



# Regional Tuna Data Template

*Guidelines for the establishment of procedures and strategies to support the collection, management and dissemination of tuna fishery data in Pacific Island Countries and Territories*

*“Good data, good decisions”*

Version 2.0 - September 2008

### Introduction

The continuous collection of quality tuna data provides decision-makers, both in their regional and national domains, with the tools they require to monitor fishery performance indicators (resource, economic returns, social impacts, etc) and the ability to quickly gauge the impact of current policies. More specifically, at the national level, the availability of quality tuna data allows countries to better manage their own country's fishery and supports their efforts to strive towards maximum sustainable benefits for their country.

This 'Regional Tuna Data Template' outlines the current obligations, the regional standard approach and best practices for establishing or reviewing tuna data collection, management and dissemination procedures in Pacific Island Countries and Territories (PICTs). An important function of this template is the guidance it will give to producing national tuna data template documents. These documents will outline in greater detail the in-country procedures for the collection, management and dissemination of tuna fishery data at the national level. This regional template can also serve as a reference guide for persons [involved in different aspects of tuna work], who are curious about what data are currently collected on the fishery.

It is likely that tuna data collection requirements will change with time, and therefore further editions of this document will be required. The document date and version is noted on the cover page.

### Global, regional and national data obligations

As a first approach as to what tuna data should be collected some consideration should be given to an initial review of any preceding data obligations that are contained within global or regional fishery agreements. By meeting such obligations countries may find that they have already gone a long way towards collecting much of the data they would identify as a requirement for their own national needs.

Global and regional fishery agreements frequently emphasise the precautionary approach. The precautionary approach puts the onus on managers to demonstrate that the fishery can sustain any proposed fishery limits, or lack of, and urges caution when fishery indicators are unknown or unclear. This approach in itself can be seen as being sufficient motivation to collect good quality tuna data. The 1982 United Nations Convention on the Law of the Sea (1982 Convention), and 1995 United Nations Fish Stocks Agreement are both legally binding agreements which employ the precautionary principle. The precautionary approach is also emphasised in FAO's 'Code of Conduct for Responsible Fisheries' and FAO's Compliance Agreement.

The 'Convention on the Conservation and Management of Highly Migratory Fish Stock in the Western and Central Pacific Ocean' came into effect in June 2004. This Convention requires members of the Western and Central Pacific Fisheries Commission (WCPFC) to cooperate in accordance with the 1982 Convention and 'apply the precautionary approach and thus employ effective data collection and research programmes to assess the impact of fishing' {article 5 (c)} as well as outlining the need to 'collect and share, in a timely manner, complete and accurate data concerning fishing activities on, inter alia, vessel position, catch of target and non-target species and fishing effort, as well as information from national and international research' {article 5 (i)}.

Managing data on revenue obtained from licensing foreign fleets is an important requirement at the national level. Additional national tuna data requirements will often be required in the area of economic and social indicators. Relevant country specific reports can offer guidance as to what, if any, supplementary national tuna data may be required. National reports which can be referred to for guidance include national legislation, tuna management plans, national plans of action for species of special interest and SPC's national fishery status reports. Furthermore, due to their varied nature, some extra reflection on the best practices for the collection of data from artisanal or sport fishing vessels may be required.

## Establishing Data Collection Programmes

Data collection programmes are best supported by legally enforceable provisions for data collection clearly described in the terms and conditions of the licensing arrangement/agreement. Reference to data provisions in licensing conditions should be broad enough to allow for the revision or the addition of new data forms or data parameters during the term of the licence. It is also suggested that penalties for the non-submission, mis-reporting, under-reporting or low standard of reporting should be addressed in the licensing and/or access conditions.

Additionally, a number of administrative issues should be taken into consideration when first establishing or reviewing data collection programmes;

- ❑ Human resources (The number of staff required will usually be related to vessel activity, for example, the number of vessels licensed and the number of projected unloadings. Staff are required for both field work (e.g. port sampling and observer data collection), and for the receipt, entry, transfer, storage and dissemination of the data.
- ❑ Capital expenditure (office space, computers)
- ❑ Recurrent expenditure (transport, postage, internet connection, stationary etc)
- ❑ Sustainability of funds The WCPFC Convention recognises that many '*smaller island developing States have unique needs which require special attention and consideration in the provision of financial, scientific, and technological assistance*'. Funds have been made available<sup>1</sup> to help PICTs meet the costs of tuna data collection. The long term objectives, however, remain that the PICTs will become self-sufficient in funding their tuna data needs with the resources they gain from the tuna fishery.

All vessels actively targeting tuna in the country's Economic Exclusive Zone (EEZ) should be covered by the data collection programme. This includes all foreign and domestic vessels and all artisanal and sport fishing boats.

## Standardisation of Data Collection for PICTs

The Scientific Committee (SC) of the WCPFC recommends the data standards and outlines the required data parameters for the WCPFC. These data standards are further formatted and enhanced into data forms by the SPC / FFA Tuna Fishery Data Collection Committee. This committee, which is made up of staff from Secretariat of the Pacific Community (SPC), Forum Fisheries Agency (FFA) and invited participants from PICTs, designs standardised data collection forms for use by SPC and FFA member states. The committee generally meets every two years and reviews, and when necessary revises, these regional standard forms. The use of these forms in bilateral and sub-regional licensing agreements has meant that currently they are now standard forms covering the data collection activities for most vessels fishing in the WCPO region. The most current forms are always available from SPC's website: <http://www.spc.int/oceanfish/Html/Statistics/Forms/index.htm>

The types and functions of data collected in tuna fisheries throughout the region are described in APPENDIX 1.

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<sup>1</sup> The Oceanic Fisheries Management Project, funded by the Global Environment Facility (GEF), intends to support data collection capacity building and administration in PICTs until 2010.

## Data Management

Data in their raw state are rarely used for policy-making. Managing and processing primary data are necessary to render data useful and accessible to potential users. Data collection is an ‘investment’ into the fishery and the management of data can be seen as protecting and enhancing that investment. Data management ensures that data are; stored in an efficient form, of the highest quality, are consistent across data systems, are complete, accessible and secure.

It is recommended that countries consider ‘best practice’ when managing data. The main components of best practice are:

- Accuracy (A measure of how well the data represents the true values)
- Effectiveness (The likelihood that the desired objectives are achieved)
- Efficiency (The ratio of output to input)
- Reliability (Consistency of reporting)
- Accessibility (Ease of access for users)
- Transparency (Documented procedures)
- Timeliness (On-time collection, management and reporting of data)
- Relevance (The collected data is useful)

Data Security is an essential part of data management and it is used to protect organisations from adverse impact on their reputation and operations that could result from failures of:

- ❑ **Data Confidentiality** - in the context of access or disclosure of the information without authority;
- ❑ **Data Integrity** - in the context of completeness, accuracy and resistance to unauthorized modification or destruction;
- ❑ **Data Availability** - in the context of continuity and the business processes and for recoverability in the event of a disruption.

Data Security procedures in member countries offices will be guided by the Information Security Plan to be implemented by the WCPFC Secretariat in the near future.

## Data Dissemination

Ad-hoc sporadic requests, regular internal reporting, updating industry and the annual ‘Fishery Report’ submission to the Scientific Committee of the WCPFC will dominate tuna data dissemination for PICTs. Most reporting needs are expected to be met by database query tools (e.g. Catch and Effort Query System (CES) and the ‘TUFMAN’ database system). The user manuals for these systems outline in detail the procedures that need to be undertaken before reports are produced (verification, cross-checking etc). Guidelines for the preparation of Fishery Reports are circulated by the Scientific Committee before the SC.

An important data dissemination task by member countries is the annual provision of data to the WCPFC. Recommendations outlined in the report of the first Scientific Committee meeting (SC1) of the WCPFC document the responsibilities of the flag and coastal states when it comes to provision of data to the Commission as well as the timing of the provision of the data. The full recommendation along with recommendation SC1-ST-2 “Standards for the Provision of Operation Catch and Effort Data to the Commission” is attached as APPENDIX 2.

## References

Oceanic Fisheries Programme. 2003. Capacity of Pacific Island countries and Territories to Meet the Likely Data Requirement of the Western and Central Pacific Fisheries Commission. Proceeding from Working Group II of the WCPFC Preparatory Conference, Fifth Session, Rarotonga, Cook Islands 29 Sept – 2 Oct, 2003.

FAO. 1998. Guidelines for the Routine Collection of Capture Fishery Data. Prepared at the FAO / Danida Expert Consultation, Bangkok, 18-30 May 1998.

Convention on the Conservation and Management of Highly Migratory Fish Stocks in the Western and Central Pacific Ocean. Forum Fisheries Agency. (2004)

Report Of The First Regular Session Of The Scientific Committee Of The Commission For The Conservation And Management Of Highly Migratory Fish Stocks In The Western And Central Pacific Ocean. Noumea, New Caledonia 8 to 19<sup>th</sup> August 2005.

Ocean Studies Board. 2000. Improving the Collection, Management and Use of Marine Fisheries Data. Ocean Studies Board, Commission on Geosciences, Environment and Resources. National Research Council.(2000). ISBN 0-309-50154-7.

## **National Tuna Data Procedures**

*Guidelines for the establishment of procedures and strategies for the collection, management and dissemination of tuna fishery data at the national level.*

### ***Using these Guidelines***

The sections listed below correspond to the sections that will appear in the *National Tuna Data Procedures Document*. These guidelines are to be used by the author(s) of the *National Tuna Data Procedures Document* to ensure that all necessary procedures and strategies for the collection, management and dissemination of tuna fishery data have been documented – in effect, these guidelines act as a “checklist” of items that should be included in the *National Tuna Data Procedures Document*.

### **Establishing the Data Collection Programme**

- Reviews the human resources requirements
- Establishes the capital expenditure requirements (office space, computers)
- Itemises recurrent expenditure requirements (transport, postage, internet connection, stationary etc)
- Considers the sustainability of funding

### **Regional Obligations**

- Lists any regional agreements the country is a signatory to

### **National Obligations**

- Refers to any national legislation which include any legal provisions for data collection which is relevant to the tuna fishery.

### **National Reference Documents**

- Refers to any other national reports which may impact on or give guidance to tuna data collection

### **Preparation for Licensing Agreements Section**

- Lists reports to prepare before licensing agreements
- Lists procedures to prepare annual catch estimates

### **Data Coverage**

- Lists the types of vessels covered by the tuna data collection system
- States the national choice for 'base' data
- Describes the history of licensing tuna fishing vessels in the country

The following data sections are the main data collection areas. Additional data types can be added to the National Tuna Procedures Document as and when required.

## Regional Tuna Data Template

## **Fisheries Licensing Data**

### ***1. Data Collection System***

1. Describes the role and the function of the 'Fisheries Licensing' data
2. Refers to any national or regional agreements limiting the number of licenses
3. Refers to any national or regional management measures that may restrict the terms of licences or the fishing period.
4. States national and regional requirements to obtain licences and notes the licensing periods.
5. States the required coverage level and the schedule for provision
6. Refers to any legal provisions for the collection of this data and penalties for non-compliance
7. Notes entities responsible for recording and collecting the data
8. States the contact details for persons tasked with collection and submission
9. Ensures quality control takes place
10. Describes collection methods
11. States any collection resource material.
12. Refers to the form version currently in use.

### ***2. Data Management System***

#### *Collection Management*

1. Describes any data registry systems.
2. Outlines procedures to identify and follow-up on any non-submission of data
3. Ensures pre-data processing takes place
4. Describes hard-copy filing procedures.
5. Ensures collection feedback procedures are in place for staff and industry

#### *Data Management*

6. Makes reference to the section on "General Data Management" procedures.
7. Describes the integrated database system used, including existence of
  - Data processing and a summary of quality control checks
  - Post-data entry processing
  - Reports checking coverage of licensing data against "Base" data
8. Notes persons responsible for data management system procedures.
9. States the time-frame for the data management system procedures.

### ***3. Data Dissemination System***

1. Makes reference to the section on "General Data Dissemination" procedures.
2. Outlines the procedures for the dissemination (reporting) of licensing data only

### ***4. Lessons Learnt***

1. Records any current issues and lessons learnt for licensing data

## Regional Tuna Data Template

## **Vessel Monitoring System (VMS) Data**

### ***1. Data Collection System***

1. Describes the role and the function of the ‘VMS’ data
2. States the required coverage level and the schedule for provision
3. Refers to any legal provisions for the collection of this data and penalties for non-compliance
4. Notes entities responsible for recording and collecting the data
5. States the contact details for persons tasked with collection and submission
6. Ensures quality control takes place
7. Describes collection methods
8. States any collection resource material.
9. Refers to the form version currently in use.

### ***2. Data Management System***

#### *Collection Management*

1. Describes any data registry systems.
2. Outlines procedures to identify and follow-up on any non-submission of data
3. Ensures pre-data processing takes place
4. Describes hard-copy filing procedures.
5. Ensures collection feedback procedures are in place for staff and industry

#### *Data Management*

6. Makes reference to the section on “General Data Management” procedures.
7. Describes the integrated database system used, including existence of
  - Data processing and a summary of quality control checks
  - Post-data entry processing
  - Reports checking coverage of VMS data against “Base” data
8. Notes persons responsible for data management system procedures.
9. States the time-frame for the data management system procedures.

### ***3. Data Dissemination System***

1. Makes reference to the section on “General Data Dissemination” procedures.
2. Outlines the procedures for the dissemination (reporting) of VMS data only

### ***4. Lessons Learnt***

1. Records any current issues and lessons learnt for VMS data

## Regional Tuna Data Template

## **Other MCS Data**

### ***1. Data Collection System***

1. Describes the role and the function of the ‘other MCS’ data
2. States the required coverage level and the schedule for provision
3. Refers to any legal provisions for the collection of this data and penalties for non-compliance
4. Notes entities responsible for recording and collecting the data
5. States the contact details for persons tasked with collection and submission
6. Ensures quality control takes place
7. Describes collection methods
8. States any collection resource material.
9. Refers to the form version currently in use.

### ***2. Data Management System***

#### *Collection Management*

1. Describes any data registry systems.
2. Outlines procedures to identify and follow-up on any non-submission of data
3. Ensures pre-data processing takes place
4. Describes hard-copy filing procedures.
5. Ensures collection feedback procedures are in place for staff and industry

#### *Data Management*

6. Makes reference to the section on “General Data Management” procedures.
7. Describes the integrated database system used, including existence of
  - Data processing and a summary of quality control checks
  - Post-data entry processing
  - Reports checking coverage of other MCS data against “Base” data
8. Notes persons responsible for data management system procedures.
9. States the time-frame for the data management system procedures.

### ***3. Data Dissemination System***

1. Makes reference to the section on “General Data Dissemination” procedures.
2. Outlines the procedures for the dissemination (reporting) of other MCS data only

### ***4. Lessons Learnt***

1. Records any current issues and lessons learnt for other MCS data

## Regional Tuna Data Template

## **Fishing Trip and Port Visit Log**

### ***1. Data Collection System***

1. Describes the role and the function of the ‘Fishing Trip and Port Visit Log’ data
2. States the required coverage level and the schedule for provision
3. Refers to any legal provisions for the collection of this data and penalties for non-compliance
4. Notes entities responsible for recording and collecting the data
5. States the contact details for persons tasked with collection and submission
6. Ensures quality control takes place
7. Describes collection methods
8. States any collection resource material.
9. Refers to the form version currently in use.

### ***2. Data Management System***

#### *Collection Management*

2. Describes any data registry systems.
3. Outlines procedures to identify and follow-up on any non-submission of data
4. Ensures pre-data processing takes place
5. Describes hard-copy filing procedures.
6. Ensures collection feedback procedures are in place for staff and industry

#### *Data Management*

7. Makes reference to the section on “General Data Management” procedures.
8. Describes the integrated database system used, including existence of
  - Data processing and a summary of quality control checks
  - Post-data entry processing
  - Reports checking coverage of Annual Vessel Trip Log data against “Base” data
9. Notes persons responsible for data management system procedures.
10. States the time-frame for the data management system procedures.

### ***3. Data Dissemination System***

2. Makes reference to the section on “General Data Dissemination” procedures.
3. Outlines the procedures for the dissemination (reporting) of Annual Vessel Trip Log data only

### ***4. Lessons Learnt***

1. Records any current issues and lessons learnt for Annual Vessel Trip Log data

## Regional Tuna Data Template

## **Observer Data**

### ***1. Data Collection System***

1. Describes the role and the function of the ‘Observer’ data
2. States the required coverage level and the schedule for provision
3. Refers to any legal provisions for the collection of this data and penalties for non-compliance
4. Notes entities responsible for recording and collecting the data
5. States the contact details for persons tasked with collection and submission
6. Ensures quality control takes place
7. Describes collection methods
8. States any collection resource material.
9. Refers to the form version currently in use.

### ***2. Data Management System***

#### *Collection Management*

1. Describes any data registry systems.
2. Outlines procedures to identify and follow-up on any non-submission of data
3. Ensures pre-data processing takes place
4. Describes hard-copy filing procedures.
5. Ensures collection feedback procedures are in place for staff and industry

#### *Data Management*

6. Makes reference to the section on “General Data Management” procedures.
7. Describes the integrated database system used, including existence of
  - Data processing and a summary of quality control checks
  - Post-data entry processing
  - Reports checking coverage of Observer data against “Base” data
8. Notes persons responsible for data management system procedures.
9. States the time-frame for the data management system procedures.

### ***3. Data Dissemination System***

1. Makes reference to the section on “General Data Dissemination” procedures.
2. Outlines the procedures for the dissemination (reporting) of Observer data only

### ***4. Lessons Learnt***

1. Records any current issues and lessons learnt for Observer data

## Regional Tuna Data Template

## **Catch and Effort Logsheet Data**

### ***1. Data Collection System***

1. Describes the role and the function of the ‘catch and Effort Logsheet’ data
2. States the required coverage level and the schedule for provision
3. Refers to any legal provisions for the collection of this data and penalties for non-compliance
4. Notes entities responsible for recording and collecting the data
5. States the contact details for persons tasked with collection and submission
6. Ensures quality control takes place
7. Describes collection methods
8. States any collection resource material.
9. Refers to the form version currently in use.

### ***2. Data Management System***

#### *Collection Management*

1. Describes any data registry systems.
2. Outlines procedures to identify and follow-up on any non-submission of data
3. Ensures pre-data processing takes place
4. Describes hard-copy filing procedures.
5. Ensures collection feedback procedures are in place for staff and industry

#### *Data Management*

6. Makes reference to the section on “General Data Management” procedures.
7. Describes the integrated database system used, including existence of
  - Data processing and a summary of quality control checks
  - Post-data entry processing
  - Reports checking coverage of catch and effort Logsheet data against “Base” data
8. Notes persons responsible for data management system procedures.
9. States the time-frame for the data management system procedures.

### ***3. Data Dissemination System***

1. Makes reference to the section on “General Data Dissemination” procedures.
2. Outlines the procedures for the dissemination (reporting) of catch and effort logsheet data only

### ***4. Lessons Learnt***

1. Records any current issues and lessons learnt for catch and effort logsheet data

## Regional Tuna Data Template

## **Port Sampling Data**

### *1. Data Collection System*

1. Describes the role and the function of the ‘port sampling’ data
2. States the required coverage level and the schedule for provision
3. Refers to any legal provisions for the collection of this data and penalties for non-compliance
4. Notes entities responsible for recording and collecting the data
5. States the contact details for persons tasked with collection and submission
6. Ensures quality control takes place
7. Describes collection methods
8. States any collection resource material.
9. Refers to the form version currently in use.

### *2. Data Management System*

#### *Collection Management*

1. Describes any data registry systems.
2. Outlines procedures to identify and follow-up on any non-submission of data
3. Ensures pre-data processing takes place
4. Describes hard-copy filing procedures.
5. Ensures collection feedback procedures are in place for staff and industry

#### *Data Management*

6. Makes reference to the section on “General Data Management” procedures.
7. Describes the integrated database system used, including existence of
  - Data processing and a summary of quality control checks
  - Post-data entry processing
  - Reports checking coverage of port sampling data against “Base” data
8. Notes persons responsible for data management system procedures.
9. States the time-frame for the data management system procedures.

### *3. Data Dissemination System*

1. Makes reference to the section on “General Data Dissemination” procedures.
2. Outlines the procedures for the dissemination (reporting) of port sampling data only

### *4. Lessons Learnt*

1. Records any current issues and lessons learnt for port sampling data

## Regional Tuna Data Template

## **Vessel Unloadings Data**

### ***1. Data Collection System***

1. Describes the role and the function of the ‘Unloadings’ data
2. States the required coverage level and the schedule for provision
3. Refers to any legal provisions for the collection of this data and penalties for non-compliance
4. Notes entities responsible for recording and collecting the data
5. States the contact details for persons tasked with collection and submission
6. Ensures quality control takes place
7. Describes collection methods
8. States any collection resource material.
9. Refers to the form version currently in use.

### ***2. Data Management System***

#### *Collection Management*

1. Describes any data registry systems.
2. Outlines procedures to identify and follow-up on any non-submission of data
3. Ensures pre-data processing takes place
4. Describes hard-copy filing procedures.
5. Ensures collection feedback procedures are in place for staff and industry

#### *Data Management*

6. Makes reference to the section on “General Data Management” procedures.
7. Describes the integrated database system used, including existence of
  - Data processing and a summary of quality control checks
  - Post-data entry processing
  - Reports checking coverage of unloadings data against “Base” data
8. Notes persons responsible for data management system procedures.
9. States the time-frame for the data management system procedures.

### ***3. Data Dissemination System***

1. Makes reference to the section on “General Data Dissemination” procedures.
2. Outlines the procedures for the dissemination (reporting) of unloadings data only

### ***4. Lessons Learnt***

1. Records any current issues and lessons learnt for unloadings data

## Regional Tuna Data Template

## **Miscellaneous Data**

### ***1. Data Collection System***

1. Describes the role and the function of the ‘Miscellaneous’ data
2. States the required coverage level and the schedule for provision
3. Refers to any legal provisions for the collection of this data and penalties for non-compliance
4. Notes entities responsible for recording and collecting the data
5. States the contact details for persons tasked with collection and submission
6. Ensures quality control takes place
7. Describes collection methods
8. States any collection resource material.
9. Refers to the form version currently in use.

### ***2. Data Management System***

#### *Collection Management*

1. Describes any data registry systems.
2. Outlines procedures to identify and follow-up on any non-submission of data
3. Ensures pre-data processing takes place
4. Describes hard-copy filing procedures.
5. Ensures collection feedback procedures are in place for staff and industry

#### *Data Management*

6. Makes reference to the section on “General Data Management” procedures.
7. Describes the integrated database system used, including existence of
  - Data processing and a summary of quality control checks
  - Post-data entry processing
  - Reports checking coverage of miscellaneous data against “Base” data
8. Notes persons responsible for data management system procedures.
9. States the time-frame for the data management system procedures.

### ***3. Data Dissemination System***

1. Makes reference to the section on “General Data Dissemination” procedures.
2. Outlines the procedures for the dissemination (reporting) of miscellaneous data only

### ***4. Lessons Learnt***

1. Records any current issues and lessons learnt for miscellaneous data

### **Personnel Responsibilities**

- Lists tuna statistics personnel and their current roles and responsibilities
- Shows individual tasks and time frames for current staff positions
- Estimates required man hour required for each responsibility.

### **Tasks Timeline**

- Outlines a weekly / quarterly and yearly work programme timeline for the receipt, checking, entering, transfer, filing and reporting on tuna data

### **Training support**

- Lists the training need and the organisations providing training for data collection
- Procedures to 'induct' new staff into the national fishery statistics section

### **Resource Material**

- List the current resource manuals which support the work of the data recording and collection

### **Hardware Support**

- Itemises hardware resources and documents requirements for the programme

### **General Database Management**

- Lists and describes the database system reports available to reconcile one type of data to others.
- Identifies the “base” data with respect to determining coverage of all other types of data
- Describes the method or modules available to determine coverage of all types of data
- Describes the (hard-copy and electronic) Data Archiving System
- Describes electronic data recovery procedures
- Describes the (hard-copy and electronic) Data Security procedures

### **General Data Dissemination**

- Describes the plan / schedule for each category of data dissemination
- Lists and describes all available database system reports in the event of ad hoc requests for data summaries

### **Disseminating National Tuna Data**

- List the procedures for producing monthly data reports
- Lists the procedures for producing quarterly monthly data reports
- Lists the procedures for compiling Annual Catch Estimates as required by the WCPFC.
- Procedures for preparing data summaries for annual reports
- Procedures for preparing data summaries for negotiation briefs
- Procedures for preparing reports/ data summaries for WCPFC meetings
- Procedures for preparing data summaries to the WCPFC
- Procedures for preparing data summaries for other national departments.
- Procedures for preparing data summaries for industry

**APPENDIX 1.**

**Type and function of data currently collected in PICTs**

1) Operational Level Catch and Effort Data

**1.1 Logsheet data**

Catch logsheets show a vessel’s fishing activities including its catch —by species and by set over the duration of the fishing trip. The fishing vessel, preferably the captain, records this information. The fishing activity and the species catch are reported during the fishing operation and should include the start time and the position where the fishing took place.

➤ The target for data collection is 100% coverage, to account for every day of each trip undertaken by all licensed vessels.

Current data collection forms

- 2004 SPC / FFA Regional Longline Logsheet
- 2004 SPC / FFA Regional Purse-seine Logsheet
- 2004 SPC / FFA Regional Pole-and-line Logsheet
- 2004 SPC / FFA Regional Handline Logsheet
- 2004 SPC / FFA Regional Longline Logbook
- Interim: Feb 2006 SPC / FFA Regional Troll logsheet (South Pacific Albacore Fishery)

2) Total Annual Catch and Effort and Catch-Effort Verification Data

**2.1 Fishing Trip and Port Visit Log data**

The fishing trip and port visit logs show an individual vessel’s movement over the duration of the calendar year or the licensing period. The fishing company records this information. The form is recorded at the end of each trip and should show all periods of fishing, transit and port visits. The form is an effective means of determining the coverage of all other types of data collected.

➤ The target for data collection is 100% to account for each day during the calendar year, or licensing period for each licensed vessel.

2004 SPC / FFA Regional Fishing Trip and Port Visit Log

REV: SPC/FFA DEC 2004

SPC / FFA REGIONAL FISHING TRIP AND PORT VISIT LOG

PAGE \_\_\_\_ OF \_\_\_\_

NAME OF VESSEL		GEAR TYPE	COUNTRY OF REGISTRATION		YEAR			
NAME OF FISHING COMPANY			REGISTRATION NUMBER IN COUNTRY OF REGISTRATION		INTERNATIONAL RADIO CALLSIGN			
PERIOD OF ACTIVITY		FISHING TRIP AND PORT VISIT CODE	IF FISHING TRIP:				IF PORT VISIT: NAME OF PORT	COMMENTS
DATE FROM DD / MM / YYYY	DATE TO DD / MM / YYYY		LOGSHEET PROVIDED ?	OBSERVER ONBOARD?	TOTAL NUMBER OF CREW	NUMBER OF PACIFIC ISLAND CREW		

**2.2 Unloadings data**

Unloadings forms show the total amount of fish by weight and by species that were unloaded by the vessel at each full or partial unloading and in some cases the final destination of the catch. The fishing company records

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this information. Unloadings data are provided at the end of the trip. They give an independent estimate of the trip catch, which can be used to verify the logsheet data. These data are also important since they may provide catch totals for vessels that do not provide logsheets. In the longline fishery unloadings data is essentially a summary of the packing list, the reject list and the list of cannery-bound fish in the longline fishery.

- The target for data collection is 100% to account for all licensed vessel unloadings.

Current regional data collection forms

- 2004 SPC / FFA Regional Longline Unloading Form
- 2004 SPC / FFA Regional Longline Unloading Destination Form
- 2004 SPC / FFA Regional Purse-seine Unloading Form
- 2004 SPC / FFA Regional Pole-and-Line Unloading Form
- 2004 SPC / FFA Pole-and-line Unloading Form

### **2.3 Vessel Monitoring System (VMS) data**

VMS data show accurate and up-to-date information about the location and activity of licensed fishing vessels. Real-time position and time data is transmitted from the vessel by satellite to an on-shore monitoring system. The information can be accessed at regional and national points. All foreign fishing vessels are required to have an operational VMS onboard, while a number of countries also require their domestic vessel to carry VMS.

- Target coverage for operational VMS is 100% of all foreign licensed vessels. Target coverage for domestic vessels vary between EEZs.

Current data collection forms

There are no data collection forms for VMS data. The data is recorded electronically only.

## 3) Catch Composition Data

### **3.1 Port sampling data**

Port sampling data shows the size and species composition of the unloaded catch. Trained port sampling officers record the name of the species along with its length. Individual weights are also recorded when available. The information is used in regional stock assessment work.

- The target coverage for port sampling is at least 20% of longline vessel trips and 20% of all purse seine sets.

Current regional data collection forms

- 2004 SPC / FFA Regional Longline Port Sampling Form
- 2004 SPC / FFA Regional Purse-seine Port Sampling Form
- 2004 SPC / FFA Regional Pole-and-Line Port Sampling Form
- 2004 SPC / FFA Regional Troll Port Sampling Form

### **3.2 Packing lists, rejects lists and cannery-bound fish lists**

Packing lists data describes the individual weights of fish that are packed into cartons destined for the export market. Rejects list shows the individual weights of fish that have been "rejected" and are destined for the local market. A third category of data show those fish (typically albacore), which are destined for the cannery. The fishing company records this information for its own use and is asked to submit this data.

- The target for data collection is 20% of all longline unloadings.

## Regional Tuna Data Template

Current regional data collection forms

- There are currently no regionally standard data collection forms for packing, reject or cannery-bound lists. Data is submitted on individually created industry forms.

### 3.3 Observer data

Observer data provides an independent record of the catch and effort at the fishing operation level. It gives a more comprehensive account of the catch, by species, and the effort expended, at the exact time and position. It also shows information collected on a wide range of other areas from vessel characteristics to environmental interactions. Observer data is recorded by trained and certified observers.

- The long-term target coverage for observer programmes is 20% of longline vessel trips and 20% of all purse seine sets." The 3<sup>rd</sup> Regular Session of the WCPFC, planned for December 2006, is expected to make further deliberations on observer target coverage levels.

Current regional data collection forms

- 2004 SPC / FFA Regional Longline Observer Forms (LL-1, LL-2/3, LL-4)
- 2004 SPC / FFA Regional Purse-Seine Observer Forms (PS-1, PS-2, PS-3, PS-4)
- 2004 SPC / FFA Regional Pole-and-line Observer Forms (PL-1, PL-2, PL-3)
- 2004 SPC / FFA Regional General Observer Forms (GEN-1, GEN-2, GEN-3, GEN-6)

## 4) Vessel and Gear Characteristics Data

### 4.1 Observer data

(See notes under 3.3 above.)

### 4.2 Vessel registration data

Vessel registration data show a number of characteristics about the vessel including all of the items included in Annex IV<sup>2</sup> of the WCPFC's Convention. The vessel owner records this information.

- The target coverage is 100% of all foreign licensed vessels be listed on the FFA Regional Register. Domestically vessel registration varies between EEZs.

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#### <sup>2</sup> Annex IV Information Requirements

1. Name of fishing vessel, registration number, previous names (if known), and port of registry;
2. Name and address of owner or owners;
3. Name and nationality of master;
4. Previously flag (if any)
5. International Radio Call Sign
6. Vessel communication types and numbers (INMARSAT A, B and C numbers and satellite telephone number);
7. colour photograph of vessel;
8. Where and when built
9. Type of vessel
10. Normal crew complement
11. Type of fishing method or methods
12. Length
13. Moulded depth
14. Beam

## Regional Tuna Data Template

Current regional data collection forms

- FFA Vessel Register – Application for Registration form.

### **4.3 Port inspection data**

Vessel inspections give the opportunity to collect and to verify vessel and gear characteristic data.

Current regional data collection forms

- There are no currently target for port inspection data. The collection and or verification of vessel and gear characteristic data in the future is seen as desirable.

Current regional data collection forms

- There are currently no regionally standard data collection forms for port inspection data, although the DCC report does includes the ‘Papua New Guinea Compulsory Vessel Inspection and Checklist’ which can be used by other countries.

## 5) Miscellaneous Data

### **5.1 Gamefishing data**

Gamefishing data shows the catch and effort by sports fishing vessels during both their regular outings and during tournaments. The information is recorded by the vessel captain and the tournament organisers.

- 100% coverage of all outing and tournament fishing is required.

Current regional data collection forms

- Gamefishing – Individual Vessel Logsheets – Troll (5 days)
- Tournament – Individual Fish Weights

### **5.2 Artisanal Vessel data**

Artisanal vessel data show the effort and the catch for artisanal vessels.

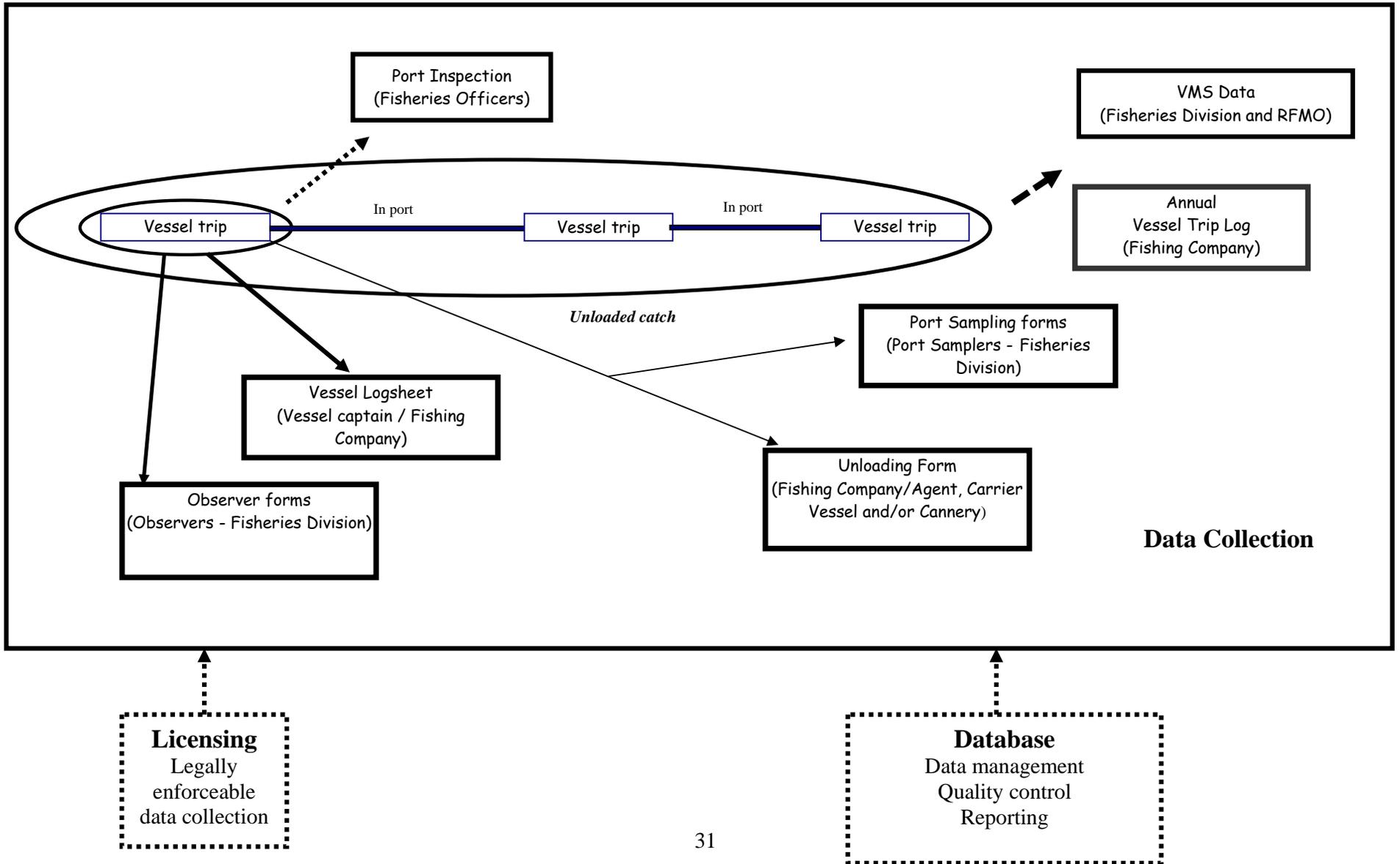
- 100% coverage of all outing and tournament fishing is required.

Current regional data collection forms

- 2004 Daily FAD Fishing Logsheets

Regional Tuna Data Template

**Diagrammatic representation of Tuna Fishery data collection**



**APPENDIX 2.**



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## SCIENTIFIC DATA TO BE PROVIDED TO THE COMMISSION<sup>1</sup>

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### 1. *Estimates of annual catches*

The following estimates of catches during each calendar year shall be provided to the Commission for each gear type:

- catches of bigeye tuna (*Thunnus obesus*), skipjack tuna (*Katsuwonus pelamis*), yellowfin tuna (*Thunnus albacares*), blue marlin (*Makaira mazara*) and black marlin (*Makaira indica*) in: 1) the WCPFC Statistical Area (see paragraph #8), and 2) the portion of the WCPFC Statistical Area east of the 150° meridian of west longitude; and
- catches of albacore (*Thunnus alalunga*), striped marlin (*Tetrapturus audax*), swordfish (*Xiphias gladius*) and Pacific bluefin tuna (*Thunnus orientalis*) in: 1) the Pacific Ocean south of the Equator, 2) the Pacific Ocean north of the Equator, 3) the WCPFC Statistical Area north of the Equator, 4) the WCPFC Statistical Area south of the Equator, and 5) the portion of the WCPFC Statistical Area east of the 150° meridian of west longitude.

For trollers targeting albacore in the Pacific Ocean south of the Equator, the following catch estimates during the fishing season (July to June) should also be provided:

- catches of albacore in the Pacific Ocean south of the Equator

Catch estimates shall also be provided for other species as determined by the Commission.

Estimates of discards should also be provided.

Longline catch estimates shall be for whole weight, rather than processed weight. All catch estimates shall be reported in metric tonnes.

The statistical methods used to estimate the annual and seasonal catches shall be reported to the Commission, with reference to the coverage rates for each type of data (e.g. operational catch and effort data, records of unloadings, species composition sampling data) that is used to estimate the catches and to the conversion factors that are used to convert the processed weight of longline-caught fish to whole weight.

### 2. *Number of vessels active*

The number of vessels active<sup>2</sup> in the WCPFC Statistical Area during each calendar year shall be provided to the Commission for each gear type.

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<sup>1</sup> As refined and adopted at the Fourth Regular Session of the Commission, Tumon, Guam, USA, 2-7 December 2007.

<sup>2</sup> A vessel is considered to be “active” if it fished (targeting highly migratory fish stocks) at least one day during the year.

For longliners, pole-and-line vessels, and purse seiners, the number of vessels active shall be provided by gross registered tonnage (GRT) class. The GRT classes are defined as follows:

- Longline: 0–50, 51–200, 201–500, 500+
- Pole-and-line: 0–50, 51–150, 150+
- Purse seine: 0–500, 501–1000, 1001–1500, 1500+

For trollers targeting albacore, the number of vessels active during each calendar year shall be provided for 1) the WCPFC Statistical Area south of the Equator and 2) the WCPFC Statistical Area north of the Equator. For trollers targeting albacore in the Pacific Ocean south of the Equator, the number of vessels active during the fishing season (July to June) shall be provided for 1) the WCPFC Statistical Area south of the Equator and 2) the Pacific Ocean south of the Equator.

### **3. *Operational level catch and effort data***

Operational level catch and effort data (e.g. individual sets by longliners and purse seiners, and individual days fished by pole-and-line vessels and trollers) shall be provided to the Commission, in accordance with the standards adopted by Commission at its Second Regular Session. These are listed in Annex 1.

It is recognized that certain members and cooperating non-members of the Commission may be subject to domestic legal constraints, such that they may not be able to provide operational data to the Commission until such constraints are overcome. Until such constraints are overcome, aggregated catch and effort data and size composition data, as described in (4) and (5) below, shall be provided.

It is also recognized that certain members and cooperating non-members of the Commission may have practical difficulties in compiling operational data for fleets comprised of small vessels, such as certain sectors of the fisheries of Indonesia, the Philippines and small island developing states.

### **4. *Catch and effort data aggregated by time period and geographic area***

If the coverage rate of the operational catch and effort data that are provided to the Commission is less than 100%, then catch and effort data aggregated by time period and geographic area that have been raised to represent the total catch and effort shall be provided. Longline catch and effort data shall be aggregated by periods of month and areas of 5° longitude and 5° latitude. Purse-seine and ringnet catch and effort data shall be aggregated by periods of month, areas of 1° longitude and 1° latitude, and type of school association. Catch and effort data for other surface fisheries targeting tuna shall be aggregated by periods of month and areas of 1° longitude and 1° latitude.

If the coverage rate of the operational catch and effort data that are provided to the Commission is less than 100%, then unraised longline catch and effort data stratified by the number of hooks between floats and the finest possible resolution of time period and geographic area shall also be provided.

If the coverage rate of the operational catch and effort data that are provided to the Commission is less than 100%, then catch and effort data that have been raised to represent the total catch and

effort shall also be aggregated by periods of year and areas of national jurisdiction and high seas within the WCPFC Statistical Area.

Catch and effort data aggregated by periods of month and areas of 5° longitude and 5° latitude that have been raised to represent the total catch and effort, and unraised longline catch and effort data stratified by the number of hooks between floats and the finest possible resolution of time period and geographic area, covering distant-water longliners may also be provided for the Pacific Ocean east of the eastern boundary of the WCPFC Statistical Area.

The statistical methods that are used to derive the aggregated catch and effort data shall be reported to the Commission, with reference to the coverage rates of the operational catch and effort data, and the types of data and method used to raise the catch and effort data.

#### **5. *Size composition data***

Length and/or weight composition data that are representative of catches by the fisheries shall be provided to the Commission at the finest possible resolution of time period and geographic area and at least as fine as periods of quarter and areas of 20° longitude and 10° latitude.

#### **6. *The roles of flag states and coastal states***

Flag states or entities shall be responsible for providing to the Commission scientific data covering vessels they have flagged, except for vessels operating under joint-venture or charter arrangements with another state such that the vessels operate, for all intents and purposes, as local vessels of the other state, in which case the other state shall be responsible for the provision of data to the Commission.

It is recognized that the ability of flag States or entities to provide scientific data to the Commission may be constrained by the terms of bilateral or regional arrangements, such as the Treaty on Fisheries Between the Governments of Certain Pacific Island States and the Government of the United States of America.

Scientific data compiled by coastal states shall also be provided to the Commission.

#### **7. *Time periods covered and schedule for the provision of data***

Estimates of annual or seasonal catches should be provided to the Commission from 1950 onwards or, if the fleet began operating after 1950, from the year in which the fleet began operating.

Operational catch and effort data, and size composition data, should be provided for all years, starting with the first year for which the data are available.

For all gear types, except trollers targeting albacore in the Pacific Ocean south of the Equator, estimates of annual catches, the number of vessels active, catch and effort data, and size composition data, covering a calendar year should be provided by April 30 of the year following the calendar year (e.g. data covering calendar year “x” should be provided by 30 April of year “x+1”).

For trollers targeting albacore in the Pacific Ocean south of the Equator, estimates of annual catches, the number of vessels active, catch and effort data, and size composition data, covering a

fishing season (July to June) should be provided by April 30 of the year following the year in which the season ends (e.g. data covering the season from July of year “x” to June of year “x+1” should be provided by 30 April of year “x+2”).

Estimates of annual catches, the number of vessels active, catch and effort data, and size composition data should be revised, and the revisions provided to the Commission, as additional data become available.

#### **8. *Definition of the WCPFC Statistical Area***

The WCPFC Statistical Area is defined as follows: from the south coast of Australia due south along the 141° meridian of east longitude to its intersection with the 55° parallel of south latitude; thence, due east along the 55° parallel of south latitude to its intersection with the 150° meridian of east longitude; thence, due south along the 150° meridian of east longitude to its intersection with the 60° parallel of south latitude; thence, due east along the 60° parallel of south latitude to its intersection with the 130° meridian of west longitude; thence, due north along the 130° meridian of west longitude to its intersection with the 4° parallel of south latitude; thence, due west along the 4° parallel of south latitude to its intersection with the 150° meridian of west longitude; thence, due north along the 150° meridian of west longitude; and from the north coast of Australia due north along the 129° meridian of east longitude to its intersection with the 8° parallel of south latitude, thence due west along the 8° parallel of south latitude to the Indonesian archipelago; and from the Indonesian peninsula due east along the 2°30' parallel of north latitude to the Malaysian peninsula.

#### **9. *Periodic reviews of the requirements for scientific data***

The Commission, through its Scientific Committee, shall periodically review the requirements for scientific data and shall provide the Commission with revised versions of this recommendation, as appropriate.

## Standards for the Provision of Operational Level Catch and Effort Data

### 1. *Data items that shall be reported to the Commission*

#### 1.1 Vessel identifiers, for all gear types

Name of the vessel, country of registration, registration number, and international radio call sign: The registration number is the number assigned to the vessel by the state that has flagged the vessel. A code may be used as a vessel identifier instead of the name of the vessel, registration number and call sign for vessels that have fished and that intend to fish only in the waters of national jurisdiction of the State that has flagged the vessel.

#### 1.2 Trip information, for all gear types

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

Port of departure, date of departure, port of unloading, date of arrival in port of unloading: If the start of a trip coincides with recommencing fishing operations or transiting to a fishing area after transshipping part or all of the catch at sea, then “Transshipment at sea” shall be reported in lieu of the port of departure, and if the end of a trip coincides with transshipping part or all of the catch at sea, then “Transshipment at sea” shall be reported in lieu of the port of unloading.

#### 1.3 Information on operations by longliners

Activity: This item should be reported for each set and for days on which no sets were made, from the start of the trip to the end of the trip. Activities should include “a set”; “no fishing — in transit”; “no fishing — gear breakdown”; “no fishing — bad weather”; and “no fishing — in port”.

Date of start of set and time of start of set: The date and start of set time should be GMT/UTC. If no sets are made, the date and main activity should be reported.

Position of start of set: The position of start of set should be reported in units of at least minutes of latitude and longitude. If no sets are made, the noon position should be reported.

#### Number of hooks per set

Number of branch lines between floats. The number of branch lines between floats should be reported for each set.

Number of fish caught per set, for the following species: albacore (*Thunnus alalunga*), bigeye (*Thunnus obesus*), skipjack (*Katsuwonus pelamis*), yellowfin (*Thunnus albacares*), striped marlin (*Tetrapturus audax*), blue marlin (*Makaira mazara*), black marlin (*Makaira indica*) and swordfish (*Xiphias gladius*), and other species as determined by the Commission.

If the total weight or average weight of fish caught per set has been recorded, then the total weight or average weight of fish caught per set, by species, should also be reported. If the total weight or average weight of fish caught per set has not been recorded, then the total weight or average weight of fish caught per set, by species, should be estimated and the estimates reported. The total weight or average weight shall refer to whole weights, rather than processed weights.

#### 1.4 Information on operations by pole-and-line vessels and related gear types

Activity: This item shall be reported for each day, from the start of the trip to the end of the trip. Activities should include “a day fishing or searching with bait onboard”; “no fishing — collecting bait”; “no fishing — in transit”; “no fishing — gear breakdown”; “no fishing — bad weather”; and “no fishing — in port”.

Date: The date should be GMT/UTC.

Noon position: The noon position should be reported in units of at least minutes of latitude and longitude.

Weight of fish caught per day, for the following species: albacore, bigeye, skipjack, yellowfin, and other species as determined by the Commission.

#### 1.5 Information on operations by purse seiners and related gear types

Activity: This item shall be reported for each set and for days on which no sets were made, from the start of the trip to the end of the trip. Activities should include “a set”; “a day searched, but no sets made”; “no fishing — in transit”; “no fishing — gear breakdown”; “no fishing — bad weather”; and “no fishing — in port”.

Date of start of set, time of start of set and time of end of set: The date and time of the start of set and the time of end of set should be GMT/UTC. If no sets are made, the date and main activity should be reported.

Position of set or noon position: If a set is made, then the position of the set shall be reported. If searching occurs, but no sets are made, then the noon position shall be reported. The position should be reported in units of at least minutes of latitude and longitude.

School association: All common types of school association should be reported, while uncommon types of associations should be reported as “other”. Common types of school association are “free-swimming” or “unassociated”; “feeding on baitfish”; “drifting log, debris or dead animal”; “drifting raft, FAD or payao”; “anchored raft, FAD or payao”; “live whale”; and “live whale shark”.

Weight of fish caught per set, for the following species: albacore, bigeye, skipjack, yellowfin, and other species as determined by the Commission.

#### 1.6 Information on operations by trollers and related gear types

Activity: This item shall be reported for each day, from the start of the trip to the end of the trip. Activities should include “a day fished”; “no fishing — in transit”; “no fishing — gear breakdown”; “no fishing — bad weather”; and “no fishing — in port”.

Date: The date should be GMT/UTC.

Noon position: The noon position should be reported in units of at least minutes of latitude and longitude.

Number of fish caught per day, for the following species: albacore, bigeye, skipjack, yellowfin, and other species as determined by the Commission.

If the total weight or average weight of fish caught per day has been recorded, then the total weight or average weight of fish caught per day, by species, should also be reported. If the total weight or average weight of fish caught per day has not been recorded, then the total weight or average weight of fish caught per day, by species, should be estimated and the estimates reported. The total weight or average weight shall refer to whole weights, rather than processed weights.

**2. *Geographic area to be covered by operational catch and effort data to be provided to the Commission***

The geographic area to be covered by operational catch and effort data to be provided to the Commission shall be the WCPFC Statistical Area, except for fisheries targeting albacore in the Pacific Ocean south of the Equator, for which the geographic area should be the Pacific Ocean south of the Equator.

**3. *Target coverage rate for operational catch and effort data to be provided to the Commission***

The target coverage rate for operational catch and effort data to be provided to the Commission is 100%.

**4. *Procedures for the verification of operational catch and effort data***

Operational catch and effort data should be verified as follows:

- a) The amount of the retained catch should be verified with records of unloading obtained from a source other than the crew or owner or operator of the fishing vessel, such as an agent of the company responsible for unloading or onward shipping or purchasing of the catch.
- b) Positions of latitude and longitude should be verified with information obtained from vessel monitoring systems.
- c) The species composition of the catch should be verified with sampling conducted by observers during fishing operations or by port samplers during unloading.