEE

2–6 December 2002
Brisbane, Queensland
Australia



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



Forum Fisheries Agency
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1. PRELIMINARIES

1.1 Appointment of Chairman and Rapporteurs

1. The fifth meeting of the Tuna Fisheries Data Collection Committee¹ (DCC5) was opened with a prayer spoken by Mr Filipe Viala. The participants then observed a minute of silence in memory of good friend and colleague, Mr Felix Panjubo, a member of the DCC who passed away suddenly in 2001.

2. Mr Karl Staisch was appointed chairman of the DCC and Mr Tim Lawson was appointed vice-chairman and head rapporteur. Ms Deirdre Brogan and Mr Peter Sharples were appointed rapporteurs for agenda items 3 and 4 respectively. Mr Staisch welcomed the participants, noting that there were nine observers at DCC5 (from Australia, Fiji, Kiribati, New Zealand, Papua New Guinea, Samoa and the United States of America), in contrast to two at DCC4 (from the Federated States of Micronesia and the United States of America), and that the agenda had been expanded to include a review of the status of observer programmes and port sampling programmes, and a review of sampling protocols. A consequence of the expanded participation and agenda was that the meeting had been extended from three days to five.

1.2 Adoption of Agenda

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

2. REVIEW OF CATCH AND EFFORT LOGSHEETS

2.1 General

Nationality of the catch

4. It was proposed to include the country where the fishing company owning and/or managing this vessel has been established in the trip details block of each logsheet, since this will provide an indication of the nationality of the catch. However, it was considered unlikely that this field would be completed since it conflicts with the country of registration.

Marine turtle captures

5. It was proposed to include information on marine turtle captures, as recommended in the OFP turtle review (Oceanic Fisheries Programme 2001). However, it was considered that if turtles were to be monitored, then other species of special interest (such as sharks, marine mammals and sea birds) should also be monitored. Since there is not enough space on the logsheets for all groups of species of special interest, this information is best collected on a longline logbook (see agenda

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.

item 2.7) or by observers. On the other hand, it was agreed to modify the instructions by explicitly referring to marine turtles. It was suggested that an example of a logsheet on which other species and species of special interest have been recorded should be printed on waterproof paper and distributed with the logsheets.

Trip # of Year #

6. It was proposed to add ‘Trip # of Year #’ for all logsheets in order to easily identify missing trips. It was also suggested that the last day fished on the previous trip should also be recorded. It was agreed that these two changes did not justify a revision of the logsheets, but that they should be included in the next revision. The problem of determining logsheet coverage and identifying missing trips is further addressed under agenda item 5.4 (Trip log).

FFA Type Approved ALC

7. It was noted that FFA type approved ALCs are now mandatory and that this field is therefore no longer required. It was agreed that this change did not justify a revision of the logsheets, but that it should be included in the next revision.

Day

8. The meeting agreed to improve the instructions to indicate that the day of the week should not be recorded under ‘Day’.

2.2 Longline Logsheet

Whole weight or processed weight

9. The SCTB13 reviewers noted that the units of weight, i.e. whole weight or processed weights, are not given on the longline logsheet (Anon. 2001b). However, the SCTB13 reviewers also noted that the practices of each of the fleets were consistent and known, so that it was not necessary to include the units on the form. For example, most fleets land albacore whole, while bigeye and yellowfin are gilled and gutted, and marlin are headed and tailed. On the other hand, it was suggested at DCC4 that this may not be the case for albacore landed by the American Samoan and Samoan longline fleets. Mr Gordon Yamasaki reported that the albacore landed by the domestic American Samoan and Samoan longliners can be either whole or gilled and gutted, but that individual vessels are consistent. It was also reported that yellowfin are sometimes headed in Samoa. It was therefore felt that port sampling data should be used, wherever possible, to identify the form of processing used by individual vessels and hence to determine whether conversion factors should be applied to catches reported on logsheets in order to estimate the whole weight of the catch.

2.3 Pole-and-Line Logsheet

School association

10. It was proposed that school association should be recorded for each school chummed. The meeting agreed to implement this change pending confirmation that this information is required for stock assessment. Following the meeting, Dr John Hampton, head of the Stock Assessment and Modelling Section of the OFP, indicated that while such information might be useful for particular

types of analyses, school association for the pole-and-line fishery is not required for stock assessment. This change was therefore not implemented.

2.4 Purse Seine Logsheet

Payao number

11. Purse seiners operating in Papua New Guinea have been required to enter the payao number on a non-standard purse-seine logsheet. This was done at the insistence of a local scientist who is no longer with the National Fisheries Authority. The meeting considered that it was not appropriate to record payao number on logsheets. It was also noted that observer coverage of purse seiners in Papua New Guinea is high, so that this information could be collected by observers. Ms Valonna Baker of the National Fisheries Authority suggested that the non-standard logsheet may be replaced by the DCC purse-seine logsheet in due course.

Activity codes for “In port – unloading” and “In port – not unloading”

12. It is currently not possible to differentiate ports where purse seine unloadings took place from ports that were visited but no unloading took place. There are many trips on the database for which there is neither unloading information nor information on the reason for the visit to port. It was therefore proposed that the current activity code for ‘In port – Please specify’ be replaced with two codes for ‘In port to unload catch’ and ‘In port, but not to unload catch – Please specify port and reason’. However, the meeting considered that if the logsheet is being used correctly, such that the end of a trip is defined by when it unloads, then the port of return that is recorded in the block at the top of the logsheet should refer to the port of unloading. On the other hand, it was agreed that the instructions could be improved with an example of the reason that a port was visited other than for unloading.

Number of FADs used

13. It was reported that at the US Treaty Consultation in March 2002, the United States delegation questioned whether this particular field would provide useful information. However, they did not propose any alternative ways of recording information concerning the use of FADs on logsheets. Although no proposals were considered, the DCC5 participants agreed that the instructions should be improved.

14. It was reported that the United States purse-seine fleet has been advised that this new field, which was introduced on the December 2000 revision of the DCC purse-seine logsheet, was optional. It was also reported that this field has been filled on about half of the logsheets that have been compiled by the OFP and that cover the United States fleet.

15. The DCC5 participants agreed that, in general, logsheets and other data collection forms should not be included in treaties or national legislation. From time to time, the need to change the forms arises in response to developments in the fishery (such as the recent use of drifting FADs by purse seiners in the WCPO), but it is much more difficult to make changes if the forms are part of a treaty or national legislation. Instead of the actual forms, a list of minimum data standards should be included in treaties and national legislation. Such an approach enables the format and content of the forms to be modified by the parties to the treaty or the national government without having to modify the treaty or the legislation.

Unloadings

It was proposed that the unloadings section be modified to conform with the Final Out Turn Report that is used under the US Treaty. However, it was considered that it would not be possible for the US purse seiners to submit the logsheets within the 15-day time period specified under the Treaty if they waited until unloading had been completed. It was also noted that unloadings section is intended simply to identify where unloading took place and not to verify the catches recorded on the logsheet, since the unloadings data that are used for verification must be from a different source of data than for the logsheet. Nevertheless, the meeting agreed that when the logsheet is next revised, columns for 'others' and 'rejects' should be included in the unloadings section.

2.5 Handline Logsheets

16. The meeting noted that a handline logsheet has been developed by the OFP at the request of Papua New Guinea, which has recently licensed two pump boats. It was agreed that the form would be adopted by the DCC and reviewed at DCC6.

2.6 Implementation of DCC Logsheets

Implementation

17. Working Paper 3, "Implementation of the South Pacific Regional Logsheets forms," was presented. The implementation of the logsheets is summarised in the table in Appendix 4. The following points were noted:

- Modifications to the DCC purse-seine logsheet were made at DCC4 in December 2000; however, revised logsheets have been provided to the OFP only since October 2002 and they only cover a subset of the United States purse-seine fleet. Other than the United States purse-seine fleet, there is no indication that other purse-seine fleets in the region have adopted the December 2000 purse-seine logsheet.
- The Japanese fleets provide the DCC logsheets under Japan's access agreement with the Federated States of Micronesia. The Japanese fleets also have access agreements with Kiribati, Marshall Islands, Nauru, Palau, Solomon Islands and Tuvalu, but these countries have not yet implemented the DCC logsheets.
- The New Zealand purse-seine fleet is currently using the DCC logsheet under its access agreements with the Marshall Islands and Tuvalu, but it is using a non-standard form under its agreement with Kiribati.
- The Korean longline fleet is not using the DCC logsheet under its access agreements with Kiribati and French Polynesia.

18. **The meeting agreed that the SPC and FFA member countries that have not already implemented the DCC logsheets should be strongly encouraged to do so.**

19. It was also agreed that SPC and FFA should take advantage of every opportunity to ensure that the DCC logsheets are included in negotiations between member countries and fishing nations.

Requirement to complete Australian Fisheries Management Authority (AFMA) logbooks

20. AFMA grants two types of concessions to allow commercial fishing in Commonwealth fisheries: Statutory Fishing Rights (SFRs) and fishing permits. When SFRs or fishing permits are

issued, a set of conditions are placed on the SFR or permit. These conditions regulate the fishing activities that can be undertaken under the authority of the SFR or permit. The conditions of an SFR or permit can be amended at any time, so long as the amendment is consistent with AFMA's legislative objectives, management arrangements for the fishery, and any other associated policies. For all fisheries managed by the Commonwealth (i.e. AFMA), it is a condition of an SFR or permit to complete the logbook specified for that fishery in accordance with the instructions provided in the logbook. Previous to this arrangement logbooks were formerly 'determined' in accordance with Part 9 of the Fisheries Management Regulations, 1992. A determination under these provisions had the effect of establishing each particular logbook as the formal logbook for the fishery for which it was developed. The requirements of Part 9 then applied in relation to the use of that logbook and the treatment of information collected through that logbook. In particular, Part 9 set out the obligation to use a logbook, lodge returns and created a specific offence of providing false information in a logbook. The secrecy provision of Part 9 was also invoked through the determination process, which required that information provided in a logbook be treated as confidential.

2.7 Draft Longline Logbook

21. In response to a review of the DCC logsheets by the Statistics Working Group of the Standing Committee on Tuna and Billfish (Anon. 2001b), it was agreed at DCC4 in December 2000 that prototype logbooks would be developed by the DCC in order to accommodate information of catches of major non-target species and species of special interest, as well as vessel and gear attributes. In contrast to the DCC logsheets, which contain one line of information for each set, the logbooks will contain one page of information for each set.

22. A draft longline logbook was presented together with the Working Paper 4, "Methods and Procedures for the Implementation of the Proposed South Pacific Regional Daily Longline Logbook". The participants suggested numerous modifications to the draft longline logbook, which were incorporated into the revised draft, which is given in Appendix 6. After testing and further revision, the final version of the longline logbook will be presented to the next meeting of the DCC.

3. OBSERVER PROGRAMMES

3.1 Status of Observer Programmes

23. The Committee was presented with a proposed outline of a report on the status of sampling programmes that is intended to be a living document to present at meetings of the Data Collection Committee, the Observer Coordinator's Workshop, the Standing Committee on Tuna and Billfish and other meetings. Two series of histograms were presented: the first indicated the number of observer trips by year for each programme, while the second indicated the number of vessels sampled by year in each port. These were accompanied with notes on the programmes in each of the countries and territories. The report on the status of sampling programmes is presented in Annex 5.

24. Participants were asked for further input from their own programmes and for comments for future improvement and expansion of the format and content of the report. The suggested improvements to the report were as follows:

- Use observer sea days instead of trips to better measure observer effort.
- Indicate the number of vessels in the fleets that are being covered by the observers for which sea-day coverage is shown.

- Include target observer coverage levels for the different programmes, indicating whether the target was based on fishing days, fishing trips or other.
- Indicate whether all fleets are being covered, and coverage level by fleet if they differ.
- Indicate the fishing range of the fleet being covered.
- Include sampling protocols for each programme.
- Present another set of histograms that depicts the number of discrete samples, rather than the number of vessels sampled.
- Include background information to explain the reasons for changes in trends, e.g. to explain the drop in observer effort in 2000.
- Ensure that the histograms are clear when presented in black and white handouts. Consider using hatching instead of colour differences.
- Present histograms in two sets, including one set presented on the same scale, so that coverage can be compared amongst programmes, and another with variable scales, so that variation in the individual programmes can be highlighted.
- Separate the Australia, New Zealand and Hawaii programmes from the Pacific Island programmes.
- Present the SPC observer data as a discrete data set, rather than including it with the data for New Caledonia.

25. The following questions were raised in regard to the content of the report:

- The US Treaty data for 2002 that were sent to SPC do not appear to be included in the data represented by the histograms.
- An overall drop of observer activity was noted in 2000. Factors contributing to this include the Solomon Island civil unrest, the end of the SPC SPRTRAMP observer programme, and a backlog in data entry from some countries.
- As the histograms did not depict data from before 1990, the question was raised as to whether SPC had American Samoan port sampling data dating back to the 1960s.
- The rapid increase in sampling activity in the mid-1990s, followed by a steady decrease, particularly in the Federated States of Micronesia, were attributed to the increase and subsequent decrease in the number of mainland Chinese longliners in the region.
- The increase in purse-seine port sampling activity in Majuro, Marshall Islands from 1999 onwards was attributed in part to a change in the economic climate, which attracted purse seiners that previously transhipped in the Federated States of Micronesia and Guam.

3.2 Review of Observer Sampling Protocols

26. The protocols used by observers to sample catches, lengths and species composition were reviewed. The following summarises the sampling protocols currently used by the observer programmes supported by SPC and FFA.

Longline

27. The sampling protocol for longline is to measure all fish from all sets. If the number of hooks per set is large, e.g. for distant-water longliners, then the observer measures all fish from two out of

every three sets. The same fish are measured for species composition and length samples. The following information is recorded for each animal hooked:

- The species code is recorded with the three-letter ASFIS code.
- The time the fish was landed or, for discarded or escaped fish, the time the fish was hauled, is recorded.
- The hook number, within the basket, is recorded.
- The physical condition when landed or hauled is recorded. If the species is discarded, the condition of the species when it is returned to the water is also recorded.
- The length of the animal is recorded. Length measurements are taken with calipers and rounded down to the nearest centimeter below.
- Weight measurements are taken when weighing scales are available onboard the vessel.
- The gender of the animal is recorded as either male, female or indeterminate (for immature gonads where the difference is not discernable).
- The fate of the species is recorded.

Pole-and-Line

28. The sampling protocol for pole-and-line is to measure 50 randomly-selected fish. For large catches, 100 randomly-selected fish are measured. For each fish, the species and length, rounded to the nearest centimeter below, are recorded.

29. The total amounts of the catch of tuna and non-target species are estimated by the observer by eye.

Purse-seine

30. The sampling protocol for purse seine is to measure five randomly-selected fish from every brail that is brought onboard, for all sets during a trip. If brailing is too fast to measure five fish per brail, then observers are instructed to reduce the number of fish measured per brail. Under all circumstances, sampling is carried out during the entire brailing process. The same fish are measured for species composition and length samples; the species and length, rounded to the nearest centimeter below, are recorded for each fish sampled.

31. The total amount of the catch of tuna is estimated by the observer by multiplying the brailer capacity by the number of brails. The species composition of the catch of tuna is estimated by applying the weight of the sampled catch of each species by the total catch; the weight of the sampled catch is determined by converting length measurements to weight measurements. The retained catch of tuna is estimated by subtracting discards from the total catch; discards are estimated by eye.

32. The catch of non-target species is estimated by eye, either in units of number of fish or tonnes, depending on the species and the amount of the catch. The fate of non-target species is also recorded.

33. Additional length samples are taken from discarded fish that are found on deck after brailing has been completed.

Discussion

Brailer capacity

34. During the discussion, the problem of determining brailer capacity was raised. The capacity of the brailer recorded by the observer is directly related to the estimates of catch that are determined by the observer. Due to its importance, it was agreed that further attention should be paid to calculating the size of the brail. It was suggested that observers should be trained to calculate the volume of each brail through volumetric analysis. Papua New Guinea has already purchased weight scales to gauge the weight of brails. It was noted that the different sizes of the catch (large yellowfin, as opposed to smaller skipjack) would have a bearing on the capacity of the brail.

3.3 Review of Observer Forms

GENERAL

Workbook Instructions

35. Observer workbooks contain all forms an observer needs for a specified period at sea. In an effort to improve the quality of data and the amount of instruction information the observer has while at sea, a number of inserts were proposed for the workbook. Workbook inserts will now include the Beaufort guide to sea state, length measurement diagrams, a list of observer coordinator addresses to assist any observer who may disembark at foreign ports, and a list of common errors which should be avoided.

Species of Special Interest

36. Previously, specific fate codes existed for ‘Protected species’. These included ‘DPA’ (Discarded, protected species – alive) and ‘DPD’ (Discarded, protected species – dead). Although these codes referred to species like marine turtles and marine mammals — which are protected by law in some countries — the legislation in Pacific Island countries has not been standardised and in some places does not exist. The Committee decided to find a word that reflects the special status of some marine creatures while remove the onus for this status to be part of national law. The term ‘Species of Special Interest’ has been used by the Standing Committee on Tuna and Billfish and refers to marine turtles, marine mammals, sea birds and sharks. The codes ‘DPA’ and ‘DPD’ will now read ‘Discarded: species of special interest – alive’ and ‘Discarded: species of special interest – dead’.

Vessel and gear attributes

37. It was agreed to harmonise, to the greatest extent possible, the vessel and gear attributes on the observer forms with those in Table 1, ‘High scoring gear and vessel attributes’, in SCTB15 Working Paper FTWG–9, “Vessel and gear attributes in the Forum Fisheries Agency Regional Register of Vessels: how much is enough?”

Record of the vessel’s logsheet number

38. It was recognised that should a unique logsheet number be introduced on vessel logsheets, the observer should record this number. The Committee agreed to this proposal, but recognised that the introduction of logsheet numbering would probably take some time and that the topic should therefore be revisited at a future meetings of the DCC.

Cleithrum length

39. A request to use the length measurement code 'CL', from the cleithrum to the keel in the tail, for headed fish, was not accepted. It was felt that the 'PF' length measurement code, from the pectoral fin to the fork in the tail, was adequate.

LOGLINE OBSERVER FORMS

FORM LL-1 • LOGLINE OBSERVER GENERAL INFORMATION

Mainline and branchline specifications

40. While previous editions of the forms have included wide comment fields to record the line composition of both the mainline and branchline (including the diameter and strength), this did not extend to other features, including the total mainline length and the use of wire trace in branchlines. Specific data fields for each of these features have now been included.

Refrigeration method

41. Storage method was identified in Working Paper 10 as a highly desirable attribute. The three most common storage methods for longline vessels have now being added.

Crew

42. The data fields labelled 'crew' are intended to capture the number of crew onboard the vessel, by nationality. Although clearly stated in the instructions that only the crew should be recorded in these fields, observers still get confused. To overcome this problem, it was agreed to redefine these fields to include both the captain and the crew.

VMS

43. The make and model of the VMS system is not readily available onboard the vessel. In fact, 'FFA type-approved VMS' are by definition standardised makes and models, so it is not necessary to record this information. Preferable information for data collection is the type of system used and the seal number of the VMS.

Fishery information services

44. Presently the observers record the name of the website that is being used to access satellite imagery data. It was agreed that a better approach is for the observer to record the types of information that are being accessed by the vessel, e.g. phytoplankton, sea surface temperature and/or sea height.

FORM LL-2 • LOGLINE OBSERVER SET INFORMATION

Target species

45. Longline vessels may change their target species during a trip. Mostly frequently this change has been noted to be from tuna to swordfish or sharks, as well as vice versa. Identifying sets that target non-tuna species will enhance tuna stock assessments.

FORM LL-3 • LONGLINE OBSERVER HAUL INFORMATION

Total number of baskets observed

46. Asking observers to add up the total number of baskets they have observed a day will help to quickly assess if a full haul has been monitored. This query was placed at the end of the LL-3 form, since it is at the end of the haul when the observer will add up their LL-4 page totals.

FORM LL-4 • LONGLINE OBSERVER CATCH MONITORING

Tag numbers

47. While purse-seine observer forms have prompted and allowed observers to record retrieved tag numbers, this has not been made available on the longline forms. Provision for this has now been made by amending the 'Comments' column to 'Comments and Tag Numbers'.

Sex

48. To record the sex of the landed species, three codes exist: 'M' (male), 'F' (female) and 'I' (Indeterminate – where the observer has examined the gonad but could not identify the sex, due to the immaturity of the gonads). Another code exists on the database, but is not available on the form: 'U' (Unknown – where the observer has not had a chance to examine the gonad). This code will now be added to the form.

Retained gutted only

49. No fate code is available to describe the process of gutting, but not gilling, some fish, mostly of lesser value. The code 'RGO' has now been introduced to cover these events.

Retained gutted and tailed

50. No fate code is available to describe the process of gilling, gutting and removing the tail. This practise is common on the larger freezer vessels. The code 'RGT' has now been introduced to cover these events.

Page total

51. The field marked 'Total' for the total number of baskets observed by the observer for each LL-4 page has been amended to read 'Page Total'.

FORM LL-5 • LONGLINE CONVERSION FACTORS

52. No changes were proposed for this form.

POLE-AND-LINE OBSERVER FORMS

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

Crew

53. Similar to the request for the longline form, the title of these fields has been amended to include the captain, thus clearing up previous misunderstandings.

VMS

54. As noted for the longline form, the make and model of the VMS system have been replaced with the type of system used and the seal number of the VMS.

Fishery information services

55. It was agreed that a better approach is for the observer to record the types of information that are being accessed by the vessel, e.g. phytoplankton, sea surface temperature and/or sea height.

Automatic poling devices

56. The number of automatic poling devices available on the vessel will be recorded.

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

New Activity Codes

57. New activity codes have been introduced in order to differentiate between periods during which rafts, FADs and payaos are deployed and the periods during which they are retrieved. The committee proposed to split the present activity code '10', which was originally given as 'Deploy / retrieve – raft FAD or payao' into two different codes: '10D' for deployment and '10R' for retrieval.

58. It was also felt necessary to introduce an activity code that will record the times when vessels change the beacon, and thus their beacon numbers, on certain rafts, FADs or payaos. Without this change, it is not possible to keep an accurate account of the number of times a vessel may visit an individual raft, FAD or payao. Activity codes '15R', 'Retrieve – beacon (change only)' and '15D', 'Deploy – beacon (change only)', will now be introduced.

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

Tag numbers

59. While purse-seine observer forms have prompted and allowed observers to record retrieved tag numbers, this has not been made available on the pole-and-line forms. Provision for this has now been made by adding a line to the section on set detail information.

PURSE-SEINE OBSERVER FORMS

FORM PS-1 • PURSE SEINE OBSERVER GENERAL INFORMATION

Additional brail capacity

60. Japanese vessels have been noted to have two different brailers onboard. To allow for this, an additional ‘capacity of brail’ data field has been added.

‘Describe Length / Diameter of Purse Cable’

61. Data presented by FFA show that observers often had problems filling in this field. Moreover, when they did fill in the forms, the information collected by different observers on the same vessel often differed. This may be due to a genuine change in the purse cable or to incorrect information supplied by the vessel’s officers to the different observers. As it is difficult to collect, this data field has been removed from the form, although a reminder to check for and describe the information, when available, will be added to the observer’s written report.

‘Power Block’ and ‘Purse Winch’

62. It was felt that many observers have trouble finding the make and model for the power block and purse winch. They are often limited by language barriers. The Committee discussed the validity of removing these fields from the forms, but it was felt that an amendment to the instructions advising the observer to fill in the information only when they are sure of the authenticity of the data would suffice.

Effective range of helicopter

63. The units for nautical miles (nm) have been added, in addition to the existing kilometers (km).

Reduction in the number of electronic devices

64. A number of electronic devices have been removed from the form as it was thought unnecessary to continue to collect information on devices that are now standard and ubiquitous across the entire fleet. Electronic devices that have been removed are navigational radar (No. 1 and No. 2), the GPS, current meter, weather facsimile, sea surface temperature gauge, wind speed / direction finder, and binoculars. A further recommendation was to keep these items in the written report and in observer training in order to maintain an observer’s overall knowledge of vessel operations.

VMS (FFA type-approved)

65. As outlined previously, the VMS data fields will be amended to request the type of VMS system and the seal number.

Fishery information services

66. It was agreed that a better approach is for the observer to record the types of information that are being accessed by the vessel, e.g. phytoplankton, sea surface temperature and/or sea height.

New section for comments

67. The removal of a number of the electronic devices from the form releases space on the form. This will be filled with a comment box, with special emphasis on the collection of information on new equipment or electronics.

Well storage plan

68. A number of revisions were thought necessary for the well storage plan. Knowing whether a well was a brine type or dry well was not considered essential. As the average temperature often fluctuates between wells and over the duration of the trip, these fields will be removed. The form was changed to allow observers to record wells that were used to record fuel or water at any point.

Number of years experience

69. The intention of the form is to record the number of years experience an officer or a crew member has been in their stated position. Although training has pointed out this intention, the instructions were deemed to be inadequate and an amendment to the instructions was proposed and accepted.

FORM PS-2 • PURSE- SEINE OBSERVER DAILY LOG

New activity codes

70. New activity codes have been introduced in order to differentiate between periods during which rafts, FADs and payaos are deployed and the periods during which they are retrieved. The committee proposed to split the present activity code '10', which was originally given as 'Deploy / retrieve – raft FAD or payao' into two different codes: '10D' for deployment and '10R' for retrieval.

71. It was also felt necessary to introduce an activity code that will trap the times when vessels change the beacon, and thus their beacon numbers, on certain rafts, FADs or payaos. Without this change, it is not possible to keep an accurate account of the number of times a vessel may visit an individual raft, FAD or payao. Activity codes '15R', 'Retrieve – beacon (change only)' and '15D', 'Deploy – beacon (change only)', will now be introduced.

FORM PS-3 • PURSE-SEINE OBSERVER SET DETAILS

Remove the percentage escapees

72. Two questions on the PS-3 form enquire if any tuna escaped and how much of the school escaped from the encircled net, before it was finally closed. Although it is possible to get such information, by reading the sonar, the data were difficult for observers to collect as it was necessary to question the officer in charge of the sonar. As setting time is a particularly tense time in the wheelhouse, such information was not always forthcoming and in some cases language barrier meant it was not possible to collect such information; therefore, it was agreed to remove these questions.

Condition caught code

73. It was noted that the form did not cater for the condition ‘caught’ and the condition ‘let go’ concerning the status of species of special interest. Changes to the form were proposed, but, instead, it was decided to develop a new form, GEN–2 (see below). This form will cater for the collection of comprehensive data for species of special interest.

FORM PS–4 • PURSE SEINE OBSERVER LENGTH FREQUENCY

Sampling protocol

74. Observers on purse seiners follow two different sampling protocols. Initially, they randomly sample five fish from each brail. Once this work is completed, they are instructed to collect length measurements from as many of the bycatch species as time allows. Previously, it was not possible to note the difference in these on the form itself, although training did indicate that observers should denote these different sample strategies by drawing a line on the form. The form will now ask observers to indicate which sampling strategy was being pursued, by ticking ‘Random Sampling’ when they are sampling from the brail and ticking ‘Length Frequency’ when they sample after brailing is complete.

Target catch species composition

75. Observers are asked to calculate the species composition of mixed sets by calculating the species composition of their sampled catch and then raising this to the total catch. At times, errors are made with these calculations and thus it was decided that the database will calculate the species composition separately. The Committee discussed the reasoning behind having the observers do the calculations, given that the database calculation is used for analysis; however, most participants felt that there was plenty of time for the observers to make these calculations on a purse seiner and it was better if they had a good understanding of the total target catch.

FORM PS–5 • PURSE-SEINE OBSERVER WELL LOADING

Additional form

76. The appearance of a number of new vessels in the region, with more than 12 port and 12 starboard wells, suggests that changes are required on this form. It was agreed that the best solution is to add a second form, to be called ‘page 2’, where the well numbers run from 13 to 24 for the port and starboard sides. There will now be two PS–5 forms available: ‘Form PS–5 (page 1), Purse-Seine Vessel Loading (Optional)’, for well numbers 1–12 and ‘Form PS–5 (page 2), Purse-Seine Vessel Loading (Optional)’, for well numbers 13–24.

GENERAL OBSERVER FORMS

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

Formatting changes

77. A number of formatting changes were suggested for the GEN–1 form. These included expanding the section title ‘Fish Transfers’ to ‘Fish Transferring and Bunkering’; amalgamating the activity and transfer codes; and expanding the letters ‘T’ and ‘S’ under the previously termed

‘transfer code’ to include the letter ‘B’. It was also felt necessary to highlight the fact that UTC is required for the date and time field.

Additional country code

78. As there are an increasing number of Vanuatu-flagged vessels fishing in the region, the country code for Vanuatu, ‘VU’, was added to the list.

FORM GEN-2 • SPECIES OF SPECIAL INTEREST

New Form

79. At several points during the discussions on other gear-specific observer forms, it was noted that extra information is often required for species of special interest. These species are defined as marine turtles, marine mammals, sea birds and sharks. Previously, species of special interest were called ‘protected species’ on the observer forms; however, this was felt inadequate as not all these species were legally protected in all jurisdictions. A new form will therefore be developed to record information concerning species of special interest.

FORM GEN-3 • VESSEL TRIP COMPLIANCE RECORD

Formatting Changes

80. To encourage observers to follow the stated requirement to complete a GEN-3 form for every trip monitored, the words “This form must be filled out” were added to the top of the form.

Targeting

81. Observers will be asked to report whether vessels ‘targeted species others than those they were licensed to target’ and, also, if they ‘used a fishing method other than the one they are licensed to use’.

Catch of species of special interest

82. The line ‘Catch marine mammals’ has been amended to read ‘Catch species of special interest’.

FORM GEN-5 • STOMACH CONTENTS

83. No changes were proposed for this form.

FORM GEN-6 • POLLUTION REPORT

Formatting changes

84. The committee felt that a number of formatting changes were desirable for this form and these have been implemented.

DE-BRIEFING FORMS

85. The purse-seine debriefing forms were presented to the meeting. Longline and pole-and-line debriefing forms have also been developed. These forms guide debriefers through the process of checking each data field recorded by the observer. The forms have data quality flags, which guide data users on the suitability of use of observer data in a number of different areas, such as estimates of target catch, estimates of non-target catch, species identification and vessel activity. During the discussion, it was emphasised that the primary objective of the debriefing forms is to set the data quality flags. The data quality flags, however, should not be highlighted in the actual form, as this might compromise the data, with observers falsifying data to meet these data quality flag requirements. For this reason it was recommended that the data quality flags should be documented separately. Debriefers also need to be specifically trained in setting these data quality flags. The participants accepted the debriefing forms and it was acknowledged that as they are new forms, they should be thoroughly reviewed at the next DCC meeting.

86. The Committee recognised the increasing need for the debriefing of observers, particularly those who disembark in ports without debriefers, particularly Pago Pago, and who return to home ports without debriefers. It was proposed that SPC identify a funding source for a regional debriefer who will fully debrief observers who will not otherwise have the opportunity to be debriefed.

4. PORT SAMPLING PROGRAMMES

4.1 Status of Port Sampling Programmes

87. The status of port sampling programmes is presented in Annex 5.

4.2 Review of Port Sampling Protocols

88. The protocols used by port samplers to sample lengths and species composition were reviewed. The following summarises the sampling protocols currently used by the port sampling programmes supported by SPC and FFA.

Longline

89. Sampling protocols for longliners are broken down into two categories:

- sashimi grade vessels that typically fish for no more than three weeks, unload fresh fish and air freight their catch to its final destination, and
- frozen grade vessels that typically fish for periods lasting up to six or twelve months, unload frozen fish and transport their catch by carrier vessel to its final destination.

90. For sashimi vessels, the sampling protocol is to record the species and length of every fish that is unloaded and, where possible, to enumerate all other fish that are not presented for unloading. Where weighing scales are available, individual fish weights are also recorded. If it is not possible to measure all fish that are unloaded, then the port sampler measures as many fish as possible.

91. For freezer vessels, the sampling protocol is to measure 150 randomly selected fish that were caught in the same 5° latitude by 5° longitude area and calendar month. If samplers are unable to select fish from a 5° by 5° by month stratum, then the stratum may be expanded to 5° by 10°, 10°

by 10° or 10° by 20° and one, two or three months. The time-area fished is determined from the vessel's catch and effort logsheet.

92. Port samplers attempt to sample every longliner that unloads to their harbour, except for Apia, Samoa, where 20 percent of vessels unloading are sampled.

Pole-and-line

93. Sampling of the pole-and-line catch currently occurs only in the Solomon Islands. The sampling protocol for is to measure all fish in randomly selected baskets that are unloaded from the well.

Purse seine

94. The sampling protocol for purse seiners is to measure five randomly selected fish from every net of fish that is unloaded from the well. If the selection of fish from each net is difficult or interferes with the unloading process, then port samplers may select up to ten fish from every second net. Only wells that contain fish that were caught in the same 5° latitude by 5° longitude area, the same calendar month, and that have the same school association, are chosen for sampling. If samplers are unable to identify a well with fish from a 5° by 5° by month stratum, then the area may be expanded to 5° by 10°, 10° by 10° or 10° by 20° and the time period may be expanded up to three months. The month, area and school association are determined from the vessel's catch and effort logsheet.

Troll

95. The sampling protocol for trollers is to measure 150 randomly selected fish that were caught in the same 5° latitude by 5° longitude area and calendar month. The time-area fished is determined from the vessel's catch and effort logsheet.

Discussion

Well Mixing

96. Purse-seine port samplers are asked to identify wells with fish having the same school association, fishing area and date of capture, by referring to the vessel's logsheet. It was acknowledged that vessels might shift fish to different wells after recording the information on their logsheet, thus invalidating the information that the port samplers obtain from the logsheets. The participants agreed to look at ways in which this problem could be overcome or better understood. One suggestion was to ask observers to mark or tag the fish going into wells. The tagged fish could then be used to follow any well mixing that occurred.

Rounding of length and weight measurements

97. Observers and port samplers are trained to round lengths to the whole centimetre below the measured length and to round the weight of individual fish to the nearest whole kilogram, either above or below the measured weight. Some participants questioned why length and weight measurements were rounded differently. It was explained that these procedures are international standards and that they were adopted in the early days of the region's observer programmes.

4.3 Review of Port Sampling Forms

GENERAL

Vessel identification

98. A request from data handlers to include the FFA Regional Register Number on all port sampling and unloading forms, in order to improve vessel identification for reconciliation of port sampling data to logsheet data, was considered and rejected. The current forms already require the country of registration and the registration number for purposes of vessel identification. However, many mainland Chinese and some Taiwanese vessels often change their registrations. Hence, the flag and registration numbers are not always effective for identification purposes. Recording the FFA Regional Register Number will only help in a portion of these cases. Rather than burden and perhaps confuse port samplers with trying to find numbers that many vessels do not have, it was considered that other methods be considered for improving vessel identification.

99. One approach to the vessel identification problem was to encourage all countries in which port sampling is undertaken to maintain an up-to-date list of vessels permitted to unload or tranship at their ports. This list would be forwarded to SPC. Port samplers could then be issued with a list against which to verify the correct identity of vessels they work on and instructed to report vessels that are not on the list and not to sample from those vessels until they have been added to the list. It was proposed that such a process be investigated prior to the next DCC meeting.

LONGLINE PORT SAMPLING FORM

Fishing areas

100. In some fisheries (Samoa, New Caledonia, some Papua New Guinea fleets, Palau), the sampler may find it easier to record the local in-country fishing area codes, rather than the actual latitude and longitude coordinates enclosing the area that the vessel fished in during its last trip. To cater for this, it was agreed to adjust the Longline Port Sampling Form and instructions, so that it was clear that a code could be entered into the current 'From Latitude' field.

New codes for shark fins

101. Two new codes were accepted: (a) a new species code, 'SHF', for shark fins being unloaded and (b) a new weight code, 'SF', for the weight of shark fins being unloaded.

Gilled and gutted billfish

102. The meeting agreed that, as billfish may be unloaded in a gilled and gutted state, the gilled and gutted weight code, 'GG', be listed under the billfish weight codes.

Recording unmeasured fish

103. Where fish are counted and not measured, it is better if the counts are recorded on the main section of the form, rather than the comments section. The form currently encourages the recording of unmeasured fish in the comments section. The meeting recognised that there remains a need to record numbers of some species in the comments section, such as when large numbers are unloaded rapidly, giving little time for the recording of individual fish. However, the meeting agreed to amend the comments section and instructions to encourage the recording of unmeasured species in the form's main section whenever possible.

LONGLINE UNLOADING FORM

104. No changes were proposed.

POLE-AND-LINE PORT SAMPLING FORM

105. No changes were proposed.

PURSE-SEINE WELL LOADING FORM

106. No changes were proposed.

PURSE-SEINE AND POLE-AND-LINE UNLOADING FORM

107. No changes were proposed.

PURSE-SEINE PORT SAMPLING FORM***Species composition sampled by observers vs species composition on logsheets***

108. The meeting considered an option to include a field on the purse-seine port sampling form that would allow a sampler to indicate whether the fish they sampled were of a species mix that was different from what was recorded on the vessel's logsheet. The purpose of this would be to indicate that the port sampler had noticed this discrepancy and thus avoid the possibility of concluding that the port sampler's data were incorrect. However, if the samplers are carrying out their work correctly, then the information on the vessel's logsheet would already have been transposed to the port sampling form. Therefore, the meeting decided that an extra field was unnecessary.

Shark fins

109. Although rarely encountered by samplers during the unloading process, purse seiners nevertheless take shark fins. The meeting considered including a field on the purse-seine port sampling form to capture this important item, but decided that this was not the appropriate form. It was agreed that further consideration should be given to this issue.

TROLL VESSEL PORT SAMPLING FORM

110. No changes were proposed.

5. OTHER FORMS**5.1 Papua New Guinea Shark Longline Logsheets**

111. The meeting agreed to modify the Papua New Guinea Shark Longline Logsheets for regional use. The new DCC form will replace the DCC Regional Shark Longline Logsheets (interim) that was published in the report of DCC4. The form will be reviewed at the next DCC meeting based on trials in Papua New Guinea.

5.2 Samoa Longline Logsheet

112. The Samoan longline logsheet was developed by the Fisheries Division and is used by the alia fleet and the larger longliners to record catch data summarised for each trip. The meeting agreed that it would be more appropriate, at least for the larger vessels in Samoa, to record data for each set using the DCC longline logsheet (or logbook, when available) and the meeting encouraged the Fisheries Division to adopt the DCC forms. The OFP and the Fisheries Division agreed to collaborate on translating the DCC forms into Samoan.

5.3 Gamefishing Forms

113. Wade Whitelaw developed the game fishing forms during his tenure with the OFP and they have not been systematically compiled since his departure in 2001. The OFP agreed to send the forms either to national fisheries agencies or directly to the gamefishing clubs.

5.4 Trip Log

114. The meeting agreed to adopt the Trip Log, which will be used to monitor the activities of individual vessels in order to determine logsheet coverage, with the following modifications:

- The form should be renamed the ‘Fishing Trip and Port Visit Log’
- ‘Vessel Activity Codes’ should be replaced with ‘Fishing Trip / Port Visit Codes’ to avoid confusion with the activity codes on the logsheets.
- The international radio call sign should be included
- There should be a code for transiting from one port to another without fishing

115. The form will be tested in Fiji and Papua New Guinea and reviewed at the next meeting of the DCC

5.5 Daily FAD Fishing Logsheet for Niue and the Cook Islands

116. The FAD fishing logsheet was developed by the SPC Coastal Fisheries Programme, in collaboration with the OFP, to monitor changes in fishing as the result of the installation of FADs in Niue and the Cook Islands. The meeting agreed to adopt the FAD form, with the following modifications:

- The name of the form should be shortened to ‘Daily FAD Fishing Logsheet’.
- The label for the date field should be changed to ‘Date: DD/MM/YYYY’.
- There should be a vertical border to the above left of the label for the column for total catches; the horizontal line about the label should be removed; and the label ‘TOTAL’ should be moved up one row.

117. The form will be reviewed at the next meeting of the DCC based on trials in the Cook Islands and Niue. It was noted that Fiji and Kiribati are also interested in using the form.

5.6 Papua New Guinea Inspection Form

118. The meeting agreed to promote the use of the ‘Compulsory Vessel Inspection and Checklist’ (Appendix 9) that has been developed by the National Fisheries Authority in Papua New Guinea, in other member countries. The form contains several references to legislation and conditions of licensing that are specific to Papua New Guinea; hence, it was not considered appropriate for the form to be adopted by the DCC. Vessel inspections were considered to be the best mechanism to obtain information on vessel and gear attributes. It was suggested that the vessel and gear attributes on this form should be updated to be consistent with those collected on other forms maintained by the DCC.

5.7 Regional Register and Vessel and Gear Attributes

119. A draft revision of the Regional Register of Foreign Fishing Vessels Application For Registration was presented. Several modifications to the current form have been incorporated, including choices of units for storage capacity and engine power, rewording of ‘number of crew’ as ‘normal crew complement’, rewording of ‘storage method’ as ‘major storage method’. It will be proposed that the application form will be submitted each year, in contrast to the current practice of submitting the application form once, followed by the submission of renewal forms on an annual basis.

120. The vessel and gear attributes on the draft revised Application for Registration was compared to Table 1, ‘High scoring gear and vessel attributes’, in SCTB15 Working Paper FTWG–9, “Vessel and gear attributes in the Forum Fisheries Agency Regional Register of Vessels: how much is enough?” The SCTB Fishing Technology Working Group (FTWG) has been concerned with the collection of information on vessel and gear attributes, since this information is extremely useful for monitoring technological trends in the industry and for statistical analyses such as the standardisation of fishing effort and the development of habitat models. It was noted that most of the high scoring vessel and gear attributes that were identified by the FTWG were not included in the draft revision of the Application for Registration, such as ‘satellite sea surface images used?’, ‘drifting satellite buoys used?’, longline mainline material, ‘line shooter present?’, ‘bait thrower present?’, purse-seine net length and depth, ‘remote echo sounding buoys used?’, ‘pole-and-line tori poles used?’

121. It was also noted that certain high-scoring attributes that are on the current Application for Registration have been deleted from the draft revised form, such as longline mainline material and ‘line shooter present?’ It was explained that longline mainline material had been dropped because of the multitude of different spellings that were used to complete this field. However, it was suggested that this was simply a problem with the formatting of the form and that the formatting problem would be resolved if the two main materials (kuralon and monofilament) were presented with tick boxes.

122. In this regard, it was noted that at DCC4, it was considered that the layout, formatting and instructions for the form could be improved, but that these aspects of the draft revised form were much the same as the current form.

123. It was suggested that the amount of information on vessel and gear attributes would be limited by the space available on the form. However, it was noted that a whole page is used for the ‘declarations’ section, whereas this page could also be used for other information.

124. A justification for the low number of vessel and gear attributes on the Application for Registration compared to the number of high-scoring attributes identified by the FTWG was that the Regional Register is primarily concerned with compliance, rather than with the collection of information that is useful for research purposes. On the other hand, it was noted that until such time as the coverage of the fleets by port inspections and observer programmes becomes significant, the Application for Registration will remain the best mechanism available in the region for the collection of this information. This was the primary reason why SCTB14, with the support of the participants from FFA, had directed the FTWG to consider those vessel and gear attributes that should be included on the Application for Registration.

125. The next steps in the development of the revision of the Application for Registration will be to consider the comments made at DCC5, which primarily concern the inclusion of the high-scoring attributes identified by the FTWG (and the modifications to those attributes that were suggested at DCC5 during consideration of the draft longline logbook, such as replacing 'satellite sea surface images used?' with tick boxes for several types of satellite data). Comments to be made at the US Treaty Consultation in March 2003 will also be considered. The final revision will then be presented at the sixth meeting of the Forum Fisheries Committee (FFC) MCS Working Group in March 2003. The report of the MCS Working Group will then be considered by FFC at its meeting in May 2003.

6. DATA MANAGEMENT ISSUES

6.1 Provision of Compliance Forms by SPC to FFA

126. The meeting agreed that FFA member countries should be instructed to send their observer programme compliance forms to SPC, together with the other observer forms. SPC will then send the compliance forms to FFA. This will simplify things for the members, which now send the compliance forms to FFA and the other forms to SPC.

6.2 Entry of Observer Vessel and Gear Attribute Data by SPC

127. The meeting noted that SPC has cleared the backlog of data entry for the vessel and gear attributes on the PS-1 observer form and has begun entering the vessel and gear attribute data on the LL-1 forms.

6.3 Provision of VMS Data by FFA to the OFP

128. The provision of VMS data by FFA to SPC has recently been discussed at various levels within the two organisations. These data will be used by SPC to determine logsheet coverage and to verify the vessel positions that are recorded on logsheets. SPC will develop software to do these tasks and the programmes will also be incorporated into the in-country fisheries database systems that SPC supports.

129. It was noted that the VMS data are owned by the FFA member countries and therefore that the FFA members must authorise the release of their VMS data to SPC. FFA agreed to request this authorisation from its members in a letter from its Director.

6.4 Entry of US Treaty and FSM Arrangement Data by SPC

130. It was suggested that it would be more efficient if the US Treaty observer programme forms PS-1, PS-2 and PS-3 were entered by SPC, rather than by FFA. FFA currently has the data entered by relatively young and inexperienced part-time staff and there are many data errors as a result. It was proposed that FFA scan the data and send them to SPC via email or on CD and that SPC enter the data and send the data files back to FFA. The SPC and FFA data managers will further discuss the various aspects of this proposal, including arrangements for a trial and the cost to SPC.

6.5 Provision of NMFS Port Sampling Data From NMFS Directly to SPC

131. The port sampling data collected by NMFS under the US Treaty are first provided to FFA, which then sends the data to SPC on request. It was suggested that it would be much more efficient if NMFS was authorised to send the data directly to SPC. FFA agreed to propose this at the next Treaty Consultation in March 2003.

132. In August 2002, SPC requested summary statistics concerning the proportion of bigeye in 'yellowfin plus bigeye' from NMFS, but provision of these statistics had been delayed partly because NMFS was not authorised to release these statistics directly to SPC. FFA agreed to propose that NMFS also be authorised to provide statistics determined from the port sampling data directly to SPC.

7. OTHER BUSINESS

7.1 Next meeting of the DCC

133. The participants agreed that holding the meeting every two years continues to be appropriate. It was therefore agreed that the next meeting of the DCC should take place in December 2004, unless circumstances arise that necessitate holding the meeting earlier.

7.2 Guidelines for the Participation of Observers

134. It was recognised that the meeting benefited considerably from the presence of the nine observers and that its objectives had been achieved, although it proceeded at a much slower pace than past meetings at which only one or two observers were present. The SPC and FFA participants therefore agreed that the number of observers at future meetings should be such that the DCC is not prevented from achieving its objectives. It was further agreed that preference will be given to observers invited by SPC and FFA; other observers will be considered on a request basis.

7.3 Distribution of the Report of DCC5 at SCTB16

135. The meeting was advised that the Standing Committee on Tuna and Billfish had requested that the report of DCC5 be distributed at the next meeting of the SCTB, which will be held in Mooloolaba, Australia, from 7 to 16 July 2003.

136. It was noted that there had been some confusion outside the DCC concerning the roles of SCTB and DCC with regard to data collection forms and minimum standards for data collection. The DCC is responsible for developing data collection forms for the FFA member countries and the

SPC member countries and territories. While the DCC forms are widely used in the region, many other forms are also used by various agencies of both member and non-member countries. Therefore the forms developed by the DCC cannot be considered standard forms for all fleets fishing in the WCPO.

137. The SCTB, in contrast, has not developed actual data collection forms. Instead, it has, through its Statistics Working Group, established minimum data standards for logsheets used in the WCPO. It may, in the future, establish minimum standards for other types of data collection forms, such as observer forms. Rather than developing actual logsheets for the WCPO, the SCTB Statistics Working Group has reviewed the logsheets already used in the region by comparing them to the minimum data standards. It has made recommendations for changes in the content and formatting of the logsheets where they have not been consistent with the minimum data standards. In fact, the recommendations of the SCTB Statistics Working Group that were made as a result of reviewing the DCC logsheets were largely responsible for the DCC's decision to develop a longline logbook.

7.4 Harmonisation of IATTC and DCC Forms

138. The meeting was advised that NMFS and the Inter-American Tropical Tuna Commission were in contact regarding the translation of the instructions for the IATTC observer forms from Spanish into English. This came about in response to US Treaty observers being placed on United States purse seiners that went from the WCPO to the Eastern Pacific Ocean. There is currently an agreement between FFA and IATTC regarding the use of US Treaty observers in the EPO.

139. The meeting was also advised that IATTC had considered attending DCC5 in order to harmonise the data collection forms developed by DCC with the forms developed by IATTC. However, IATTC decided that it was more appropriate to harmonise the data standards for the WCPO and the EPO, rather than the data collection forms, and so this matter will be introduced at SCTB16 during the session for the Statistics Working Group.

8. CLOSING

140. 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.

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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
- 2.3 Pole-and-line
- 2.4 Purse seine
- 2.5 Handline
- 2.6 Implementation of DCC logsheets
- 2.7 Draft longline logbook

3. OBSERVER PROGRAMMES

- 3.1 Status of observer programmes
- 3.2 Review of observer sampling protocols
- 3.3 Review of observer forms

4. PORT SAMPLING PROGRAMMES

- 4.1 Status of port sampling programmes
- 4.2 Review of port sampling protocols
- 4.3 Review of port sampling forms

5. OTHER FORMS

- 5.1 Papua New Guinea shark longline
- 5.2 Samoan longline logsheet
- 5.3 Game fishing forms
- 5.4 Trip log
- 5.5 Daily FAD fishing logsheet for Niue and the Cook Islands
- 5.6 Papua New Guinea inspection form
- 5.7 Regional Register and vessel and gear attributes

6. SPC/FFA DATA MANAGEMENT ISSUES

- 6.1 Provision of compliance forms by SPC to FFA
- 6.2 Entry of observer vessel and gear attribute data by SPC
- 6.3 Provision of VMS data by FFA to SPC
- 6.4 Entry of US Treaty and FSM Arrangement data by SPC
- 6.5 Provision of NMFS port sampling data from NMFS directly to SPC

7. OTHER BUSINESS

- 7.1 Next meeting of the DCC
- 7.2 Guidelines for the participation of observers
- 7.3 Distribution of the report of DCC5 at SCTB16
- 7.4 Harmonisation of IATTC and DCC forms

8. CLOSING

APPENDIX 2. LIST OF WORKING PAPERS

- | | |
|-------|--|
| WP 1 | Anonymous. 2001. 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. |
| WP 2 | Proposed Changes to the DCC Logsheets. |
| WP 3 | An Update on the Implementation of the South Pacific Regional Logsheet Forms in the Western and central Pacific Tuna Fisheries. |
| WP 4 | Methods and Procedures for the Implementation of the Proposed “South Pacific Regional Daily Longline Logbook”. |
| WP 5 | Consideration for Collecting Information on the Deployment and Use of Drifting FADs Using the Regional Purse Seine Logsheet. |
| WP 6 | Status of Sampling Programmes in the Central and Western Pacific Region and Some Neighbouring Tuna Fisheries. |
| WP 7 | South Pacific Regional Sampling Protocols |
| WP 8 | Proposed Changes to DCC Port Sampling and Observer Forms. |
| WP 9 | Consideration of the Collection of Baseline Data to Improve the Coverage of Catch Logsheets Data and the Quality of Annual Catch Estimates. |
| WP 10 | Itano, D.G. 2002. Vessel and gear attributes in the Forum Fisheries Agency Regional Register of Vessels: how much is enough? Working Paper FTWG–9. Fifteenth Meeting of the Standing Committee on Tuna and Billfish, 22–27 July 2002, Honolulu, Hawaii, United States of America. Pelagic Fisheries Research Programme, University of Hawaii, Honolulu, Hawaii, United States of America. 12 pp. |
| WP 11 | Whitelaw, W. 2002. AFMA Observer Programme Project Plan for 2002/03. AFMA Observer Programme Report No. OBS–2002–106. Australian Fisheries Management Authority, Canberra, Australia. |
| WP 12 | Pakop, N. and W. Kewo. 2002. Observer Program. National Fisheries Authority, Port Moresby, Papua New Guinea. |
| WP 13 | Catch Effort Reference Library, Version 1.0 – July 2002. Research Data Management Group, Ministry of Fisheries, Wellington, New Zealand. (Compact disk) |

APPENDIX 3. LIST OF PARTICIPANTS**Forum Fisheries Agency**

Mr Manasseh Avicks	manasseh.avicks@ffa.int
Mr Ramesh Chand	ramesh.chand@ffa.int
Mr Andrew Richards	andrew.richards@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 Tim Lawson	timl@spc.int
Mr Peter Sharples	peterbs@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**

Australian Fisheries Management Authority
 Box 7051 Canberra Mail Centre
 Canberra ACT 2610

Fax: +61 2 6272 4614

Mr Alex Lynch
 Tel: +61 2 6272 4870

alex.lynch@afma.gov.au

Mr Daniel Clifton
 Tel: +61 2 6272 3605

daniel.clifton@afma.gov.au

Fiji

Mr Filipe Viala
 Fisheries Department
 Ministry of Fisheries and Forestry
 GPO 3165
 Lami

fviala@govnet.gov.fj

Tel: +679 361122
 Fax: +679 336 3170

Kiribati

Raikaon Tumoa
 Fisheries Division
 Ministry of Natural Resources Development
 PO Box 64
 Bairiki
 Tarawa
 Tel: +686 28095
 Fax: +686 28295

raikaont@mnr.gov.ki

New Zealand

Mr Kim Duckworth
 Ministry of Fisheries
 PO Box 1020
 Wellington
 Tel: +64 4 470 2608
 Fax: +64 4 470 2669

kim.duckworth@fish.govt.nz

Papua New Guinea

Ms Valonna Baker
 National Fisheries Authority
 PO Box 2016
 Port Moresby
 Tel: +675 321 2643
 Fax: +675 320 2061

vbaker@fisheries.gov.pg

Samoa

Mr Anisi Christian Tua
 Fisheries Division
 Department of Agriculture, Forests, Fisheries and Meteorology
 PO Box 1874
 Apia
 Tel: +685 20369
 Fax: +685 24292

anisitua@yahoo.co.nz

United States of America

Mr Stuart Arceneaux
 National Marine Fisheries Service
 #10 – 1601 Kapiolani Boulevard
 Honolulu, Hawaii
 United States of America 96814
 Tel: +1 808-973-2935 extension 216
 Fax: +1 808-973-2941

stuart.arceneaux@noaa.gov

Mr Gordon Yamasaki
 National Marine Fisheries Service
 PO Box 4150
 96799 Pago Pago
 American Samoa

gordon.yamasaki@noaa.gov

Tel: +684 633-5598 (office) or 258-9675 (mobile)
 Fax: +684 633-1400

APPENDIX 4. STATUS OF IMPLEMENTATION OF SOUTH PACIFIC REGIONAL LOGSHEETS

SPC/FFA MEMBER OR ARRANGEMENT	GEAR	FLEET	LOGSHEETS RECEIVED?	STATUS OF IMPLEMENTATION OF SOUTH PACIFIC REGIONAL LOGSHEETS
American Samoa	Longline	Taiwan (DWFN)	Partial	Few vessels from this fleet provide data on regional standard (as per Fiji)
Cook Islands	Longline	Locally-based fleet	Yes	Local longline fleet using Regional longline logsheet
FSM Arrangement	Purse seine	Vessels operating under the FSM Arrangement		Introduced during 1996. All fleets use the regional standard logsheets.
		FSM	Yes	
		Marshall Islands	Yes	
		Papua New Guinea	Yes	
		Solomon Islands	Yes	
		Kiribati	Yes	
		Vanuatu	Yes	
Fiji	Longline	Fiji (domestic fleet) + locally-based joint-venture vessels	Yes	All vessels now appear to be using the regional longline logsheet.
		Taiwan (DWFN)	Partial	Few 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	Partial	This fleet now uses regional logsheets, albeit a slightly modified version. Also, there are sometimes the odd non-standard logsheet.
		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.
		Taiwanese longline	Partial	Some companies use a modified version of the regional standard having slight differences compared to the regional standard.
	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
		Korean purse seine	Yes	This fleet now uses the regional logsheets.
		Taiwanese purse seine	Yes	Regional logsheet translated and distributed by the Taiwanese Deep-Sea Tuna Boat-owners Association
Kiribati	Longline	Japan	No	No indication of introduction of new forms
		Korea	No	No indication that the form has been introduced as yet.
	Pole-and-line	Japan	No	No indication of introduction of new forms
		Japan	Partial	Very few standard forms coming through, mainly as a result of FSM requirement to use standard forms.
		Domestic PS vessel	Yes	Introduced (see FSM Arrangement)
	Purse seine	Korea	Yes	Introduced at regional level.
		New Zealand	No	Non-standard form used for activities in Kiribati waters, but standard form appears to be used for activities elsewhere.
		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
Marshall Islands	Longline	Mainland China	No	Fleet hasn't been active for several years. No indication of introduction of new 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	No	Fleet becoming active again. Some vessels using the regional standard, some using the No indication of introduction of new 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	No	No indication of introduction of new forms, although there are one or two standard logsheets for trips in FSM waters that are received through Marshall Islands
		Korea	Yes	Introduced at regional level.
		New Zealand	Yes	Non-standard form used for activities in Kiribati waters, but standard form appears to be used for activities elsewhere.
		Taiwan	Yes	Regional logsheet translated and distributed by the Taiwanese Deep-Sea Tuna Boat-owners Association.
Nauru	Pole-and-Line	Japan	No	No indication of introduction of new forms
	Purse Seine	Japan	No	No indication of introduction of new forms
		Korea	Yes	Introduced at regional level
		Taiwan	Yes	Regional logsheet translated and distributed by the Taiwanese Deep-Sea Tuna Boat-owners Association.

Appendix 4 (continued)

SPC/FFA MEMBER OR ARRANGEMENT	GEAR	FLEET	LOGSHEETS RECEIVED?	STATUS OF IMPLEMENTATION OF SOUTH PACIFIC REGIONAL LOGSHEETS
New Caledonia	Longline	Japan	No	No activity in recent years
		Locally-based fleet	(No)	French translation of regional logsheet provided, but local fleet now use a customised form. In recent months they have switched back to the regional standard.
Nuie	Longline	Taiwan	No	No indication of introduction of new forms. No recent activity.
French Polynesia	Longline	Locally-based fleet	Yes	French version used, data processed by SMR, Papeete.
		Korea	No	No indication of introduction of new forms (Data are processed locally).
Papua New Guinea	Longline	Japan	No	No recent fishing activity
		Locally-based fleet	Yes	Introduced for US vessels and local longline fleet
	Purse seine	Korea	Yes	Introduced at regional level.
		PNG (domestic)	Yes	All companies now using regional standard
		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.
Palau	Longline	Mainland China	Yes	Regional standard used by this fleet
		Japan	No	No recent activity
		Taiwan	Yes	Regional standard used by this fleet
		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	No	No indication of introduction of new forms (No recent activity)
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
		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
		Locally-based fleet + Kiribati	(No)	(Data processed by Solomon Islands Fisheries Division)
	Purse seine	Korea	Yes	Introduced at regional level.
		Philippines		No recent activity
		Domestic fleet	Yes	Introduced (see FSM Arrangement)
	Purse seine	Taiwan	Yes	Regional logsheet translated and used by Taiwanese PS fleet.
Tonga	Longline	Domestic fleet	Yes	Regional logsheet is used by this fleet.
Tuvalu	Longline	Japan	No	No indication of introduction of new forms
		Korea	No	No indication that the form has been introduced as yet.
	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
		New Zealand	Yes	Non-standard form used for activities in Kiribati waters, but standard form appears to be used for activities elsewhere.
US Multilateral Treaty	Purse seine	US fleet	Yes	Latest version introduced in June, 1997
Vanuatu	Longline	Fiji	Partial	Some non-standard forms received recently
		Taiwan	(No)	No indication of introduction of new forms. Very few regional standard forms received.

APPENDIX 5. STATUS OF PORT SAMPLING AND OBSERVER PROGRAMMES

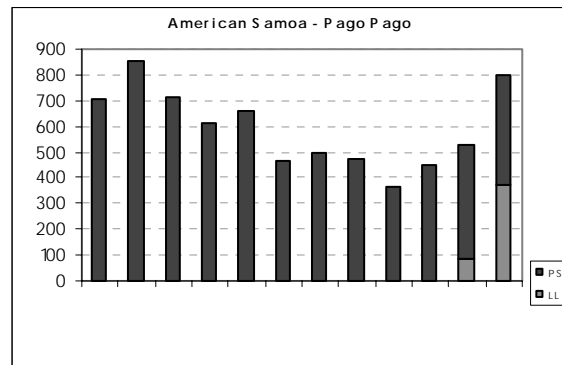
Length and species composition data for stock assessment are currently collected through port sampling programmes in 26 harbours throughout the region and are an essential input to assessment analyses for Pacific Ocean tuna stocks. The first observer programme in the region started nearly thirty years ago and programmes have been developing slowly in regional and national organisations through the region ever since. The programmes were created to monitor activities such as compliance with licensing agreements and restrictions on incidental catches, but were soon recognised for providing the only reliable, detailed information on catches discarded at sea, catch and bycatch statistics at the species level and fishing effort information. Greater importance is being given to these types of information than ever before and observer programmes in the region are now expanding rapidly. With port sampling and observer programmes inevitably linked through the nature of the data they collect, it is necessary that the activities are well coordinated both within and amongst programmes. This report will provide a tool for programme staff and others to keep abreast of developments in portside and at-sea data collection in this region.

The first issue of this report summarises the current status of port sampling and observer programmes throughout the region, programme by programme. It sets a basic framework in which to develop a living document providing up to date information on size, level of activity, fleets targeted, sampling strategies and protocols, difficulties, successes and trends. Those that find such a document useful are invited to send comments, criticisms and suggestions for improvements to Mr Peter Sharples, Port Sampler and Observer Coordinator, Oceanic Fisheries Programme, Secretariat of the Pacific Community: peterbs@spc.int.

Sets of histograms depicting port sampling and observer activity are presented for each country. The **port sampling** activity of longliners, trollers and pole-and-line vessels is measured as the number of vessels sampled. Port sampling activity of purse seiners is measured as number of samples taken. A purse-seine sample is a sample of fish from one or more wells that contain fish either from a single set or from a combination of sets that are of the same set type and come from the same area and time. For each port in which sampling takes place, there is a histogram depicting the annual level of sampling of the different gear types. For countries that have monitoring of unloadings in more than one port, there is also a histogram to show activity for all ports combined. Abbreviations used for gear types in these histograms are: PS = purse seine; LL = longline; PL = pole-and-line; and T = troll. The **observer** activity is measured as the number of discrete observer trips. For each country, there is a histogram for each gear type, depicting the annual activity. (Future updates of this report will use observer sea-days as the measure of observer activity.) Abbreviations used for gear types in observer histograms are: S = purse seine; L = longline; and P = pole-and-line.

American Samoa

Port sampling – The National Marine Fisheries Service has had a port sampling team that attempts to sample from every United States vessel that unloads in Pago Pago. The majority of this 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 and the occasional United States longliner are also sampled and data from these are supplied 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 has provided the funds for the SPC component of this sampling. The Department of Fish and Wildlife conducts creel surveys of the domestic alia fleet, but only samples the large alia.



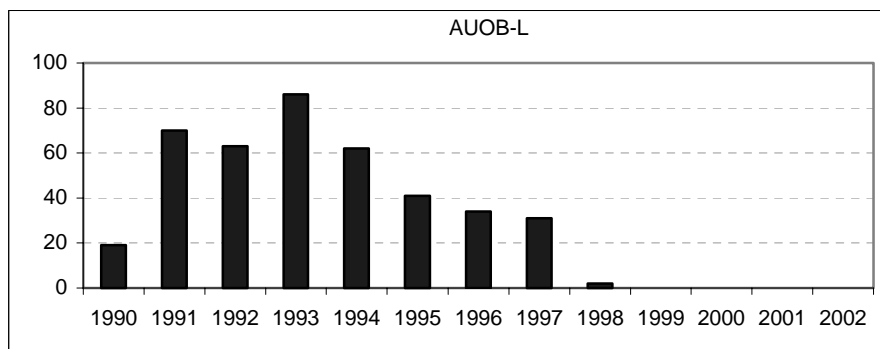
Observers – American Samoa has not previously had its own observer programme. However, NMFS has provided considerable support in Pago Pago for the US Treaty observers, for which Pago Pago is the principal port of embarkation and disembarkation.

In 2002, at the request of the American Samoan government, the NMFS office in Hawaii is helping to set up an observer programme. The plan is to have twelve observers to cover the American Samoa fleet of forty longliners. There is a target of 50 observer trips in 2003. To date, four American Samoa observers have been trained and each has undertaken an observer trip in Hawaii. NMFS will endeavour to harmonise the data collection protocols with those of the region.

Australia

Port sampling – the Australian Fisheries Management Authority (AFMA) contracts out port length frequency sampling under research projects. A significant proportion of the catch is measured.

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. For tuna fisheries, a vigorous observer programme started at the end of the 1980s and existed until 1997, when the access agreement with the Japanese longline fleet was not renewed. The Observer Programme was recently re-established in order to cover domestic longliners.



In 2002, the Observer Program operated under a new structure, with full cost-recovery. The Observer Program includes an Observer Coordination Unit and an Observer Service Provider Unit. Coverage of the Pacific tuna fishery currently operates under the Threat Abatement Programme

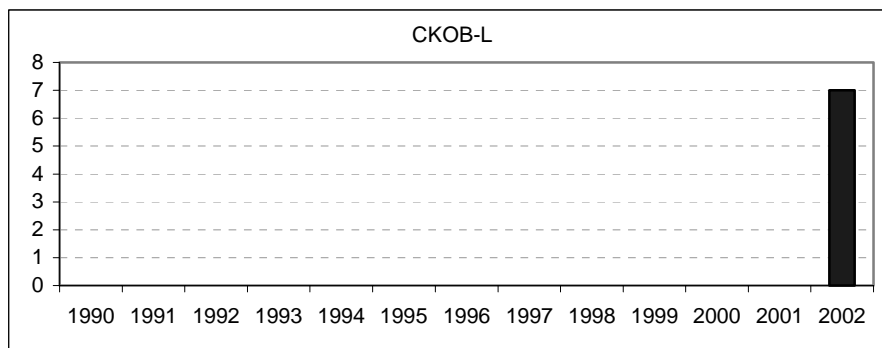
(TAP), with very specific tasks, and an agreement under which industry will fund 10% coverage may soon be concluded. The Observer Programme will not have a compliance role.

Cook Islands

Port sampling – The Ministry of Marine Resources (MMR) Observer Coordinator and other MMR staff carry out port sampling of a rapidly growing longline fleet. Nineteen longliners are currently licensed to fish in Cook Island waters, but generally only ten to twelve unload in Rarotonga on a regular basis. Others are unloading either in Pago Pago, are on short-term licenses, or are in New Zealand for service and repair.

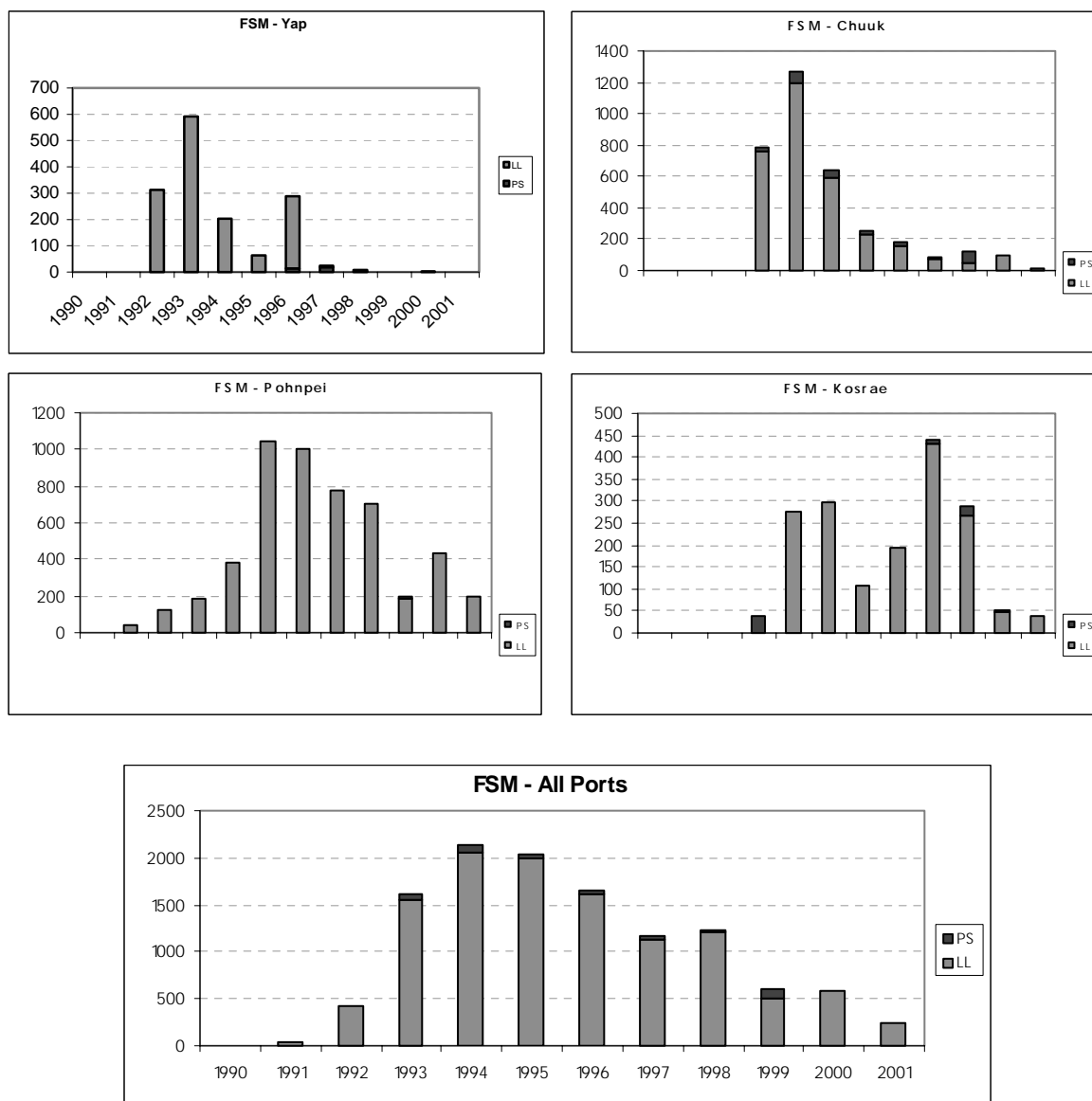
Observers - The Cook Island Observer Programme operates under MMR. The Cooks have two distinct longline fisheries - the northern Cooks, which lands frozen fish to the canaries in Pago Pago, and the southern Cooks, which is exporting fresh fish to Japan and the United States. Although participants from 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.

In 2002, the Cook Islands had their first national observer training programme for 12 participants. An Observer Coordinator has been appointed and there is a plan for 20% coverage of both fleets. To date, data from seven longline trips have been received by the OFP and coverage at this stage is already 6%. However, the number of available observers has declined, such that there are currently only two, including the Coordinator; hence, there is a need to train more observers.



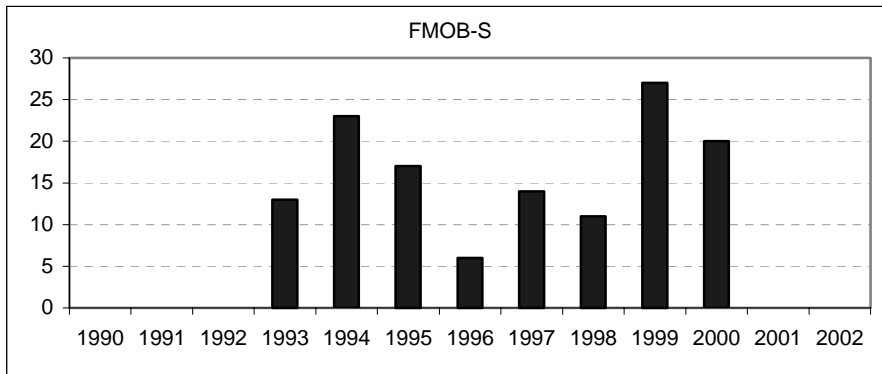
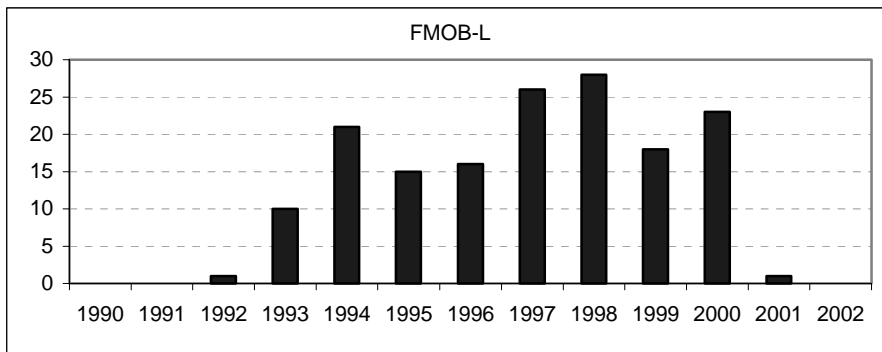
Federated States of Micronesia

Port sampling – The Federated States of Micronesia employs one full-time port sampler in each of its four island states – Yap, Chuuk, Pohnpei and Kosrae. These long-term employees sample purse seiners and longliners from Japan, Korea, Taiwan and mainland China, as well as an occasional United States longliner and Australian shark longliner.



Observers - The FSM Observer Programme operates under the newly formed National Oceanic Resource Management Authority (NORMA) and previously operated under the Micronesian Maritime Authority (MMA). The longest running national observer programme amongst Pacific Island countries, it has operated since the early 1990s. It was first established in an effort to gain insights into industrial tuna fisheries, with the goal to transpose the knowledge learnt into developing a domestic tuna fishery. It has since developed into a very capable scientific and compliance data collection unit.

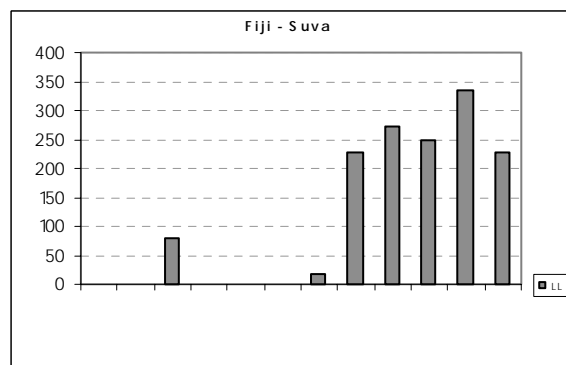
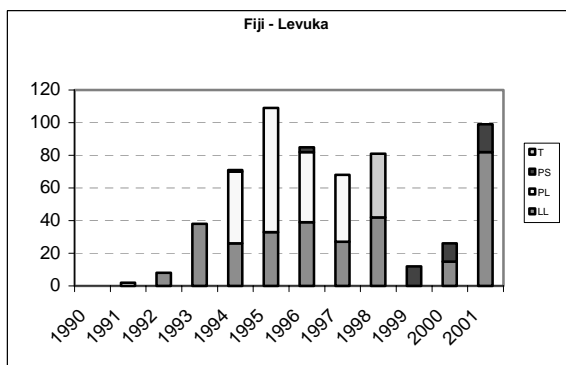
FSM has longliners from Japan, China and Taiwan and purse seiners from Japan, Korea, Taiwan and the United States. It also has its own domestic longliners and purse seiners. Overall coverage for combined gear types has seldom been above 3%. However, NORMA recognises that a 5% coverage of the fishing effort in each of the fleets is a minimum for any useful extrapolation to total catches and subscribes to the regional goal of 10%, whilst recognizing an ideal of 20% coverage, as is currently carried out under the US Treaty. 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. Every loophole in the agreement possible has been used to resist increasing observer coverage.

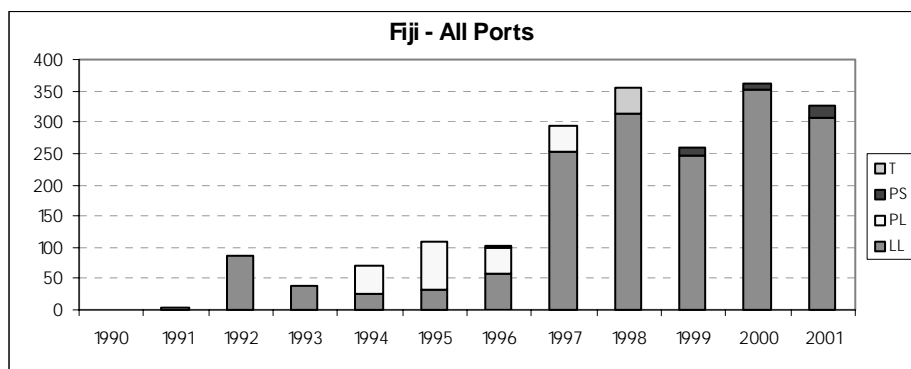


In 2002, there were twelve fully operational observers available, at least eight of which are very experienced and a couple of them the most experienced observers in the region. There are no immediate plans to expand the observer programme, but it has been recognised that further expansion is required in order to meet coverage goals.

Fiji

Port sampling – SPC has funded port-sampling activities in Levuka and Suva since the early 1990s. In Levuka, 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. In Suva, sampling has targeted mainly the domestic longline fleet, at four processing plants, but expanded to cover transshipments of DWFN longliners at the main wharf.



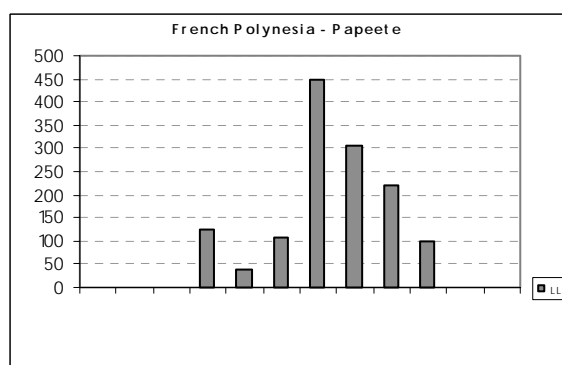


Observers – A National Observer Training Workshop was held in Suva in 1997. Although the Ministry of Agriculture, Fisheries and Forestry Fisheries Division committed to appointing a member of staff to plan and coordinate an observer programme, internal problems have meant that by 2002, the observer programme had not yet been established.

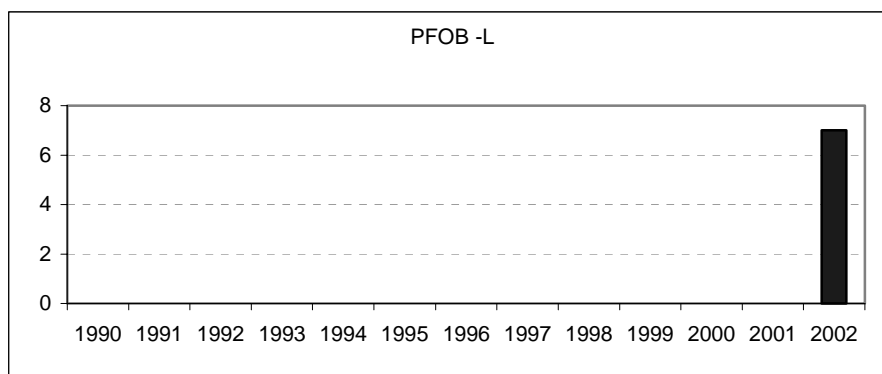
In 2002, a new tuna fisheries development plan placed greater emphasis on the need for better data collection. A second national observer-training workshop was held, a new observer coordinator was appointed utilising Global Environment Facility (GEF) funds, and a comprehensive port-sampling programme recommenced in Suva. The ten new observers spread their efforts between port-sampling and observer duties, sampling nearly all vessels that unloaded and carrying out ten observer trips. Observers and port samplers work primarily with tuna, but can be utilised to cover other fisheries, such as snapper, live reef fish and an occasional trial fishery. The programme intends to increase the number of observers by five in 2003 in order to increase the level of coverage. While SPC still funds port sampling activities in Levuka and funds Fiji's Port Sampler and Observer Coordinator, all other port sampling and observer activity is now funded by the Fiji fishing industry.

French Polynesia

Port sampling – There has been regular sampling of the catch that is landed in Papeete for several years but with a low level of coverage. With the rapid increase in the number of vessels and with further increases anticipated, there is a need to increase coverage.

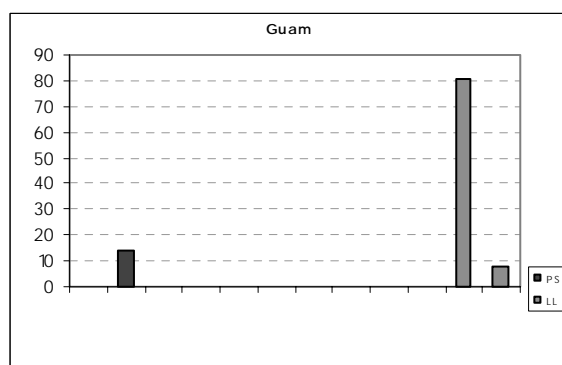


Observers – French Polynesia recently received funding for the salary of a national observer coordinator and for training, equipping and contracting observers on a trip-by-trip basis. Two observers and the Coordinator are currently conducting observer trips.



Guam

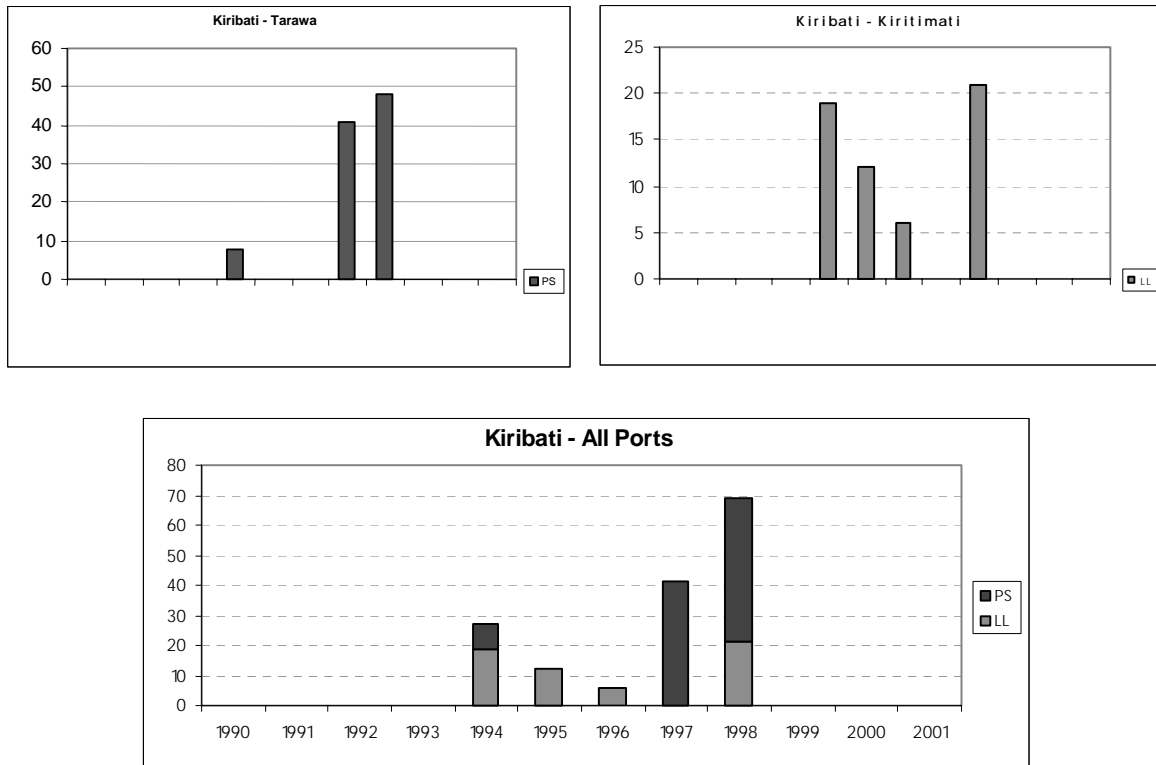
Port sampling – Guam has been a centre of unloadings and transshipments for the central and northern Pacific tuna fisheries for many years. However, as the fish unloaded or transhipped have not been caught in Guam waters, there is no incentive to install a monitoring programme. A few purse seine unloadings between 1988 and 1991 were sampled as part of the NMFS US Treaty sampling programme but stopped when the US vessels stopped transshipping there. Between 1996 and 2001 several efforts were made by SPC and the Federated States of Micronesia, which allows many foreign vessels to unload in Guam, to install port-sampling programmes but apart from a brief period of success in 2000 these have failed. On the other hand, the meeting noted that the Department of Commerce has, for many years, collected packing lists, which contain the weights of individual fish exported through Guam, and that the packing lists have been 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

Port sampling – There has been no port-sampling programme in Kiribati, but the Ministry of Natural Resource Development (MNRD) supports such monitoring in principal. MNRD Fisheries Section staff have occasionally been used to carry out sampling under SPC-funded initiatives on purse seiners in Tarawa and longliners in Kiritimati. Transshipment in Kiribati tends to be sporadic, making it difficult to maintain an ongoing port sampling team. However, recent addition of trained observers available on a contract basis should provide a pool of potential port samplers to alleviate this problem.



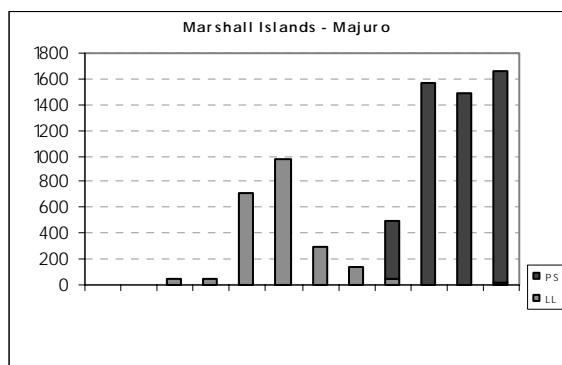
In November 2002 SPC provided further funds and training so that the Pacific purse seine fleet, unloading at Kiritimati as a result of unusual El Nino related fishing conditions, could be sampled. Newly-trained observers, contracted on a piecework basis, were used to carry out this work.

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, the provisions in access agreements for observer coverage of foreign vessels have rarely been used. Between 1996 and 2001, there were only two observer trips taken, one of which was funded by SPC. A second training course was conducted in Tarawa in 2001 and a third on Kiritimati in 2002. Since 2001, there has been an improvement in placing observers on foreign fishing vessels, although this is still hampered by weak provisions for observer coverage in access agreements.

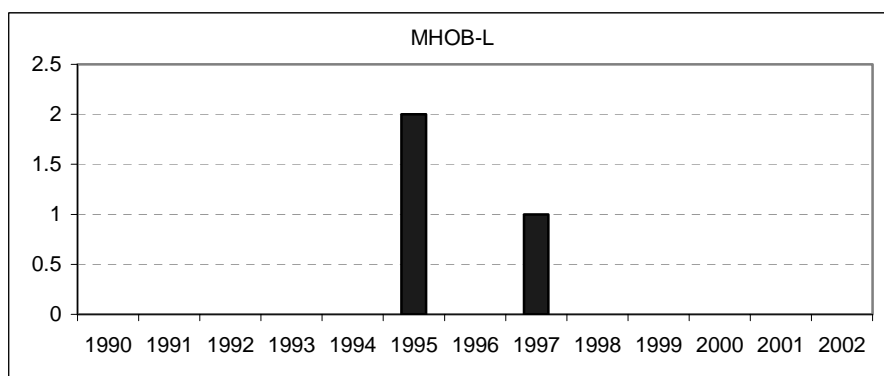
In 2002, ten observer trips were carried out and at the end of 2002, a new observer coordinator was appointed, utilising GEF funds administered by SPC.

Marshall Islands

Port sampling – In recent years, there has been a large amount of port sampling data collected from the purse-seine fleets that tranship in Majuro. This sampling mainly utilises the observers that have been trained in two workshops there and who are paid directly through the fishing vessel agents. Unfortunately, the quality of data has been erratic – good after an SPC visit to upgrade samplers, but tending to deteriorate quickly afterwards. The Marine Resources Authority is currently looking at ways to resolve this problem and has asked SPC for assistance.



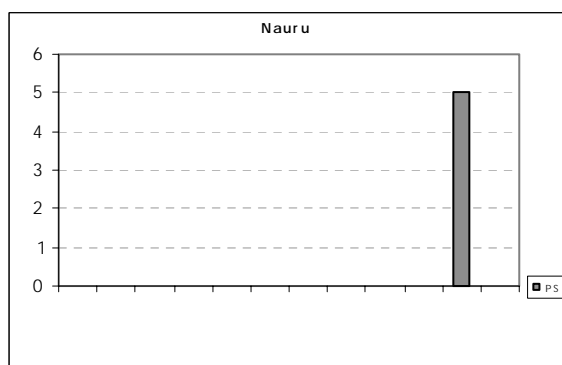
Observers – Two large observer training workshops have been held, but only three successful trips (on longliners) have been carried out since 1995. The low level of observer activity has been due to poor selection of candidates for observer training courses and to observers being fully utilised for port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



In 2002, MIMRA began investigating means to improve the observer and port sampling programmes. Their first priority is to identify funding and hire a coordinator for the sampling programmes; SPC has been asked to assist in this regard.

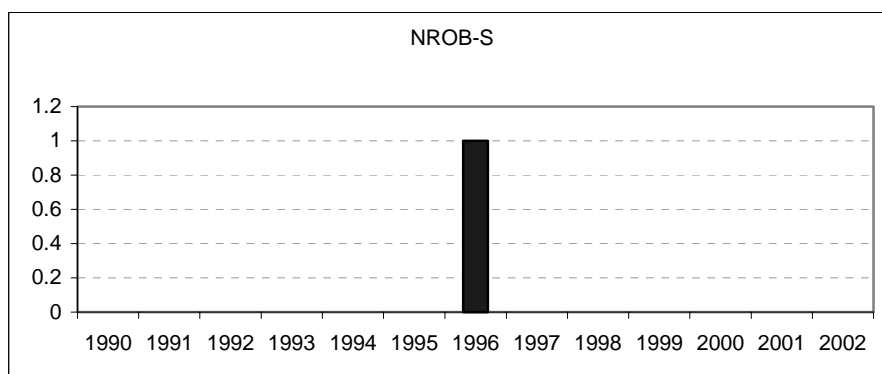
Nauru

Port sampling – In 2000 five vessels were sampled by Nauru Fisheries staff receiving training in port sampling techniques 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. The observer himself organised this trip. Otherwise, there is no regular observer programme. However,

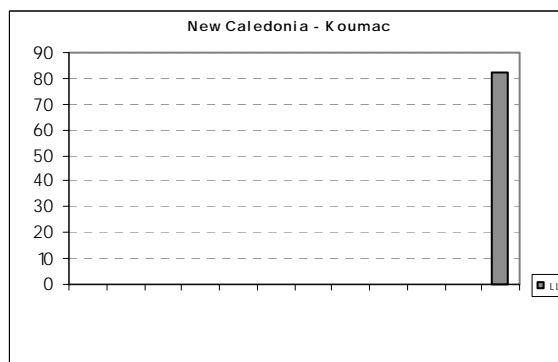
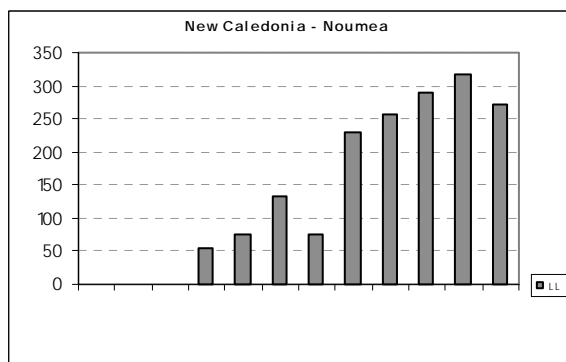
Nauru does have some observers who have received regional training for the US Treaty and the FSM Arrangement observer programmes.



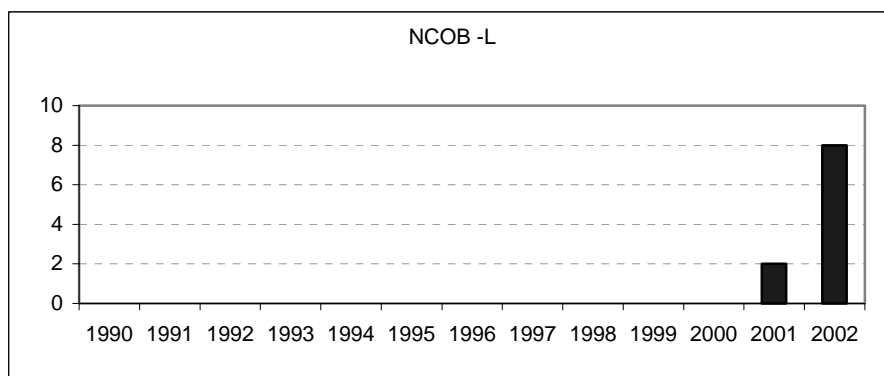
In 2002, there were no plans for further development of port sampling or observer programmes in Nauru.

New Caledonia

Port sampling – SPC, with the support of the Service de la Marine Marchande et des Pêches Maritimes, has continuously funded and conducted port sampling in Nouméa for 15 years. Prior to 1993 this sampling was related to specific projects and data was not collected in standard form. Between 1993 and 2002 piecework-contracted samplers, supervised directly by the OFP, undertook regular sampling. In 2002 the programme was expanded, with funding through SPC, 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.



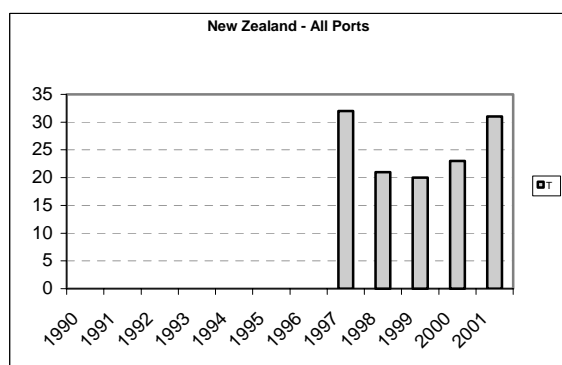
Observers – In 1996, eight observers were trained to cover Japanese longliners fishing in New Caledonian waters. However, the access agreement with Japan was not renewed. In 2001 New Caledonia's Marine Marchande conducted two pilot longline observer trips on domestic vessels as they prepared to install a new Observer Programme.



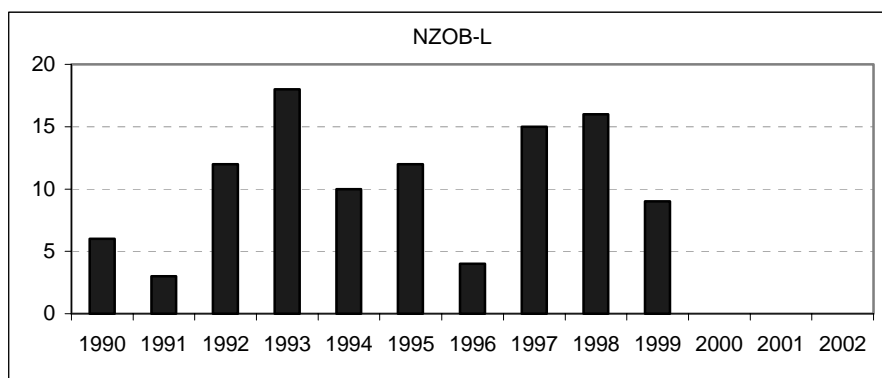
In 2002, a new observer programme was established, with the aim of covering the domestic fishery. This programme, which is funded by European Commission funds administered by SPC, currently has an Observer and Port Sampling Coordinator, four port samplers and one observer.

New Zealand

Port sampling – There has been no port-sampling programme covering tuna in New Zealand. However, 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. This task has since been taken over by the Ministry of Fisheries.



Observers – Technicians from the former Ministry of Agriculture and Fisheries carried out trips on United States purse seiners in the late 1970s and early 1980s. The current New Zealand Observer Programme operates under the Ministry of Fisheries. There is a pool of around 50 observers that are contracted on a trip-by-trip basis. Training 15 new observers a year maintains the number of available observers. Most observing is conducted in non-tuna fisheries. Coverage of tuna longline fisheries has been low, but continuous, since trips were first carried out in 1987. An overall doubling of the Observer Programme to 100 observers and 10 shore staff during the next 24 months has been proposed, in order to address growing bycatch concerns.



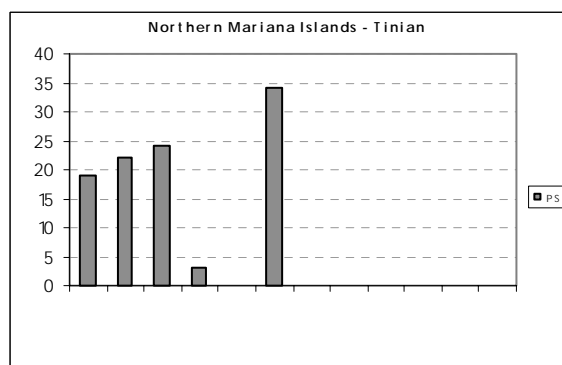
In 2002, there were 720 observer sea days planned for longliners; there were 439 in 1999 and 770 are forecast for 2003. As for previous years, half of the observers' activity will take place on domestic longliners and half on foreign joint-venture vessels.

Niue

There is no port sampling or observer programme in Niue, but one observer from Niue has participated in the US Treaty Observer Programme and more are expected to attend regional training courses in 2003.

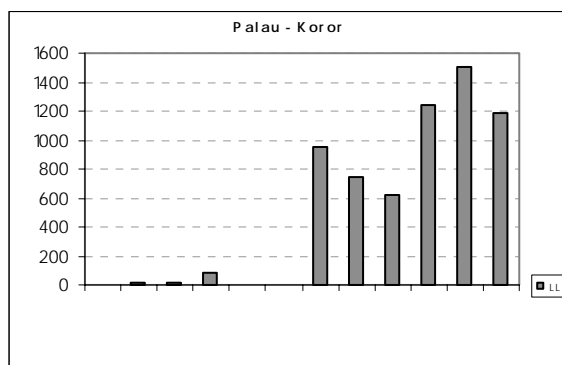
Northern Marianas

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 transshipping 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.

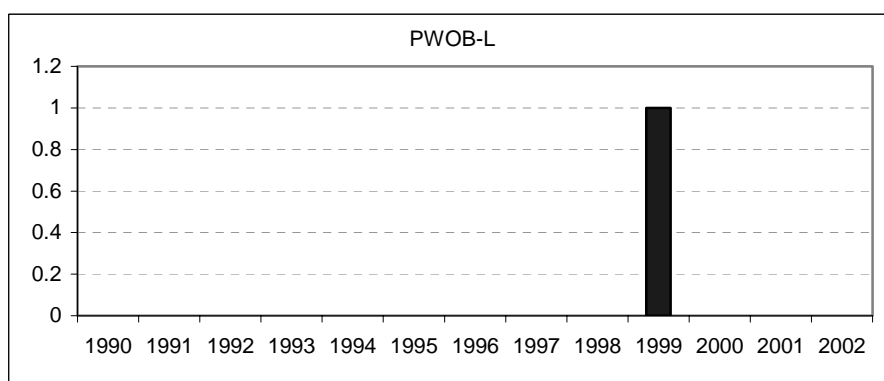


Palau

Port sampling – The Palau Maritime Agency currently has a well-supervised port-sampling programme that provides high-quality quality data to SPC on a monthly basis. The vessels being sampled are mainly Taiwanese, mainland Chinese and smaller Japanese longliners.



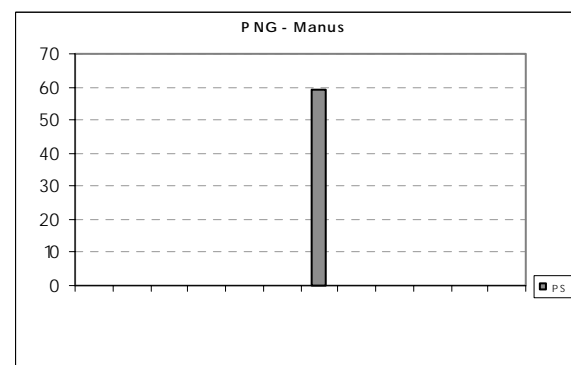
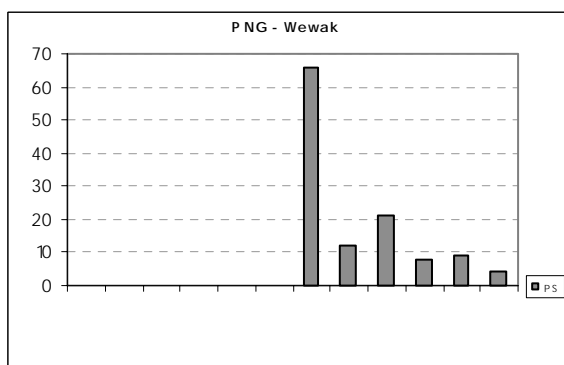
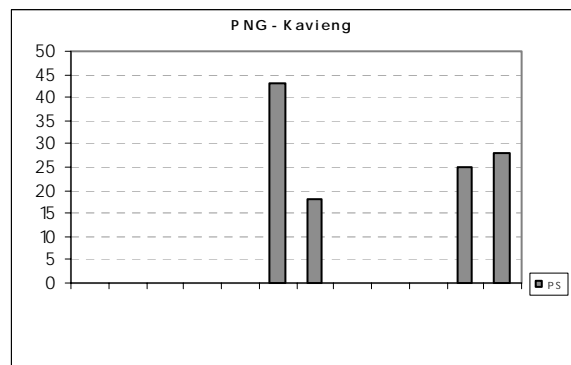
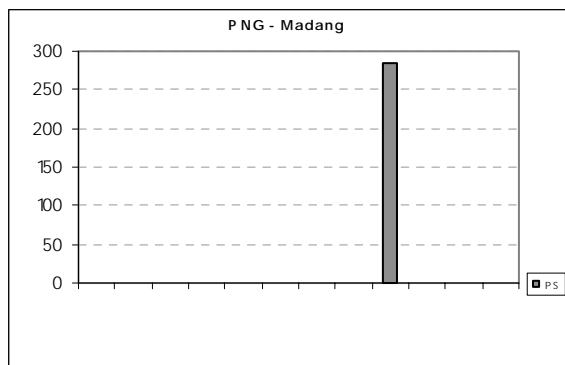
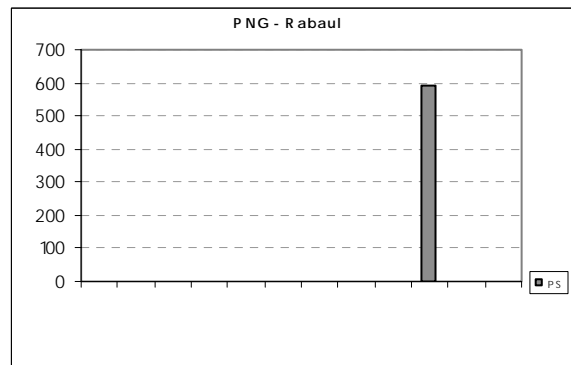
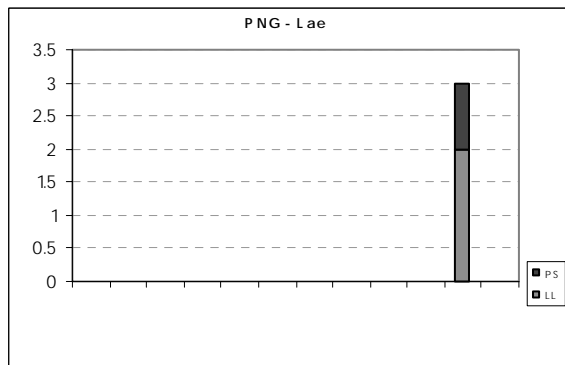
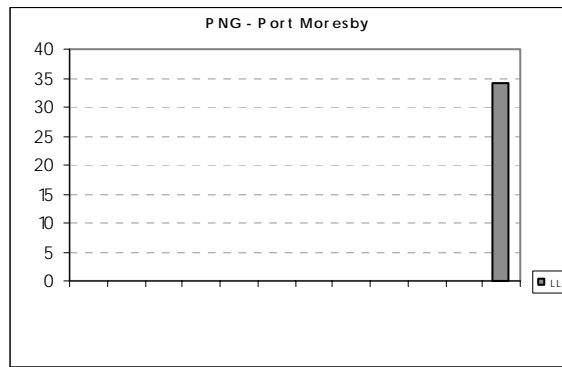
Observers – Palau, along with Kiribati, was one of the first countries in the region to hold an FFA/SPC national observer training workshop. However, only two trips have been carried out, under SPC supervision.

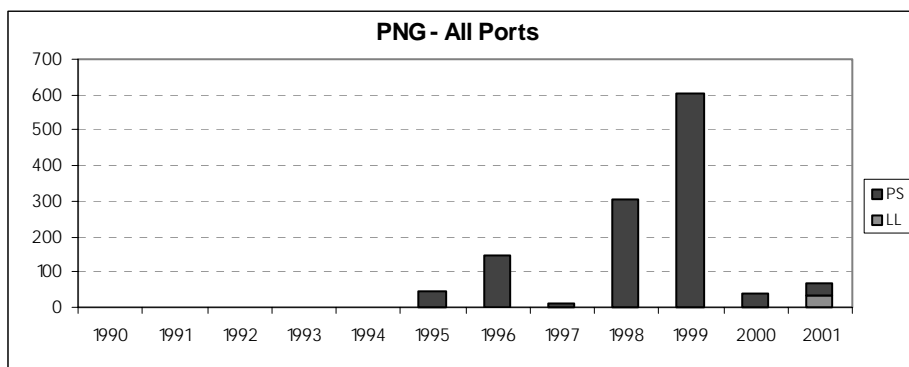


In 2002, Palau were planning to re-establish an observer programme and have asked FFA for further observer training assistance in 2003.

Papua New Guinea

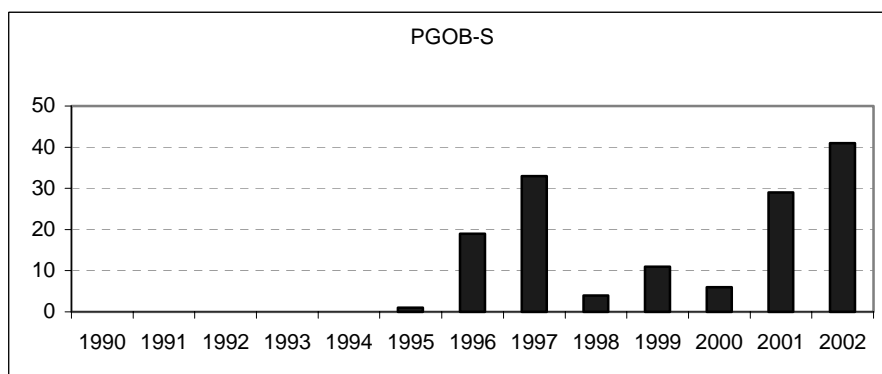
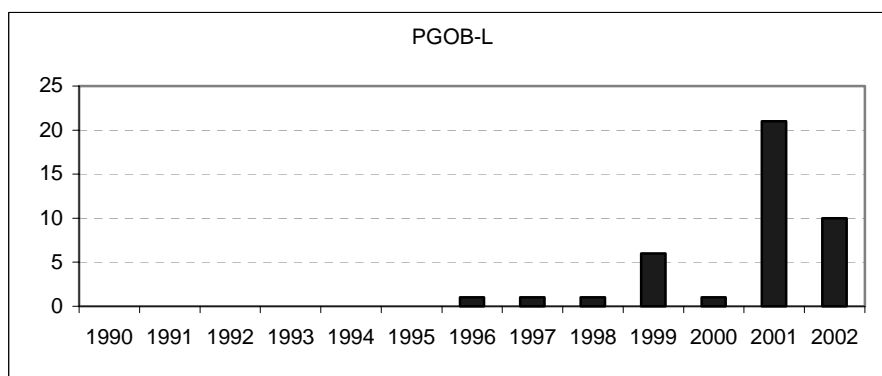
Port sampling – Port sampling in Papua New Guinea is carried out in Port Moresby (longliners), Lae (longliners and purse seiners), and Rabaul, Madang, Kavieng and Wewak (purse seiners). Sampling was also carried out in Manus during a brief intensive period of purse seine transshipments that began and ended during 1996. Trained observers, working on a piecework basis for the National Fisheries Authority, carry out most of the port sampling and are usually supervised by Provincial fisheries offices. The involvement of both the Provincial offices and the National Fisheries Authority 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 PNG's mothership operations that are unique to the region. With a change in policy to have observers placed on 100% of catcher vessels operating in this fishery this port sampling activity ceased.





In 2002 port sampling in Rabaul expanded to cover the tuna and shark longliners that tranship there. In 2003 it is planned to establish sampling in Alotau where longliners currently unload and to expand sampling in Kavieng to cater for a newly developing longline industry.

Observers – The PNG Observer Programme is the largest and best-supported observer programme among the Pacific Island countries. It has recently been restructured as part of a comprehensive review of the National Fisheries Authority. Forty-four active observers are based through ten ports around the country. The Observer Manager and a Deputy Observer Manager, the latter funded through SPC, are based in Port Moresby. The most experienced observers have been trained as senior observers, which further support placements, debriefings and data quality control. Observers work in all tuna fisheries, but can also be utilised in the prawn trawl fishery and in other trial fishing operations. Coverage targets are 100% of purse seiners fishing into mothership operations; 20% of all other purse seiners; 5% of all longliners, 20% of prawn trawl fisheries and 100% of all trial fisheries operations. Although the number of available observers is not yet sufficient the programme has been coming close to achieving these coverage rates.



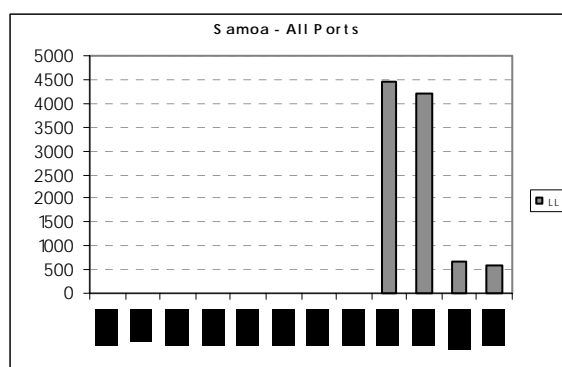
In 2002, the Observer Programme recruited a new Deputy Observer Manager and concentrated on improving data handling processes, mainly with its senior observers. Fifteen new observers were trained and plans have been made to train 30 additional observers and to train senior observers in debriefing techniques. The programme's goal is to have a complement of 80 active observers.

Pitcairn

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

Port sampling – The Ministry of Agriculture, Forests, Fisheries and Meteorology (MAFFM) has been carrying out SPC-funded port 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. As the fleet changed in structure the sampling programme has been modified.

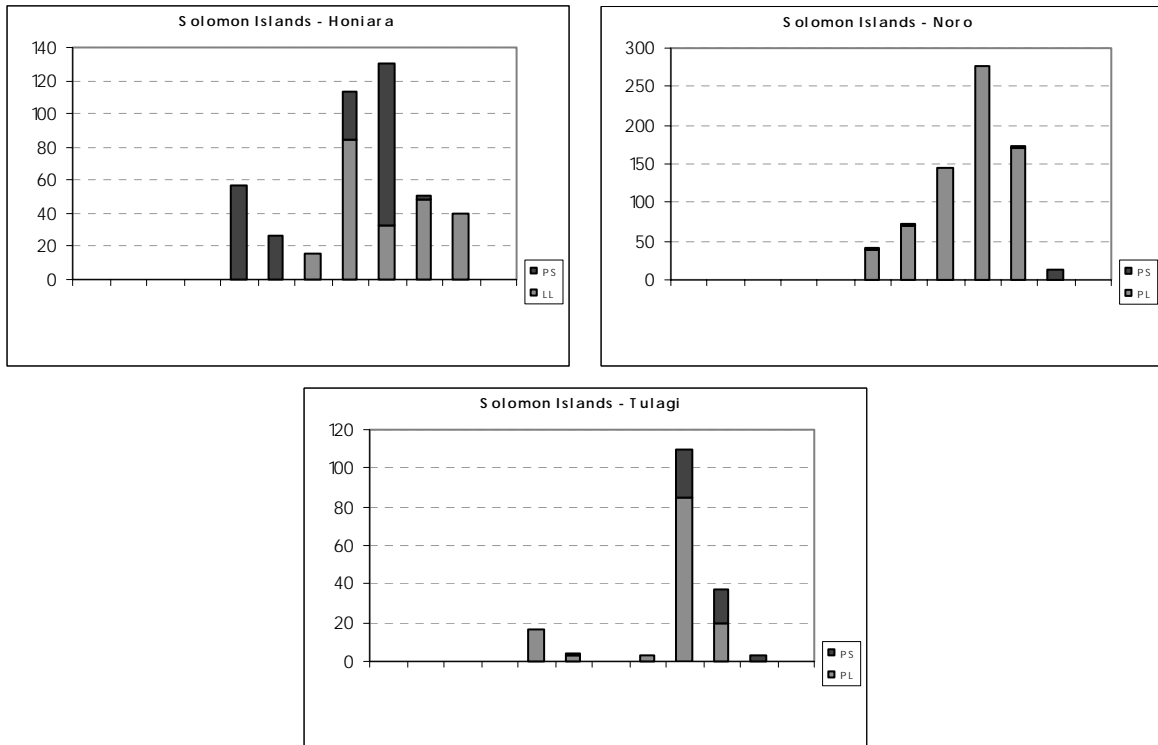


In 2002, one MAFFM staff coordinated the activities of two samplers. Up to 50% of landings are sampled.

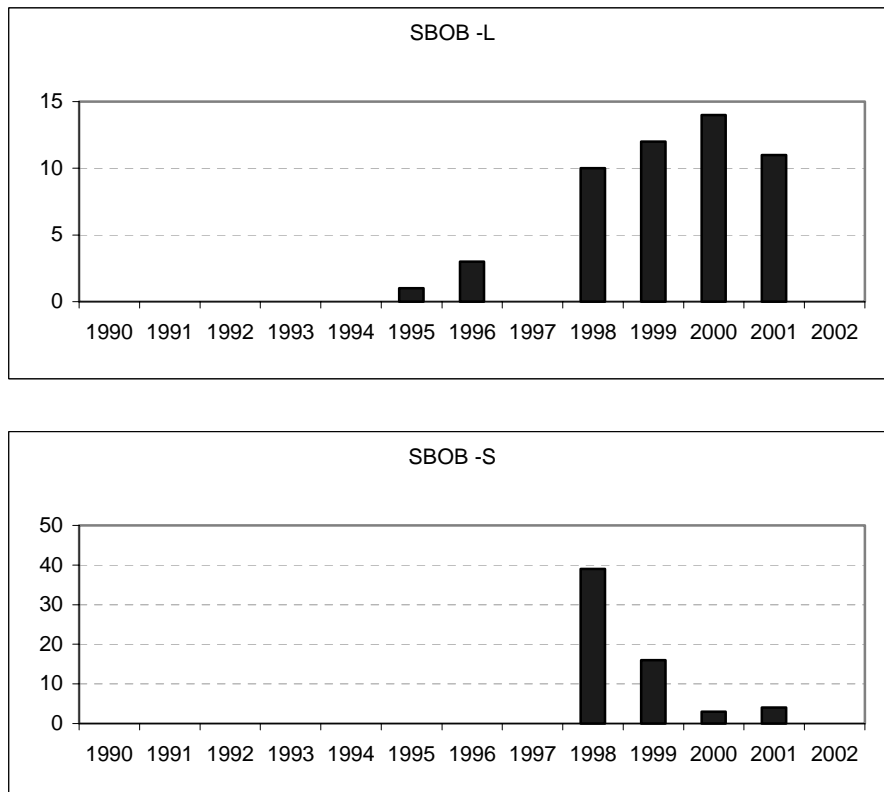
Observers – There is no observer programme planned for Samoa. Samoans have attended regional observer training and have been employed in the US Treaty Observer Programme, but none are currently available. Samoa will be invited to participate in a regional observer training workshop in 2003. Several observer trips have been carried out on the Samoan alia fleet by SPC observers.

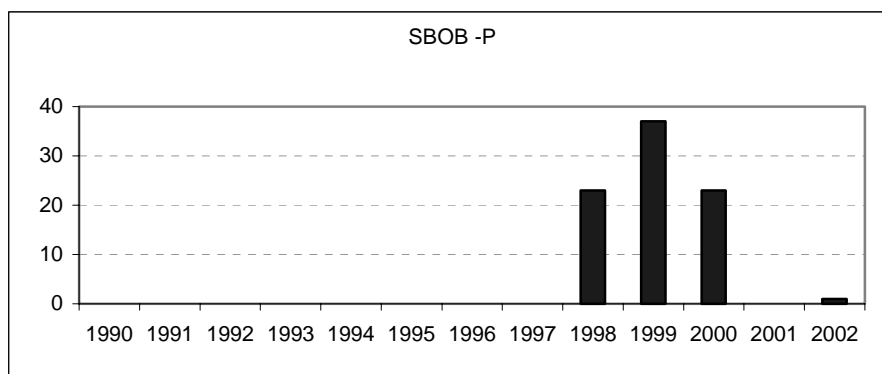
Solomon Islands

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 ceased operating. Fishing is now picking up again and there is a 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 subsided. 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, the SIOB concentrates on domestic vessels and is not covering the Japanese and Taiwanese vessels, nor the shark longline vessels.

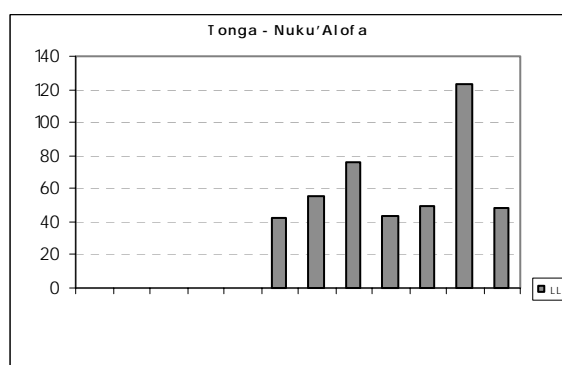




The 2002 coverage rates were 20% for longliners and 20% for pole-and-line vessels. A plan has been proposed to increase this to 30% of longliners, 40% of pole-and-liners and 100% of purse seiners in 2003. The increased coverage will require the training of ten new observers.

Tonga

Port sampling – The Ministry of Fisheries, utilising EC funds administered by SPC, employs two port samplers who attempt to sample from all longliners that unload in Tonga.



Observers – Although there is no observer programme, occasional observer trips, funded by SPC, are taken by port samplers who have attended regional observer training and been employed in the US Treaty Observer Programme.

Tokelau

There are no port sampling or observer programmes in Tokelau, but, in the past, observers from Tokelau have attended regional observer training courses and worked in the US Treaty Observer Programme. No observers are currently available, but Tokelau will be invited to attend a regional observer training workshop in 2003.

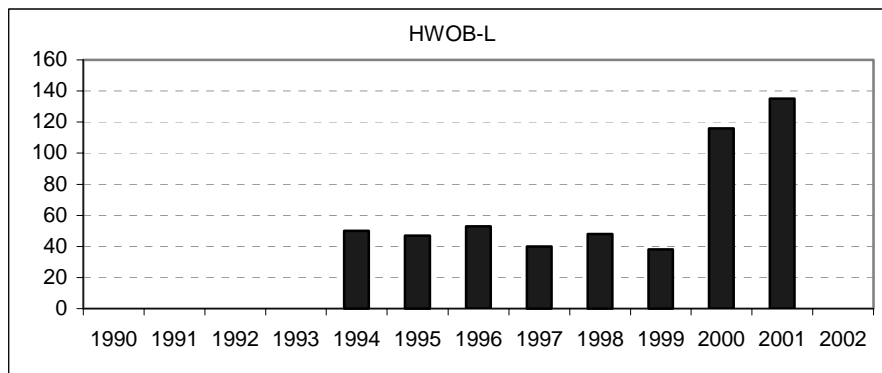
Tuvalu

There are no port sampling or observer programmes in Tuvalu, but there are observers from Tuvalu that have attended regional observer training courses and worked in the US Treaty Observer Programme. Tuvalu is considering establishing an observer programme, but may need to modify the relevant provisions in access agreements with foreign fleets.

United States of America, Hawaii

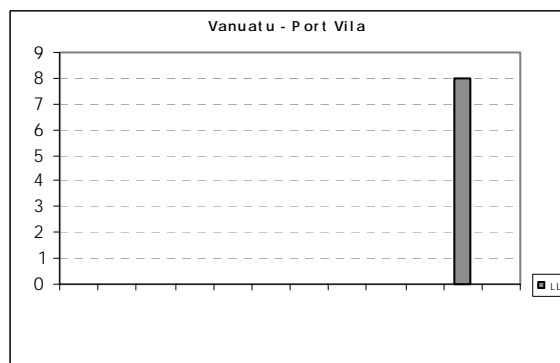
Port sampling – There is no on-shore sampling of tuna catches in Hawaii. The fish auction (United Fishing Agency) provides the NMFS with piece counts, weights and prices for 100% of the fish that they handle. No other biological information is collected on a regular basis.

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

Port sampling – Except for a brief period that Taiwanese longliners visited Port Vila at the start of a new access agreement in 2000 and during which SPC trained and supervised Vanuatu Fisheries staff in port sampling techniques, there has been no port sampling programme in Vanuatu.

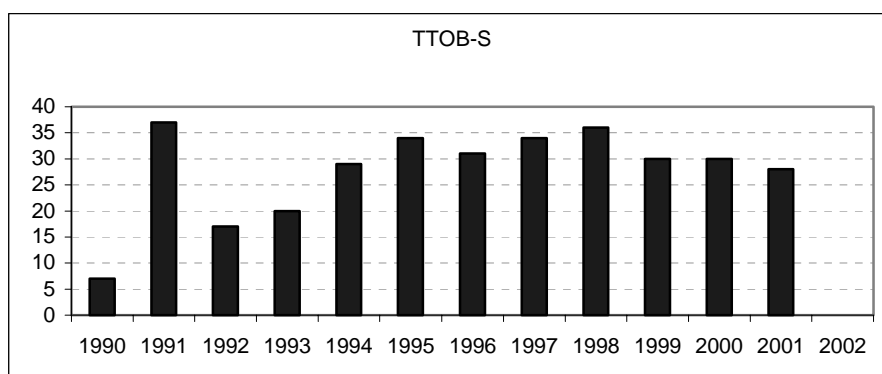


Observers – There is no observer programme in Vanuatu but observers from Vanuatu have attended regional observer training courses and worked in the US Treaty Observer Programme. Vanuatu is considering establishing a national observer programme.

US Treaty

Port sampling – Two NMFS staff in Pago Pago, American Samoa have conducted sampling under the US Treaty. The samplers attempt to sample 100% of the United States purse seiners unloading there. The sampling strategy is to sample from a minimum of one set type per month per sampling area per vessel.

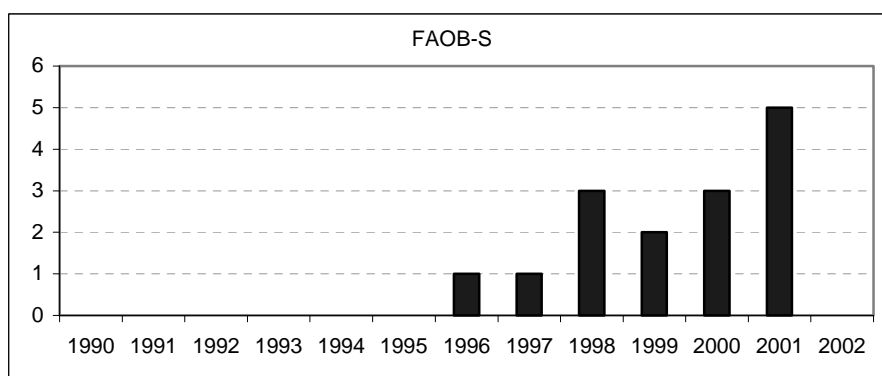
Observers – The US Treaty Observer Programme began in 1988 and nearly 400 observer trips on United States purse seiners have been taken. The target coverage level is 20% of all vessel trips. This target has been exceeded in several years.



In 2002, the trend for the number of vessels in the United States fleet to decrease has continued. From a high of 48 purse seiners, there are now just 25. The number of observer trips on these vessels is therefore decreasing.

FSM Arrangement

The FSM Arrangement has been in effect since 1996. The Arrangement allows for access of fishing vessels registered in member countries to fish in the waters of other member countries. Currently, only purse seiners operate under the Arrangement. FFA administers the Arrangement and manages the observer programme. Target observer coverage is 20%. Observers are trained to the same standard as the US Treaty observers. The programme is expected to increase as more vessels fish under the Arrangement.

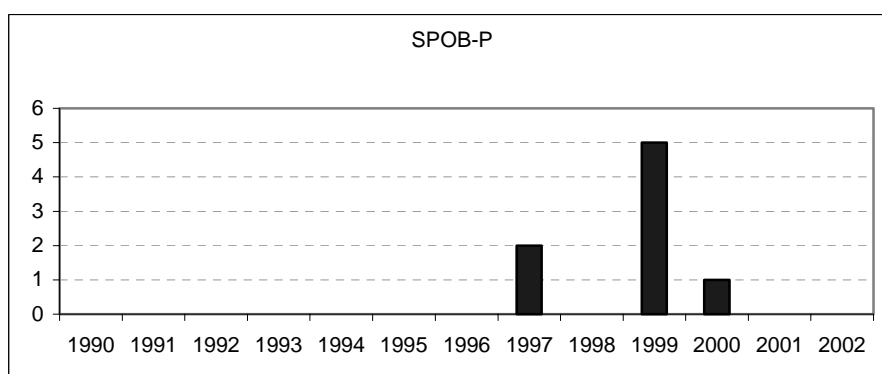
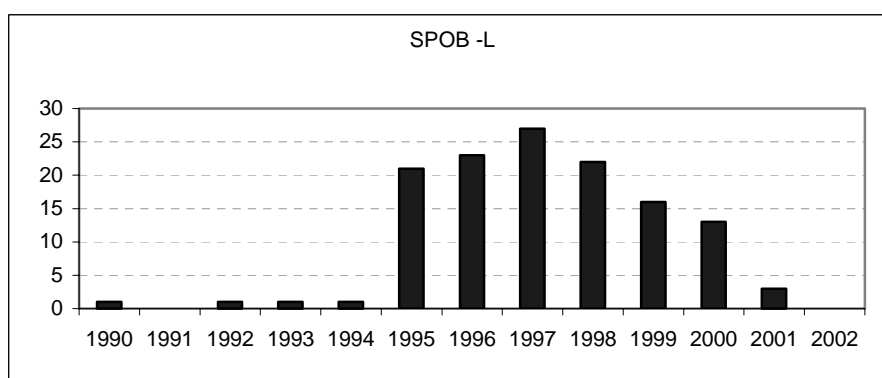
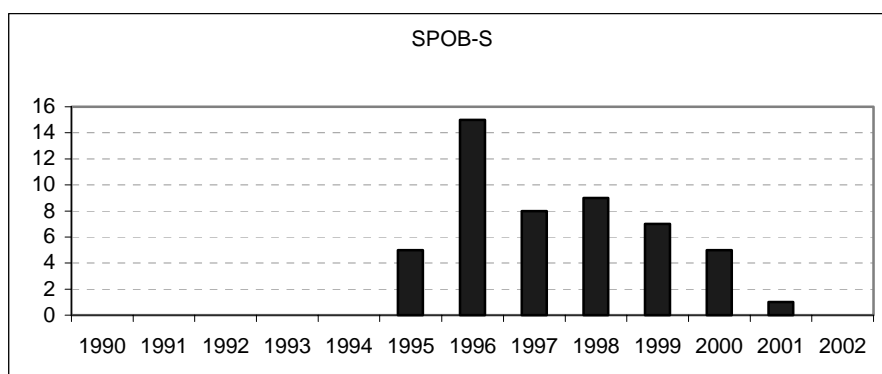


SPC Oceanic Fisheries Programme

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 of its 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.



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.

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**

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SOUTH PACIFIC 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) onboard. 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: Print the year in which the vessel departed from port at the start of the trip.

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.

NAME OF VESSEL		FISHING PERMIT OR LICENCE NUMBER(S)	NUMBER OF CREW	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) ?	<ul style="list-style-type: none"> • ALL DATES AND TIMES MUST BE UTC / GMT • ALL WEIGHTS MUST BE METRIC TONNES 	PORT OF UNLOADING	DATE AND TIME OF ARRIVAL IN PORT
REGISTRATION NUMBER IN COUNTRY OF REGISTRATION	INTERNATIONAL RADIO CALLSIGN			

[illegible]

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	PAGE TOTAL										
	TRIP TOTAL										
	NAME OF CAPTAIN					SIGNATURE OF CAPTAIN					DATE

SOUTH PACIFIC 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: Print the year in which the vessel departed from port at the start of the trip.

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.

[illegible]

- TRIP TOTAL

UNLOADINGS TO CANNERY, COLD STORAGE, CARRIER OR OTHER VESSEL

START DATE	END DATE	CANNERY---OR---VESSEL AND DESTINATION	INTERNATIONAL RADIO CALL SIGN	SKIPJACK	YELLOWFIN	BIGEYE	MIXED

DATE _____

SOUTH PACIFIC 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) onboard. 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: Print the year in which the vessel departed from port at the start of the trip.

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*.

SOUTH PACIFIC REGIONAL SHARK LONGLINE LOGSHEET

NAME OF VESSEL		FISHING PERMIT OR LICENCE NUMBER(S)										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	MONTH	DAY	ACTIVITY	
START SET POSITION	LONGITUDE			N/S			N/S			N/S			N/S			N/S			N/S			N/S			N/S			N/S			N/S	
	LATITUDE			E/W			E/W			E/W			E/W			E/W			E/W			E/W			E/W			E/W			E/W	
START HAUL POSITION	LONGITUDE			N/S			N/S			N/S			N/S			N/S			N/S			N/S			N/S			N/S			N/S	
	LATITUDE			E/W			E/W			E/W			E/W			E/W			E/W			E/W			E/W			E/W			E/W	
SET START TIME																																
NUMBER OF HOOKS SET																																
TARGET SPECIES	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	
	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																															
	OTHERS 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		

SOUTH PACIFIC REGIONAL HANDLINE 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	PORT OF DEPARTURE	DATE AND TIME OF DEPARTURE
COUNTRY OF REGISTRATION	FFA TYPE APPROVED ALC (Y/N) ?	<ul style="list-style-type: none"> • 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	RANGE IN LENGTH OF HANDLINES (METRES)

[illegible]

- 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 FISHING AND NOT IN TRANSIT
- 5 TRANSIT
- 6 IN PORT - PLEASE SPECIFY

NAME OF CAPTAIN	SIGNATURE OF CAPTAIN	DATE
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SOUTH PACIFIC 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: Print the year in which the vessel departed from port at the start of the trip.

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.

SOUTH PACIFIC 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 tid														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	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)											

SOUTH PACIFIC REGIONAL DAILY FAD FISHING LOGSHEET INSTRUCTIONS

Location/Port: <i>Fishersville</i>	Date: DD/MM/YYYY <i>10/27/1998</i>	Fishing Area and FADs: <i>FAD No. 7</i>	Boat, Skipper and Crew: <i>John Jones (skipper)</i> <i>Jeff Jones</i> <i>Paul Catcher</i>
Departure Time: <i>0530</i>	Return Time: <i>1800</i>	Fuel and Amount: <i>55 litres of 4-stroke</i>	

Time of Day (local time)	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	
	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	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	XAMPLE LOGSHEET ONLY																								
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 <i>Fine and sunny</i>	Bait Type: Amount (kg) or	Fishing Effort
Wind <i>5-10 knots NE</i>	Pieces Used	No. of Trolling Lines <i>3</i>
Sea <i>Slight</i>	<i>30 Opelu</i>	No. of VLLs and Hook <i>2 x 20 hooks</i>
Current or tide <i>0.5 km to South</i>	<i>20 Atule</i>	No. of Other Lines and Hooks <i>3 (1 jig)</i>
Moon phase <i>Last quarter</i>		Tied to FAD? <i>Yes</i>

Species	Trolling Catch						Catch by Other Methods						Total		
	Inshore FAD		Offshore FAD		Open water		VLL		Drop-stone		Other: <i>Jigging</i>				
	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	Depth of catch (VLL/drop-stone)
<i>Plenty of birds working around the FAD with some baitfish and mahi mahi under the buoy</i>	<i>All tuna caught from 250-300 m</i>

South Pacific Regional Logbook - Trip Details

Revised SPC/FFA Dec 2002.

All dates and times should be in UTC.

Departure Port:

Reasons for time spent in port : Tick all that apply:

nloading ☐ Breakdown ☐ Maintenance ☐ Bad weather ☐ Trip preparation ☐ Holiday ☐ _____

Start of Trip Date:

D D M M Y Y

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End of Trip Date:

D D M M Y Y

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Vessel Details

Vessel Name		Vessel Captain		Vessel Owner	
Flag	Country Registration No.		Fishing Permit or Licence Numbers		International Radio Call Sign
Vessel Length Overall (m)		Circle to indicate if onboard	Yes	No	<u>Mainline</u>
Fish Hold Capacity (m ³)		GPS Beacon	Y	N	Material
		Doppler Current Meter	Y	N	Length (nm)
Tick to indicate your storage method		Sea surface temp. gauge - SST	Y	N	
Ice		Satellite sea surface images	Y	N	<u>Floatline</u>
Refrigerated sea water		Tori pole mitigation device	Y	N	Length (m)
Air freezer		Line shooter	Y	N	<u>Branchline</u>
		Automatic bait thrower	Y	N	Length (m)
Vessel Monitoring system onboard	Y N	Automatic branchline attacher	Y	N	Shark wire Y N
Type of system		Bait chute	Y	N	

Recoverd Tags:

Recoverd tags should be sent without delay to the organisation marked on the tag. Remember to include the date and area of capture, an approximate weight or length for the fish, along with your name and your vessel's name as well as a return mailing add

Date recovered: dd/mm/yy	Tag Number	Species Name	Approx. length or weight in cm or kg.
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Whale Sightings: Record whale sighting and whale interations to help increase the amount of knowledge we have on this problem.

Date	Vessel's activity (when whale sighted)	Species	Remarks on whale's behaviour
d d m m y y	Set / Haul / Soak / Transit		

Was there an observer onboard for this trip?: Y / N

Observer's name : _____ Observer's Trip ID number: _____

Other Comments

Captain's Signature

South Pacific Regional Logbook - Trip Details

Revised SPC/FFA Dec 2002.

All dates and times should be in UTC.

Departure Port: *Suva*

Reasons for time spent in port : Tick all that apply:

Unloading ☒ Breakdown ☒ Maintenance ☐ Bad weather ☐ Trip preparation ☐ Holiday ☐

Start of Trip Date:

DD MM YY

1 9 1 0 0 3

End of Trip Date:

DD MM YY

2 8 1 0 0 3

Vessel Details

Vessel Name <i>Boat # 1</i>		Vessel Captain <i>Joe Bloggs</i>		Vessel Owner <i>Big Fish Company</i>	
Flag <i>FJ</i>	Country Registration No. <i>897</i>		Fishing Permit or Licence Numbers <i>02 -465243</i>		International Radio Call Sign
Vessel Length Overall (m)	<i>20</i>	Circle to indicate if onboard	<input checked="" type="radio"/> Yes	<input type="radio"/> No	Mainline
Fish Hold Capacity (m ³)	<i>200</i>	GPS Beacon	<input checked="" type="radio"/> Y	<input type="radio"/> N	Material <i>Monofilament</i>
		Doppler Current Meter	<input checked="" type="radio"/> Y	<input type="radio"/> N	Length (nm) <i>45</i>
Tick to indicate your storage method		Sea surface temp. gauge - SST	<input checked="" type="radio"/> Y	<input type="radio"/> N	
Ice	<input checked="" type="checkbox"/>	Satellite sea surface images	<input checked="" type="radio"/> Y	<input type="radio"/> N	Floatline
Refrigerated sea water		Tori pole mitigation device	<input checked="" type="radio"/> Y	<input type="radio"/> N	Length (m) <i>20</i>
Air freezer		Line shooter	<input checked="" type="radio"/> Y	<input type="radio"/> N	Branchline
		Automatic bait thrower	<input checked="" type="radio"/> Y	<input type="radio"/> N	Length (m) <i>10</i>
Vessel Monitoring system onboard		Automatic branchline attacher	<input checked="" type="radio"/> Y	<input type="radio"/> N	Shark wire <input checked="" type="radio"/> Y <input type="radio"/> N
Type of system <i>Trimble</i>		Bait chute	<input checked="" type="radio"/> Y	<input type="radio"/> N	

Recoverd Tags:

Recoverd tags should be sent without delay to the organisation marked on the tag. Remember to include the date and area of capture, an approximate weight or length for the fish, along with your name and your vessel's name as well as a return mailing add

Date recovered: dd/mm/yy	Tag Number	Species Name	Approx. length or weight in cm or kg.
<i>none recovered.</i>			

Whale Sightings: Record whale sighting and whale interations to help increase the amount of knowledge we have on this problem.

Date	Vessel's activity (when whale sighted)	Species	Remarks on whale's behaviour
d d m m y y	Set / Haul / Soak / Transit		
2 3 1 0 0 3	<i>Soak</i>	<i>False killer (?)</i>	<i>One only, seen near vessel, 100 meters off.</i>

Was there an observer onboard for this trip? ☒ Y ☐ N

Observer's name : _____ Observer's Trip ID number: _____

Other Comments

Joe Bloggs

Captain's Signature

South Pacific Regional Logbook - Daily Form

Revised SPC/FFA Dec 2002.

All Dates and Times should be in UTC

Daily form number: 00001

Primary Target Species

→ Tuna



Swordfish



Shark



Set Details	Date dd mm yy	Time 00. 00 hrs	Latitude dd° mm. mmm	N S	Longitude ddd° mm. mmm	E W	Wind knts / dir	Current knts / dir	SST °C
* Start of Set:									
End of Set:									
Start of Haul:									
End of Haul:									

*(If no set was made today, record your vessel's mid-day position on the *Start of Set line above.

Indicate the reason no set was made today by circling a number below. You may circle more than one.

3. Transit 4. Breakdown 5. Bad weather

Circle A when live bait is used

No. of Hooks between floats		Vessel Speed (knts)		1. Bait species	A	
Total Number of Hooks		Line Setting Speed (m/s)		2. Bait species	A	
Total number of light sticks		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 < 25 kg						Mahi Mahi					
Yellowfin > 25 kg						Escolar					
Bigeye < 25 kg						Wahoo					
Bigeye > 25 kg						Opah					
Albacore						<u>Barracuda</u>					
Skipjack						Barracuda ()					
Striped Marlin						<u>Breams</u>					
Blue Marlin						Breams ()					
Black Marlin						Pelagic Stingray					
Swordfish						Snake Mackerel					
Shortbilled Shearfish						Lancetfishes					
Sailfish						Sunfish					
Bluefin ()						Other ()					
Silky Shark						Other ()					
Blue Shark						Other ()					
Oceanic Whitetip						Other ()					
<u>Hammerhead sharks</u>						Turtle ()					
<u>Mako sharks</u>						Green Turtle					
<u>Thresher Sharks</u>						Hawsbill Turtle					
Other sharks ()						Loggerhead Turtle					
Other sharks ()						Leatherback Turtle					
Other sharks ()						Olive Ridley Turtle					
Other sharks ()						<u>Marine Mammal</u> ()					
Other sharks ()						<u>Bird</u> ()					

Other Comments

☐ Tick to indicate if any catch was taken by whales. Record the number in the rows above.

Captain's Signature

South Pacific Regional Logbook - Daily Form

Revised SPC/FFA 2002.

All Dates and Times should be local

Daily form number: 00001

Primary Target Species

→ Tuna

Swordfish

Shark

Set Details	Date dd mm yy	Time 00.00 hrs	Latitude dd° mm. mm'm	N S	Longitude ddd° mm. mm'm	E W	Wind knts / dir	Current knts / dir	SST °C
* Start of Set:		Use the 24hr clock to record the time you started and finished the	Record your fishing positions here. This is mandatory.			Record the environmental conditions for the set and haul here. Record as much information as you can.			
End of Set:									
Start of Haul:									
End of Haul:									

* (If no set was made today, record your vessel's mid-day position on the *Start of Set line above.

Indicate the reason no set was made today by **circling a number** below. You may circle more than one.

3. Transit 4. Breakdown 5. Bad weather

Count the number of hooks between each float and record it here.	Record the vessel's average speed <u>during setting</u> here.	If you have a line shooter record the speed of the line setting in meters per second.	Circle A when live bait is used.
No of Hooks between floats	Vessel Speed (knts)	1. Bait species	A
Total No. of Hooks	Line Setting Speed (m/s)	2. Bait species	A
Total no. of light sticks	Dist. Between branchlines (m)	3. Bait species	A
Record the total number of hooks set here. Multiply the (number of hooks between floats) by (the total number of floats - 1) to get this value.		Record each types of bait you use during the set here.	

Species	No. Ret	Kg Ret.	No. Dis	Reas. Disc.	No. Rel alive	Species	No. Ret	Kg Ret.	No. Dis	Reas. Disc.	No. Rel alive
Yellowfin -						Mahi Mahi					
Yellowfin -						Escolar					
Bigeye -						Wahoo					
Bigeye -						Opah					
Albacore						<u>Barracuda</u>					
Skipjack						Barracuda ()					
Striped Marlin						<u>Breams</u>					
Blue Marlin						Breams ()					
Black Marlin						Pelagic Stingray					
Swordfish						Snake Mackerel					
Shortbilled Spearfish						Lancetfishes					
Sailfish						Sunfish					
Silky Shark						Other ()					
Blue Shark						Other ()					
Oceanic Whitetip						Other ()					
<u>Hammerhead sharks</u>						Other ()					
<u>Mako sharks</u>						Turtle ()					
<u>Thresher Sharks</u>						Green Turtle					
Other sharks ()						Hawsbill Turtle					
Other sharks ()						Loggerhead Turtle					
Other sharks ()						Leatherback Turtle					
Other sharks ()						Olive Ridley Turtle					
Other sharks ()						Marine Mammal					
						Bird ()					

Other Comments

The Captain must sign off every sheet, including blank sheets

☐ Tick to indicate if any catch was taken by whales. Record the number in the rows above.

Captain's Signature

South Pacific Regional Logbook - Daily Form

Revised S.P.C./F.F.A 2002.

All Dates and Times should be local

Daily form number: 00001

Primary Target Species

⇒ Tuna

☐ Swordfish

☐ Shark

Set Details	Date dd mm yy	Time 00.00 hrs	Latitude dd° mm. mm	N S	Longitude ddd° mm. mm	E W	Wind knts/dir	Current knts / dir	SST °C
* Start of Set:	20/10/03	06.00					8 / 90		27 C
End of Set:	20/10/03	11.30					8 / 90		
Start of Haul:	21/10/03	16.45					15 / SE		
End of Haul:	22/10/03	01.00					15 / SE		

*(If no set was made today, record your vessel's mid-day position on the *Start of Set line above.

3. Transit 4. Breakdown 5. Bad weather

Circle A when live bait is used

No. of Hooks between floats		15		Vessel Speed (knts)		6.5		1. Bait species		A		
		1000		Line Setting Speed (m/s)		5		2. Bait species		A		
		0		Dist. Between branchlines (m)		32.5		3. Bait species		A		
Yellowfin < 25kg	3	60	0			Mahi Mahi	3	28				
Yellowfin >25kg	5	170	1	DWD	0	Escolar			2	DUS	0	
Bigeye < 25kg	6	130	1	DSD		Wahoo	2	8				
Bigeye > 25kg	1	45	1			Opah						
Albacore	15	225	10	DWD		<u>Barracuda</u>		<div>Reason Discarded Use these Codes</div> <div>DFR - Discarded fins retained.</div> <div>DSD - Discarded shark damage</div> <div>DWD - Discarded whale damage</div> <div>DUS - Discarded undesirable species</div> <div>DDL - Discarded difficult to land</div> <div>DTS - Discarded too small</div> <div>DPQ - Discarded poor quality</div> <div>DPS - Discarded protected species</div>				
Skipjack						Barracuda (GBA)						
Stiped Marlin	2	190	0			<u>Breams</u>						
Blue Marlin						Breams ()						
Black Marlin						Pelagic Stingray						
Swordfish						Snake Mackerel						
Shortbilled Spearfish	1	15	0			Lancetfishes						
Sailfish						Sunfish						
Silky Shark			15	DFR	0	Other ()						
Blue Shark			5	DFR	0	Other ()						
Oceanic Whitetip			2	DFR		Other ()						
<u>Hammerhead sharks</u>						Other ()						
<u>Mako sharks</u>						Other ()						
<u>Thresher Sharks</u>						Green Turtle				DPS	1	
Other sharks (LMA)	4	45				Hawsbill Turtle						
Other sharks ()						Loggerhead Turtle						
Other sharks ()						Leatherback Turtle			1			
Other sharks ()						Olive Ridley Turtle						
Other sharks ()						Marine Mammal						
						Bird ()						

Reason Discarded Use these Codes

DFR - Discarded fins retained.
DSD - Discarded shark damage
DWD - Discarded whale damage
DUS - Discarded undesirable species
DDL - Discarded difficult to land
DTS - Discarded too small
DPQ - Discarded poor quality
DPS - Discarded protected species

Other Comments

Had two mainline breaks today. Took an extra three hours to finish the haul.

Three days before full moon.

☐ Tick to indicate if any catch was taken by whales. Record the number in the rows above.

Captain's Signature

APPENDIX 7. SOUTH PACIFIC 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

SOUTH PACIFIC REGIONAL LONGLINE OBSERVER GENERAL INFORMATION

FORM LL - 1

REVISED SPC/FFA DEC. 2002

TRIP DETAILS

OBSERVER NAME	DEPARTURE (SHIP DATE AND TIME)	DEPARTURE PORT
	<div style="display: flex; justify-content: space-around;"> D D M M Y Y h h m m </div>	
OBSERVER TRIP ID NUMBER	RETURN (SHIP DATE AND TIME)	RETURN PORT

VESSEL

CAPTAIN AND CREW

VESSEL NAME	COUNTRY REGISTRATION No.	NATIONALITY : How many ?
		:
VESSEL OWNER	FLAG	INTERNATIONAL RADIO CALLSIGN
VESSEL CAPTAIN	FISHING MASTER	NATIONALITY : How many ?
		:
FISHING PERMIT OR LICENCE NUMBER(S)		NATIONALITY : How many ?
		:
OBSERVATIONS / COMMENTS		

ELECTRONICS

MARINE DEVICES	Y / N	MAKE	MODEL	COMMENTS (equipment usage)
RADAR # 1	Y / N			
RADAR # 2	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 ?
GPS BEACON	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			
VMS (FFA TYPE-APPROVED)	Y / N	System Type	Seal #	Seal intact ? Y / N
IMMARSAT SERVICES	Y / N	Phone #	Fax #	E mail :
FISHERY INFORMATION SERVICES	Y / N	Phytoplankton Y / N	SST Y / N	Sea Height Y / N

FISHING GEAR

COMMENTS	MAINLINE	MATERIAL	LENGTH	DIAMETER
MAINLINE HAULER	Y / N		nM	mm
BRANCHLINE HAULER	Y / N			
LINE SHOOTER	Y / N			
AUTOMATIC BAIT THROWER	Y / N			
AUTOMATIC BRANCHLINE ATTACHER	Y / N			
WEIGHING SCALES	Y / N			

REFRIGERATION METHOD

REFRIGERATED SEA WATER	Y / N
BLAST FREEZER	Y / N
ICE	Y / N

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

Observer Name : Print first name and family name in full (e.g. "John Masa").

Observer Trip ID Number : Print number issued by the authority sending you on this trip.

(e.g. John H. Masa, on his third trip in 1996 might be issued Trip ID Number: "JHM 96-03").

Departure (Ship Date and Time) } Print date using "day day/ month month / year year" format.

Return (Ship Date and Time) } Print time using 24 hour "hour hour : minute minute" format. } use SHIP'S TIME

(e.g. Print five past one on the afternoon on 3rd of January, 1996 as "03/01/96 - 13:05").

Departure Port / Return Port : Record in both boxes even if it is the same port.

Vessel and Crew

Vessel Name, Vessel Owner, Vessel Captain, Fishing master : Print full names whenever possible.

Country Registration : Number issued by country in which the vessel is registered (e.g. "ME1-808").

Flag : Name of country in which vessel is registered (e.g. "Belize") even if it comes from another country, such as Korea.

International radio call-sign (IRCS) : Do not confuse with Registration No. Note in report if vessel has no proper IRCS.

Fishing Permit or Licence Number(s) : If the vessel fished under one or more bilateral access agreements, then

print the fishing permit number issued by each of the coastal states in whose waters the vessel fished

during the trip. If the vessel fished under a multilateral treaty, then print the fishing permit number

issued to the vessel under the multilateral treaty. If the vessel is registered in the coastal state, then

print the fishing licence number issued by the coastal state.

Crew : Report the nationality of each crew member.

Total number of crew : This is to include the Captain and Fishing master.

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

If you need to write more about this do it in your diary and a special section in your trip report then only put a brief note here with a reference to page numbers in your diary and trip report.

Electronics

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

Marine devices : All of these (except the radio buoys) are found on the bridge or in the radio room.

Empty lines : These are to record equipment you think are important but are not listed in this section.

Comments (equipment usage) : Is each piece of equipment used during the trip? Is it broken and never used,

or is it only used on rare occasions. Make a comment if it is used in an unusual way. Record this information here.

VMS (FFA type-approved) : 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 ? The seal should be a bright silver colour. If not it has been interferred with.

Telephone / Facsimile / Email : If the vessel has an Immarsat phone and/or fax/ 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 are getting information on sea-surface temperature, phytoplankton densities or sea height.

If they are receiving another type of information record that in the blank fields.

Record the name of 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)

Comments / Other gear : Comment if equipment is not working, not used or used in an unusual way.

Also comment if fishing gear is a different design to equipment you are used to seeing on other

longliners and record the make, model and special characteristics of this new gear.

Weighing scales : If there is any weighing scales on-board that is used to weigh the retained fish circle Y (yes)

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 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.

Refrigeration Method

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

Methods : N.B.: There may be more than one refrigeration method

Refrigerated seawater : N.B.: This may also be called "Chilled seawater"

SOUTH PACIFIC REGIONAL LONGLINE OBSERVER SET INFORMATION

FORM LL - 2

REVISED SPC/FFA DEC. 2002

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

LONGLINE SET SPECIFICATIONS				UNUSUAL SET DETAILS		BAIT USED		
No. OF HOOKS PER BASKET		VESSEL SPEED (kts)				SPECIES	(KGS)	HOOK No's
TOTAL No. OF BASKETS		LINE SETTING SPEED (m/s)						
TOTAL No. OF HOOKS		BRANCHLINE SET INTERVAL (s)						
LENGTH OF FLOATLINE (m)		BETWEEN BRANCHLINES (m)		TDR DEPLOYED ?	Y / N			
LENGTH OF BRANCHLINES (m)		No. OF SHARK LINES (on floats) IN SET		LENGTH (m)				
Tick to indicate TARGET SPECIES				<div style="display: flex; align-items: center; gap: 10px;"> → TUNA <input type="radio"/> SWORDFISH <input type="radio"/> SHARK <input type="radio"/> </div>				

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	WIND (kts) (°)		SEA (C-S-M-R-V)	CLOUD (%)	COMMENTS
START SET									
END SET									

SOAK TIME	SHIP'S TIME	WIND (kts) (°)	SEA (C-S-M-R-V)	CLOUD (%)	COMMENTS
Record times and environmental conditions when suitable and comment generally on conditions throughout soak time.					

SET INFORMATION

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.: Start at “Set No. 1”, “Set No. 2”, “Set No. 3”, etc. for each trip.

Page of: Number Form LL-2's through trip as Page 1, Page 2, Page 3, etc.

At end of the trip, check all pages are there (again) then 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”).

No. of hooks per basket: See diagram to the right.

Total No. of Baskets, Total No. of Hooks: These are the totals for the entire set.

$\text{Total No. of Hooks} = (\text{Total No. of Baskets}) \times (\text{No. of Hooks per Basket})$

Length of Floatlines (m), Length of Branchlines (m): See the diagram to right.

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): Recorded only from vessels with line shooters.

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

Between branchlines (m): Distance between branchlines may have to be actually measured (in metres (m)) or can be calculated by the observer using the formula: $\text{Line Setting Speed} \times \text{Branchline Set Interval}$, otherwise it can be obtained from the captain, fishing master or bosun if line setting speed and branchline set interval can't be found.

No of shark lines (on floats) in set? If your vessel has special lines tied directly to the floats to catch extra sharks count the total number set in the set.

N.B. Do not count a shark line on a float as one of the hooks per basket

Length (m): The length (in metres) of the shark line

TDR deployed ? Y / N: Circle Y (yes) every time you use a temperature depth recorder - supplied by your observer programme - during a set

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.

Primary Target Species. Tick to indicate the main species the vessel is targeting during this set.

NOTES ON FORM LL-2

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

Start Set and End Set: Always fill all fields in the “Start” and “End” set lines.

Hourly Positions. Ideally you should try to take the position on the hour every hour.

If this is not possible, do your best to record the position as close to every hour, as possible.

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 (e.g. “05°27.985' S, 152°28.239' W”).

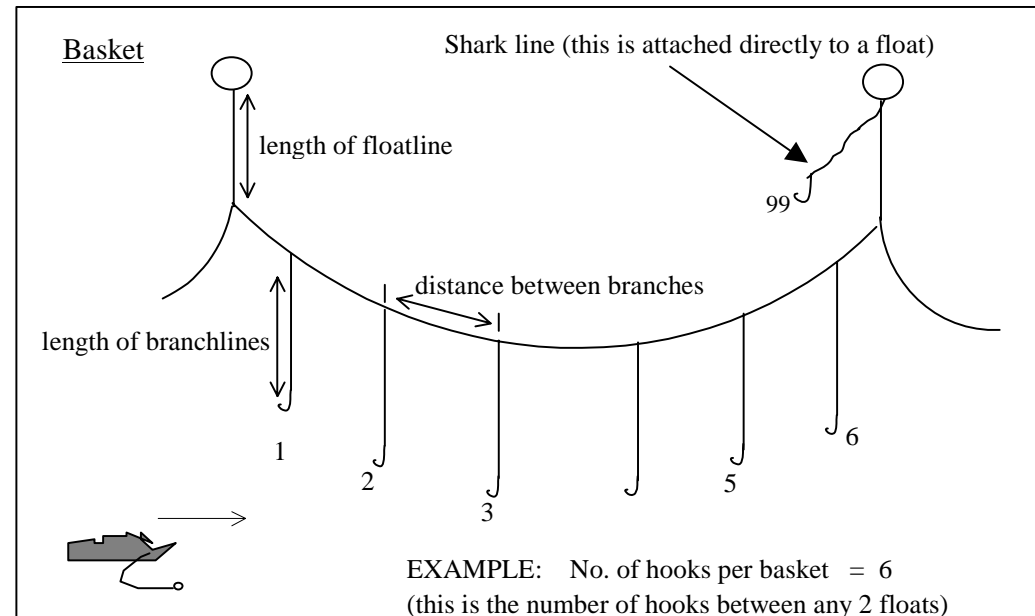
Wind (kts), (°): Record speed in knots and direction in degrees of the compass (e.g. for a 15 knot easterly wind, under (kts) print “15” and under (°) print “090”)

Sea (C-S-M-R-V): Sea conditions = Calm, Slight, Moderate, Rough, or Very Rough

Cloud (%): Cloud cover should be recorded as 10%, 20%, 30%, etc., to 100%.

Comments: Special circumstances that affect setting strategy or cause problems.

Soak Time: Even if you are asleep throughout this time make an effort to learn what the conditions were (notably cloud cover) and describe under “Comments”



SOUTH PACIFIC REGIONAL LONGLINE OBSERVER HAUL INFORMATION

FORM LL - 3

REVISED SPC/FFA DEC. 2002

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

VESSEL NAME	START OF SET DATE AND TIME	START OF HAUL DATE AND TIME
	D D M M Y Y h h m m	D D M M Y Y h h m m
	<input style="width: 20px; height: 20px;" type="text"/> <input style="width: 20px; height: 20px;" type="text"/> <input style="width: 20px; height: 20px;" type="text"/> <input style="width: 20px; height: 20px;" type="text"/> <input style="width: 20px; height: 20px;" type="text"/>	<input style="width: 20px; height: 20px;" type="text"/> <input style="width: 20px; height: 20px;" type="text"/> <input style="width: 20px; height: 20px;" type="text"/> <input style="width: 20px; height: 20px;" type="text"/> <input style="width: 20px; height: 20px;" type="text"/>

HAUL LOG									
SHIP'S TIME	LATITUDE (dd° mm.mmm)	N S	LONGITUDE (ddd° mm.mmm)	E W	WIND (kts) (°)	SEA (C-S-M-R-V)	CLOUD (%)	COMMENTS	
START HAUL									
END HAUL								<div style="display: flex; justify-content: space-between; align-items: center;"> <div style="text-align: right;">TOTAL NO. OF BASKETS OBSERVED THIS SET (add up all your LL-4 page totals for this set)</div> <div style="width: 100px; height: 30px; border: 1px solid black;"></div> </div>	

COMMENTS	<div style="display: flex; justify-content: space-between;"> <div style="text-align: left;"> DID YOU OBSERVE ANY EVENTS TODAY THAT REQUIRE FORM GEN-3? </div> <div style="text-align: left;"> YES No </div> </div>
----------	--

HAUL INFORMATION

HAUL LOG									
SHIP'S TIME	LATITUDE (dd° mm.mmm)	N S	LONGITUDE (ddd° mm.mmm)	E W	WIND (kts) (°)		SEA (C-S-M-R-V)	CLOUD (%)	COMMENTS
START HAUL 15 10	10°52.939'	N	152°37.140'	W	25	090	M	10	Example of a comment: <i>Started one hour late due to problems hauling sea anchor.</i>
16 00									<div> Observer Name, Vessel Name and Trip ID No. Always print each out in full. Set No.: Number sets from start to end of trip as Set No. 1, Set No. 2, Set No. 3, etc. Page of : Number Form LL-3's from the beginning to the end of a trip as Page 1, Page 2, Page 3, etc. At end of the trip check all pages. Put the last page number on every page (e.g. if there are 36 pages then the 1st page will be "Page 1 of 36", the fourth page, "Page 4 of 36" and the last page will be "Page 36 of 36"). Note: All dates and times on this form are to be Ship's date and Ship's time. Start of Set Date and Time (Very important !) Exactly as on FORM LL-2 and FORM LL-3. Ship's Start of Haul Date and Time : Date and time that first buoy is lifted on board. Comments : Mention problems that cause delays in hauling and any other unusual events that affect fishing. </div>
17 00									
18 05									
19 00									
20 10									
21 10									
22 00									
23 15									
00 05									
01 00									
02 00									
END HAUL 02 10	10°54.139'	N	153°02.925'	W	135	10	S	10	Add up your page totals at the end of every LL-4 page you used today. TOTAL NO. OF BASKETS OBSERVED THIS SET (add up all your LL-4 page totals for this set)

COMMENTS N.B. Use 24-hour clock when writing times. Use two digits for each day (DD), month (MM), year (YY), hours (hh) and minutes (mm). To do this put a "0" in front of single digit dates and times .
E.g.: 8 minutes past 2, morning, is 02 08; 8 minutes past 2, afternoon, is 14 08; and the 3rd of January, 1996 is 03 01 96.

Circle Y if any infringements as stated in form GEN- 3 were observed. Record notes in your diary.

FORM LL - 4

OBSERVER NAME	OBSERVER TRIP ID NUMBER	SET No.	PAGE	OF

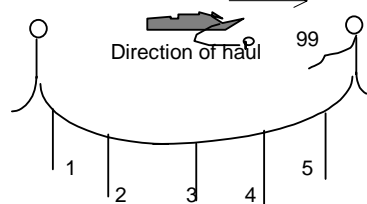
[illegible][illegible]

Baskets observed on this form:	Tally:	Page Total:
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CATCH MONITORING

OBSERVER NAME	OBSERVER TRIP ID NUMBER	SET No.:	PAGE OF
This header should be filled in completely, as described in the notes for FORM 2.			
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	

CATCH DETAILS										
SHIP'S TIME	HOOK No.	SPECIES CODE	CONDITION CODE CAUGHT	LET GO	LENGTH (cm) CODE	WEIGHT (kg) CODE	FATE CODE	SEX M - F - I		COMMENTS
1720	1	BET	A1		152 UF	85 WW	RGG	/ F		Gonad sample No.3
*						72 GG				<i>example of 2 weights</i> *



The first hook in after a float is the first (# 1) hook.

Accurate **Hook number** is not easy when there are more than 8 hooks in a basket or fishing is very busy. In these cases an estimate is satisfactory.

Record only when there is a weighing scales onboard. **Weight codes** describe the state of a fish.

Code Description
 WW Whole weight
 GG Gilled and gutted
 GH Gutted and headed
 GT Gilled, gutted and tailed
 GX Gutted, headed and tailed
 GO Gutted only (gills left in)
 FW Fillets weight
 TW Trunk weight

* If possible weigh before and then again after processing. Put second weight and code on a second line (as in example).

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

Empty column is to be used for extra information when specially requested. Fill in the title before you use 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 shark lines (on floats) are recorded as Hook No. 99

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

Condition codes describe the health of a fish when it first gets **CAUGHT** and again if it is **LET GO** or is thrown away.

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

Length codes describe the actual measurement being collected from a fish.

Code Description
 TL - tip of snout to end of tail
 UF - upper jaw to fork in tail
 LF - lower jaw to fork in tail
 US - upper jaw to 2nd dorsal fin
 PF - pectoral fin to fork in tail
 PS - pectoral fin to 2nd dorsal fin
 TW - total width (tips of wings - rays)
 CL - carapace length (turtles)
 NM - not measured

Fate codes - describe type of processing

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 (Marlin)
 RSD - Retained - but shark damaged
 RCC - Retained - for crew consumption
 RGO - Retained - gutted only.
 ROR - Retained - other reason (specify)
 RGO - Retained - gutted only

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**
 DPD - Discarded - species of special interest - **dead**
 DOR - Discarded - other reason (specify)
 ESC - Escaped

Species codes. Use the FAO 3-letter codes. Common species are listed here but you should carry a full list of species codes.

<u>Code</u> <u>Common Name</u>	<u>Code</u> <u>Common Name</u>
YFT Yellowfin	LMA Long finned Mako
BET Bigeye	shark
ALB Albacore	SMA Short finned Mako
SKJ Skipjack	shark
MLS Striped Marlin	OCS Oceanic white-tip
BLZ Blue Marlin	shark
BLM Black Marlin	PTH Pelagic Thresher
SWO Swordfish	shark
SFA Sailfish	BTH Bigeye Thresher
SSP Short-billed Spearfish	shark
WAH Wahoo	BSH Blue shark
FAL Silky shark	RRU Rainbow runner
DOL Mahimahi	LAG Moonfish (Opah)
	OIL Oilfish

Baskets observed.

Count (tally) the baskets (floats) that come aboard as you monitor the catch. If you stop for a meal, etc., note the time and reason

Ideally you will have observed all the baskets that have come onboard, If for any reason you have to leave the deck the percentage of the catch you covered will be calculated using your 'baskets observed' tally'. If your tally is not the same as the total amount of baskets you observed (i.e. you missed some). **MAKE A NOTE.**

Baskets observed on this form: Tally:

Page Total: 53

FORM LL- 5

REVISÉD SPC/FFA DEC. 2002

OBSERVER NAME	MEASURING INSTRUMENT	OBSERVER TRIP ID No.	
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

[illegible]

CONVERSION FACTORS

OBSERVER NAME	MEASURING INSTRUMENT	OBSERVER TRIP ID No.	PAGE	OF
VESSEL NAME	<i>e.g.: SPC 1.5 m Aluminium calipers</i>	<i>e.g.: JMA 97-</i>	This is page 7	7
	MAKE, MODEL AND CAPACITY OF SCALES	Don't forget !	Total Form LL-5 used in the trip was	19
<i>e.g.: Salzer 100kg dial-faced spring scales</i>				

DETAILS OF WEIGHTS AND MEASUREMENTS COLLECTED																			
SET NO.	LABEL NO.	SHIP'S TIME	SPECIES CODE	LENGTHS (in cm.)						WEIGHTS (in kg.)				WET FIN	PROCESSED WGT.		LANDED WEIGHT		COMMENTS
UF	US	LF	PF	PS	TL	WHOLE	HEAD	TAIL	GUTS						(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 you are unable to get **whole** or **processed weight**, onboard attach a label inside the mouth or gut cavity of the fish so when it comes to shore you can record **landed weight**. Even when you can record processed weight on board, still use labels and record **landed weight** of fish as recorded at unloading

Ship's Time

is the time the fish lands on deck.
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 codes describe the actual measurements collected from a fish.

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:

aim for accuracy to 0.5 kg if less than 10 kg
and
aim for accuracy to 1.0 kg if greater than 10kg

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 when weighed.

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)

IMPORTANT

This form is to be used in addition to the Catch Monitoring Form LL-4. 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 the catch. 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 elect or have been asked to take time out from normal sampling procedures to put more effort into collecting conversion factor information. Consequently the Catch Monitoring Form may not be utilised. In these cases you should attempt to record sex of the fish in the comments section.

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.

SOUTH PACIFIC REGIONAL POLE AND LINE OBSERVER GENERAL INFORMATION

FORM PL - 1

REVISED BY SPC/FFA DEC. 2002

TRIP DETAILS

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

VESSEL

CAPTAIN AND CREW

VESSEL NAME	COUNTRY REGISTRATION No.		NATIONALITY	: How many ?
				:
VESSEL OWNER	FLAG	INTERNATIONAL RADIO CALLSIGN	NATIONALITY	: How many ?
				:
VESSEL CAPTAIN	FISHING MASTER		NATIONALITY	: How many ?
				:
FISHING PERMIT OR LICENCE NUMBER(S)			NATIONALITY	: How many ?
				:
OBSERVATIONS / COMMENTS				

ELECTRONICS

MARINE DEVICES		MAKE	MODEL	COMMENTS (equipment usage)
NAVIGATIONAL RADAR No. 1	Y / N			
NAVIGATIONAL RADAR No. 2	Y / N			
BIRD RADAR	Y / N			
GPS	Y / N			
TRACK PLOTTER	Y / N			
SONAR	Y / N			
DEPTH SOUNDER	Y / N			
DEPTH SOUNDER	Y / N			
RADIO DIRECTION FINDER	Y / N			
RADIO BUOYS - NON CALL-UP	Y / N			
RADIO BUOYS - CALL-UP	Y / N			
DOPPLER CURRENT METER	Y / N			
BATHYTHERMOGRAPH / XBT	Y / N			
WEATHER FACSIMILE	Y / N			
NOAA WEATHER SATELLITE MONITOR	Y / N			
SEA SURFACE TEMP. GAUGE	Y / N			
WIND SPEED / DIRECTION GAUGE	Y / N			
BINOCULARS	Y / N		Number / Power	
VMS (FFA TYPE APPROVED ALC)	Y / N	Type of System	Seal #	Seal Intact ? Y N
IMMARSAT SYSTEM	Y / N	Phone#	Fax #	Email:
FISHERY INFORMATION SERVICES	Y / N	Phytoplankton Y N	SST Y N	Sea Height Y N
AUTOMATIC POLING DEVICES	Y / N		Number	

OBSERVATIONS / COMMENTS

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

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.

Crew : Report how many of each different nationality on board (this includes the Captain !).

Total number of crew : This is to include the Captain and Fishing master.

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

Marine devices : All of these (except the radio buoys) are found on the bridge or in the radio room.

Empty lines : These are to record equipment you think are important but are not listed in this section.

Y/N : Circle "Y" if yes, the vessel does have this device, or "N" no, if it does not.

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 (FFA type-approved) : Is there a "vessel monitoring system" on board ? What type ?

Type of System : Write down the name of the manufacture eg Trimble, Furno, JRC

Serial number . Record the number on the seal tag. Seal intact ? The seal should be a bright silver colour unless it has been interferred with.

Telephone / Facsimile / Email : If the vessel has a fax, phone or email address record it here

Fishery Information Services give vessel access to instant information on the state of a number oceanographic features that affect fishing. Note down the type of information being accessed by the vessel. For instance are they getting information on sea surface temperatures, sea height or phytoplankton densities. Note the name of the website in your written report.

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.

FORM PL - 2

REVISÉ BY SPC/FFA DEC. 2002

OBSERVER NAME	VESSEL NAME	OBSERVER TRIP ID NUMBER	PAGE	OF

[illegible]

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 Retrieval - 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

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 <u>best</u> 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.

SOUTH PACIFIC REGIONAL POLE-AND-LINE OBSERVER FORM PL - 3

CATCH DETAILS

REVISED BY SPC/FFA DEC. 2002

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				COMMENTS
SPECIES CODE	FATE CODE	CATCH		SPECIES CODE	FATE CODE	CATCH		
		mT	No.			mT	No.	
SKJ								
YFT								
BET								
How many tags were recovered ?			TAG #	SPECIES		SEX	LENGTH (cm)	WEIGHT (kg)

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

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

CATCH DETAILS

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 " <i>Captain John Smith</i> " to the " <i>Capt J. Smith</i> ".
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.
Σ LENGTHS (= sum of lengths)	Only add up the lengths in the column above. This is used for data entry checking.

A Number Sampled: Write the total individual species sampled in the appropriate boxes

B Sum of Lengths: Add all the length for each species and enter in the boxes under the headings

C Average Length: Sum of lengths sampled divided by sum of number sampled for each species. $C = A / B$ (to the nearest cm.)

Important points**Fate codes:**

- 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.

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)

SOUTH PACIFIC REGIONAL PURSE SEINE OBSERVER GENERAL INFORMATION

FORM PS - 1
(Page 1)

REVISED SPC/FFA DEC. 2002

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		FLAG OF VESSEL	INTERNATIONAL RADIO CALLSIGN		
No. OF SPEED BOATS	No. OF TOW BOATS	No. OF LIGHT BOATS	NET SKIFF ENGINE MAKE / HORSEPOWER		VESSEL CRUISING SPEED (kts)
HELICOPTER MAKE AND MODEL		HELICOPTER REGISTRATION No.	EFFECTIVE RANGE OF HELICOPTER <div style="text-align: right;">KMS NM</div>		COLOUR OF HELICOPTER

FISHING GEAR

POWER BLOCK: MAKE MODEL		PURSE WINCH: MAKE MODEL		Capacity of Brail (no. 1) <div style="text-align: right;">mT</div>	
MAX. NET DEPTH <div style="text-align: right;">M Y F</div>	MAX. NET LENGTH <div style="text-align: right;">M Y F</div>	NET - No. OF STRIPS	NET MESH SIZE OF MAIN SECTION <div style="text-align: right;">CM IN</div>		Capacity of Brail (No. 2) <div style="text-align: right;">mT</div>
BRILIER TYPE					

ELECTRONICS, etc.

MARINE DEVICES	MAKE	MODEL	COMMENTS (equipment usage)
BIRD RADAR	Y / N		
DEPTH SOUNDER	Y / N		
DEPTH SOUNDER	Y / N		
SONAR	Y / N		
TRACK PLOTTER	Y / N		
RADIO DIRECTION FINDER	Y / N		
RADIO BUOYS (NON CALL-UP)	Y / N		
RADIO BUOYS (CALL-UP)	Y / N		
GPS BEACON	Y / N		
ECHO SOUNDING BUOY	Y / N		
DOPPLER CURRENT METER	Y / N		
WEATHER SATELLITE MONITOR	Y / N		
VMS (FFA TYPE-APPROVED)	Y / N	Type of System	Seal # Seal intact ? <div style="float: right;">Y N</div>
IMMARSAT SERVICES	Y / N	Phone #	Fax # Email:
FISHERY INFORMATION SERVICES	Y / N	Phytoplankton <div style="float: right;">Y N</div>	SST <div style="float: right;">Y N</div> Sea Height <div style="float: right;">Y N</div>

OTHER COMMENTS (NOTE ANY NEW OR UNUSUAL GEAR / ELECTRONICS)

GENERAL INFORMATION

Trip Details

OBSERVER NAME	First name first. - Last name last. - Make sure to print.- I.e. <i>John Smith not Smith John</i>
DEPARTURE PORT	Port from which vessel left to start the present trip. I.e. Pago, Guam, Chuuk, etc.
SHIP'S DEPARTURE DATE AND TIME	Record the date and time from the ships clock, when the vessel throws of its mooring ropes or pulls up its anchor to start a trip. Record Ship's time. Do not record UTC time here.
OBSERVER TRIP ID NUMBER:	This number is issued before you leave port and should be used on all forms used for that trip. The number will not change for the entire trip. Place wherever required on all forms.
RETURN PORT	When you finish your trip, put the name of port that you disembarked from the vessel.
SHIP'S RETURN DATE AND TIME	The date and time when the vessel ties up or drops anchor in port. Do not record UTC time here.

Vessel Characteristics

VESSEL NAME	Vessels full name, no abbreviations, for example a vessel with the name "Captain Paul John Smith" should not be abbreviated to Capt. P.J. Smith.
COUNTRY REGISTRATION NUMBER	Number given by the Country (Flag State) to where the vessel is registered. This can be found in the registration papers of the vessel. Do not confuse this with FFA Regional Registration Number
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.
FLAG OF VESSEL	The country where the vessel is registered. For example: 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 they have 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. Record the major number on the Hull or side of the vessel this is usually the call sign.
NO OF SPEED BOATS	Number of speed boats. Don't count tow boats, or a boat that looks like a speed boats but is 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 are boats that have powerful lights on them. They can be used to assist in hauling the net at night. They are also equipped with extra strong lights to attract fish around Fads/logs at night.
NET SKIFF ENGINE / HORSEPOWER	The brand of the engine used and strength of the engine (i.e horsepower) of the net skiff. 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 - MODEL	Brand of main power block on the vessel. The model of the block. If you can't see this on the block, ask the captain, engineer or winch driver. Only fill in this information if you are sure it is correct. If you are unsure, record the information in your written report only, with a note.
PURSE WINCH - MAKE - MODEL	Brand of main purse winch on the vessel. The model of the winch. If you can't see this on the winch, ask the winch driver or engineer. Only fill in this information if you are sure it is correct. If you are unsure about the information you have received record it in your written report only, with a note.
MAX. NET DEPTH	The 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. M = Metres; Y = Yards; F = Fathoms. Make sure you circle the correct unit used on the vessel for net measurements
NET - No OF STRIPS	Each net is made up of strips of netting sewn together to create the depth of the net. How many of these strips make up the net? <i>For example if the depth of the net is 300 metres and strips are 10 metres wide, 30 strips of net are required to make the net depth.</i> Adding strips deepens the net, taking strips away makes the net shallower. Ask the deck boss or engineer for this information.
NET MESH SIZE OF MAIN SECTION	There are a number of mesh sizes used. All that is required is the mesh size of the main body of the net. Make sure the units are recorded in "CM" centimetre or "IN" Inches. Ask the Deck boss
CAPACITY OF BRAILER	The capacity in Metric Tonnes. Once known this figure will assist you to estimate the catch caught. If there is a second brailer onboard (mostly on Japanese vessels), record the capacity of the second brailer as well.
BRAILER TYPE	Describe the brailing operation - exactly. This includes; how the mouth of the net was held open - i.e. with the skiff or by a boom, the design of the actual brailer - long handle, short handle, no handle or x-shaped and whether the brailer was linked to a boom or the purse davit. A full description of the brailer type should be included in your written report.

Electronics

YES / NO	If the vessel has a device circle (Y) yes .If the vessel does not have the device circle (N) No You must circle Y or N for every device listed.
MAKE & MODEL	Name of company and model name or number of each device listed. Don't mix up make and model. E.g.: A JRC, JMA - 7790 . JRC is the brand (make), JMA - 7790 is the model.
VMS (ffa type approved)	Write down the name of the manufacturer or the VMS system e.g. Furuno, JRC, Trimbe, etc. For seal number - record the number on the seal tag. If the seal is still intact it will be a bright silver colour.
FISHERY INFORMATION SERVICES	Vessels may access Fishery information services to download instant or daily information on a number of oceanographic features which affect fishing. Record the type of information that is being accessed. Some information commonly being accessed is the sea-surface temperature, phytoplankton density and sea height. Record the name of the website in your written report.
COMMENT (equipment usage)	Write any comments relative to the equipment or its use. Say whether each piece of equipment was used during your trip, whether it is never used - too old, broken etc or only sometimes used.

SOUTH PACIFIC REGIONAL PURSE SEINE OBSERVER GENERAL INFORMATION

FORM PS - 1
(Page 2)

OBSERVER NAME	VESSEL NAME	OBSERVER TRIP ID NUMBER
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WELL CONTENTS (OTHER THAN TUNA)

FUEL STORAGE			WATER STORAGE			COMMENTS
WELL NUMBER	P / S	WELL CAPACITY (mT)	WELL NUMBER	P / S	WELL CAPACITY (mT)	

TOTAL FISH STORAGE CAPACITY IN METRIC TONNES:

➔

mT

CREW

POSITION	NAME	YRS EXP.	NATIONALITY	COMMENTS
CAPTAIN				
NAVIGATOR / MASTER				
MATE				
CHIEF ENGINEER				
ASSISTANT ENGINEER				
DECK BOSS				
COOK				
HELICOPTER PILOT				
HELICOPTER MECHANIC				
SKIFF MAN				
WINCH MAN				

Position	Name	Yrs exp.	Nationality	Name	Yrs. exp	Nationality
CREW						
CREW						
CREW						
CREW						
CREW						
CREW						
CREW						
CREW						
CREW						
CREW						

Total:



TOTAL NUMBER OF CREW (include Captain and officers)

GENERAL INFORMATION

(PAGE 2)

OBSERVER NAME	Print your name in full. Put your first name, or Christian name, first and your 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 NUMBER	Fill in your trip identification number as supplied by your programme before departure.

WELL CONTENTS- (Other than tuna)	Make a record of any wells which are filled with fuel and water only, not with fish, use the comments column to indicate if these were emptied and used for fish storage later.
FUEL STORAGE - WATER STORAGE	Record all the well numbers and capacity of the wells which contain fuel under the 'fuel storage' heading only. Likewise record the well numbers and capacity of the wells which contain water under 'the water storage column' only.
WELL NUMBER	Record the vessel's well number here. Ask the Chief Engineer or have a look at the vessel's well plan.
P / S	Indicate whether the well was on the port (P) or starboard (S) side by circling the appropriate letter.
WELL CAPACITY	State the total fish carrying capacity of this well in metric tonnes. Ask the Chief Engineer to help you.
TOTAL FISH STORAGE CAPACITY IN METRIC TONNES:	Add up the total capacity for all the individual vessel's storage wells, then 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 Engineer to help you.

Crew Details

POSITION AND NAME	Select the position and enter the name of the crew relative to this position. If you can't get crew names ask for the crew list which is normally given to immigration when the vessel goes to Port. It will have all the crew names on it. Record first and last name last, also be certain of the spelling. If a person holds more than one position write "Same as the (other position they hold)" e.g.: helicopter pilot may be helicopter mechanic; the Captain may be the Navigator/Master.
YEARS EXPERIENCE	Record the number of years experience the crew member or officer has in this position. For instance if the Captain has been fishing on purse-seine vessel's for 20 years but has only been a Fishing Captain on purse-seine vessels for five years write in '5'.
NATIONALITY	The nationality should be available on the crew list. Pay particular attention to the nationality of any Pacific Islanders amongst the crew.
COMMENTS	Record any information about the crew in this column. This could be a name of a vessel they previously worked on, or the name of Fishery Colleges they attended. Any relevant information may be useful.
TOTAL NUMBER OF CREW	Add up the number of crew being careful not to count some of the crew twice. The crew list has the most common positions on a purse seine vessel, if there are extra specialist positions that are not listed here, write them in one of the crew rows. If the vessel does not have anyone in the position indicated write "Vacant" in the name column.

COMMENTS OR DRAWING OF WELL PATTERN

<div style="border: 1px solid black; height: 280px; width: 100%;"></div>
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FORM PS - 2

REVISÉD SPC/FFA DEC. 2002

OBSERVER NAME	VESSEL NAME	OBSERVER TRIP ID NUMBER	PAGE	OF

[illegible]

START OF DAY

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

ALL MUST BE RECORDED

ACTIVITY and HELICOPTER CODES

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

SCHOOL ASSOCIATION

- 1 Unassociated
- 2 Feeding on Baitfish
- 3 Drifting log, debris or dead animal
- 4 Drifting raft, FAD or payao
- 5 Anchored raft, FAD or payao
- 6 Live whale
- 7 Live whale shark
- 8 Other (please specify)

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

OBSERVER'S DAILY LOG

NOTES ON FORM PS - 2

<p><u>Observer Name</u> and <u>Vessel Name</u>: Always print each of these names out in full (e.g. an observer name "John Masa", and a vessel name "Hai Hsiang No. 959")</p> <p><u>Observer Trip ID Number</u>: 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").</p>	<p><u>Page of</u>: Number Form PS-2's through trip as Page 1, Page 2, Page 3, etc.</p> <p>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 <u>1 of 36</u>", the fourth page, "Page <u>4 of 36</u>" and the last page will be "Page <u>36 of 36</u>").</p>
<p><u>Ships Time</u>: 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.</p> <p><u>Latitude</u>, <u>Longitude</u>, <u>N</u>, <u>S</u>, <u>E</u>, <u>W</u>: 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").</p> <p><u>EEZ Code</u>: 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.</p> <p><u>Wind (kts)</u> (°): 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.</p> <p><u>Sea conditions (C-S-M-R-V)</u>. 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.</p> <p><u>Beacon / payao #</u>: 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.</p>	<p><u>Start of day</u>: 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.</p> <p><u>Ship's Date</u> and <u>Ship's Time</u>: 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.</p> <p><u>UTC Date</u> and <u>UTC Time</u>: 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.</p> <p><u>Activity and Helicopter Codes</u>: 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.</p> <p>Anchored FAD / payao: Use this code when vessel is fishing around previously set and anchored FADs and payaos that it finds because they are marked on a chart</p> <p>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.</p> <p><u>School assoc</u> and <u>detect codes</u> should be used whenever activity code "1", "8" or "9" is used.</p> <p><u>School Assoc</u>.: Use the "School Association" code that best describes whether fish being targetted are with floating object, animal, feeding on baitfish or unassociated. If it is an unusual association please comment and make notes in your diary.</p> <p><u>Deploy - Beacon (to change only)</u>. <u>Retrieve - Beacon (to change only)</u> If the vessel changes the beacon attached to a Fad, record the old and new beacon numbers using these activity codes.</p>
<p><u>Floating object and school sightings</u>: 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.</p> <p>Floating objects can include trees, logs, drums, FADs, payaos or other significant debris.</p> <p><u>Tally</u>: Mark with a stroke every time you sight something (see example on front)</p> <p><u>Total</u>: Add up the "tally" strokes at the end of the day to get the total.</p>	<p><u>School Detect</u>.: Use a "How Detected" code to best show how fish were found. If more than one method was used then use the code that shows what first made the vessel change course to inspect the fish. (E.g.: If helicopter reports fish then vessel bird radar was used near to the reported position, use code "2" - seen from helicopter.</p> <p><u>Did you Observe any Events that require Form Gen -3</u> Circle Yes if any infringements, as listed on Form GEN - 3, were observed. Write notes on the incident in Form GEN-3 and your diary. If there was no incident for the day circle No.</p>

SOUTH PACIFIC REGIONAL PURSE SEINE OBSERVER SET DETAILS

FORM PS-3

REVISED SPC/FFA DEC. 2002

OBSERVER NAME			VESSEL NAME			PAGE OF			
OBSERVER TRIP I.D. NUMBER		START OF SET DATE AND TIME OBSERVER: DD MM YY hh mm (see PS-2) <div style="border: 1px solid black; width: 20px; height: 20px; display: inline-block;"></div> <div style="border: 1px solid black; width: 20px; height: 20px; display: inline-block;"></div> <div style="border: 1px solid black; width: 20px; height: 20px; display: inline-block;"></div> <div style="border: 1px solid black; width: 20px; height: 20px; display: inline-block;"></div> <div style="border: 1px solid black; width: 20px; height: 20px; display: inline-block;"></div>				START OF SET DATE AND TIME VESSEL LOG: DD MM YY hh mm <div style="border: 1px solid black; width: 20px; height: 20px; display: inline-block;"></div> <div style="border: 1px solid black; width: 20px; height: 20px; display: inline-block;"></div> <div style="border: 1px solid black; width: 20px; height: 20px; display: inline-block;"></div> <div style="border: 1px solid black; width: 20px; height: 20px; display: inline-block;"></div> <div style="border: 1px solid black; width: 20px; height: 20px; display: inline-block;"></div>			

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	TOTAL ONBOARD BEFORE THIS SET (a)	(a)	TOTAL TONNAGE RETAINED THIS SET (b)	(b)	NEW ONBOARD TOTAL (a+b)	(c)	SUM OF ALL BRAILS (See PS-4)
		<div style="border: 1px solid black; width: 40px; height: 40px; display: inline-block;"></div> mT		<div style="border: 1px solid black; width: 40px; height: 40px; display: inline-block;"></div> mT		<div style="border: 1px solid black; width: 40px; height: 40px; display: inline-block;"></div> mT	

SKJ - YFT - BET

OTHER SPECIES

SPECIES CODE	FATE CODE	CATCH (mT) OBSERV.	VESSEL	SPECIES CODE	FATE CODE	CATCH (mT)	NUMBER OF FISH	VESSEL LOG	COMMENTS

(Circle one)

Were there any discards of SKJ, YFT or BET ?	YES NO	How many species other than SKJ, YFT or BET were caught ?
Tick to indicate the school association for this set: Free School <div style="border: 1px solid black; border-radius: 50%; width: 30px; height: 30px; display: inline-block; vertical-align: middle;"></div> Floating Object School <div style="border: 1px solid black; border-radius: 50%; width: 30px; height: 30px; display: inline-block; vertical-align: middle;"></div>		
How many tags recovered ?	TAG #	SPECIES
		LENGTH
		WEIGHT
		SEX
COMMENTS		

SPECIES CODES				FATE CODES			
SKJ	Skipjack	ABU	Sergeant major	OCS	Oceanic whitetip	RWW	Retained - whole weight
YFT	Yellowfin tuna	AMX	Amberjack	BSH	Blue whaler shark	RHG	Retained - headed and gutted (marlin only)
BET	Bigeye tuna	BAR	Barracudas	FAL	Silky shark	RGG	Retained - gilled and gutted (kept for sale)
		CXS	Bigeye trevally	MAK	Mako shark	RPT	Retained - partial (e.g. fillet, loin)
BLZ	Blue marlin	DOL	Mahi mahi	SPN	Hammerhead sharks	RCC	Retained - crew consumption (onboard)
BLM	Black marlin	RRU	Rainbow runners	THR	Thresher sharks	ROR	Retained - other reason (specify)
MLS	Striped marlin	FLF	File fish	RHN	Whale shark	DS	Discarded - too small (tuna only)
SFA	Sailfish	TRI	Trigger fishes	MAN	Manta ray	DGD	Discarded - gear damage (tuna only)
SSP	Short billed spearfish	KYC	Drummer	MOX	Sunfish	DVF	Discarded - vessel fully loaded
SWO	Broadbill swordfish	MSD	Mackerel scad			DUS	Discarded - unwanted species
		PSC	Man - o - war fish	SQU	Squid	DSH	Discarded - shark damage
ALB	Albacore	LOB	Triple tail	FRZ	Frigate and bullet tuna	DWD	Discarded - whale damage
BAT	Batfishes	BRZ	Pomfrets and ocean breams	MAX	Mackerel (unidentified)	DPA	Discarded - species of special interest - alive
FRI	Frigate tuna			SHK	Sharks (unidentified)	DPD	Discarded - species of special interest - dead
BLT	Bullet tuna	MAM	Marine mammals	TUN	Tuna (unidentified)	DOR	Discarded - other reasons (specify)
KAW	Kawakawa	TTX	Marine turtle	TRE	Trevally (unidentified)	DFR	Discarded trunk - fins retained (shark only)
WAH	Wahoo	BRD	Bird (unidentified)	UNS	Fish (unidentified)	ESC	Escaped

PURSE SEINE LOG - SET DETAILS

NOTES ON Form PS -3

DETAILS

OBSERVER NAME	Print your first name first and last name last. Make sure to print. I.e.: "John Smith" not "Smith John".
VESSEL NAME	Vessels full name. No abbreviation, for example a vessel with the name "Captain Paul Smith should not be abbreviated to Capt P. J. Smith
PAGE OF	Number each PS-3 form in order of use, continue until trip is completed.
OBSERVER ID NUMBER	This number is issued before you leave port. It will be the same on all forms.
START OF DATE AND TIME (SEE PS-2)	The exact date and time that you have recorded for this set on your PS-2
START OF SET DATE AND TIME	The exact date and time that the vessel has recorded for this set in their Regional Purse
(VESSEL LOG)	Seine Log Sheet

SET SEQUENCE

BEGIN SET (SKIFF OFF)	This will be the exact same time as recorded on your daily log and on the 'Details' section. (see 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. This indicates the net has totally enclosed (pursed) the fish and they cannot escape. When all the rings appear - record the time.
BEGIN BRAILING	Record the time the vessel starts the brailing process. This can be got from your 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 time. Remember the activity change on PS -2.

CUMULATIVE TOTALS

CUMULATIVE TOTALS	To keep a running total of the catch on board copy the total catch before the set from box (c) of the last PS-3 form used, into box (a) of this PS-3 form. Total catch retained from this set then goes in box (b). Add box (a) and box (b) together to get a new total catch on board after this set and put it in box (c).
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SUM OF ALL BRAILS

Sum of all brails (See PS-4)	After calculating the total number brails on PS-4 transfer your answer here.
------------------------------	--

SKJ - YFT - BET

Species codes	Only enter the three tuna species SKJ-YFT-BET in this column - when they are landed.
Fate Code	Enter best fate codes for each catch species here. Remember ! - Use 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.
CATCH (mT) (OBS)	Use lengths from your PS-4 form and the workbook guidelines to calculate the weight of each species. If no brailing occurred I.e the 'Sum of All Brails' is zero, but some target catch was retained, record an eye-estimate for the retained catch here. Estimate discards.
CATCH (mT) (VESSEL)	Copy the figures recorded on the Vessel Logsheet. Do not change the observer figure to match the vessel figure and don't advise the vessel to change their figures to match the observer's if they are different. Only use (mT).

OTHER SPECIES

SPECIES CODE	Record every species that lands on deck with the three letter FAO species code.
FATE CODE	Use the fate codes provided to say what happened to each species that was landed. Remember some species will have more than one fate code so use more than one line for those species.
CATCH (mT)	Record the best estimate of each species caught, in each fate code category. 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 OF FISH	If only small amounts of a species are landed record the numbers. Large amts are recorded in CATCH mt
VESSEL LOG	Copy the figures recorded by the ship's officers on the Vessel Logsheet, for this set. Place a zero in the column if they have not recorded the species.

QUESTIONS

Were there any discards of SKJ, YFT or BET ?	Circle Y if any Tuna were discarded after landing 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 all landed during the set, put 4 in the box.
Tick to indicate the school association for this set: Free School or Floating Object School	If the set was made on a free school (feeding on bait fish or with no baitfish) tick the 'free school' box. If there was a drifting log, dead animal, live whale, drifting or anchored FAD or other floating object with the school please tick the 'floating object school' box.



TAGS

How many tags recovered ?	The number of tags recovered from the set. Keep an eye out for tags on Tuna and Billfish
TAG #, SPECIES, LENGTH, WEIGHT SEX	When you recover a tag, record the Tag Number and the Species Name for the fish. Measure the correct length (with tuna it is Upper jaw to Fork length (UF)). If possible, weigh the fish. If possible Sex the fish (cut it open if needed). Note tag colour and name of the tagging organisation.

FORM PS - 4

REVISÉD SPC/FEA DEC. 2002

[illegible]

Tick to indicate if this is a random sample or a length frequency sample.  <i>Random Sample</i>  <i>Length Frequency Sample</i>					MEASUREMENTS FOR EACH SPECIES UF - UPPER JAW TO FORK IN TAIL (TUNA, BYCATCH) LF - LOWER JAW TO FORK IN TAIL (BILLFISH) TW - TOTAL WIDTH (TIPS OF WINGS - RAYS) TL - TIP OF SNOUT TO END OF TAIL (NO FORK TAIL) CL - CARAPACE LENGTH (TURTLES)	
Comments on the Sampling Protocol.						
START BRAILING TIME		END BRAILING TIME	NO OF BRAILS SAMPLED	NO OF SAMPLES PER BRAILS	MEASURING INSTRUMENT	
BRAILS BROUGHT ONBOARD	FULL	3/4 BRAILS	1/2 BRAILS	1/4 BRAILS	TOTAL NO. OF BRAILS	SUM OF ALL BRAILS

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	

Calculate these figures to get the species composition for mixed species sets.	TARGET SPECIES			OTHER SPECIES					
	SKJ	YFT	BET						
	Number sampled :								
	Sum of lengths :								
	Average length :								

LENGTH FREQUENCY

NOTES ON PS-4

OBSERVER NAME	Put your first name first, and your last name last,
OBSERVER TRIP ID	Use the number assigned to you by your observer programme e.g. AA 03-01
PAGE OF	Number all the PS-4 forms together. Number them in sequence until the end of the trip.
VESSEL NAME	Full name of vessel (no abbreviations)
START SET DATE & TIME	Record date and time that ship is using exactly as it is recorded on Forms PS-2 and PS-3.

DETAILS OF SAMPLING

RANDOM SAMPLE	Tick and randomly select 5 fish from every brail. Record their length measurements.
DISCARD SAMPLE	Tick and randomly select as many of the bycatch species you can after brailing has finished.
COMMENTS ON PROTOCOL	Explain exactly how you did your sampling. How many fish you took. Were there any problems?
BEGIN / END BRAIL TIME	Record the time the first brail and last brail of fish are released into the hopper or chute.
NO OF BRAILS SAMPLED	Record the number of brails you took fish from to sample.
NO OF SAMPLES PER BRAIL	Record the number fish you took from each brail to sample.
MEASURING INSTRUMENT	Mention if you used a callipers, a flat ruler / tape deck. Tape measures should not be used.
BRAILS BROUGHT ONBOARD	As the brails are coming onboard, keep a tally of every full, $\frac{3}{4}$, $\frac{1}{2}$, and $\frac{1}{4}$ brails you see.
TOTAL NO. OF BRAILS	Simply add up every single brail that came onboard. Each brail counts as one.
SUM OF ALL BRAILS	You will have to do some calculations here. Use this formula. (where ? = Your tally figure). (?) Full brails + (?) x $\frac{3}{4}$ brails + (?) x $\frac{1}{2}$ brails + (?) x $\frac{1}{4}$ brails = SUM OF ALL BRAILS
SPECIES CODE 1- 150	Place the species code (refer to the codes on form PS-3) of the fish you measured in the same order they were sampled.

A NUMBER SAMPLED	Write the total number of each species you have sampled in this data field.
B SUM OF LENGTHS	Add up the lengths for each species you have sampled and write the answer here.
C AVERAGE LENGTH	For each species divide the Sum of lengths (B) by the Number sampled (A) to get the average length of each species in your sample.

IMPORTANT POINTS ON THE SAMPLING PROTOCOL

1.	Start with a Random Sample . Sample five fish from every brail that is brought onboard.
2.	Spread your sampling throughout the entire brailing process. Take 5 fish from every brail. If you are having problems doing this (the brailing is too fast for instance) you can measure less than 5 fish per brail, but you must try to sample the same amount of fish from every brail. If you have any problems mention it in the comments section. Remember, if any bycatch species comes to hand when you choose your 5 fish, record them.
3.	Always get a random sample from the brail, don't choose fish because they are the easiest size to handle.
4.	Do not let crew select fish for you even though they are trying to assist.
5.	Be sure to identify the juvenile Yellowfin and Big-eye when sampling.
6.	If you are using a deck tape ensure that one end of the tape is placed against a flat surface or has a nose block. Make sure the end of the tape starts at 0 cm.
7.	If using a deck tape, make sure the fish is on the tape straight when measuring
8.	Do not measure damaged fish.
9.	Record lengths to the nearest centimetre below e.g. a 69.9 cm fish will be recorded as 69 cm.
10.	Don't forget to record the species code in the columns provided, especially when there is a change in species type.
11.	When brailing is finished, start a new PS-4 page and tick Length Frequency . Then, try to get a selection of length measurements from <u>every species</u> that is still on the deck. If there are a lot of fish of one species type (wahoo for instance) randomly select the wahoo you measure so you don't end up measuring just large wahoo. Sample as many fish from each species type as you can comfortably manage. This will include any target catch discards SKJ-YFT-BET (when discarded for being too small for instance).
12.	Use the tables below to calculate the average weight of target species when you know their average length. (From C above)

INDIVIDUAL WEIGHT IN KGS. CONVERTED TO ESTIMATED MEASUREMENT IN CENTIMETRES (GUIDE ONLY)

Kgs	.5	1	1.5	2	2.5	3	3.5	4	5	6	7	8	9
Skipjack	<33	33-37	38-43	44-47	48-50	51-53	54-55	56-59	60-63	64-66	67-69	70-72	73-74
Yellowfin	<33	33-38	39-43	44-46	47-49	50-52	53-55	56-58	59-63	64-66	67-69	70-75	76-78
Bigeye	<33	32-37	38-41	42-45	46-48	49-51	52-54	55-58	59-62	63-64	65-67	68-73	74-76

Kgs	10	11	12	13	14	15	16	17	18	19	20	21	22
Skipjack	75-76	77-78	79-80	81-82	83	84	85	86					
Yellowfin	79-80	81-82	83-84	85-87	88	89-90	91-92	93-94	95	96-97	98-102	103-105	106-108
Bigeye	77-78	79-80	81-82	83-85	86-87	88-89	90-91	92-93	94	95-96	97-98	99	100-101

Kgs	23	24	25	26	27	28	29	30	31	32	33	34	35
Yellowfin	109	110-111	112-113	114	115-116	117	118-119	120	121	121-123	124	125	126
Bigeye	102-103	104	105	106-107	108	109-110	111	112	113	114-115	116	117	118

Kgs	36	37	38	39	40	41	42	43	44	45	46	47	48
Yellowfin	127-128	129	130	131	132	133	134-135	136	137	138	139	140	141
Bigeye	119	120	121	122	123	124	125	126	127	128	129	130	131
Kgs	49	50	51	52	53	54	55	56	57	58	59	60	61
Yellowfin	142	143	144	145	146	147	148	149	150	151	152	153	154
Bigeye	132	133	134	135	136	137	138		139	140	141		142

FORM PS - 5
(Page 1)

VESSEL NAME

OBSERVER NAME

	OBSERVER TRIP ID
--	------------------

PAGE OF

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

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. 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 5**

- **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 TIME		LOGSHEET SET TIME DATE TIME		PORT WELLS												STARBOARD WELLS												OBSERVER'S TOTAL CUMUL. TOTAL		COMMENTS
				12	11	10	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	10	11	12				
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		
09/03	0555	No record							12										40		4				56	244				
11/03	0740	No record				20															20				40	284				
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 line of a new page. Write "Totals carried over from page ?? in the comments column.

FORM PS - 5
(Page 2)

VESSEL NAME

OBSERVER NAME

	OBSERVER TRIP ID
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PAGE OF

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 "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 TIME		LOGSHEET SET TIME DATE TIME		PORT WELLS										STARBOARD WELLS										OBSERVER'S		COMMENTS			
				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
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

SOUTH PACIFIC REGIONAL OBSERVER VESSEL AND AIRCRAFT SIGHTINGS AND FISH TRANSFER LOG

FORM GEN - 1

REVISED SPC/FFA DEC. 2002

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

VESSEL OR AIRCRAFT SIGHTINGS

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

FISH TRANSFERRING AND BUNKERING

DATE	TIME	OBSERVER'S VESSEL POSITION				RECEIVING VESSEL			FISH TRANSFERRED				TRANSFER CODE (T - S - B)	COMMENT
		LATITUDE (dd° mm.mmm')	N S	LONGITUDE (ddd° mm.mmm')	E W	NAME	INTERNATIONAL CALLSIGN	TYPE CODE	SKJ WGT.	YFT WGT.	BET WGT.	MIXED WGT.		

VESSEL AND AIRCRAFT TYPE CODES

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

FLAG COUNTRY CODES

- IF COUNTRY IS NOT IN LIST WRITE NAME OF COUNTRY
- | | | |
|-----------|----------------|--------------|
| CN CHINA | US USA | BZ BELIZE |
| JP JAPAN | PH PHILLIPINES | RU RUSSIA |
| TW TAIWAN | PA PANAMA | SG SINGAPORE |
| KR KOREA | HN HONDURAS | LK SRI LANKA |
| | | VU VANUATU |

ACTIVITY AND TRANSFER CODES

- FISHING INCLUDES ANY RELATED ACTIVITY
- | | |
|---------------------|----------------|
| FI FISHING | T TRANSHIPPING |
| PF POSSIBLY FISHING | S SET SHARING |
| NF NOT FISHING | B BUNKERING |

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

VESSEL AND AIRCRAFT SIGHTINGS LOG and FISH TRANSFER LOG

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 or fax, immediately you see such activity. All information about the vessel and its activities should be in the Telex or Fax. 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.

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	This will be available from the GPS and should be recorded as indicated on the monitor DD & DDD = degrees
LONGITUDE DDD MM.MMM	MM = minutes. MMM = decimal minutes.
N S & E W	The GPS will also indicate whether the latitude is North or South of the Equator. This is important. Do not forget to write "N" or "S" beside the position. The GPS also indicates whether you are East or West of longitude 180°. Don't forget to write "E" or "W" after the longitude.
NAME	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 visibly painted on the vessel.
FLAG	Try to determine the flag country; This is often written on the stern of the vessel.
TYPE CODE	The "Vessel and aircraft" type codes" are on front of Form. E.g.: purse -seiner = 1; longliner = 2; etc.
COMPASS BEARING	Look at the compass and get a bearing from your vessel to the position of the other vessel.
DISTANCE (NAUTICAL MILES)	You may require the use of the radar to get an exact distance to the vessel. If this is not possible estimate the distance.
ACTIVITY CODE	This is in relation to what activity is happening when you sight the vessel. If you are not sure write what you see in the comment column. If the vessel is bunkering or transshipping indicate this also in the comment column.
PHOTO FRAME #	Record the number of the photo frame from your camera if you have taken a photo.
COMMENT	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.

OBSERVER NAME	Put first name first, and last name last, and print name. in full.
VESSEL NAME	Put vessels full name; Names should not be abbreviated.
OBSERVER TRIP ID	This is the same number you used on Form 1. It was issued to you before you left port. It will not change for the whole trip.
PAGE OF	If there is more than one page for the trip, number each page.

FISH TRANSFER LOG RECEIVING VESSEL

NAME	Name of the vessel that is receiving the fish
INTERNATIONAL CALL-SIGN	The call-sign that is visibly painted on the vessel
TYPE CODE	Use the "Vessel and aircraft codes" on front of Form GEN-1 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.
TRANSFER TYPE T OR S	Get type of transfer from "Transfer codes" on front of Form.
COMMENT	Comment about the transhipment (e.g.: method used; problems; destination of the fish; etc.)

CODE TABLES

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.
ACTIVITY AND TRANSFER CODES	Describes the activity the vessel and the type of transfer made T = Transshipping to a reefer or another vessel. S = Set sharing - when a vessel has too many fish from a set (usually the last set needed to fill all wells) and another vessel is invited to brail the remaining fish from the net. B = Bunkering - when a vessel is next a tanker to take on fuel
FLAG COUNTRY CODES	Codes for different countries from which a vessel may come. This is usually found from the country's flag on the vessel or the name of the country 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 JUN 23 YOU SIGHTED A KOREAN LONGLINE VESSEL FISHING AT LATITUDE 05:12 345S LONGITUDE 156:12.233E. THE NAME OF THE VESSEL IS MOONSHADOW, ITS CALLSIGN IS Q2344. IT HAS A LARGE GREEN STRIPE ON THE HULL, YOU HAVE TAKEN A PHOTO.

**SOUTH PACIFIC REGIONAL OBSERVER
SPECIES OF SPECIAL INTEREST**

FORM GEN - 2

OBSERVER NAME	VESSEL NAME	OBSERVER ID NUMBER	PAGE OF
---------------	-------------	--------------------	---------

Tick to indicate

The species was:	LANDED ON DECK <input type="checkbox"/>	INTERACTED WITH VESSEL'S GEAR ONLY <input type="checkbox"/>	SIGHTED ONLY <input type="checkbox"/>
-------------------------	---	---	---------------------------------------

TIME LANDED (see PS-2, LL-4, PL-2)	_or TIME OF INTERACTION / SIGHTING		LATITUDE	N	LONGITUDE	E
DATE (dd/mm/yy)	TIME (00.00hrs)	DATE (dd/mm/yy)	TIME (00.00hrs)	(dd°mm.mmm')	(ddd°mm.mmm')	W
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
	DESCRIBE THE INTERACTION	

INTERACTIONS WITH VESSEL OR VESSEL GEAR:

VESSEL'S ACTIVITY DURING INTERACTION → SETTING <input type="checkbox"/> HAULING <input type="checkbox"/> TRANSITING <input type="checkbox"/> OTHER (specify) <input type="checkbox"/>					
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 <input type="checkbox"/> HAULING <input type="checkbox"/> TRANSITING <input type="checkbox"/> OTHER (specify) <input type="checkbox"/>			
NUMBER SIGHTED	NUMBER OF ADULTS	NUMBER OF JUVENILES	ESTIMATE THE OVERALL LENGTH(s) (From the head to the tail)
DIST. FROM VESSEL (NM)		SPECIES BEHAVIOUR WHEN SIGHTED	

TAGS

<i>RETRIEVED</i>			<i>PLACED</i>		
TAG NUMBER	TYPE	ORGANISATION	TAG NUMBER	TYPE	ORGANISATION

SPECIES OF SPECIAL INTEREST ARE:

ALL <u>TURTLES</u> (TUR)	ALL <u>MARINE MAMMALS</u> (MAM)
LOGGERHEAD TURTLE (TTL) LEATHERBACK TURTLE (LTB) GREEN TURTLE (TUG) OLIVE RIDLEY TURTLE (LEO) HAWKBILL TURTLE (TTH)	TOOTHED WHALES (ODN) FALSE KILLER WHALE (FAW) SHORT-FINNED PILOT WHALE (SHW) PYGMY KILLER WHALE (KPW) MELON HEAD WHALE (MEW)
ALL <u>BIRDS</u> (BRD)	WHALE SHARK (RHN)
	RISSO'S DOLPHIN (DRR) BOTTLENOSE DOLPHIN (DBO) COMMON DOLPHIN (F43) SPINNER DOLPHIN (DSI) SPOTTED DOLPHIN (DSP) STRIPED DOLPHIN (DST)

SPECIES OF SPECIAL INTEREST

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 for the entire trip.
Page of	Number all the GEN-2 forms together, in sequence. Continue until the trip is complete.

THE SPECIES WAS:

Tick 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 landed (see PS-2, LL-4, PL-2)	For species which were landed on deck, note the start of set time that you recorded on your PS- 2 or PL-2 forms. For LL note the actual time of landing as noted on your 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 the start of set position for species landed on deck. If the species was sighted or interacted with the gear only, note the position the vessel was in when you first saw the species.
Species Code	Use the three-letter FAO species code.
Species Description	Use this field to describe some of the identifying 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 THE FOLLOWING CONDITION CODES**

A0 - Alive. But you are unable to further categorise its condition.

A1 - Alive and healthy.

A2 - Alive, but injured or distressed.

A3 - Alive, but unlikely to live.

A4 - Entangled, okay.

A5 - Entangled, injured.

A6 - Hooked, externally, injured.

A7 - Hooked, internally, injured.

A8 - Hooked, unknown, injured.

D - Dead

D1 - Entangled, dead

D2 - Hooked, externally, dead.

D3 - Hooked, internally, dead.

D4 - Hooked, unknown, dead.

U - Condition unknown.

U1 - Entangled, unknown condition.

U2 - Hooked, externally, condition unknown

U3 - Hooked, internally, condition unknown.

U4 - Hooked, unknown, condition unknown.

Condition description	Write a description of the condition of the species when landed / discarded. This may help us 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).

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 us further define its condition.
Describe the Interaction	Make detailed notes on the interaction. If you need more space use your diary. 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 Juveniles	If you can see juveniles 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 your own words. Some technical terms you might like to use are: <i>Wake riding</i> - swimming close behind the boat. <i>Bow riding</i> - swimming off the bow of the boat. <i>Logging</i> - floating motionless in a group. <i>Breaching</i> - launching themselves into the air head first and then falling back into the water with a splash. <i>Lobtailing</i> - Tail slapping. <i>Playing</i> - Having fun !
Distance from vessel (nm)	Estimate the distance the species was from the vessel.

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 (stitched to the outside of the body) tag.
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SOUTH PACIFIC REGIONAL OBSERVER VESSEL TRIP MONITORING RECORD

FORM GEN - 3

REVISED FFA DEC. 2002

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
• RECORD INACCURATE POSITIONS ON THE VESSEL LOGSHEET		
• FISH IN AREAS THAT WERE NOT COVERED BY ANY LICENCE OR ACCESS AGREEMENT		
• MIS-REPORT CATCHES IN THE VESSEL LOGS OR WEEKLY REPORTS.		
• NOT REPORT CATCHES OF COMMERCIAL SPECIES		
• NOT RECORD CATCHES OF BYCATCH AND DISCARDS		
• TARGET SPECIES OTHERS THAN THOSE THEY ARE LICENSED TO TARGET		
• USE A FISHING METHOD OTHER THAN THE ONE THEY ARE LICENSED TO USE		
• CATCH SPECIES OF SPECIAL INTEREST		
• BREACH MARPOL REGULATIONS		
• NOT REPORT TO NATIONAL AUTHORITIES WHEN BUNKERING		
• TRANSFER FISH FROM OR TO ANOTHER VESSEL AT SEA		
• REQUEST THAT AN EVENT NOT BE REPORTED		
• OFFICERS MISTREAT THE CREW		
• DID THE CAPTAIN OR CREW HINDER THE OBSERVER IN ANYWAY		

**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.**

	OBSERVER SIGNATURE

VESSEL TRIP COMPLIANCE RECORD

Notes on FORM GEN - 3

This check form must be completed at the end of your trip. It is important to ensure that information you collect is kept confidential from the vessel and any other persons except the officers whom you report to when you get back to 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	Print your first name first, and your last name last
VESSEL NAME	Print the vessels full name no abbreviations. For example, Captain Ivan Grimsby Korsakov <u>should not</u> be abbreviated to Capt. I. G Korsakov
OBSERVER ID NUMBER	This is the same number you used on Form 1 and were issued to you before you left port. It will not change for the whole trip on any of the forms.

DID THE VESSEL DO ANY OF THE FOLLOWING

RECORD INACCURATE POSITIONS ON THE LOG-SHEET	The <u>vessel</u> log sheet should be filled out daily or after each set by the captain or a designated officer on the vessel. You have the right to ask for a look at this log at anytime (inspect this log at least once a day). Check the times the vessel is recording the position and see if it is the same position, you have recorded for the same time on your daily observer logs. Discrepancies of anything more than 3 miles should be reported and the distance noted in your report.
FISH IN AN AREA THAT THE VESSEL IS UNLICENSED	You should make yourself aware of the areas in FFA countries where a vessel is not permitted to fish.. Generally Internal waters, Territorial seas (12 miles from a land base line) and Archipelagic waters are off limits to most purse seiners, (exceptions do occur). Some countries such as Papua New Guinea has areas where you are not permitted to fish unless you are a specific type of vessel. The local fishery divisions will help, or FFA has listed in the US Treaty manual for US vessels the closures. These also apply to most DWFN Purse-seiners.
INDICATE POSSIBLE CATCH MIS-REPORTING	Is the vessel under reporting, over reporting or not reporting any of the sets that you have observed. This can be done for various reasons, however check the vessel logs daily to ensure all sets are recorded and the catch has been logged correctly. If your estimate varies by a large amount, be suspicious and keep an eye on what is occurring, and report this when you return.
ATTEMPT TO NOT REPORT CATCHES	You are to report any attempt by the vessel to not report any fish, shark and mammal species, retained or discarded. Please report, if a vessel reports all its main commercial species correctly, but are not reporting any by-catch that is being retained or discarded. Please report any attempt to not report commercial species that have been rejected because they are damaged, to small or are considered to be undesirable for other reasons. The vessel may not think recording discards is important, however it is a requirement that all species (not only commercial species) caught must be recorded correctly, whether they are retained or discarded.
TARGET SPECIES NOT LICENSED TO TARGET	The target species is mentioned on the vessel's fishing permit. Mostly 'Tuna' will be the target species. You should 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 LICENSED TO USE	The licensed fishing method will be marked on the vessel's fishing permit. Make a note if they used a fishing method other than what is permitted by the fishing 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.
ATTEMPT TO RECORD A SPECIES AS DIFFERENT SPECIES.	There are a number of reasons a vessel may attempt to record a species as a different species. They may do this to report to a country that all the fish they have caught are not of high value. Whilst this is not a big problem with purse-seine catches as most species go for canning, some of the species can be used for sashimi and will bring higher prices. This in turn means there is a higher value on the catch than reported.. However, if it is not reported correctly, then the licence fee can only be determined on the lower value. Common occurrences of this are recording Bigeye as Yellowfin, recording both Big Eye and Yellowfin as Skipjack. Purse seiners often record small Big-eye as Yellowfin because they bring the same price at the cannery. Report this if it occurs, and give your estimates of each species in the catch.
CATCH OR ATTEMPT TO CATCH SPECIES OF SPECIAL INTEREST	This includes all species of Whales, Dolphins Turtles, Dugongs and Seals. If the vessel <u>deliberately sets</u> on any marine mammal, write a short report on the fate of this animal. For example, if the mammal escaped by own its means or was hauled aboard in a distressed or deceased state. Often the animal is released or escapes unharmed. You should report if the animal was released unharmed or released injured. Anything to report about the vessels' attitude to the animal is important. All deliberate catches and accidental catches of marine mammals should also be reported in the daily set logs Form 3.
ANY BREACH OF MARPOL	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. If the vessel has a processor or grinder on board then only perishable processed rubbish (No plastics) may be dumped up to 3 miles from land. Report in the comments what the vessel does with its rubbish and whether the vessel has an incinerator on board.

SOUTH PACIFIC REGIONAL OBSERVER POLLUTION REPORT

FORM GEN-6

REVISED BY SPC/FFA DEC. 2002

▪ Fill in one form for each pollution incident

OBSERVER NAME	VESSEL NAME	OBSERVER ID NUMBER	PAGE OF
---------------	-------------	--------------------	--------------

UTC

DATE OF INCIDENT (dd/mm/yy)	TIME 00.00 hrs	LATITUDE (dd°mm.mmm')	N / S	LONGITUDE (ddd°mm.mmm')	E / S	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	Y N	Describe Type	Describe Quantity
Plastics	Y N		
Metals	Y N		
Waste Oil	Y N		
Chemicals	Y N		
Old Fishing gear	Y N		
General Garbage (within 12 miles of shoreline)	Y N		

OIL SPILLAGES AND LEAKAGES

Source	Y N	Visual Appearance / Colour	Describe Area and Quantity
Vessel Aground / Collision	Y N		
Vessel at Anchor / Berth	Y N		
Vessel Underway	Y N		
Land based source - Describe source	Y N		
Other - Please specify			

- 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
 Y / N / NP (NP=Not Possible due to language barrier)
- Did you take any photos? **Y / N** If yes state the photo frame number -

Other comments

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.

POLLUTION REPORT

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

Observer Name	Put your first name first, and your family name last.
Vessel Name	Record the full name of the vessel. Do not use any abbreviations.
Observer ID Number	Use the number assigned to you by your observer programme e.g. AA 03-01
Page of	Number all GEN-6 pages together. Number them in sequence until the trip is finished

Date of Incident (dd/mm/yy)	Report the UTC date you saw the pollution. Use the format outlined
Time (00.00 hrs)	Report the UTC time. Use the 24hr clock.
Latitude / Longitude	Record the GPS position of your vessel when you first saw the pollution.
EEZ / Harbour	Write in the EEZ or for shorebase staff mark port or Harbour name here.
Wind Direction	The prevailing wind direction. Use degree eg. 90 degrees for a SE wind
Wind Speed	Record the prevailing 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 your vessel activity at the time of the pollution incident.
	Some activities you might like to consider are fishing, transshipping, bunkering, transitting, aground.

Name of offending vessel	Make an effort to write down the complete and proper name of the offending vessel. Be careful not to make any spelling mistakes which may make it difficult to prosecute the vessel, should the report go 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 your GEN-1 page.
Your position from offending vessel.	Use the vessel's compass to gauge the direction of the offending vessel from your vessel. You can use the radar to get the exact distance, in nautical miles, is away from your vessel - otherwise give your best estimate.

WASTE DUMPED OVERBOARD

Material	Circle the Y / N to indicate which type of material was dumped. Only tick more than two materials if the vessel has dumped more than one material type over at the same time e.g. it dumped plastics and metals at 10.00 hrs. If plastics were dumped 10.00 hrs and some metals at 16.00 hrs - record these separately.
Describe type	Do your best to describe the type of material that was dumped e.g normal plastic bags, plastic strapping from bait boxes, plastic bags from bait boxes etc.
Describe Quantities	Give us your best estimate of the amount dumped. Sometimes this will be easy to do e.g. 12 metal oil drums were dumped. Other time you might be too far away to see the amount. If you can only give an estimate, mark this down.

OIL SPILLAGES AND LEAKAGES

Source	Circle either Y or N to indicate where the spillage or leak came from
Visual Appearance / Colour	Do your best to describe the colour/ thickness/depth of the spill
Describe Area and Quantity	Give your best estimate of the size of the spill, use the boat as a size reference if you want 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' (a machine that shreds garbage to tiny pieces) onboard, 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	MH: Marshall Islands
AU: Australia	NR: Nauru
CK: Cook Islands	NC: New Caledonia
FM: Fed. States of Micronesia	NZ: New Zealand
FJ: Fiji Islands	NU: Niue
FR: France	MR: Northern Mariana
PF: French Polynesia	PW: Palau
GU: Guam	PG: Papua New Guinea
ID: Indonesia	PH: Philippine
IW : International Waters	RU: Russia
JP: Japan	SB: Solomon Islands
TO: Kingdom of Tonga	TW: Taiwan
KI: Kiribati	TK: Tokelau
KR: Korea	TV: Tuvalu
CN: Mainland China	US: United States
MY: Malaysia	VU: Vanuatu
	WS: Western Samoa

**APPENDIX 8. SOUTH PACIFIC REGIONAL UNLOADING AND
PORT SAMPLING FORMS**

- 1. Longline Unloading Form**
- 2. Longline Port Sampling Form**
- 3. Purse-Seine and Pole-and-Line Unloading Form**
- 4. Pole-and-Line Port Sampling Form**
- 5. Purse-Seine Port Sampling Form**
- 6. Purse-Seine Well Loading Form**
- 7. Troll Port Sampling Form**

SOUTH PACIFIC REGIONAL LONGLINE UNLOADING FORM

REVISÉ SPC/FFA, DEC., 2000

PORT	COMPLETED BY	MONTH	YEAR	PAGE	OF
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[illegible]

Notes on **LOGLINE 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 DATES

START The day date on which the longliner began unloading

END The day date on which the longliner finished unloading

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*

BLZ 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)

SHK 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 start and end dates of unloading, the vessel name, registration, flag and agent should still be recorded.

SOUTH PACIFIC REGIONAL LONGLINE PORT SAMPLING FORM

REVISED SPC/FFA: DEC 2002

PORT:				SAMPLER:				ASSISTANT:				PAGE		OF									
VESSEL NAME:				COUNTRY OF REGISTRATION:				REGISTRATION NUMBER:															
DATE - START OF TRIP: (DEPARTED PORT)				DATE - END OF TRIP: (ARRIVED IN PORT)				DATE OF SAMPLE:															
<div> <div>DD</div> <div>MM</div> <div>YY</div> </div> <div> <div></div> <div></div> <div></div> </div>				<div> <div>DD</div> <div>MM</div> <div>YY</div> </div> <div> <div></div> <div></div> <div></div> </div>				<div> <div>DD</div> <div>MM</div> <div>YY</div> </div> <div> <div></div> <div></div> <div></div> </div>															
FISHING AREA		FROM LATITUDE (or code/s)				N		TO				N		FROM				E				E	
						S		LATITUDE				S		LONGITUDE				W				W	

	SPECIES	LENGTH		WEIGHT		EXPORT CODE	OTHER
		CM	CODE	KG	CODE		
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<p>These questions MUST be answered</p> <p>CIRCLE "Y" OR "N" TO ANSWER</p> <p>(see notes on back for assistance)</p>		<p>COMMENTS: IF UNABLE TO RECORD UNMEASURED FISH ABOVE then TALLY and TOTAL THOSE FISH HERE:</p> <p>and other COMMENTS</p>
<p>WERE ALL THE YFT, BET AND ALB UNLOADED AND ALL SAMPLED?</p>	<p>Y N</p>	
<p>WERE ALL SWO, MLS, BLZ, BLM AND SFA UNLOADED AND ALL SAMPLED?</p>	<p>Y N</p>	

Eg: FSH ~~|||||~~ / = 41

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

[illegible]

NOTES ON LONGLINE PORT SAMPLING FORM

PORT:				SAMPLER:				ASSISTANT:				PAGE  OF	
VESSEL NAME:				COUNTRY OF REGISTRATION:				REGIS				<p>PAGE OF Number pages out of the total used to sample each boat.</p> <p>If one page is used per boat that page must be "PAGE 1 OF 1".</p> <p>If three pages, they are "PAGE 1 OF 3", "PAGE 2 OF 3" and "PAGE 3 OF 3".</p>	
DATE - START OF TRIP: (DEPARTED PORT)		DD	MM	YY	DATE - END OF TRIP: (ARRIVED IN PORT)		DD	MM	YY				
FISHING AREA	FROM LATITUDE (or code/s)				N	TO LATITUDE		N	FROM LONGITUDE				
					S			S					

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 completely.

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.

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.

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 an entry for yellowfin landed for export to Japan

25	<i>YFT</i>	<i>125</i>	<i>UF</i>	<i>56</i>	<i>GG</i>	<i>JP</i>	
----	------------	------------	-----------	-----------	-----------	-----------	--

These questions **MUST** be answered
CIRCLE "Y" OR "N" TO ANSWER
(see notes on back for assistance)

WERE ALL THE YFT, BET AND ALB
UNLOADED AND ALL SAMPLED ?

WERE ALL SWO, MLS, BLZ, BLM AND SFA UNLOADED AND ALL SAMPLED ?

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: $FSH \not\equiv \not\equiv \not\equiv \not\equiv \not\equiv \not\equiv \not\equiv \not\equiv / = 41$

Important ! - Always try to record unmeasured (NM) fish in above same section with measured fish.
Only use this comments section, as with this example, when it is not practical to record each fish.

Circle "Y" (for yes)
or "N" (for no) for each of the above questions.

If only a few fish are kept back for the crew then still answer "Y".

Only circle "N" when several fish are being kept on board to be off-loaded at another place or time for another market.

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

Number (Port sampler should always add these)

Sum of Lengths and **Sum of Weights**

(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

	YFT	BET	
NUMBER			
SUMLENGTHS			
SUMWEIGHTS			

SOUTH PACIFIC REGIONAL UNLOADING FORM FOR PURSE SEINE and POLE-AND-LINE VESSELS

REVISÉD SPC/FFA: DEC. 2002

PORT	COMPLETED BY	MONTH	YEAR	PAGE OF
------	--------------	-------	------	---------

[illegible][illegible][illegible]

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	The day the carrier, cannery or coolstore (that is named in this section) started loading and
FIRST / LAST DAYS	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 country that the vessel is registered in (also called Vessel Nationality)
REGISTRATION No.	The registration number of the fishing vessel given by the FLAG country
SHIPPING COMPANY	The name of the shipping company that owns or charters the carrier to load fish
CAPTAIN	The full name of the Captain of the carrier vessel
PERMIT No.	The number of the permit under which the carrier is allowed to tranship fish in this port
DESTINATION	The final destination for the fish on board the carrier

FISH ON BOARD or FISH FROM COOL STORE

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

PORT OF LOADING / COOLSTORE NAME	Name of port where the fish that is already on carrier was picked up or Name of the coolstore that is loading fish on to the carrier in this port
LOADING DATES	(of fish that were loaded at another port or were loaded from a coolstore at this port)
START / END	The 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 day is the day fish first start moving onto the carrier from this fishing boat.
FIRST / LAST DAYS	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 country 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.

REVISED SPC/FFA: DEC. 2002

PORT:				SAMPLER:				ASSISTANT:				PAGE		OF			
VESSEL NAME:				COUNTRY OF REGISTRATION:				REGISTRATION NUMBER:									
DATE AT START OF TRIP: (departed from port)				DATE AT END OF TRIP: (arrived in port)				DATE OF SAMPLE:									
D D		M M		Y Y		D D		M M		Y Y		D D		M M		Y Y	
FISHING AREA A		FROM LATITUDE		N S		TO LATITUDE		N S		FROM LONGITUDE		E W		TO LONGITUDE		E W	

SORTING - VERY IMPORTANT !			WEIGHT OF CATCH (KG) from unloadings records after sampling					OTHER SPECIES	SIZE SORTED FISH SIZE CLASSES
TICK ONE BOX BELOW			SKJ	YFT	BET	YFT & BET	MIXED TUNA		
	Not sorted before sample	⇒							
	Sorted by species only	⇒							Eg: 3 to 6 kg.
	Sorted by size and species	⇒							1
Record weight of each species landed. Record size class of sorted fish at right.			⇒						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	
Σ lengths		Σ lengths		Σ lengths		Σ lengths		Σ lengths		Σ lengths	

Notes for POLE-AND-LINE PORT SAMPLING FORM

Use Pole-and line Port Sampling Forms to record lengths of fish unloaded from pole-and-line vessels at end of a trip. Only sample fish for which you can obtain good information about area caught and time period of fishing. Most pole-and-line vessels trips are short and there is enough information in basic trip details. If sampling a large, distant water, pole-and-line boat, try to sample fish from a 5-degree by 5-degree square, landed during the same month.

If the sample from a single sampling session has more than 150 fish, use additional Pole-and-line Port Sampling Forms. *Port, vessel name and date of sample* must be re-entered on each extra page exactly as they appear on the first page.

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.

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

SOUTH PACIFIC REGIONAL PURSE SEINE PORT SAMPLING FORM

REVISED SPCFFA: DEC. 2002

PORT:				SAMPLER:				ASSISTANT:				PAGE OF		
CARRIER OR CANNERY:				VESSEL NAME:				COUNTRY OF REGISTRATION:				REGISTRATION No.:		
DATE AT START OF TRIP: (departed from port)				DATE AT END OF TRIP: (arrived in port)				DATE OF SAMPLE:						
D D	M M	Y Y	D D	M M	Y Y	D D	M M	Y Y	D D	M M	Y Y	D D	M M	Y Y

SET DETAILS (to be obtained from Vessel Log sheets)

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	WEIGHT	WELL NUMBERS

SAMPLING STRATEGY (very important)

Please tick correct box	<input type="checkbox"/> <input type="checkbox"/>	RANDOM SPECIES - species composition and length frequency sample NON-RANDOM SPECIES - length frequency sample only
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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				
Σ LENGTHS FOR EACH SPECIES				

SCHOOL ASSOCIATION CODES	
1 Unassociated	5 Anchored raft, FAD or payao
2 Feeding on baitfish	6 Live marine mammal
3 Drifting log, debris or dead animal	7 Live whale shark
4 Drifting raft, FAD or payao	8 Other

Notes for PURSE SEINE PORT SAMPLING FORM

Use the Purse Seine Sampling Form to record lengths of fish that are unloaded from purse seiners at the end of a trip. Only sample fish from the vessel wells for which good information about the sets put into them can be obtained. This includes position, time, and school association type. The wells to sample must have fish in them that come only from sets of the same association type, that are caught in the same general area at about the same time. Normally try to sample fish caught in a 5-degree by 5-degree square and landed during the same month.

If the sample from a single sampling session has more than 150 fish, use additional Purse Seine 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 achieve this place 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
CARRIER OR CANNERY	Name of the carrier vessel or cannery to which fish are being off-loaded directly
VESSEL NAME	Full name of boat (no abbreviations), with number if there is one (e.g.: <i>Skippy 3</i>)
COUNTRY OF REGISTRATION	The vessel nationality
REGISTRATION No.	A number issued to the vessel by the country of registration (flag country)
DATE OF DEPARTURE	The date the vessel left port at the beginning of the trip
DATE OF ARRIVAL	The date the vessel returned to port at the end of the trip
DATE OF SAMPLE	The day the sample was taken

SET DETAIL INFORMATION - get this information from vessel logsheets !

Fill in one line for each set that was stored in the sampled well. Get this information from vessel logsheets. The Well Loading Worksheet can also be used to help. See the Notes for Well Loading Worksheet.

It is very important to find out and record the set type (school association code) that sampled fish come from. Also make sure to record the Set Start Time exactly as it is recorded on the vessel log.

SAMPLING STRATEGY

Be sure to tick the correct box. This is very important.

Normal strategy is to take a "Random Species" sample. A port sampler collects specimens entirely at random from a mixed school (or a pure school) to get a sample to be used for species composition and length frequency analyses. Tick the upper box in this case.

If the port sampler collects fish of a particular species to measure, then it is not a species composition sample. Tick the lower box - "Non-Random Species - length frequency sample only" in this case.

Any other comments can also be included at the bottom of the "SET DETAILS" box.

SAMPLED WELL - Record the "WELL NUMBER" that was sampled and the "WEIGHT OF FISH IN that WELL". Record all weights in metric tonnes.

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.

DATA ENTRY VERIFICATION (do this now to help check that your data has been entered properly, later)

NUMBER OF EACH SPECIES	Add up total number of each species recorded on this form
Σ LENGTHS FOR EACH SPECIES	(Σ = sum of) Add up the lengths of each species separately. Don't mix them.

SOUTH PACIFIC REGIONAL PURSE SEINE WELL LOADING WORKSHEET

REVISÉD SPC/FFA DEC. 2000

PORT:				SAMPLER:				ASSISTANT:				PAGE	OF
VESSEL NAME:				COUNTRY OF REGISTRATION:				REGISTRATION NUMBER:					
DATE AT START OF TRIP: (departed from port)				DATE AT END OF TRIP: (arrived in port)				DATE OF SAMPLE					
D D	M M	Y Y		D D	M M	Y Y		D D	M M	Y Y			

[illegible]

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 country 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	<ul style="list-style-type: none">1 Unassociated2 Feeding on baitfish3 Drifting log, debris or dead animal4 Drifting raft, FAD or payao5 Anchored raft, FAD or payao6 Live marine mammal7 Live whale shark8 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 <u>not</u> 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).

SOUTH PACIFIC REGIONAL TROLL VESSEL PORT SAMPLING FORM

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)				DATE AT END OF TRIP: (ARRIVED IN PORT)				DATE OF SAMPLE:					
D D M M Y Y				D D M M Y Y				D D M M Y Y					
FISHING AREA: FROM				N				FROM				E	
LATITUDE				S				LONGITUDE				W	
TO				N				TO				E	
LATITUDE				S				LONGITUDE				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						

SOUTH PACIFIC 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

ASSISTANT First and last name of person recording measurements, if different from the sampler

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 (DD MM YY). Do this by placing a "0" in front of single digit numbers.
DATE AT END OF TRIP
DATE AT END OF TRIP

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, <i>Thunnus alalunga</i>	MLS	Striped marlin, <i>Tetrapturus audax</i>
SKJ	Skipjack, <i>Katsuwonus pelamis</i>	BLZ	Blue marlin, <i>Makaira mazara</i>
YFT	Yellowfin tuna, <i>Thunnus albacares</i>	BLM	Black marlin, <i>Makaira indica</i>
BET	Bigeye tuna, <i>Thunnus obesus</i>	SFA	Sailfish, <i>Istiophorus platypterus</i>
WAH	Wahoo, <i>Acanthocybium solandri</i>	SSP	Shortbill spearfish, <i>Tetrapturus angustirostris</i>
DOL	Mahimahi, <i>Coryphaena hippurus</i>		

LENGTH The length (in centimetres) must be **rounded down** to whole centimetres (e.g. 69.9cm is to be recorded as 69 cm). **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". **Note:** 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 Cumpulsory Vessel Inspection and Checklist**

[illegible]

Competition Name

lbs

**Bigeye
tuna**

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 	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	Species	Number caught	Species	Number caught	Species	Number caught	Species	Number caught

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 Seifish
 - SSP Shortbilled spearfish
 - MLS Striped marlin
 - SWO Swordfish
 - WAH Wahoo
 - COM Spanish mackerel
 - DOL Mahi mahi (dolphin fish)
 - TRE Trevally
 - SNK Bonacouts
 - 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 263618

NAME OF VESSEL	COUNTRY OF REGISTRATION	INTERNATIONAL RADIO CALLSIGN
NAME OF FISHING COMPANY	REGISTRATION NUMBER IN COUNTRY OF REGISTRATION	GEAR TYPE (LL-PL-PS-TR)

[illegible]

- | 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	Capacity if a fish carrier	Size GRT	LOA (m)
	a)				
	b)				
	c)				
	d)				
	e)				
Helicopter:	Yes No	Make:	Model:	Year:	

D: SIZE CHARACTERISTICS									
Gross registered tonnage:		Net tonnage:		Maximum loading capacity:		Total well volume:		Vessel cruising speed:	
				mT		(m3)		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	US AGE	If fish storage note type of cooling and optimum temperature (°C) (ice, chilled seawater, brine, blast freezing, dry freezer hold)		Star-board	m3	US AGE		
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 = Occasional
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 diameter	cm
	Make:	Model	Rated power	Hauling speed	m/sec
	PURSE CABLE Section length (m): _____ m Skiff end _____ Seiner end Section diameter (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: knotted unknotted (circle one)			

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:

Name of Captain or Person-in-Charge, if not the Captain	Position of Person-in-Charge, if not the Captain		
<p align="center">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.</p>		<p align="center">Yes No</p> <p align="center">(circle one)</p>	<p align="center">Signature of Captain or Person-in-Charge</p>

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**
(circle one) **none**
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
(circle one) | No
(circle one) | Signature of Captain or Person-in-Charge |
|----------------------------|---------------------------|--|
4. **Transshipment** - 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 transshipment or re-provisioning can start ?
- | | | |
|----------------------------|---------------------------|--|
| Yes
(circle one) | 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
(circle one) | 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 transshipment, reprovisioning or other meeting with any other vessel
- | | | |
|----------------------------|---------------------------|--|
| Yes
(circle one) | 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
(circle one) | 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, 19

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)

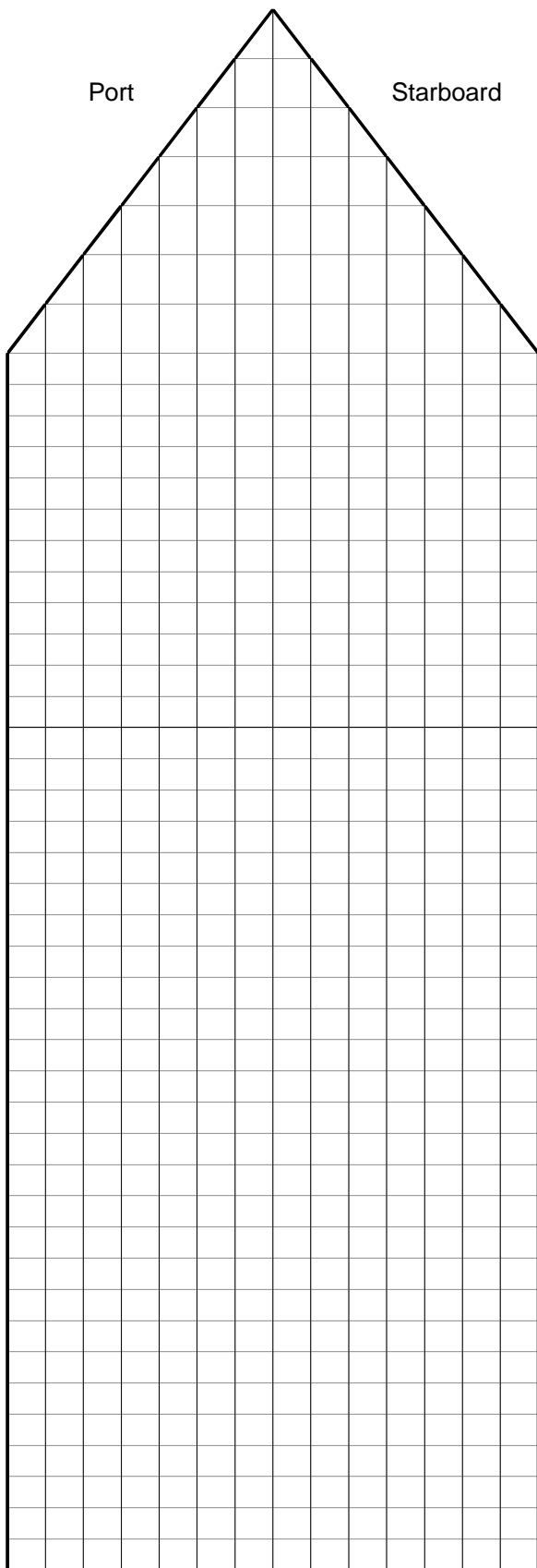
(signature of Witness)

STATEMENT

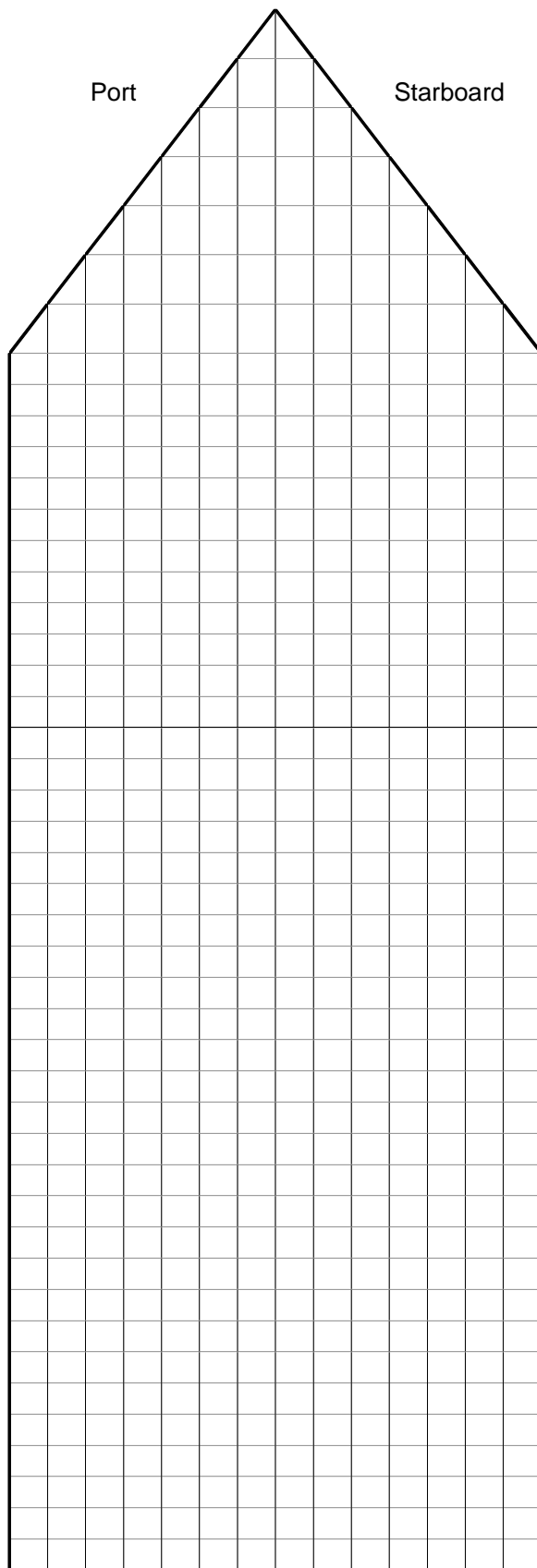
I,,
(name of Captain or Person-in-Charge) (title / position held)

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)



Level 1. upper / lower / only
(circle one)



Level 2. upper / lower
(circle one)

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.

Example:

Deck 1. upper / lower / only

