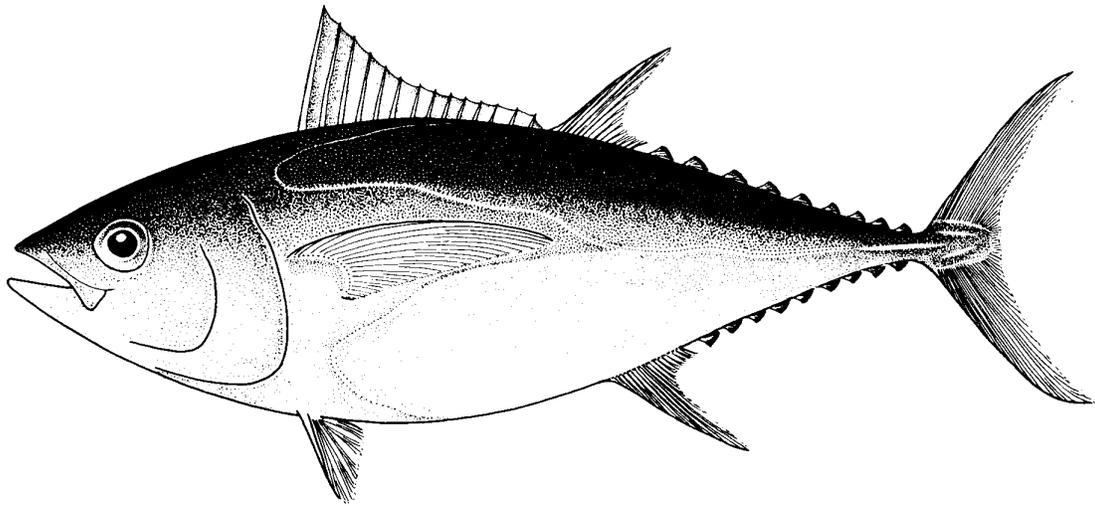


**REPORT OF THE THIRD MEETING OF THE TUNA FISHERY
DATA COLLECTION FORMS COMMITTEE**

9–10 December 1998
Brisbane, Queensland
Australia



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



Forum Fisheries Agency
Honiara
Solomon Islands

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1. PRELIMINARIES

1.1 Appointment of Chairman and Rapporteurs

1. Mr Felix Panjuboe, current chairman of the Tuna Fishery Data Collection Forms Committee¹ (hereafter the “Forms Committee”), assumed the chair. Mr Tim Lawson was appointed rapporteur.

1.2 Adoption of Agenda

2. The agenda (Appendix 1) was adopted with the addition of an item on ‘other’ forms.

2. REVIEW OF PROPOSED CHANGES TO LOGSHEETS

2.1 General

Name of the coastal state in the title of the logsheets

3. In December 1997, the Oceanic Fisheries Programme (OFP) of the Secretariat of the Pacific Community (SPC) received a request from the Micronesian Maritime Authority (MMA) in Pohnpei, Federated States of Micronesia (FSM), to have the name and logo of MMA at the top of the logsheets. MMA was concerned that the South Pacific Commission (the previous name of SPC) was noted on the logsheets as the authorising body, and that this may compromise the proprietary nature of the data and may lead to privacy issues with the fishing companies. In fact, the South Pacific Commission is only mentioned in the text near the top of the logsheets that refers to the revision date, i.e. “REV: SPC/FFA DEC 1996”. The words “South Pacific” in the title of the form refer to the geographic area and not the South Pacific Commission.

4. It was further explained that including the name and logo of MMA on the logsheets would impede their use as standardised forms throughout the region. At present, several fleets have access agreements with more than one coastal state, and they are able to provide the same logsheets to each of the coastal states that may have been visited during a single trip. This is advantageous in that (1) it eliminates the need for transcribing the data onto separate forms for each coastal state and thereby reduces the possibility of data transcription errors, and (2) it simplifies the data processing, which is conducted by SPC and FFA on behalf of many of their member countries. If the name and logo of a particular state was printed on the logsheets, then those logsheets may not be accepted by other states.

5. Mr Tim Park advised the meeting that FSM was considering new fisheries legislation that would allow for logsheets that were approved by FSM, rather than requiring logsheets that had been issued by FSM and which included a reference to FSM on the form.

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 Forms Committee is an internal SPC and FFA committee responsible to the Director of FFA and to the Manager of the SPC Fisheries Programme. The second meeting of the Forms Committee took place from 11 to 13 December 1996 in Brisbane, Australia (Anonymous, 1997).

6. Beginning in mid-1998, logsheets were received at SPC on which the title had been changed by the Papua New Guinea (PNG) National Fisheries Authority (NFA) to “Papua New Guinea Purse-Seine Logsheets”. One of the modified logsheets was also provided to MMA for a vessel that had fished in the waters of both Papua New Guinea (PNG) and FSM. MMA refused to accept the logsheet and returned it to the vessel owner. NFA explained that the title had been changed only for convenience, and not for legal reasons. When it was explained to NFA that MMA would not accept the modified logsheets, NFA immediately agreed to stop using the modified forms. At present, the modified logsheets are only occasionally received by SPC and it is expected that in a short time they will no longer be in circulation.

Full name of ‘ALC’

7. A request for a change to the instructions for each of the logsheets was received from Ms Dierdre Brogan, SPC Scientific Observer. She suggested that the instructions concerning the FFA type approved ALC be modified to give the full name for ‘ALC’, i.e. Automatic Location Communicator, and this was accepted.

Total quality management of the Regional Register

8. Information on vessel attributes, such as gross registered tonnage, are not included on the South Pacific Regional Logsheets, since this information is already available on the Regional Register of fishing vessels that is maintained by the Forum Fisheries Agency (FFA). Mr Sam Taufao reported that FFA will soon conduct a programme of total quality management on the Regional Register to ensure that the information concerning vessel attributes is accurate.

2.2 Longline Logsheets

Discards

9. The Committee noted that the longline logsheet does not allow for information concerning discards of billfish, or any species other than albacore, bigeye, yellowfin or shark, to be recorded. It was felt that for completeness, it should be possible to record information on discards of any species. On the other hand, it was recognised that discards of billfish had not been included because of space limitations and because, in general, discards are rarely recorded on longline logsheets. It was noted that national fisheries agencies do not currently enforce the requirement to provide information on discards on logsheets, but that this may change in the future. In this regard, it was also suggested that a third bullet point be included at the top of the form specifying that all discards must be recorded.

10. It was noted that the South Pacific Regional Logsheets would probably be reviewed in the future by the Statistics Working Group of the Standing Committee on Tuna and Billfish (SCTB). The Forms Committee agreed to delay modifying the longline logsheet to allow for discards of any species until the matter had been considered by the SCTB Statistics Working Group.

Longline set position

11. It is specified in the instructions that the set position on the longline logsheet refers to the position of the start of the set. It had been brought to the attention of one of the participants that, for compliance purposes, the end of set position would also be useful in determining whether sets were made within areas in which fishing is excluded, such as three mile or twelve miles zones. However, it was noted that sets are not always made in a straight line, but are often U- or S-shaped. Therefore,

full information on the set position is best collected by observers. Furthermore, it was recognised that, when implemented, vessel monitoring systems (VMS) will provide more full and accurate data for compliance purposes than can be collected on logsheets.

12. In this regard, it was also noted that longline set positions are recorded only to the nearest minute of latitude and longitude. At the equator, a minute of latitude or longitude is equivalent to one nautical mile; hence it is possible that sets could be made up to one mile within excluded areas, but possibly recorded on the logsheet as being outside the excluded area, depending on how the position is rounded to the nearest minute. The Committee recognised that longline sets can extend over several degrees and therefore that, for research purposes, it is not appropriate to record set positions at a higher resolution than the nearest minute. Again, the Committee felt that VMS is a better source of position data for compliance purposes.

Hooks between floats vs hooks per basket

13. The participants debated whether ‘hooks between floats’ was more appropriate than ‘hooks per basket’. At the second meeting of the Forms Committee, in December 1996, ‘hooks between floats’ was accepted because the traditional term ‘basket’ had caused some confusion, particularly when monofilament gear is used. On the other hand, it was noted that in some situations, such as the training of observers, the term ‘basket’ is easier to understand. It was noted for some fleets, such as the mainland Chinese vessels, better information has been provided on forms that have ‘hooks between floats’ compared to those with ‘hooks per basket’, while for others, no difference has been noted. It was therefore agreed to keep ‘hooks between floats’ on the logsheets, but to consider using ‘hooks per basket’ on observer forms.

2.3 Pole-and-Line Logsheets

14. No changes were proposed for the pole-and-line logsheet.

2.4 Purse Seine Logsheets

15. The following changes to the South Pacific Regional Purse-Seine Logsheets were all proposed by Mr Gordon Yamasaki, National Marine Fisheries Service, Pago Pago, American Samoa.

Activity code for ‘other’

16. An activity code for ‘other’, i.e. activities that are not covered by the seven activity codes currently on the logsheet, was proposed. However, the participants felt that an activity code for ‘other’ would probably be abused, such that the ‘other’ code would be used when one of the seven current activity codes might be more appropriate. It was also noted that many completed logsheets already contain text written on the form that describes activities that are not covered by the seven codes. Although the Committee decided not to add an activity code for ‘other’, it agreed that the instructions should be changed to stress that activities not covered by the seven codes should be described on the form. It was suggested that SPC and FFA examine logsheets to determine the activities that have already been described in text on the form and their frequency of occurrence, with a view to perhaps adding new activity codes in the future. It was also suggested that, in the future, the phrase “If no code, please describe” could be included at the bottom of the list of the activity codes.

School code for ‘under boat’

17. A school association code for ‘under boat’ was proposed. It was noted that tuna can aggregate under a vessel after the vessel drifts near an unassociated school or a school associated with a floating object. It was felt that when this occurs, the ‘other’ school association code would be appropriate, rather than a new code for ‘under boat’. It was agreed that the instructions would be modified to indicate that when the ‘other’ school association code is used, the object, e.g. the boat, should be specified on the form. If the form is revised in the future, then the ‘OTHER’ school association code should be replaced with ‘OTHER (PLEASE SPECIFY)’.

Width of the column for well number

18. It was proposed that the width of the column for well numbers be increased. However, it was noted that it is always possible to use more than one line on the form for an individual set. It was agreed that the instructions for “Block Two: Catch and Discards” would be changed from “Complete one line of Block Two for each set made...” to indicate that more than one line can be used if necessary.

Increase space for discards

19. It was also proposed that more space be made available for recording discards. However, again, it was noted that it is always possible to use more than one line on the form for an individual set. The modification to the instructions discussed above would therefore also apply to the space available for discards.

Delete block for unloadings

20. It was also proposed that information concerning unloadings be deleted from the logsheet in order to avoid lengthy delays in the submission of the logsheets that can sometimes occur as vessels wait in port to unload their catch. However, it was noted that vessels fishing under the treaty with the United States are implicitly allowed to submit the logsheets without the information on unloadings in the interim. While it was recognised that treaty vessels provide unloadings data on a separate unloading form completed at the two canneries in Pago Pago, American Samoa, it is necessary to keep the information on unloadings on the logsheet in order to record information for other fleets, which do not provide unloadings data on a separate sheet.

3. REVIEW OF IMPLEMENTATION OF THE LOGSHEETS

Implementation

21. Mr Lawson presented Background Paper 2, “Implementation of the South Pacific Regional Logsheet forms,” which was prepared by Mr Peter Williams, SPC Fisheries Database Supervisor. Information on the implementation of the logsheets is summarised in Table 1. The following points were noted:

- Vessels of three major purse seine fleets (Korea, Taiwan and the United States of America) are now using the regional purse-seine logsheet. The U.S. and Korean purse-seine fleets use the English version of the logsheet, while the Taiwanese fleet use a Mandarin translation of the logsheet. All U.S. and Taiwanese purse seiners use the regional logsheet, but Korean vessels from certain fishing companies have yet to adopt the regional form.

- All purse seiners operating under the FSM Arrangement, i.e. vessels of domestic fleets within the region, are now using the regional purse-seine logsheet.
- The mainland Chinese longline fleet has adopted the English version of the regional longline logsheet, even though a Mandarin translation of the logsheet exists.
- Most of the Taiwanese offshore longline fleet has adopted a Mandarin version of the regional longline logsheet.
- Several member countries have introduced the regional longline logsheet to collect data from domestic fleets. These include Federated States of Micronesia, Fiji, Palau, Papua New Guinea and Tonga.

22. The meeting therefore considered that significant progress had been made with the implementation of the regional logsheets since the last meeting of the Forms Committee in December 1996. There are now many fewer non-standard logsheets in circulation, and this has simplified data collection by the fleets and data processing by SPC and FFA.

23. Certain fleets, such as the New Caledonia longline fleet and the Taiwanese distant-water fleet, use logsheets on which information not included on the regional logsheets are collected. The forms used by the New Caledonia longline fleet contain detailed information on set positions that are used to study the relationship between catch rates and oceanographic conditions. The forms used by the Taiwanese distant-water longline fleet include length data.

24. However, vessels of some fleets continue to use non-standard logsheets that are similar to the regional logsheets, e.g. all Japanese fleets (although Japan has agreed to use the standard logsheets under its access agreement with the Federated States of Micronesia), some Korean purse seiners, some Fijian longliners, mainland Chinese and Taiwanese longliners operating in the Marshall Islands, and some Korean longliners operating from Kiribati. The logsheets used by these vessels could be replaced with the regional logsheets without a loss of information.

Report on implementation to FFC

25. The meeting noted that the implementation of the regional logsheets was briefly mentioned at the thirty-first meeting of the Forum Fisheries Committee in March 1997. The report of the second meeting of the Forms Committee was presented to FFC31 as a background paper, rather than as a working paper, and, hence, there was no discussion concerning the implementation of the regional logsheets. The Forms Committee agreed that the report of the current meeting should be presented to the next meeting of the Forum Fisheries Committee as a working paper, rather than as a background paper. It was also suggested that Table 1 be modified to include a column for the number of vessels in each fleet, where possible.

26. The participants agreed to continue to work towards facilitating the implementation the regional logsheets, by contacting fisheries officers; by presenting the report of the meeting of the Forms Committee at meetings of the Forum Fisheries Committee and other meetings; and by contacting fishing associations on behalf of coastal states.

Availability of regional logsheets on the SPC web site

27. The participants also agreed to make the regional logsheets, and other regional forms, available on the SPC Internet site – <http://www.spc.org.nc> – with links from the FFA web site. It was suggested that having the regional logsheets available on the web would facilitate their use by the Korean, Taiwanese and other fleets.

Translation of the regional logsheets

28. Translated versions of the South Pacific Regional Logsheets were presented in Background Paper 3. At present, all of the logsheets have been translated into the major languages used by fishing vessels in the region. The translated logsheets consist of French longline logsheets; Japanese longline, pole-and-line and purse-seine logsheets; Korean longline logsheets; and Mandarin longline and purse-seine logsheets. The translated logsheets will also be made available on the SPC web site.

4. REVIEW OF PROPOSED CHANGES TO OBSERVER FORMS

Observer booklets

29. The meeting noted that booklets of longline and purse-seine observer forms had been implemented since the last meeting of the Committee and that the booklets had been very useful for organising the forms.

Laminated sheets for species codes

30. It was suggested that separate laminated sheets for species codes should be prepared for the observers. Mr Karl Staisch and Mr Peter Sharples agreed to take responsibility for developing the sheets of species codes.

Length and weight measurement codes

31. It was agreed to add codes for total width (TW), for rays; carapace length (CL), for turtles; and a code for 'not measured' (NM). These codes will be included in the instructions for the Longline Observer Catch Monitoring Form (LL-4), the Purse-Seine Observer Set details Form (PS-3) and the Purse-Seine Observer length Frequency Form (PS-4). It was also agreed to revise the instructions in less technical language

Cross-referencing observer data and logsheet data

32. It is often difficult to cross-reference observer data and logsheet data for individual sets because the set dates, times and positions may differ considerably. Some vessels do not record unsuccessful sets on logsheets, while others will lump several sets made over a period of several days into one set recorded on the logsheet. During 1998, SPC staff attempted to manually cross-reference observer data and logsheet data. Out of a total of 255 observer trips on purse seiners, 86 trips, or 33.7 percent, were covered by logsheet data held at SPC at the time of the analysis. (Since then, logsheets have been received covering a further 124 observer trips, to give a total of 210 observer trips covered by logsheet data, or 82.3 percent.) During the 86 observer trips for which logsheet data were available, there were 1,811 sets recorded by the observers, of which 1,464, or 80.8 percent, were successfully cross-referenced to sets recorded on logsheets. Various changes to the observer forms to facilitate the cross-referencing of observer data and logsheet data were considered during the meeting.

Japanese longline observer forms

33. A brief comparison was made between the South Pacific Regional Observer Forms and forms developed by the National Research Institute of Far Seas Fisheries (NRIFSF), Shimizu, Japan, which were presented in Background Paper 3.

34. The NRIFSF Vessel Record Form is similar to the Forms Committee form LL-1, General Information, and contains information on vessel attributes and electronics. The NRIFSF contains more detailed information on vessel attributes than LL-1. The NRIFSF form also contains information on the gear configuration, whereas this information is recorded on the Forms Committee LL-2 form, Set Information, and LL-3 form, Haul Information.

35. The NRIFSF Set Record Form contains information on the set and haul times and positions, meteorological information, and further information on the gear configuration. This information is collected on the Forms Committee LL-2 form, Set Information, but is not summarised.

36. The NRIFSF Daily Observation Form contains information on hauling times and positions, the number of hooks sampled, and catch summaries. This information is collected on the Forms Committee LL-3 form, Haul Information, and the LL-4 form, Catch Monitoring. The NRIFSF form includes summary information on sea-bird bycatch.

37. The NRIFSF Biological Data Form includes information on individual fish, including the condition at capture, the fate, the length, the whole weight, the processed weight and the sex. This information is collected on the Forms Committee LL-4 form, Catch Monitoring.

Form LL-1 • LONGLINE OBSERVER GENERAL INFORMATION

Departure and return date and time

38. Some observers have recorded UTC time, rather than ship's time; therefore, it was agreed to add "(SHIP'S TIME)" after "DEPARTURE DATE AND TIME" and "RETURN DATE AND TIME" and to revise the instructions.

International radio call sign

39. The vessel's markings are often used to determine the call sign. However, the vessel's registration number is sometimes used for the vessel's markings, rather than the call sign. Hence, the registration number is sometimes mistakenly recorded as the call sign. It was agreed to revise the instructions to indicate that the vessel's markings may not necessarily represent the call sign.

VMS seal intact?

40. When a VMS unit has been tampered with and the seal broken, the seal changes colour. It was agreed to add "Seal intact?" in the COMMENTS column of the ELECTRONICS block to indicate whether the VMS data for the vessel can be used to cross-check logsheet positions.

Vessel length and gross registered tonnage

41. The vessel length and gross registered tonnage (GRT) are available from the Regional Register maintained by FFA, and, therefore, are not recorded on the observer forms. However, given that anomalies exist on the Regional Register, it was considered that information on vessel attributes contained in the Regional Register should be provided to observers, prior to their boarding the vessel, in order that they can verify the information. On the other hand, it was noted that it was sometimes difficult for the observer to obtain information concerning vessel attributes.

Bait thrower

42. It was noted that sometimes the name of a crewmember is recorded beside “BAIT THROWER (Y/N)”. It was therefore agreed to change the field to “AUTOMATIC BAIT THROWER”.

Form LL-2 • LONGLINE OBSERVER SET INFORMATION***“Hooks per basket” vs “Hooks between floats”***

43. It was noted that it was easier to teach observers using the term ‘hooks per basket’ than using ‘hooks between floats’. It was therefore agreed that “HOOKS PER BASKET” would be used, and that “TOTAL NO. OF BASKETS” would be used instead of “TOTAL NO. OF FLOATS”.

Depth of hook

44. It was recognised that the information concerning hook depth recorded by observers is unreliable and that depth recorders are required to obtain reliable data. It was therefore agreed that “DEPTH OF SHALLOWEST HOOK” and “DEPTH OF DEEPEST HOOK” would be deleted.

Length of branchlines

45. For almost all vessels, the length of the branchlines does not vary. It was therefore agreed to replace the fields concerning the number of branchlines by depth with “LENGTH OF BRANCHLINES (M)”.

Shark lines

46. Some vessels use short, heavy lines attached directly to the longline floats, with large hooks, baited for sharks. It was therefore agreed to add a field for “TOTAL NO. OF SHARK LINES ON FLOATS IN SET”. The instructions will be modified to include shark lines, and to indicate that shark lines should not be included in the field for the total number of hooks, which covers only hooks set for tuna and billfish.

Hook numbers for bait

47. If the hook number on which a particular bait is used is recorded, then the relationship between bait type and catches can be investigated. It was therefore agreed that a column for “HOOK NO.’S” would be added to “BAIT USED” and “KGS”.

UTC date and time

48. Some observers have reported problems finding the UTC date and time. It was therefore suggested that these observers be given further training in the use of GPS units.

Vessel speed

49. In discussion with Mr Sharples, Ms Brogan noted that vessel speed, which affects hook depth, can vary during the setting process. Hooks set at slower speeds tend to fish at deeper depths. The possibility of recording detailed information of vessel speed during setting was considered, but it was felt that if vessel speed varies during setting, then such information could be noted in the “COMMENTS” column and observers should be trained to do so. It was suggested that occurrences of variable vessel speed during setting should be monitored to determine the extent of the practice. It

was also suggested that the instructions should be clarified to indicate that the GPS log should be studied for several seconds in order to determine vessel speed..

Form LL-3 • LONGLINE OBSERVER HAUL INFORMATION

50. It was noted that haul information is difficult to collect while monitoring the catch and is sometimes overlooked. It should be stressed during observer training that information on the start and the end of the haul must be collected.

Form LL-4 • LONGLINE OBSERVER CATCH MONITORING

Gonad stage

51. Only observers that have been trained in staging gonads have collected these data. It was therefore agreed that “GONAD STAGE” should be replaced by white space, so that observers can write in the name of the information that they are collecting, which could be gonad stage or other kinds of data.

Number of hooks sampled

52. During long hauls, observers will stop sampling to have a meal or for other reasons. When the haul is only partially sampled, information on the number of hooks sampled is required in order to estimate catch rates from the observer data. (If the entire haul is sampled, the number of hooks sampled equals the total number of hooks, which is recorded on the Set Information Form, LL-2.) Recording the time when sampling stopped and then re-started can be useful in estimating the number of hooks sampled, since the rate at which hooks are hauled is relatively constant. However, sometimes hauling is interrupted due to gear problems. A more accurate method of estimating the number of hooks sampled is to count the number of baskets (i.e. floats) that have been hauled and then multiply the number of baskets hauled by the number of hooks per basket. It was therefore agreed to include “BASKETS OBSERVED ON THIS FORM” at the bottom of the form. The instructions will indicate that a new form should be used after each pause in observing the haul. Observers will still be requested to record their times starting and ending sampling in order to cross-check their estimates of the number of hooks sampled.

Condition codes

53. The condition code refers to the condition of the fish when hauled. However, the condition of fish when they are released is important when using observer data to estimate bycatches. The condition at capture can be quite different from the condition at release. For example, sharks can be alive and healthy at capture, but then finned prior to being released. In general, for fish healthy at capture, the condition at release will depend on the amount of time the fish has been out of the water. It was therefore agreed to have fields for the condition at capture and the condition at release. The codes currently used for the condition at capture can also be used for the condition at release.

Fate codes

54. It was agreed that the meaning of the fate code ‘DTS’ (Discarded – too small), will be replaced with “Discarded – too small (target species)”, since non-target species have sometimes been recorded as being discarded because they were too small. The code ‘DUS’ (Discarded –

undesirable species) will be replaced with “Discarded - uneconomic species”, since some observers have recorded fish as being discarded because they were considered unpalatable.

Protected species

55. The identification of protected species was discussed in connection with the fate code ‘DPS’ (“Discarded – protected species”). Mr Sharples and Mr Staisch will investigate which species are protected in the region and will train observers accordingly.

Hook number for shark lines

56. It was agreed that the instructions will be modified to indicate that the hook number for shark lines is ‘99’.

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

Departure and return date and time

57. Some observers have recorded UTC time, rather than ship’s time; therefore, it was agreed to add “(SHIP’S TIME)” after “DEPARTURE DATE AND TIME” and “RETURN DATE AND TIME” and to revise the instructions.

VMS seal intact?

58. When a VMS unit has been tampered with and the seal broken, the seal changes colour. It was agreed to add “Seal intact?” in the COMMENTS column of the ELECTRONICS block to indicate whether the VMS data for the vessel can be used to cross-check logsheet positions.

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

Activity codes

59. It was agreed to change code ‘1’ from “Fishing (not searching)” to “Spraying, chumming or poling”, for clarity.

60. It was agreed that code ‘8’ will be changed from “Investigate log” to “Investigate floating object”, in order to account for other types of floating objects. It was agreed that code ‘9’ will be changed from “Investigate school” to “Investigate free school”, for clarity.

61. It was agreed to change code ‘14’ from “Catching bait” to “Baitfishing”, for clarity.

Detection codes

62. It was agreed to change code ‘7’ from “FAD / payao marked on a map” to “Anchored FAD / payao”, for consistency with form PS-1.

Form PL-3 • POLE-AND-LINE OBSERVER CATCH DETAILS***Number of fish caught and tons caught***

63. It was agreed to delete these fields, since they are redundant with information in the sections for catches and lengths.

Activity times

64. It was agreed to change “FISHING ACTIVITY TIMES” to “SPRAYING, CHUMMING AND POLING TIMES”, for consistency with form PL-2.

Catches

65. It was agreed that the block for catches would be re-formatted, with separate sections for the target species (i.e. skipjack, yellowfin and bigeye) and other species.

Lengths

66. It was agreed that to change from 6 columns of 17 measurements to 5 columns of 20 measurements.

67. It was also agreed that to add columns for summing the lengths sampled in order to facilitate the verification of data during processing.

Form PS-1 • PURSE SEINE OBSERVER GENERAL INFORMATION***Departure and return date and time***

68. Some observers have recorded UTC time, rather than ship’s time; therefore, it was agreed to add “(SHIP’S TIME)” after “DEPARTURE DATE AND TIME” and “RETURN DATE AND TIME” and to revise the instructions.

Helicopter registration number

69. It was agreed that “REGISTRATION NO.”, which refers to the helicopter registration number, would be changed to ”HELICOPTER REGISTRATION NO.” for clarity.

Number of ancillary vessels

70. It was noted that speed boats, tow boats and light boats can all be used for various purposes and, hence, that sometimes ancillary vessels are double counted. However, the instructions are clear that double-counting should not occur. It was agreed that this would be stressed during observer training.

Rated power of the power block

71. It was noted that the rated power of the power block was difficult for the observers to determine. However, it was recognised that when available, this information is useful; therefore, it was agreed that the field should not be deleted.

Maximum net depth

72. Net depth can be recorded in metres, fathoms, yards or feet. It was therefore agreed that a field for the units of net depth would be added.

Mesh size

73. In the future, mesh size may be considered as a management tool; therefore, observers should collect information on mesh size in order to study the relationship between mesh size and the catch. However, the mesh size is not consistent in a purse seine, with different meshes used at different locations in the net. Mr Sharples and Mr Staisch agreed to investigate how best to record information on mesh size.

Type of brailer

74. There are various types of brailer currently in use; therefore, it was agreed to add a field for the type of brailer.

Binocular power

75. It was considered that information concerning the power of binoculars would be useful, although binoculars of various powers are used on the same vessel. It was agreed that the instructions would be modified to indicate that the various powers should be noted in the COMMENTS column.

VMS seal intact?

76. When a VMS unit has been tampered with and the seal broken, the seal changes colour. It was agreed to add "Seal intact?" in the COMMENTS column of the ELECTRONICS block to indicate whether the VMS data for the vessel can be used to cross-check logsheet positions.

Well storage plan

77. It was agreed that there should be separate columns for dry wells and brine wells. Fuel is sometimes stored in a well; therefore, a column for fuel will be added. The temperature of dry and brine wells will be recorded at the bottom of the block, rather than for each well in a column. The total capacity of the wells will also be recorded at the bottom of the block. The number of wells will be increased to 14.

Crew

78. The age of the crew was not considered to be useful; therefore, the column for age will be deleted. The field for the total number of crew will be moved to the bottom of the block.

Form PS-2 • PURSE- SEINE OBSERVER DAILY LOG***Activity codes***

79. There is currently a code for deploying a raft, FAD or payao. It was suggested that a code for retrieving a raft, FAD or payao would enable the number of FADs deployed to be counted. However, it was noted that vessels can retrieve FADs set by other vessels; therefore, it is not

practical to estimate the number of FADs deployed in such a manner. Nevertheless, it was agreed that the code should be changed to “Deploying / retrieving raft, FAD or payao”.

80. It was agreed that code ‘8’ will be changed from “Investigate log” to “Investigate floating object”, in order to account for other types of floating objects. It was agreed that code ‘9’ will be changed from “Investigate school” to “Investigate free school”, for clarity.

81. It was agreed to add two new codes for recording when a helicopter takes off for searching and when a helicopter lands after searching. The Daily Log is structured such that the start of an activity corresponds to the end of the previous activity. However, it was agreed that this structure should be ignored for recording the search time of helicopters. In order to distinguish them from the other codes, the codes for helicopter searching time will be numbered ‘H1’ and ‘H2’. The title for the block will be changed from “ACTIVITY CODES” to “ACTIVITY AND HELICOPTER CODES”.

Detection codes

82. It was agreed that a new detection code for anchored payaos / FADs would be added.

Log and school sighting

83. It was agreed that references to ‘log’ will be changed to ‘floating object’ and that ‘floating object (no school)’ and ‘floating object schools’ would be further divided into ‘drifting floating object’ and ‘anchored floating object’.

Beacon number

84. It was agreed that the column for beacon number would be changed to “Payao (P) or Beacon (B) #”, with payao numbers to be preceded with a ‘P’ and beacon numbers with a ‘B’.

School association codes

85. It was agreed that the instruction should be modified to indicate that a school association code and a detection code should be recorded when the activity codes for investigating a free-swimming school, investigating a floating object, or a set is used.

Instructions

86. It was agreed that the instructions would be re-formatted and re-worded for clarity. In particular, the two sets of instructions for the activity codes will be combined and the instruction to report activity codes continually during the day, even if the activity is the same, will be deleted.

Form PS-3 • PURSE-SEINE OBSERVER SET DETAILS

Number of brails

87. The number of brails is used for estimating catches. However, partial brails have sometimes been counted as full brails. It was therefore agreed to have separate fields for full, three-quarter, half and one-quarter brails.

Start of set date and time

88. It was agreed to change “SHIP’S START OF SET DATE AND TIME” to “START OF SET DATE AND TIME (SEE PS-2)” in order to stress that the start of set times on PS-2 and PS-3 forms should be consistent. It was also agreed to add a field for “START OF SET DATE AND TIME (VESSEL LOG)” to facilitate cross-referencing observer data and logsheet data.

Set sequence times

89. It was agreed to change “SHIP’S TIME” to “TIME” to avoid the possibility of an observer recording the times determined by the crew, rather than the time determined by the observer. It was also agreed to change “BEGIN SET” to “START OF SET” for consistency.

Catches

90. It was agreed that the block for catches would be re-formatted, with separate sections for the target species (i.e. skipjack, yellowfin and bigeye) and other species. A column for the catch recorded by the crew will be added to the section for target species in order to facilitate cross-referencing observer data and logsheet data. Since the weight range and average length can be determined from form PS-4, these fields will be deleted from PS-3. It was also agreed to include “Did any SKJ-YFT-BET escape during the set? (Y/N)” and “If yes, what is the estimated percentage?” in order to record information that can be used to better estimate school size. It was also agreed to include “Were there any discards of SKJ-YFT-BET?” and “How many species other than SKJ-YFT-BET were caught?” in order to stress that discards and bycatch data must be recorded.

Tag recoveries

91. It was agreed to include fields for tag recovery data (i.e. tag number, species, length, weight and sex) and to delete “WHERE ARE TAG DETAILS RECORDED?”.

Fate codes

92. It was agreed to change ‘DFR’ from “Discarded – trunk but fins retained (shark only)” to ‘Discarded trunk – fins retained (shark only)’; ‘DTS’ from “Discarded – too small” to “Discarded – too small (tuna only)”; ‘DGD’ from “Discarded – gear damage” to ‘Discarded – gear damage (tuna only)’; and ‘DUS’ from “Discarded – undesirable species” to ‘Discarded – uneconomical species’. ‘DPS’, “Discarded – protected species (e.g. turtles)”, will be replaced with ‘DPA’, “Discarded – protected species, alive”, and ‘DPD’, “Discarded – protected species, dead”. A new code, ‘DFW’, “Discarded from well”, will be added.

Form PS-4 • PURSE SEINE OBSERVER LENGTH FREQUENCY*Start of set date and time*

93. It was agreed to change “SHIP’S START OF SET DATE AND TIME” to “START OF SET DATE AND TIME (SEE PS-2)” in order to stress that the start of set times on PS-2 and PS-3 forms should be consistent.

Standard length measurements

94. It was agreed to add descriptions of the standard length measurements (e.g. tip of upper jaw to caudal fork for tuna, tip of lower jaw to caudal fork for billfish, tip of snout to tip of tail for sharks) to the form.

Sum of lengths

95. It was agreed to delete “This section is optional for observers to fill in”.

Form PS-5 • PURSE-SEINE OBSERVER WELL LOADING***Start of set date and time, and school association, recorded by vessel***

96. It was agreed to add columns for the start of set date and time, and school association, recorded on the vessel’s log, to facilitate cross-referencing observer data and logsheet data.

Optional usage

97. The form was originally developed to assist port samplers in selecting wells to sample. However, similar information can be obtained from port samplers when they complete the Purse-Seine Sampling Form. On the other hand, it was recognised that the form provided useful information on well-mixing behaviour. Therefore, it was agreed that the Well Loading Form should be maintained, but completed on an optional basis.

Form GEN-1 • VESSEL AND AIRCRAFT SIGHTINGS AND FISH TRANSFER LOG***Transfer type codes***

98. It was agreed to add a code ‘B’ for bunkering.

Instructions

99. It was agreed that the instructions would be revised for clarity.

Form GEN-2 • VESSEL REPORTING COMPLIANCE LOG***Event type codes***

100. The FFA participants proposed revising the code descriptions for clarity and to include a column to record when reports have been submitted to the coastal state via FFA, and these proposals were accepted.

Form GEN-3 • VESSEL TRIP COMPLIANCE RECORD***Title***

101. It was agreed to delete “PURSE SEINE” from the title, since this form can also be used for other gear types.

Compliance-related questions

102. The FFA participants proposed adding questions concerning the seal of the VMS unit being intact; crew hindering the observer in the performance of his duty; not reporting when bunkering; transferring fish to or from another vessel; crew requesting that the observer not report an event; and crew mistreating the observer; and these proposals were accepted.

Form GEN-4 • CONVERSION FACTOR FORM***Title***

103. It was agreed to delete “LONGLINE” from the title, since this form can also be used for other gear types.

Total length for sharks

104. It was agreed to add a column for the total length, for sharks.

5. PORT SAMPLING FORMS

LONGLINE PORT SAMPLING FORM***Fish counts***

105. It was agreed that “INCLUDE COUNTS IF NOT SAMPLED” would be included in the COMMENTS block.

Formatting

106. Several changes to formatting were agreed, including replacing the double-line separator between the “TO LATITUDE” and “FROM LONGITUDE” with a single-line separator; removing the shading from the “Y N” fields; and removing the shading from the length and weight summary fields.

LONGLINE UNLOADING FORM***First day and last day of unloading***

107. Some port samplers have recorded the first and last days of the trip, rather than the first day and last day of unloading; therefore, it was agreed to add “OF UNLOADING” after “FIRST DAY” and “LAST DAY”.

POLE-AND-LINE SAMPLING FORM***Trial form***

108. A trial version of the Pole-and-Line Sampling Form, which was developed for sampling in Noro, Solomon Islands, was considered. It was suggested that the form be modified to record information on how fish have been sorted, when they have been sorted before sampling.

PURSE-SEINE WELL LOADING FORM

Optional usage

109. The Purse-Seine Well Loading form was developed to assist samplers in selecting wells to sample. However, similar information can be entered on the Purse-Seine Sampling Form. Therefore, it was agreed that the Well Loading Form should be completed on an optional basis.

Instructions

110. It was agreed to replace the set type codes with the school association codes used on the logsheet and observer forms.

PURSE-SEINE UNLOADING FORM AND PURSE-SEINE CARRIER FORM

Combining the forms

111. Though they were developed for different uses, the Purse-Seine Carrier Form has sometimes been used interchangeably with the Purse-Seine Unloading Form; therefore, it was agreed that the two forms should be combined. Since the new form can also be used for pole-and-line, it was agreed to name the new form the Purse-Seine and Pole-and-Line Unloading Form.

Name of sampler

112. It was agreed to replace “Completed by” with “Name of sampler”.

PURSE-SEINE SAMPLING FORM

Carrier or cannery

113. It was agreed to include a field at the top of the form for the carrier or the cannery to which the fish have been offloaded.

Set details

114. Several changes to the set details block were agreed, including a title, such as “SET DETAILS – TO BE OBTAINED FROM VESSEL LOGSHEETS”; removing the SET NO. column; replacing the SET DATE column with columns for the month and day; removing the SKJ + YFT column; adding a column for BET; replacing “WELL NO.” with “WELL NUMBER”; adding a note to record all weights in metric tonnes; and adding a note to stress completing the SCHOOL ASSOC column. It was also agreed to add the school association codes to the lower right of the form.

Sampling strategy

115. Several changes to the block of information on sampling strategy were agreed, including splitting the block into two sections, with one titled “SAMPLING STRATEGY” and other titled “SAMPLED WELLS”; switching codes 1 and 2; replacing “LENGTH FREQUENCY SAMPLE ONLY” with “NON-RANDOM SPECIES – LENGTH FREQUENCY SAMPLE ONLY”; replacing “SPECIES COMPOSITION AND LENGTH FREQUENCY SAMPLE” with “RANDOM SPECIES – SPECIES COMPOSITION AND LENGTH FREQUENCY SAMPLE”; removing code 3 for size-sorted samples; and, under SAMPLED WELLS, adding fields for the well number and the total weight of fish in the well.

Species and length data, and data entry verification

116. It was agreed to add titles to the blocks for species and length data, and data entry verification.

Instructions

117. Several changes to the instructions were agreed, including replacing “100 fish” with “150 fish” in the second sentence; replacing the section titles with “Header Information”, “Set Information”, “Sampling Strategy” and “Sampling Data”; stressing the importance of completing the SCHOOL ASSOC column; stressing the importance of completing all fields for set information and sampling strategy; adding instructions for the new section on wells sampled; and modifying the instructions to account for other changes noted above.

TROLL VESSEL PORT SAMPLING FORM

118. No changes were proposed.

6. OTHER FORMS***Forms for recreational fisheries***

119. It was noted that Mr Wade Whitelaw, SPC Billfish Biologist, has suggested that the Forms Committee develop standard data collection forms for use in recreational fisheries throughout the region. He has suggested that two forms should be developed, one for gamefishing tournaments and the other for use by gamefish charter vessels. The participants proposed that Mr Whitelaw join the Forms Committee to develop forms for recreational fisheries. Mr Whitelaw has also suggested that such forms could be developed in collaboration with the International Gamefishing Association (IGFA).

7. FUTURE OF THE FORMS COMMITTEE***Minimum duration between revisions to the logsheets***

120. The participants noted that it has taken two years for the logsheets that were revised at the December 1996 meeting of the Committee to replace those previously in circulation. It was therefore concluded that in order to avoid having more than two revisions in circulation at the same time, revised logsheets should not be issued after less than two years following the previous revision, unless warranted by exceptional circumstances.

121. It was therefore agreed that meetings of the Forms Committee should continue to be held at two-year intervals, although it was recognised that the Forms Committee could meet on an ad hoc basis if warranted by exceptional circumstances. It was noted in passing that it was extremely useful that the meeting be held outside SPC and FFA headquarters in order to avoid participants being called away from the meeting.

Review of the forms by the SCTB Statistics Working Group

122. One of the activities of the Statistics Working Group (SWG) of the Standing Committee on Tuna and Billfish (SCTB) is to coordinate tuna fishery data collection in the region (Anonymous,

1998). At its inaugural meeting in June 1998, during the eleventh meeting of the SCTB, the participants agreed to review data collection forms developed both by national and regional agencies in the region. It was further suggested at SCTB11 that the Statistics Working Group take over the function of maintaining the forms that have been developed by the Forms Committee.

123. It was noted by the Forms Committee that meetings of the Statistics Working Group may involve 40 to 50 participants and, hence, it may not be practical for such a group to make decisions concerning revisions to the data collection forms. The Forms Committee therefore considered that it would be more appropriate for the Forms Committee to maintain responsibility for the standard forms.

124. On the other hand, the Forms Committee welcomed the proposal made at SCTB11 that the Statistics Working Group review the forms developed by the Forms Committee. It was felt that the participation at meetings of the SCTB from scientists from fishing nations and coastal states throughout the region would result in a thorough and effective review of the forms and that any recommendations made by the Statistics Working Group would be valuable. It was suggested that since the next meeting of the Forms Committee will take place in about December 2000, it would be more appropriate for the Statistics Working Group to review the forms at its meeting which may be held in June 2000, rather than at the meeting scheduled for June 1999.

8. CLOSING

125. Mr Sharples and Mr Staisch agreed to incorporate revisions to the observer forms by the end of January 1999. Mr Lawson will prepare the report of the meeting and circulate it for comment. The report will then be posted on the SPC Web site.

126. The meeting was closed with a vigorous round of applause.

REFERENCES

- Anonymous. 1996. Report of the Ad Hoc Meeting on Tuna Fisheries Data Collection Forms, 11–14 December 1995, Brisbane, Queensland, Australia. Oceanic Fisheries Programme, South Pacific Commission, Noumea, New Caledonia, and Forum Fisheries Agency, Honiara, Solomon Islands. 54 pp.
- Anonymous. 1997. Report of the Second Meeting of the Tuna Fishery Data Collection Forms Committee, 11–13 December 1996, Brisbane, Queensland, Australia. Oceanic Fisheries Programme, South Pacific Commission, Noumea, New Caledonia, and Forum Fisheries Agency, Honiara, Solomon Islands. 70 pp.
- Anonymous. 1998. Report of the Eleventh Meeting of the Standing Committee on Tuna and Billfish, 28 May – 6 June 1998, Honolulu, Hawaii, United States of America. Secretariat of the Pacific Community, Noumea, New Caledonia. 108 pp.

Table 1. 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
Cook Islands	Longline	Locally-based fleet	No	No indication of recent fishing activity
FSM Arrangement	Purse seine	Vessels operating under the FSM Arrangement	Yes	Introduced during 1996
Fiji	Longline	Fiji (domestic fleet) + Korean vessels	Partial	Partial success. There are some vessels that are still using alternative forms.
		Taiwan	No	No indication of introduction of new forms
	Pole-and-line	Fiji (domestic fleet)	No	This fleet use a customised form requiring baiting locations; No indication of recent fishing activities
Federated States of Micronesia	Longline	Mainland China	Yes	We have only just started to receive regional logsheets
		Domestic FSM fleet	Yes	This fleet now uses regional logsheets
		Guam-based US fleet	Yes	This fleet now uses regional logsheets
		Japanese longline	No	Japan has agreed to use standardised forms, but no indicationof use
		Taiwanese longline	Partial	Polar International vessels use a version that they have translated, but there are problems with the translation (action required). Some other Taiwanese vessels use the regional logsheet without any problems.
	Pole-and-line	Japanese pole-and-line	No	Japan has agreed to use standardised forms, but no indicationof use
	Purse seine	Domestic fleet (Yap Fishing Corporation)	Yes	Introduced (see FSM Arrangement)
		Domestic fleet (CFC)	Yes	Introduced (see FSM Arrangement)
		Japanese purse seine	No	Japan has agreed to use standardised forms, but no indicationof use
		Korean purse seine	Partial	FSM instructed Korean PS vessels to use forms, but there are several vessels (related to fishing company) using a non-standard (i.e. old) logsheet.
Taiwanese purse seine		Yes	Regional logsheet translated and used by Taiwanese PS fleet	
Kiribati	Longline	Japan	No	No indication of introduction of new forms
		Korea	No	Regional logsheet form translated into Korean and provided to Kiribati. Raikoan Tumoia indicated that they will forward the logsheet to the Koreans and reiterate the requirement to introduce the form at their next access arrangement meeting (May 1999).
		Locally-based US fleet	No	No indication of introduction of new forms
	Pole-and-line	Japan	No	No indication of introduction of new forms
	Purse seine	Japan	No	No indication of introduction of new forms
		Domestic PS vessel	Yes	Introduced (see FSM Arrangement)
		Korea	Partial	Introduced at regional level, but there are several vessels (related to fishing company) using a non-standard (i.e. old) logsheet.
Taiwan		Yes	Regional logsheet translated and used by Taiwanese PS fleet.	
Marshall Islands	Longline	Mainland China	No	No indication of introduction of new forms
		Japan	No	No indication of introduction of new forms
		Domestic fleet	No	Fleet not active as at November 1996
		Taiwan	No	No indication of introduction of new forms
	Locally-based US fleet	No	No US vessels active as at November 1996	
Pole-and-line	Japan	No	No indication of introduction of new forms	

Table 1 (continued)

SPC/FFA MEMBER OR ARRANGEMENT	GEAR	FLEET	LOGSHEETS RECEIVED?	STATUS OF IMPLEMENTATION OF SOUTH PACIFIC REGIONAL LOGSHEETS
Marshall Islands	Purse seine	Japan	No	No indication of introduction of new forms
		Korea	Partial	Introduced at regional level, but there are several vessels (related to fishing company) using a non-standard (i.e. old) logsheet.
		Taiwan	Yes	Regional logsheet translated and used by Taiwanese PS fleet.
Nauru	Pole-and-Line	Japan	No	No indication of introduction of new forms
New Caledonia	Purse Seine	Japan	No	No indication of introduction of new forms
	Longline	Japan	No	No indication of introduction of new forms
		Locally-based fleet	No	French translation of regional logsheet provided, but local fleet now use their own form
Nuie	Longline	Taiwan	No	No indication of introduction of new forms
French Polynesia	Longline	Locally-based fleet	Yes	French version required, data processed by Service de la Mer et Aquaculture (SMA), Papeete.
		Korea	No	No indication of introduction of new forms
Papua New Guinea	Longline	Japan	No	No recent fishing activity
		Locally-based fleet	Yes	Introduced for US vessels and local longline fleet
		Taiwan	No	No recent fishing activity
	Purse seine	Korea	Partial	Introduced at regional level, but there are several vessels (related to fishing company) using a non-standard (i.e. old) logsheet.
		Phillippines	Partial	Some vessels use the regional standard logsheet, but there are several vessels using a non-standard (i.e. old) logsheet.
		Taiwan	Yes	Regional logsheet translated and used by Taiwanese PS fleet.
Palau	Longline	Mainland China	No	No indication of introduction of new forms
		Japan	No	No indication of introduction of new forms
		Taiwan	Yes	This fleet now using the regional logsheet standard.
		Guam-based US fleet	No	No indication of introduction of new forms
	Pole-and-line	Japan	No	No indication of introduction of new forms
		Purse seine	Japan	No
Solomon Islands	Longline	Japan	No	No indication of introduction of new forms
		Locally-based fleet	No	No indication of introduction of new forms
		Taiwan	No	No indication of introduction of new forms
	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	Partial	Introduced at regional level, but there are several vessels (related to fishing company) using a non-standard (i.e. old) logsheet.
		Phillippines	No	No recent activity
		Locally-based fleet	Yes	Introduced (see FSM Arrangement)
		Taiwan	Yes	Regional logsheet translated and used by Taiwanese PS fleet.
Tonga	Longline	Domestic fleet	Yes	Regional logsheet received, but coverage is low.
Tuvalu	Pole-and-line	Japan	No	No indication of introduction of new forms
US Multilateral Treaty	Purse seine	US fleet	Yes	Latest version introduced in June, 1997
Vanuatu	Longline	Locally-based fleet	No	No indication of introduction of new forms
		Taiwan	No	No indication of introduction of new forms
Western Samoa	Longline	Locally-based fleet	No	Regional logsheet translation into local language. No logsheets received to date.
		Taiwan	No	No indication of introduction of new forms

APPENDIX 1. AGENDA

1. PRELIMINARIES
 - 1.1 Appointment of Chairman and Rapporteurs
 - 1.2 Adoption of Agenda
2. REVIEW OF PROPOSED CHANGES TO LOGSHEETS
 - 2.1 General
 - 2.2 Longline
 - 2.3 Pole-and-Line
 - 2.4 Purse Seine
3. REVIEW OF IMPLEMENTATION OF THE LOGSHEETS
4. REVIEW OF PROPOSED CHANGES TO OBSERVER FORMS
5. PORT SAMPLING FORMS
6. OTHER FORMS
7. FUTURE OF THE FORMS COMMITTEE
8. CLOSING

APPENDIX 2. LIST OF BACKGROUND PAPERS

- BP 1 Anonymous. 1997. Report of the Second Meeting of the Tuna Fishery Data Collection Forms Committee, 11–13 December 1996, Brisbane, Australia. Oceanic Fisheries Programme, Secretariat of the Pacific Community, Noumea, New Caledonia, and Forum Fisheries Agency, Honiara, Solomon Islands. 70 pp.
- BP 2 Anonymous. 1998. Implementation of the South Pacific Regional Logsheet Forms. Oceanic Fisheries Programme, Secretariat of the Pacific Community, Noumea, New Caledonia. 3 pp.
- BP 3 Anonymous. 1998. Translated versions of the South Pacific Regional Logsheet forms. Oceanic Fisheries Programme, Secretariat of the Pacific Community, Noumea, New Caledonia. 18 pp.
- BP 4 Miyabe, N., T. Matsumoto & T. Ito. 1997. The Japanese observer programme for longline fishery in accordance with the recommendation on bigeye adopted by the 1996 ICCAT Commission. SCRS/97/42. Meeting of the Standing Committee on Research and Statistics, International Commission for the Conservation of Atlantic Tunas, Madrid, Spain, 20–24 October 1997. National Research Institute of Far Seas Fisheries, Shimizu, Japan. 16 pp.

APPENDIX 3. LIST OF PARTICIPANTS

Forum Fisheries Agency	Mr Felix Panjubo	felix.panjubo@ffa.int
	Mr Karl Staisch	karl.staisch@ffa.int
	Mr Sam Taufao	sam.taufao@ffa.int
	PO Box 629	
	Honiara	
	Solomon Islands	
	Tel: (677) 21124	
	Fax: (677) 23995	
Micronesian Maritime Authority	Mr Tim Park	tim@mail.fm
	PO Box Ps 122	
	Palikir, Pohnpei	
	Federated States of Micronesia	
	96941	
Secretariat of the Pacific Community	Mr Tim Lawson	timl@spc.org.nc
	Mr Peter Sharples	peters@spc.org.nc
	Oceanic Fisheries Programme	
	Secretariat of the Pacific Community	
	PO Box D5	
	98848 Noumea	
	New Caledonia	
	Tel: (687) 262000	
	Fax: (687) 263818	

APPENDIX 4. SOUTH PACIFIC REGIONAL LOGSHEETS

1. **Longline Logsheet**
2. **Pole-and-Line Logsheet**
3. **Purse-Seine Logsheet**

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) 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.

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.

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 kilogrammes, 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 kilogrammes, 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 kilogrammes, under *KG RET*. When more than one ‘other’ species occurs in a set, use additional lines on the logsheet.

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) 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.

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.

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.

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.

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.

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 at 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. 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.

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, Bigeeye, 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. 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.

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 callsign 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.

APPENDIX 5. SOUTH PACIFIC REGIONAL OBSERVER FORMS

Form LL-1 • Longline General Information

Form LL-2 • Longline Set Information

Form LL-3 • Longline Haul Information

Form LL-4 • Longline Catch Monitoring

Form PL-1 • Pole-and-Line General Information

Form PL-2 • Pole-and-Line Daily Log

Form PL-3 • Pole-and-Line Catch Details

Form PS-1 • Purse-Seine General Information

Form PS-2 • Purse-Seine Daily Log

Form PS-3 • Purse-Seine Set Details

Form PS-4 • Purse-Seine Length Frequency

Form PS-5 • Purse-Seine Well Loading

Form GEN-1 • Vessel and Aircraft Sightings and Fish Transfer Log

Form GEN-2 • Vessel Reporting Compliance Log

Form GEN-3 • Vessel Trip Compliance Record

Form GEN-4 • Conversion Factors

SOUTH PACIFIC REGIONAL LONGLINE OBSERVER GENERAL INFORMATION

FORM LL - 1

REVISED SPC/FFA DEC. 1998

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

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

ELECTRONICS				
MARINE DEVICES	Y / N	MAKE	MODEL	COMMENTS
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 ?
DOPPLER CURRENT METER	Y / N			
BATHY THERMOGRAPH / XBT	Y / N			
SEA SURFACE TEMP. GAUGE	Y / N			
WIND SPEED / DIRECTION FINDER	Y / N			
WEATHER FACSIMILE	Y / N			
VMS (FFA TYPE-APPROVED)	Y / N			Seal intact ? Y / N
TELEPHONE / FACSIMILE	Y / N			Ph / Fax #:

FISHING GEAR		
		COMMENTS / OTHER GEAR
MAINLINE HAULER	Y / N	
BRANCH LINE HAULER	Y / N	
LINE SHOOTER	Y / N	
AUTOMATIC BAIT THROWER	Y / N	

MAINLINE MATERIAL (S) / DIAMETER (OR STRENGTH)	BRANCHLINE MATERIAL(S) / DIAMETER(S)
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GENERAL INFORMATION

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 Date and Time: } Print date using "day day/ month month / year year" format. } use SHIP'S TIME

Return Date and Time: } Print time using 24 hour "hour hour : minute minute" format.

(e.g. Print five past one on the afternoon of 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 how many of each different nationality on board.

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 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

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

Comments: Make a comment if the equipment is not working or is used in an unusual way.

VMS (FFA type-approved): Is there a "vessel monitoring system" or ALC "automatic location communicator" on

Seal intact? Does the FFA seal that is fixed to the VMS unit look like it has been interfered with ?

Telephone / Facsimile: If the vessel has an InMarSat phone and/or fax, record its phone and/or fax number.

Fishing Gear

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

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.

Mainline material / diameter (or strength): Describe all components

(e.g. 1: "tarred kuralon / 7mm")

(e.g. 2: "40m lengths of mono / 400lb. test, joined by 1m lengths of 8-strand braided polypropylene / 10mm")

Branchlines material(s) / diameter(s): Describe each part (usually there are one to three parts)

(e.g. "3-strand polypropylene / 3mm")

SET INFORMATION

NOTES ON FORM LL - 2

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

Observer Trip ID Number: Number issued by the authority you are working for. (e.g. John 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 the diagram at right.

Total No. of Baskets, Total No. of Hooks: These are the totals for the entire set.
(Total No. of Hooks = (Total No. of Baskets) × (No. of Hooks per Basket))

Length of Floatlines (m), Length of Branchlines (m): See the diagram at 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:

$$\text{Line Setting Speed} \times \text{Branchline Set Interval}$$

but may have to be obtained from the captain, fishing master or bosun if line setting speed and branchline set interval can't be found.

How many 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

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.

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.

Latitude, Longitude, N, S, E, W: Record GPS positions in degrees, minutes and minutes 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”)

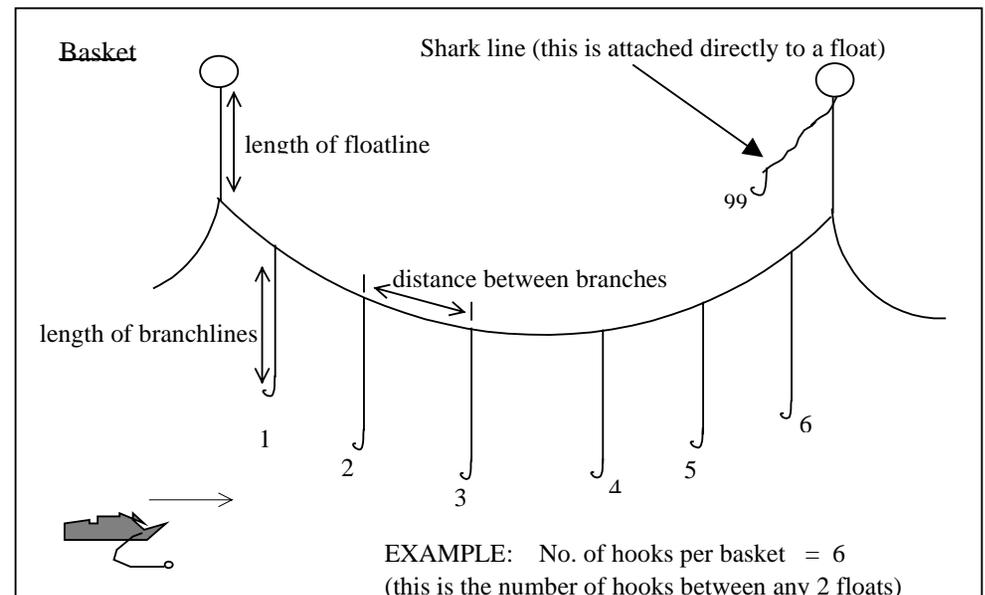
Sea (C-S-M-R-V): Sea conditions = Calm, Slight, Moderate, Rough, or Very Rough

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**”

Unusual Set Details: Note **any** feature not recorded in other fields. Especially note if branchline lengths are different or if setting speed changes during a set.



HAUL INFORMATION

OBSERVER NAME <i>JOHN MASA</i>	OBSERVER TRIP ID NUMBER <i>JHM 96-03</i>	SET No. <i>10</i>	PAGE OF <i>10</i> OF <i>29</i>
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This header should be filled in completely, as described in the notes for FORM 2.

VESSEL NAME <i>HAI HSLANG No. 959</i>	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
	<i>10</i>	<i>02</i>	<i>93</i>	<i>04</i>	<i>25</i>	<i>10</i>	<i>02</i>	<i>93</i>	<i>15</i>	<i>10</i>

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 <i>15 10</i>	<i>10°52.939'</i>	<i>N</i>	<i>152°37.140'</i>	<i>W</i>	<i>25</i>	<i>090</i>	<i>M</i>	<i>10</i>	Example of a comment: <i>Started one hour late due to problems hauling sea anchor.</i>
<i>16 00</i>									<p><i>Observer Name, Vessel Name and Observer Trip ID Number:</i> Always print each out in full.</p> <p><i>Set No.:</i> Number sets from start to end of trip as Set No. 1, Set No. 2, Set No. 3, etc.</p> <p><i>Page of:</i> Number Form LL-3's from the beginning to the end of a trip as Page 1, Page 2, Page 3, etc.</p> <p>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").</p> <p>Note: All dates and times on this form are to be Ship's date and Ship's time.</p> <p><i>Start of Set Date and Time</i> (Very important!) Exactly as on FORM LL-2 and FORM LL-3.</p> <p><i>Ship's Start of Haul Date and Time:</i> Date and time that first buoy is lifted on board.</p> <p><i>Comments:</i> Mention problems that cause delays in hauling and any other unusual events that affect fishing.</p>
<i>17 00</i>									
<i>18 05</i>									
<i>19 00</i>									
<i>20 10</i>									
<i>21 10</i>									
<i>22 00</i>									
<i>23 15</i>									
<i>00 05</i>									
<i>01 00</i>									
<i>02 00</i>									
END HAUL <i>02 10</i>	<i>10°54.139'</i>	<i>N</i>	<i>153°02.925'</i>	<i>W</i>	<i>135</i>	<i>10</i>	<i>S</i>	<i>10</i>	

Positions are to be recorded in degrees, minutes and to three decimal places of minutes, as read from the GPS. It is very important not to forget to mark **Latitude** as N or S and **Longitude** as E or W.

Wind speed recorded in knots. **Wind direction** recorded in degrees of compass (e.g. an easterly wind is 90°).

Cloud cover estimated as 10%, 20%, 30%, etc., to 100%

Approximately every hour record **position** and try to record environmental conditions

Sea: Calm
Slight
Moderate
Rough
or Very rough

See observer guide to sea conditions

Always record **START HAUL** and **END HAUL** positions and times

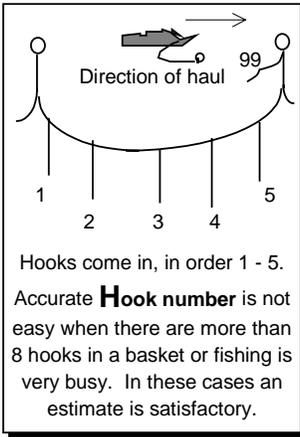
Start haul and **End haul**
You should fill every field on the first and last lines of the Haul Log at the start of hauling and at the end of hauling.

COMMENTS N.B. Use 24-hour clock when writing times. Use two digits for each of the 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 to make them into double

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		LENGTH		WEIGHT		FATE CODE	SEX M - F - I	COMMENTS
			CAUGHT	LET GO	(cm)	CODE	(kg)	CODE			
1720	1	BET	A1	A3	152	UF	85	WW	RGG	F	Gonad sample
*							72	GG			example of 2 *



Hook No: 99. All shark lines (on floats) are recorded as Hook No. 99

Weight codes describe the state of a fish when weighed.

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

* If possible weigh before and then again after processing. Put second weight and code on

Sex: M = male, F = female
I = indeterminate - this means you have inspected the gonad but cannot decide what it is. (maybe because it is immature). If you have not inspected gonads enter a stroke (—) or cross (X).

Empty column is to be used for extra information such as "gonad stage" to be collected when especially asked for.

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 .

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

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 or distressed
A3	Alive but dying
D	Dead

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

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

(measure pectoral and 2nd dorsal fin at most forward point that they join body)

Fate codes describe type of processing when fish are retained, or else why they were discarded.

Code	Description
RGG	- Retained - gilled and gutted (retained 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 (on board)
ROR	- Retained - other reason (specify)
DFR	- Discarded trunk - fins retained (sharks)
DGD	- Discarded - gear damage (tuna only)
DSD	- Discarded - shark damage
DWD	- Discarded - whale damage
DUS	- Discarded - uneconomic species
DDL	- Discarded - too difficult to land
DSO	- Discarded - rejected (struck off before landing)
DTS	- Discarded - too small (target species)
DPQ	- Discarded - poor quality
DPA	- Discarded - protected species - alive
DPD	- Discarded - protected species - 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.

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

Baskets observed. Count (tally) the baskets (floats) that come aboard as you monitor catch. If you stop for a meal, etc., note the time and reason on a line and fill in "Total"

Total number of baskets in bottom right-hand of the form when you leave deck. When you return start a new LL-4. Use 1st line to note time and why. For other stoppages (such as for gear problems) use 2 lines to note start and end of stoppage and why fishing stopped, then continue using the same

Baskets observed on this form:	Tally:	Total: 53
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SOUTH PACIFIC REGIONAL POLE AND LINE OBSERVER GENERAL INFORMATION

FORM PL - 1

REVISED BY SPC/FFA DEC., 1998

TRIP DETAILS

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

VESSEL

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)		TOTAL NUMBER OF CREW	
OBSERVATIONS / COMMENTS			

ELECTRONICS

MARINE DEVICES	Y / N	MAKE	MODEL	COMMENTS
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			How many ?
RADIO BUOYS - CALL-UP	Y / N			How many ?
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			
INMARSAT SYSTEM	Y / N			Phone number:
INMARSAT FAX	Y / N			Fax number:
SATELLITE / HF TELEX	Y / N			Telex number:
VMS (FFA TYPE APPROVED ALC)	Y / N			Seal intact ? Y N

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 Date and Time: Date and time that vessel let go of mooring ropes or hauled anchor to leave port.

Return 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: Make a comment if the equipment is not working or is used in an unusual way.

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

N.B. a VMS can also be referred to as an ALC (automatic location communicator).

Seal intact? Does the FFA seal that is fixed to the VMS unit look like it has been interfered with?

Telephone / Facsimile: If the vessel has a fax or phone, record its phone or fax number.

OBSERVERS DAILY LOG

NOTES ON FORM PL - 2

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

START OF DAY

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

ACTIVITY LOG

LATITUDE and LONGITUDE	Get this from the GPS and always record in degrees, minutes and minutes to 3 decimal places. This is how it is usually shown on the screen. If the GPS shows seconds instead of 3 decimal places of minutes, then record the seconds but note that you recorded seconds in the comments column.
Latitude	dd = degrees; mm = minutes; mmm = decimal minutes. If less than 10 degrees, always put zero in front of number (e.g.: "5" is written "05")
Longitude	ddd = degrees; mm = minutes; mmm = decimal minutes.
N/S and E/W	Check the GPS. This is very important! Never forget to record N, S, E or W beside the position.
ACTIVITY CODE	These codes are on the front. Only use one activity code at a time even if two codes seem to fit. Choose the best one.. If there are two possible activities for the same time, record the code for the main activity on the sheet, then comment on the other activity in the comments column.
(Activity Code "1")	"Spraying, Chumming or Poling" starts when the vessel starts trying to attract fish by chumming bait, using sprayers or other means "Spraying, Chumming or Poling" ends when no more fish are being caught and vessel starts searching for another school or starts another activity (new Activity Code). Small periods (minutes) of not fishing are common (when vessel moves to catch up with fish for example) and should not mark the end of a Code "1" period.
SCHOOL ASSOC.	The "SCHOOL ASSOCIATION" codes are used to show if the school with a floating object, a marine mammal or whale shark or is a free school. If it is a free school then the "SCHOOL ASSOCIATION" codes show if it is feeding on a school of baitfish (not the vessel's bait) or not associated with anything.
DETECT	Use "HOW DETECTED" codes to best describe how your boat found the fish. If more than one code fits use the one that describes the first thing that helped find these fish.
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., 1998

VESSEL NAME			OBSERVER NAME				OBSERVER TRIP ID NUMBER		PAGE OF				
SHIP'S DATE		SPRAYING, CHUMMING and POLING time:		START		FINISH		No. OF CREW POLING		MEASURING INSTRUMENT			
D	D	Y	Y	M	M	h	h	m	m	h	h	m	m
COMMENTS													

TARGET SPECIES					OTHER SPECIES							
SPECIES CODE	CATCH (mt)	NUMBER SAMPLED	LENGTHS (cm)		SPECIES CODE	CATCH		FATE CODE	NUMBER SAMPLED	LENGTHS (cm)		
			SUM OF	AVERAGE		(No.)	(mt)			SUM OF	AVERAGE	
SKJ												
YFT												
BET												

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	

ALB	Albacore	RRU	Rainbow runner	AMB	Greater amberjack	AML	Grey reef shark
KAW	Kawakawa	DOL	Mahi mahi	YTL	Amberjack (longfin yellowtail)	FAL	Silky shark
FRI	Frigate tuna	CNT	Ocean triggerfish	CXS	Bigeye trevally	BSH	Blue shark (blue whaler)
BLT	Bullet tuna	WAH	Wahoo	MSD	Mackerel scad	OCS	Oceanic white-tip shark
DOT	Doctooth tuna	COM	Spanish mackerel	LOB	Triple-tail	ALS	Silver-tip shark
LOT	Lonotail tuna	SHM	Shark mackerel	SWO	Swordfish	SHK	Sharks (unidentified)

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	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 102 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.
NUMBER SAMPLED	Write the total number that you measured for each species in the right boxes
LENGTHS	SUM OF - Add all the lengths for each species that you sampled and enter in the right boxes. AVERAGE - The average length of each species sampled (i.e.: the sum of lengths of each species divided by number of each species sampled. Round to nearest centimetre.
FATE CODE	Shows what happened to the fish. Most common fate codes are in the table below.

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.

Important points

Fate codes:

1	Spread your sampling throughout the entire fishing period.	RWW - Retained - whole weight
2	Always get a random sample.	RGG - Retained - gilled and gutted (kept for sale)
3	Do not let crew select fish for you even though they are trying to assist.	RCC - Retained - crew consumption (onboard)
4	Be sure to separately Identify Yellowfin and Big-eye when sampling	ROR - Retained - other reason (specify)
5	Do not measure damaged fish.	DTS - Discarded - too small
6	If using a deck tape, make sure fish is on the tape straight when measuring	DGD - Discarded - gear damage
7	If using a deck tape ensure the "0" end of the tape is placed against a flat surface or has a nose block.	DUS - Discarded - undesirable species
8	Record length to the nearest centimetre below down. E.g.: a 69.9 cm fish is recorded as 69 cm.	DOR - Discarded - other reason (specify)
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.	

**SOUTH PACIFIC REGIONAL PURSE SEINE OBSERVER
GENERAL INFORMATION**

**FORM PS - 1
(Page 1)**

REVISED SPC/FFA DEC. 1998

TRIP DETAILS

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

FISHING GEAR

POWER BLOCK: MAKE MODEL		POWER BLOCK: RATED POWER HAULING SPEED		DESCRIBE LENGTH / DIAMETER OF PURSE CABLE		
PURSE WINCH: MAKE MODEL		PURSE WINCH: RATED POWER HAULING SPEED				
MAX. NET DEPTH	M Y F	MAX. NET LENGTH	M Y F	NET - No. OF STRIPS	NET MESH SIZE OF MAIN SECTION CM IN	NET HANGING RATIO (%)
DESCRIBE ANY FEATURES OF THE NET YOU FEEL ARE UNIQUE (DIAGRAM NET ON BACK IF NECESSARY)				CAPACITY OF BRAILER mT	TYPE OF BRAILER	

ELECTRONICS, etc.

MARINE DEVICES	MAKE	MODEL	COMMENTS
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		How many ?
RADIO BUOYS (CALL-UP)	Y / N		How many ?
DOPPLER CURRENT METER	Y / N		
CURRENT METER	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		
INMARSAT SYSTEM	Y / N		Phone number:
INMARSAT FAX	Y / N		Fax number:
SATELLITE / HF TELEX	Y / N		Telex number:
VMS (FFA TYPE APPROVED ALC)	Y / N		Seal intact: Y / N

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 boat or speed boat used only as 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 the extra strong lights to attract fish around Fads/logs at night.
NET SKIFF ENGINE / HORSEPOWER	The make 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 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 cant see this on the block ask the captain, engineer or winch driver.
- RATED POWER	The power (torque) of the block, its safe working pulling power. There may a number of different units used on different nationality vessels. Make sure you record the units correctly.
- HAULING SPEED	The speed that the block is capable of hauling the net in perfect conditions. For this information ask the captain, engineer or winch driver.
DESCRIBE LENGTH & DIAMETER OF THE PURSE CABLE	The purses cable total length and the different lengths and diameters that make up the cable. Diameter is the thickness of the cable. A cable is made up of different lengths of different thicknesses. For example a cable with a total length of 2000 metres might be made up of two 300 metre end pieces of 22-millimetre cable and a middle section 1400 metres of 35-millimetre cable.
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.
- RATED POWER	The power that the winch can pull the purse wires in safely.
- HAULING SPEED	The speed that the winch can pull in the purse wires onto the drum of the winch.
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 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
NET HANGING RATIO %	This can also be different for a part of the net, all that is required is the average ratio used. You will not know this and will need to get this information from the Engineer.
CAPACITY OF BRAILER	The capacity in Metric Tonnes. Once known this figure will assist you to estimate the catch caught.
TYPE OF BRAILER	There are a couple of different brailers. One is like a butterfly or fish net and the other is a newer type using a net fixed at one end. The second method may be referred to as a Spanish brailer.

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 <i>Furuno GP500 GPS</i> : - <i>Euruna</i> is the brand (make), <i>GP500</i> is the model, <i>GPS</i> is what it is
BINOCULARS	In comments write how many of each power of binocular (e.g.: 2 x 8x50, 2 x 10x50 and 1 x 15x70)
COMMENT	Write any comments relative to the equipment or its use.

Well Storage Plan

WELL		Capacity (mT)	
No.	Port	Starboard	
1			
2			
3			
4			
5			
6			
7			
8			
9			
10			
11			
12			

Draw a line if the No.1 well is solit into two and record well capacity for both sides.

- All vessels have well storage set out in a pattern that suits the design of the vessel.
- Some vessels have one well up front of the boat (in the bow) and then the same number of wells on the port (left side) as they have on the starboard (right side).
- The wells are always numbered from the front to the rear.
- If there are two wells instead of one up front (bow), draw a line to split the No.1 well row into a port and starboard column, then show the (mT) capacity of the two wells.
- Place the Metric Tonne capacity in the columns that represent the port or starboard wells.
- The engineer or captain usually has a well layout and storage capacity plan which you can copy.
- Make sure the figures you enter are in Metric Tonnes.
- If there is an unusual arrangement of wells that makes it difficult to record on this table, then please draw the arrangement and attach it to your report.
- United States vessels normally report in Short Tons (though instructed to report in metric tonnes).
- Be sure you know what capacity units you are using.
- You may have to use the conversion table supplied to work out Metric Tonne capacity of each well.

BRINE	Show if each well is to be used to cool fish in brine (in a seawater and salt mix) by writing Yes or No
DRY	Show if each well can be used for dry storage (with no water or brine) of fish by writing Yes or No
COMMENTS	Write comments about the wells. This may include wells that have had fuel or fresh water stored in them before they are used for fish storage.
TEMPERATURE - OF BRINE WELLS " - OF DRY WELLS	Note temperature that the engineer keeps brine wells and dry wells at when fish are stored in them. Temperature is different for brine and dry wells. Circle °F or °C for degrees Fahrenheit or centigrade.
TOTAL CAPACITY OF VESSELS WELLS IN METRIC TONNES (MT)	Add all the well capacities and put the total figure in this space. Make sure you get Metric Tonnes not Short Tons. Use conversion tables.

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 given to immigration when they go to Port. It will have all the 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	Try to get this information from the crew if it is difficult to obtain put a dash in the column
NATIONALITY	The nationality should be available on the crew list. Pay particular attention to the nationality of any Pacific Islanders amongst the crew.
COMMENTS	Put 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	Total the number of crew being careful to not count some of the crew twice
<p>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.</p>	

COMMENTS OR DRAWING OF WELL PATTERN

OBSERVER'S DAILY LOG

NOTES ON FORM PS - 2

<p><i>Observer Name</i> and <i>Vessel Name</i>: 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><i>Observer Trip ID Number</i>: 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").</p>	<p><i>Page of</i>: Number Form PS-2's through trip as Page 1, Page 2, Page 3, etc. At end of trip check pages are all there (again). Put the last page number on every page (e.g. if there are 36 pages then the first page will be "Page 1 of 36", the fourth page, "Page 4 of 36" and the last page will be "Page 36 of 36").</p>
<p><i>Ships Time</i>: 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><i>Latitude, Longitude, N, S, E, W</i>: 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><i>EEZ Code</i>: Place the code for the EEZ (on back of Form GEN-2) 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><i>Wind (kts) (°)</i>: If reading from a wind meter adjust to make up for moving vessel. 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) or close enough.</p> <p><i>Sea conditions (C-S-M-R-V)</i>. 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><i>Beacon / payao #</i>: 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><i>Start of day</i>: 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><i>Ship's Date</i> and <i>Ship's Time</i>: 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><i>UTC Date</i> and <i>UTC Time</i>: 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><i>Floating object and school sightings</i>: 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><i>Tally</i>: Mark with a stroke every time you sight something (see example on front)</p> <p><i>Total</i>: Add up the "tally" strokes at the end of the day to get the total.</p>	<p><i>Activity and Helicopter Codes</i>: 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><i>School assoc</i> and <i>detect codes</i> should be used whenever activity code "1", "8" or "9" is used.</p> <p><i>School Assoc.</i>: 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><i>School Detect.</i>: 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><i>Did you Observe any Events that require Form Gen -3</i> Circle Yes if any infringements, as listed on Form GEN - 3, were observed. Write notes on the incident in Form GEN-3 and you diary. If there was no incident for the day circle No.</p>

PURSE SEINE LOG - SET DETAILS

Notes on FORM PS-3

DETAILS

OBSERVER NAME	First name first. - Last name last. - Make sure to <u>print</u> .- I.e. <i>John Smith not Smith John</i>
VESSEL NAME	Vessels full name, no abbreviations, <i>for example a vessel with the name "Captain Paul John Smith" should not be abbreviated to Capt. P.J. Smith.</i>
PAGE OF	Number each PS-3 form in order of use, continue until trip is completed. The last page number will be number for the "of" field. <i>For Example, if a total of 46 PS -3's forms were used during a trip, the 16th page used would be written as page 16 of 46.</i>
OBSERVER 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.
START OF DATE AND TIME(SEE PS-2)	The exact date and time that you have recorded for this set on your PS-2 form
START OF SET DATE AND TIME (VESSEL LOG)	The exact date and time that the vessel has recorded for this set in their Regional Purse Seine Log Sheet.

SET SEQUENCE

BEGIN SET (SKIFF OFF)	This will be same time as recorded on PS-2 for this Set. It is also a duplication of the time recorded in the "Detail" section of this form. Make sure it is exactly the same.
BEGIN PURSING (WINCH ON)	The net and purse wires have been released or set around the fish, record the time the winch starts to haul the purse wires back into the vessel.
END PURSING (RINGS UP)	During the winching, a bunch of rings will come on board. This indicates the net has enclosed the fish and they can not escape. When the rings appear - record the time.
BEGIN BRAILING	Record the time when the first brailer starts to haul fish from the net to the vessel. If no fish are caught place a dash in this box.
END BRAILING	Record the time when all fish have been brailed from the net. (Dash if no fish Caught)
END SET (SKIFF ON - BOARD)	Record the time when the net skiff comes aboard the vessel after the haul.
BRAILS BROUGHT ON BOARD	Count the number of - Full - ¾ - ½ -¼ brails that you observe coming on board the vessel
SUM OF ALL BRAILS	Add up all the Brails and put total in this box. <i>For Example, if you observe 4 full brails, 2 half brails, 4 quarter brails this would add up to 6 full brails</i>

SKJ – YFT - BET

SPECIES CODE (SKJ – YFT – BET)	Only enter, the three Tuna species SKJ – YFT- BET in this column, if they are caught.
FATE CODE	Fate codes can be found at the bottom of the Form. The codes describe what happens to Tuna and other species after they have been brailed from the net. Most retained Tuna Species on a purse-seiner will have the code <i>RWW</i> . If the Tuna Species is discarded (thrown away) make sure you record the reason. <i>I.e. Damaged DGD -To Small, DTS, etc.</i>
CATCH (MT) (OBS)	Estimate in MT, the amount of each Tuna Species retained and or discarded in the set.
CATCH (MT) (VESSEL)	Copy the figures recorded by the vessel from the Vessel Logs for this Set. Do not change your figures or tell the Vessel to change their figures if they don't agree with your estimates. All weights must be written as MT. (Metric Tons) <i>(For Example 200kg is .2 MT)</i>

OTHER SPECIES

Species Code	Enter every species observed other than SKJ – YFT – BET in this Column.
Fate Code	Using codes at bottom of the Form. Enter the Fate (what happens) of each Species.
Catch (MT)	Estimate the total weight of each species caught in Metric tons. <i>For example you estimated that 300 kg of Mahi Mahi and 40 kg of Wahoo was caught. You would record .3 MT for the Mahi Mahi and .04 MT for the Wahoo.</i>
Number of Fish	Record number of fish of each species observed that were not SKJ – YFT – BET. If large amounts estimate number if possible, making sure you record estimate catch weight.
Vessel Log	Copy the figures recorded by the vessel from the Vessel Logs for this Set. Place a Zero in the column if they have not recorded the species.

Did any SKJ – YFT – BET Escape During the Set	Circle (Y) if you are sure a significant amount of Tuna Species escaped during the Set or (N) if none escaped.
If YES, Estimate Percentage Escaped	This is difficult if not impossible, however one way could be to ask the Captain what amount of fish he thinks is in the school before or when he makes the Set. You could use this as a figure to estimate percentage after they have brailed the fish on board and you know the amount caught. <i>For Example, if the Captain estimates that there is about 100 ton in the school before the Set, and you only Brail 50 ton on board the vessel. It could be assumed that 50% had escaped.</i>
Were there any Discards of SKJ – YFT - BET	Circle (Y) if any Tuna were discarded after being Brailed on board, Make sure you have recorded the reason (Fate Code) and Amount (Catch OBS) in the SKJ –YFT – BET column.
How many Species other than SKJ – YFT – BET were caught	Count the number of Other Species caught. <i>For Example if Wahoo, -Scad, and Trevally were caught and recorded in the Other Species Column, you would put 3 in this box.</i>

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 Number, - Species of Fish, - Measure the Appropriate Length (with Tuna it is Upper Jaw to Fork Length) - Weigh the fish if possible and cut it open

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
DATE	TIME	DATE	TIME	12	11	10	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	10	11	12	TOTAL	CUMUL. TOTAL		
03/03	0530	03/02	0600		40																						70	70		
04/03	0545	No							8																		8	78		
05/03	0840	04/03 } 1500							12																		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																						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 from Lady Mac																										
15/03		15/02					50																		32		82	371	(because it is full)	
17/03							(-40)																		(-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.

CONVERSION FACTORS

OBSERVER NAME <div style="border: 1px solid black; padding: 2px; width: fit-content;">This header should be filled in completely</div>	MEASURING INSTRUMENT <i>e.g.: SPC 1.5 m Aluminium calipers</i>	OBSERVER TRIP ID No. <i>eg: JMA 97-03</i>	PAGE OF This is page 7 → 7 / 19
VESSEL NAME	MAKE, MODEL AND CAPACITY OF SCALES <i>e.g.: Salzer 100kg dial-faced spring scales</i>	Don't forget !	Total Form 5's used in the trip was 19

DETAILS OF WEIGHTS AND MEASUREMENTS COLLECTED																			
SHIP'S SET START DATE & TIME		SHIP'S TIME	SPECIES CODE	LENGTHS (in cm.)						WEIGHTS (in kg.)				PROCESSED WGT. (kg.)		LABEL No.	LANDED WEIGHT (kg.)		COMMENTS
DATE	TIME	TIME	CODE	UF	US	LF	PF	PS	TL	WHOLE	HEAD	TAIL	GUTS	(kg.)	CODE	No.	(kg.)	CODE	
28/11/96	1150	1720	BET	152	124	—	—	98	—	—	—	4	9	72	GG	27	70	GG	<i>An example</i>

Ship's date and time for start of set must be recorded whenever you start to include fish from a different set.

Record exactly as on Forms LL-2, LL-3 and LL-4.

However there is no need to start a new Form LL-5 for each set

Time when a specimen is brought on board and
Species 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.

N.B.

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 10 kg.

Tunas: Include removed gills with guts when weighing
Billfish: Include removed bills with guts when weighing

Label No.:
When you are unable to get **WHOLE or PROCESSED WGT.** on board attach a label inside the mouth or gut cavity of the fish so that you can track it when it comes to shore and record the **LANDED WEIGHT.**

Even when you can record processed weight on board, still use labels and record landed weight of fish as recorded at unloading

Weight codes describe the state of the fish when weighed.
Code Description
WW Whole weight
GG Guttled and gilled
GH Guttled and headed
GT Guttled, gilled and tailed
GX Guttled headed and tailed
GO Guttled only (ails left in)

Important

Page of (top right-hand corner): Number Form LL-5's consecutively as Page 1, Page 2, etc. At end of trip count all Form LL-5's then put the total after "of " on each and every Form

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.

APPENDIX 6. SOUTH PACIFIC REGIONAL UNLOADING AND PORT SAMPLING FORMS

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

Notes on **LONGLINE UNLOADING FORM**

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

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

GENERAL INFORMATION

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

UNLOADING 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 AT REGIONAL FORMS COMMITTEE DEC 1998

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:											
D	D	M	M	Y	Y	D	D	M	M	Y	Y	D	D	M	M	Y	Y
FISHING AREA		FROM LATITUDE		N	TO	S	FROM LONGITUDE		E	TO	W	LONGITUDE		E	W		

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

N.B.: CIRCLE "Y" OR "N" TO ANSWER	RECORD COUNTS OF FISH NOT SAMPLED and other COMMENTS				
WERE ALL THE YFT, BET AND ALB UNLOADED AND ALL SAMPLED ?	Y	N	Eg: <i>FSH</i> 1 = 6		
WERE ALL SWO, MLS, BLZ, BLM AND SFA UNLOADED AND ALL SAMPLED ?	Y	N			

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

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

NOTES ON LONGLINE PORT SAMPLING FORM

PORT:			SAMPLER:			ASSISTANT:			PAGE OF	
VESSEL NAME:			COUNTRY OF REGISTRATION:							
DATE - START OF TRIP: (DEPARTED PORT)			DATE - END OF TRIP: (ARRIVED IN PORT)							
FISHING AREA			FROM LATITUDE			TO LATITUDE			FROM LONGITUDE	

PAGE OF Number pages out of the total used to sample each boat.
 If one page is used per boat that page must be "PAGE 1 OF 1".
 If three pages, they are "PAGE 1 OF 3", "PAGE 2 OF 3", "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.

Country of Registration (flag) and Registration Number
 The country in which the vessel is registered and the registration

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

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

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

Weight: (kg) must be recorded to nearest kilogram (e.g. 58.7kg is written as 59kg)
 See "Weight Codes" on front of form.

- Species**
- | | |
|--------------------|------------------------------|
| Code | Common Name |
| YFT | Yellow fin |
| BET | Bigeye |
| ALB | Albacore |
| SKJ | Skipjack |
| MLS | Striped marlin |
| BLZ | Blue marlin |
| BLM | Black marlin |
| SWO | Swordfish |
| SFA | Sailfish |
| SSP | Short-billed spearfish |
| MAK | Mako sharks |
| FAL | Silky shark |
| DOL | Mahimahi |
| RRU | Rainbow runner |
| LAG | Opah |
| WAH | Wahoo |
| COM | Spanish mackerel |
| TST | Sickle pomfret |
| Group codes | |
| BRZ | Breams and pomfrets |
| BIL | Marlins, spearfish, sailfish |
| SHK | Sharks |
- N.B. Avoid using group**

- Country codes:**
- AU - Australia
 - EU - Europe
 - HK - Hong Kong
 - HI - Hawaii
 - JP - Japan
 - NZ - New Zealand
 - TW - Taiwan
 - US - Mainland US

The "Other" column at far right is for extra information you may be asked to collect. E.g.: an extra measurement for conversion factor purposes

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

Typical example of an entry for yellowfin landed for export to Japan

25	YFT	125	UF	56	GG	JP
----	-----	-----	----	----	----	----

N.B.: CIRCLE "Y" OR "N" TO ANSWER		RECORD COUNTS OF FISH NOT SAMPLED and other COMMENTS	
WERE ALL THE YFT, BET AND ALB UNLOADED AND ALL SAMPLED ?	(Y) N	Eg: FSH = 6 DOL = 3 FAL = 4 MAK = 6	TST = 7 Comment e.g.: <i>When asked why no marlin unloaded the Captain said it was unloaded to Grabit Co., Fichtown on 2nd of March</i>
WERE ALL SWO, MLS, BLZ, BLM AND SFA UNLOADED AND ALL SAMPLED ?	Y (N)		

* example

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" in the situation where several fish are being kept on board

NUMBER	YFT	BET			
SUM LENGTHS					
SUM WEIGHTS					

Number. (Port sampler should always add these)
Sum of Lengths and Sum of Weights
 (Adding these is optional for port samplers. Results are used by staff who enter data into computers, to check that they have made no mistakes)
 Only add up for each species recorded on this form. Don't include

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 (Carrier Vessel / Cannery / Cool Store)

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

CARRIER VESSEL'S DETAILS

FLAG	The county that the vessel is registered in (also called Vessel Nationality)
REGISTRATION No.	The registration number of the fishing vessel given by the FLAG country
SHIPPING COMPANY	The name of the shipping company that owns or charters the carrier to load fish
CAPTAIN	The full name of the Captain of the carrier vessel
PERMIT No.	The number of the permit under which the carrier is allowed to tranship fish in this port
DESTINATION	The final destination for the fish on board the carrier

FISH ON BOARD or FISH FROM COOL STORE

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

PORT OF LOADING / COOLSTORE NAME	Name of port where the fish that is already on carrier was picked up or Name of the coolstore that is loading fish on to the carrier in this port
LOADING DATES (of previous fish or cool store fish on to carrier)	
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 YFT and BET species weights (mT) of fish 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 county that the unloading vessel is registered in (also called Vessel Nationality)
REGISTRATION No.	The registration number of the unloading vessel given by the FLAG country
TRIP DATES	START Start of the fishing trip that has just finished catching fish for this unloading END End of fishing trip that has just been completed (day of arrival in this port)

WEIGHT OF EACH SPECIES (kg)

SKJ, YFT, BET	The amount (kilogrammes) of skipjack, yellowfin and bigeye loaded on to the carrier vessel.
YFT / BET, SKJ / YFT / BET	- Use only when separate YFT and BET species weights (kg) of fish being loaded are not known.
OTHER Sp.	The amount (kilogrammes) 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 (kilogrammes) loaded on to carrier vessel

FULL OR PARTIAL UNLOAD	If fishing vessel unloads all fish write "FULL" unloading If fishing vessel only unloads some of its catch write "PARTIAL" unloading
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- 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.

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 BY SPC/FFA DEC. 1998

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

SET DETAILS (to be obtained from Vessel Logsheets)

MONTH	DAY	LATITUDE ddmm.mmm	N S	LONGITUDE dddmm.mmm	E W	SCHOOL ASSOC.	SET START TIME	SKIPJACK WEIGHT	YELLOWFIN WEIGHT	BIGEYE WEIGHT	OTHER SPECIES NAME	WEIGHT	WELL NUMBERS

SAMPLING STRATEGY (very important)

Please tick correct box		RANDOM SPECIES - species composition and length frequency samp
		NON-RANDOM SPECIES - length frequency sample only

N.B. Record all weights in metric tonnes (MT)

SAMPLED WELL

WELL NUMBER:	
WEIGHT OF FISH IN WELL:	

SPECIES and LENGTH DATA

SPECIES CODE	LENGTH										
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

Some boats (especially Taiwanese) can be hard to identify so be very careful to get the correct vessel registration.

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 TROLL VESSEL PORT SAMPLING FORM

REVISED SPC/FFA DEC 1996

PORT:			SAMPLER:			ASSISTANT:			PAGE OF										
VESSEL NAME:			COUNTRY OF REGISTRATION:			REGISTRATION NUMBER:													
DATE AT START OF TRIP: (DEPARTED FROM PORT)			D D	M M	Y Y	DATE AT END OF TRIP: (ARRIVED IN PORT)			D D	M M	Y Y	DATE OF SAMPLE:							
FISHING AREA: FROM LATITUDE				N	TO LATITUDE				N	FROM LONGITUDE				E	TO LONGITUDE				E
				S					S					W					W

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 <u>one</u> page is used in a session that page should be "PAGE 1 OF 1", but <u>three</u> 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 DATE AT END OF TRIP DATE AT END OF TRIP DATE OF SAMPLE	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. 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.