

UPDATE ON THE IMPLEMENTATION OF THE IOTC REGIONAL OBSERVER SCHEME

PREPARED BY: IOTC SECRETARIAT¹, 16 NOVEMBER 2014

PURPOSE

To inform the Working Party on Data Collection and Statistics (WPDCS) of the status of implementation and reporting to the IOTC Secretariat of the Regional Observer Scheme (ROS) set out by Resolution 11/04 *on a Regional Observer Scheme* at the 15th Session of IOTC (S15) in 2011.

BACKGROUND

At the 13th Session of the Commission (S13), the Commission adopted Resolution 09/04 *on a Regional Observer Scheme*, which was superseded in 2010 by Resolution 10/04, and again in 2011 by Resolution 11/04. In 2010, the Commission addressed concerns raised by some CPCs with artisanal fleets, on which it is difficult to deploy on-board observers due to the small-size of the artisanal vessels and/or to their large numbers which would require high deployment levels and in 2011, the Commission extended the period for submitting the Observer Trip Report from 90 days to 150 days.

Resolution 11/04 *on a Regional Observer Scheme* makes provision for the development and implementation of national observer programmes among the IOTC CPCs starting in July 2010 and covering “at least 5 % of the number of operations/sets for each gear type by the fleet of each CPC while fishing in the IOTC Area of competence of 24 meters overall length and over, and under 24 meters if they fish outside their EEZs shall be covered by this observer scheme. For vessels under 24 meters if they fish outside their EEZ, the above mentioned coverage should be achieved progressively by January 2013”.

Moreover, the resolution states that “the number of the artisanal fishing vessels landings shall also be monitored at the landing place by field samplers” and that “the indicative level of the coverage of the artisanal fishing vessels should progressively increase towards 5% of the total levels of vessel activity (i.e. total number of vessel trips or total number of vessels active)”.

The resolution goes on to state “CPCs shall provide to the Executive Secretary and the Scientific Committee annually a report of the number of vessels monitored and the coverage achieved by gear type in accordance with the provisions of this Resolution”.

DISCUSSION

Implementation of the observer scheme

As of 1st November 2014, fourteen CPCs (Australia, China, Comoros, EU(France² and Portugal), Indonesia, Japan, Kenya, Korea (Rep. of), Madagascar, Maldives, Mauritius, Mozambique, Seychelles and South Africa) have submitted a list of observers and have been allocated an IOTC observer registration number.

As of 1st November 2014, one hundred and seventy two (172) observer trip reports have been submitted to the IOTC Secretariat by Australia, China, EU(France and Portugal), Japan, Rep. of Korea, Madagascar, Mozambique and South Africa.

[Appendix A](#) provides a summary of the status of implementation of the ROS by all IOTC CPCs.

Coverage rates

[Appendix B](#) and [Appendix C](#) provide an estimation of the level of effort covered by observers in 2010 - 2014 for industrial longline and purse seine vessels (data as of 1 November 2014). Reported coverage for the artisanal fleets is currently zero, but in future a summary will also be provided to give an overview of the level of coverage achieved by these fleets. While CPCs are required to report on the level of coverage by gear type, the methods used to estimate the level of coverage achieved are often not provided. Given there are some discrepancies between coverage rates estimated by the IOTC Secretariat and the coverage rates reported by CPCs, clarity on the methods used are needed.

Data reporting

At its 13th Session in 2010, the IOTC Scientific Committee reviewed the report of the technical workshop organised in May 2010, and endorsed the documents produced by the Secretariat; an Observer Manual³ and an Observer Trip Report template⁴

¹ Sarah Martin (sm@iotc.org); Miguel Herrera (mh@iotc.org)

² Including Mayotte due to its status as a French outermost region since January 2014

³ IOTC-2010-SC-11

⁴ IOTC-2010-SC-12

containing the minimum reporting requirements. These were subsequently formally adopted at the 15th session of the Commission in 2011 where it was noted⁵ “*Minimum data requirements were adopted as well as an observer report template that will be reviewed and revised as necessary*”. Resolution 11/04 was also adopted which states “*the IOTC Scientific Committee will elaborate an observer working manual, a template to be used for reporting (including minimum data fields) and a training program*”.

During the 10th WPEB a number of issues with the quality of data reported and the current format in which the data are submitted were discussed. During the meeting a number of fishery-specific working groups were held in order to review the current format of the observer reporting templates. A key issue raised was the need for data submission in electronic format, noting that to date only one CPC has provided all data electronically and that this would improve the efficiency of data collation and management for analysis. The WPEB agreed to prioritise the data collection requirements based on the objectives of the Scientific Committee, ensuring that all necessary data are collected in the required format while ensuring that there is a clear purpose for every data field to prevent the collection of redundant information. Based on this, a number of suggestions for improvements to the data collection process were raised by these groups. This led to the request by the Working Party, as noted in paragraph 55 of the report⁶:

*“The WPEB **REQUESTED** that the IOTC Secretariat finalise the revision of the observer reporting templates inter-sessionally based on the gear-specific recommendations made by the breakout group meetings held during the current working party meeting, and for these revisions to be provided to the WPDCS for its consideration and then the Scientific Committee for adoption”.*

The revised draft templates are provided in this document in [Appendix D](#) for consideration by the WPDCS. It is therefore proposed that the WPDCS10 reviews and revises the reporting templates as necessary to improve the quality of data submissions and presents this to the 17th Session of the Scientific Committee for adoption.

RECOMMENDATIONS

That the WPDCS **RECOMMEND** that the Scientific Committee:

- 1) **ADOPT** a revised version of the observer trip reporting templates, consistent with Resolution 11/04 “*...the IOTC Scientific Committee will elaborate an observer working manual, a template to be used for reporting (including minimum data fields) and a training program*”.
- 2) **RECOMMEND** the Commission consider a requirement for all CPCs to submit observer data in electronic format to facilitate data management and timely use of data.

APPENDICES

- Appendix A:** [Update on the implementation of the IOTC regional observer scheme](#)
- Appendix B:** [Estimated observer coverage for longline vessels](#)
- Appendix C:** [Estimated observer coverage for Purse seine vessels](#)
- Appendix D:** [Draft observer reporting templates](#)

⁵ IOTC-2011-S15-R[E]

⁶ IOTC-2014-WPEB10-R[E]

APPENDIX A
UPDATE ON THE IMPLEMENTATION OF THE IOTC REGIONAL OBSERVER SCHEME

CPCs	Active Vessels LOA≥24m or High Seas vessels ⁷				Progress	List of accredited observers submitted	Number of observer reports provided ⁸				
	LL	PS	GN	BB			2010	2011	2012	2013	2014
MEMBERS											
Australia	4	5			Australia has implemented an observer programme for the longline fleet	YES: 21	2(O)	1(O)	3(O)	No	2(O)
Belize	3				Belize is planning to launch an observer programme in 2104.	No	No	No	No	No	No
China –Taiwan,China	36 272				China has an observer programme and has submitted two trip reports.	YES: 2 YES: 54	1(O) No	No No	1(O) No	No No	No No
Comoros					Comoros does not have vessels ≥ 24m. Two observers were trained under the IOC Regional Monitoring Project, and 5 by SWIOFP.	YES: 7	N/A	N/A	N/A	N/A	N/A
Eritrea	No information received				No information received by the Secretariat.	No	No	No	No	No	No
European Union	48	27			EU has an observer programme on-board its purse seine and longline fleets. To date, no information has been received from EU,Spain and EU,UK.	Partial: EU,France: 52 EU,Portugal: 4 EU,Spain : No EU,UK : No	No	EU, France: 13+9(O) EU, Portugal: 1(O)	EU, France: 13+7(O) EU, Portugal: 1(O)	EU, France: 16+6(O) EU, Portugal: 1(O)	EU, France: 18(O) EU, Portugal: 1(O)
Guinea					No information received by the Secretariat.	No	No	No	No	No	No
India					India has not yet developed an observer programme.	No	No	No	No	No	No
Indonesia	1238				Indonesia has 13 registered IOTC observers	YES:13	No	No	No	No	No
Iran, Isl. Rep. of		4	1224		No information received by the Secretariat.	No	No	No	No	No	No
Japan	73				Japan started its observer programme on the 1 st of July 2010, and currently deploys 19 observers in the Indian Ocean.	YES: 19	6(E)	8(E)	14(E)	No	No
Kenya					Kenya is developing an observer programme and 5 observers have been trained by SWIOFP.	YES: 5	No	No	No	No	No
Korea, Rep. of	9	4			Korea has had an observer programme since 2002 with 3 observers deployed in the Indian Ocean.	YES: 29	2(O)	No	2(O)	3(O)	No
Madagascar	8				Madagascar is developing an observer programme. Five and three observers have been trained through SWIOFP and IOC respectively.	YES: 7	No	No	5(O)	No	No

⁷ The number of active vessels is given for 2013.

⁸ Year in which the observed trip has started (E: Electronic; O: Other)

CPCs	Active Vessels LOA \geq 24m or High Seas vessels ⁷				Progress	List of accredited observers submitted	Number of observer reports provided ⁸				
	LL	PS	GN	BB			2010	2011	2012	2013	2014
Malaysia	5				Malaysia is developing plans for the implementation of an observer programme.	No	No	No	No	No	
Maldives	7			311	Maldivian vessel landings are monitored by field samplers at landing sites. Maldives is currently developing an at-sea observer programme .	YES: 4	No	No	No	No	
Mauritius		2			Mauritius is developing an observer programme. Five observers have been trained through SWIOFP and three through the IOC.	YES: 8	No	No	No	No	
Mozambique					Mozambique has an observer programme and has submitted one trip report.	YES: 11	No	No	1(O)	No	
Oman	5				No information received by the Secretariat.	No	No	No	No	No	
Pakistan					No information received by the Secretariat.	No	No	No	No	No	
Philippines	9				No information received by the Secretariat.	No	No	No	No	No	
Seychelles	32	7			Seychelles is developing an observer programme. Four observers have been trained through SWIOFP and three through the IOC.	YES: 7	No	No	No	No	
Sierra Leone	No information received				No information received by the Secretariat.	No	No	No	No	No	
Somalia	No information received				No information received by the Secretariat.	No	No	No	No	No	
Sri Lanka	7	8	2226		Sri Lanka has begun a pilot observer initiative.	No	No	No	No	No	
Sudan	No information received				No information received by the Secretariat.	No	No	No	No	No	
Tanzania, United Rep.of	5				Tanzania does not currently have an observer programme in place.	No	No	No	No	No	
Thailand	5				No information received by the Secretariat.	No	No	No	No	No	
United Kingdom					The UK does not have any active vessels in the Indian Ocean.	N/A	N/A	N/A	N/A	N/A	
Vanuatu	3				Vanuatu does not currently have an observer programme in place.	No	No	No	No	No	
Yemen	No information received				No information received by the Secretariat.	No	No	No	No	No	
COOPERATING NON-CONTRACTING PARTIES											
Djibouti					No information received by the Secretariat.	No	No	No	No	No	
Senegal					Senegal has not had any active vessels in the Indian Ocean since 2007.	N/A	N/A	N/A	N/A	N/A	
South Africa	10			5	South Africa currently only operates an observer programme for foreign vessels operating within the EEZ.	YES: 16	No	13(O) ⁹	10(O) ⁹	13(O) ⁹	

⁹ Reports from South African observers onboard foreign vessels operating in the EEZ of South Africa.

APPENDIX B

ESTIMATED OBSERVER COVERAGE FOR LONGLINE VESSELS

MEMBERS	Total effort (no.hooks)				Observed effort (no. hooks)				Coverage			
	2010	2011	2012	2013	2010	2011	2012	2013	2010	2011	2012	2013
Australia	622,461	359,832	672,398	609,995	15330	6232	89490		2.46%	1.73%	13.31%	0.00%
Belize	724,486	676,998	1,741,534	331,862					0.00%	0.00%	0.00%	0.00%
China	16,993,970	4,136,710	11,295,050	23,439,470	95205		185742		0.56%	0.00%	1.64%	0.00%
–Taiwan,China	214,609,423	182,076,627	156,741,282	178,887,567					0.00%	0.00%	0.00%	0.00%
Comoros												
Eritrea												
EU - France	3,781,554	3,769,250	3,367,941	4,042,077		113269	74502	96379	0.00%	3.01%	2.21%	2.38%
EU - Portugal	949,134	903,600	685,206	1,558,000		140317	73685	127580	0.00%	15.53%	10.75%	8.19%
EU - Spain	3,174,705	3,758,516	4,673,785	6,262,822					0.00%	0.00%	0.00%	0.00%
EU - UK	61,400	92,300	71,400	55,000					0.00%	0.00%	0.00%	0.00%
Guinea	363,100								0.00%			
India	107,922,649	169,781,943	105,730,538	127,556,746					0.00%	0.00%	0.00%	0.00%
Indonesia	126,596,494	135,296,472	173,127,619	146,519,356					0.00%	0.00%	0.00%	0.00%
Iran, Isl. Rep. of												
Japan	37,032,932	28,854,054	31,460,928	29,513,296	1150505	603157	953098		3.11%	2.09%	3.03%	0.00%
Kenya	118,990								0.00%			
Korea, Rep. of	6,013,391	5,862,681	4,690,407	5,937,215	389042		282656	546927	6.47%	0.00%	6.03%	9.21%
Madagascar	638,864	506,290	517,550	640,816			6140		0.00%	0.00%	1.19%	0.00%
Malaysia	18,202,625	13,648,325	5,462,992	4,420,948					0.00%	0.00%	0.00%	0.00%
Maldives			77,856	828,532							0.00%	0.00%
Mauritius	267,063	252,480	182,300	150,560					0.00%	0.00%	0.00%	0.00%
Mozambique	1,104,480	1,008,299	616,633				1100		0.00%	0.00%	0.18%	
Oman, Sultanate of	20,917,761	17,432,950	7,025,701	2,822,285					0.00%	0.00%	0.00%	0.00%
Pakistan												
Philippines	3,851,732	709,680	8,198,773	4,228,476					0.00%	0.00%	0.00%	0.00%
Seychelles	4,448,852	3,094,960	3,443,897	3,912,953					0.00%	0.00%	0.00%	0.00%
Sierra Leone												
Somalia												
Sri Lanka	117,531,924	102,642,439	113,170,171	117,189,595					0.00%	0.00%	0.00%	0.00%
Sudan												
Tanzania, United Rep. of	2,208,959	4,289,613	3,711,379	3,711,379					0.00%	0.00%	0.00%	0.00%
Thailand	1,719,331	1,041,600	1,275,246	964,663					0.00%	0.00%	0.00%	0.00%
United Kingdom												
Vanuatu	887,401		989,831	989,831					0.00%		0.00%	0.00%
Yemen												
COOPERATING NON CONTRACTING PARTIES												
Djibouti												
Senegal												
South Africa	1,053,170	1,219,015	1,176,125	959,285			293685	836759	0.00%	0.00%	0.00%	0.00%
Other	13,891,810	9,941,978	10,988,653	10,988,653								
Total	705,688,660	691,356,611	651,095,194	676,521,382	1,650,082	862,975	1,960,098	1,607,645	0.23%	0.12%	0.30%	0.24%

Key: TOTAL EFFORT (#HOOKS): Total number of hooks set by longliners, by fishing fleet and year, including:

- Total effort available (green font)
- Sampled effort available; raised to represent total catch of IOTC species (as in IOTC Nominal Catch database) (brown font)
- Effort not available; total effort estimated using the nominal catches available and catch rates from other fleets or year periods (red font)

*NB: Portuguese effort for 2012 has been taken from the National Report and effort in 2013 is an estimate provided by Portugal

APPENDIX C
ESTIMATED OBSERVER COVERAGE FOR PURSE SEINE VESSELS

MEMBERS	Total effort (no. fishing days)				Observed effort (no. fishing days)				Coverage			
	2010	2011	2012	2013	2010	2011	2012	2013	2010	2011	2012	2013
Australia	216	142	147	123					0.00%	0.00%	0.00%	0.00%
Belize												
China –Taiwan,China												
Comoros												
Eritrea												
EU - France	2801	3114	3052	3390		360	425	364	0.00%	11.56%	13.93%	10.74%
EU - Portugal												
EU - Spain	3531	3555	3684	3899					0.00%	0.00%	0.00%	0.00%
EU - UK												
Guinea												
India												
Indonesia												
Iran, Isl. Rep. of	158	152	167	158					0.00%	0.00%	0.00%	0.00%
Japan	96	104	72	34					0.00%	0.00%	0.00%	0.00%
Kenya												
Korea, Rep. of			110	357				33			0.00%	9.24%
Madagascar												
Malaysia	15								0.00%			
Maldives												
Mauritius				25								0.00%
Mozambique												
Oman, Sultanate of												
Pakistan												
Philippines												
Seychelles	2144	2166	1969	1670					0.00%	0.00%	0.00%	0.00%
Sierra Leone												
Somalia												
Sri Lanka				57								0.00%
Sudan												
Tanzania, United Rep.of												
Thailand	170								0.00%			
United Kingdom												
Vanuatu												
Yemen												
COOPERATING NON CONTRACTING PARTIES												
Djibouti												
Senegal												
South Africa												
Total	9,131	9,233	9,201	9,713	0	360	425	397	0.00%	3.90%	4.62%	4.09%

Key: TOTAL EFFORT (#FDAYS): Total number of days fished by tuna purse seiners, by fishing fleet and year, including:

- Total effort available (green font)
- Sampled effort available; raised to represent total catch of IOTC species (as in IOTC Nominal Catch database) (brown font)
- Effort not available; total effort estimated using the nominal catches available and catch rates from other fleets or year periods (red font)

APPENDIX D
DRAFT OBSERVER REPORTING TEMPLATES



Indian Ocean Tuna Commission

Trip information - LL

Form Trip-LL

Trip number

Observer and deployment details

Observer Name		Employment Organisation name	
IOTC registration No.		Employment Organisation Address	
Nationality			

Boarding date and time					Disembarkation date and time				
DD	MM	YYYY	hh	mm	DD	MM	YYYY	hh	mm

Boarding location					Disembarkation location				
Port name	Latitude	(units)	Longitude	(units)	Port name	Latitude	(units)	Longitude	(units)

Remarks

Vessel Details

Vessel Name		Flag		Gross Tonnage (GT)	
IOTC No.		Port of Registration		Overall Length (m)	
Radio Call Sign		Vessel Type		Fish storage capacity (m ³)	
Blast freezer capacity (m ³)		Main Fishing Gear			

Refrigeration methods available onboard

1	
2	
3	
4	
Fish storage method	

Vessel Electronic equipment

	1	2	3	4	5	6	7	8	9
Type									
Remarks:									

Trip Details

Departure of vessel from port (date and time)					Arrival of vessel at port (date and time)				
DD	MM	YYYY	hh	mm	DD	MM	YYYY	hh	mm

Departure location					Arrival location				
Port name	Latitude	(units)	Longitude	(units)	Port name	Latitude	(units)	Longitude	(units)

Remarks

	DD	MM	YYYY	hh	mm
Date arrival on fishing grounds					
Date start fishing					
Date end fishing					
Date departure from fishing grounds					
Total no. days lost			reason		

Total no. operations/sets		Details of sampling	
No. observed operations		strategy (if <100% of sets)	

Gear details (LL)

Longline type		Mainline material	
Line setter		Mainline length	
Bait casting machine		Line hauler	
Bait hooked twice		Length floatline (m)	
Length shark lines (m)			

Tori lines

Tori line length		Streamer length		Attached height	
Streamer type		Streamers per line		No. towed objects	

General hauling information

Method of stunning	
Depredation device used	

Remarks



Indian Ocean Tuna Commission

Operation information - LL

Form OP-LL

IOTC Trip number		IOTC operation/set number	
------------------	--	---------------------------	--

Operation details (LL)

Set start date and time					Set start location			
DD	MM	YYYY	hh	mm	Latitude	(units)	Longitude	(units)
Target species								
Remarks								

Line setting

Length mainline set		No. hooks between floats		Line setting speed (m/s)	
No. floats set		No. hooks set		Line set type	
Shallowest hook depth		No. light sticks		Branchline set interval (s)	
Deepest hook depth		No. shark lines set			

Branchlines

Material	Diameter	Length	No. set

Bait

Type	Species	Ratio	Dye colour

Hooks

Type	Number set

Leaders

Type	A	B	C	D
Material				
Diameter				
Length				
No. set				

Bycatch mitigation measures used

Low light night setting		Operating south of 25 degrees S?
No. Tori lines deployed		Underwater setting
Branchline weighting (g)		Other bycatch mitigation measures used (e.g. offal management, bird curtain etc)
Distance weight from hook (cm)		

Haul

Haul start date and time					Haul start location			
DD	MM	YY	hh	mm	Latitude	(units)	Longitude	(units)
Bird scaring device used during haul					No. retrieved hooks observed			
					No. hooks retrieved			

Leader type	A	B	C	D
No. bite-off per leader type				

Sampling details

--



Indian Ocean Tuna Commission

Trip information - PS

Form Trip-PS

Trip number			
Observer and deployment details			
Observer Name			Employment Organisation name
IOTC registration No.			Employment Organisation Address
Nationality			

Boarding date and time					Disembarkation date and time				
DD	MM	YYYY	hh	mm	DD	MM	YYYY	hh	mm
Boarding location					Disembarkation location				
Port name	Latitude	(units)	Longitude	(units)	Port name	Latitude	(units)	Longitude	(units)
Remarks									

Vessel Details			
Vessel Name		Flag	
IOTC No.		Port of Registration	Gross Tonnage (GT)
Radio Call Sign		Vessel Type	Overall Length (m)
Blast freezer capacity (m ³)		Main Fishing Gear	Fish storage capacity (m ³)

Refrigeration methods available onboard	
1	
2	
3	
4	
Fish storage method	

Vessel Electronic equipment									
	1	2	3	4	5	6	7	8	9
Type									
Remarks:									

Trip Details									
Departure of vessel from port (date and time)					Arrival of vessel at port (date and time)				
DD	MM	YYYY	hh	mm	DD	MM	YYYY	hh	mm
Departure location					Arrival location				
Port name	Latitude	(units)	Longitude	(units)	Port name	Latitude	(units)	Longitude	(units)
Remarks									

	DD	MM	YYYY	hh	mm
Date arrival on fishing grounds					
Date start fishing					
Date end fishing					
Date departure from fishing grounds					
Total no. days lost			reason		

Total no. operations/sets		Details of sampling strategy (if <100% of sets were observed)	
No. observed operations			
No. FADs deployed			
No. FADs investigated			

Gear details (PS)					
Net					
Max. length		Max. depth		No. strips	
Brail size		Power block		Stretched mesh	
Other (e.g. presence of escape panel)		Purse winch			

Support vessel	
----------------	--

Remarks	
---------	--



Indian Ocean Tuna Commission

Operation information - PS

Form OP-PS

IOTC Trip number	
Set number	

Operation details (PS)

Set date and time (start of set)			
DD	MM	YYYY	hh mm
School association			

Set location	
Latitude (units)	Longitude (units)

Sampling details

Sampling method	
Species sampled	

Remarks	
---------	--

Catch details						(Discards only)			
Brail number	Species code	Fate	Number	Weight code	Weight (kg)	Condition 1 (time of first sighting)	Condition 2 (time of release)	Release details	Comments

Sampling details		
Brail number	Total catch	Sampled catch
1		
2		
3		
4		
5		
6		
7		
8		
9		
10		
11		
12		
13		
14		
15		
16		
17		
18		
19		
20		

Remarks	
---------	--



Indian Ocean Tuna Commission

Trip information - PL

Form Trip-PL

Trip number			
Observer and deployment details			
Observer Name		Employment Organisation name	
IOTC registration No.		Employment Organisation Address	
Nationality			

Boarding date and time					Disembarkation date and time				
DD	MM	YYYY	hh	mm	DD	MM	YYYY	hh	mm
Boarding location					Disembarkation location				
Port name	Latitude	(units)	Longitude	(units)	Port name	Latitude	(units)	Longitude	(units)
Remarks									

Vessel Details					
Vessel Name		Flag		Gross Tonnage (GT)	
IOTC No.		Port of Registration		Overall Length (m)	
Radio Call Sign		Vessel Type		Fish storage capacity (m ³)	
Blast freezer capacity (m ³)		Main Fishing Gear			

Refrigeration methods available onboard	
1	
2	
3	
4	
Fish storage method	

Vessel Electronic equipment									
	1	2	3	4	5	6	7	8	9
Type									
Remarks:									

Trip Details									
Departure of vessel from port (date and time)					Arrival of vessel at port (date and time)				
DD	MM	YYYY	hh	mm	DD	MM	YYYY	hh	mm
Departure location					Arrival location				
Port name	Latitude	(units)	Longitude	(units)	Port name	Latitude	(units)	Longitude	(units)
Remarks									

	DD	MM	YYYY	hh	mm
Date arrival on fishing grounds					
Date start fishing					
Date end fishing					
Date departure from fishing grounds					
Total no. days lost		reason			

Total no. operations/sets		Details of sampling strategy (if <100% of sets were observed)
No. observed operations		
No. FADs deployed		
No. FADS investigated		
No. days bait fishing		

Gear details (PL/HL)	
Max. no. operational poles (automatic)	
Max. no. operational poles (manual)	
Total volume of bait tanks	

Remarks	



Indian Ocean Tuna Commission

Operation information - PL Form OP-PL

IOTC Trip number	
IOTC Operation number	

Operation details (PL)

Set date and time (start of set)					Set start location			
DD	MM	YYYY	hh	mm	Latitude	(units)	Longitude	(units)

School association		Target species	
No. manual poles used		No. hooks lost	
No. auto poles used		No. lines observed	

Sampling details	
-------------------------	--

Bait		Hooks			
Type		Type			
Species		Number			
Ratio (over all hooks set)					

Remarks	
----------------	--



Indian Ocean Tuna Commission

Trip information - GN

Form Trip-GN

Trip number

Observer and deployment details

Observer Name	<input type="text"/>	Employment Organisation name	<input type="text"/>
IOTC registration No.	<input type="text"/>	Employment Organisation Address	<input type="text"/>
Nationality	<input type="text"/>		

Boarding date and time					Disembarkation date and time				
DD	MM	YYYY	hh	mm	DD	MM	YYYY	hh	mm

Boarding location					Disembarkation location				
Port name	Latitude	(units)	Longitude	(units)	Port name	Latitude	(units)	Longitude	(units)

Remarks

Vessel Details

Vessel Name	<input type="text"/>	Flag	<input type="text"/>	Gross Tonnage (GT)	<input type="text"/>
IOTC No.	<input type="text"/>	Port of Registration	<input type="text"/>	Overall Length (m)	<input type="text"/>
Radio Call Sign	<input type="text"/>	Vessel Type	<input type="text"/>	Fish storage capacity (m ³)	<input type="text"/>
Blast freezer capacity (m ³)	<input type="text"/>	Main Fishing Gear	<input type="text"/>		

Refrigeration methods available onboard

1	<input type="text"/>
2	<input type="text"/>
3	<input type="text"/>
4	<input type="text"/>
Fish storage method	<input type="text"/>

Vessel Electronic equipment

	1	2	3	4	5	6	7	8	9
Type	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
Remarks:	<input type="text"/>								

Trip Details

Departure of vessel from port (date and time)					Arrival of vessel at port (date and time)				
DD	MM	YYYY	hh	mm	DD	MM	YYYY	hh	mm

Departure location					Arrival location				
Port name	Latitude	(units)	Longitude	(units)	Port name	Latitude	(units)	Longitude	(units)

Remarks

	DD	MM	YYYY	hh	mm
Date arrival on fishing grounds	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
Date start fishing	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
Date end fishing	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
Date departure from fishing grounds	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
Total no. days lost	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>

Total no. operations/sets	<input type="text"/>	Sampling details (if <100% of sets were observed)	<input type="text"/>
No. observed operations	<input type="text"/>		

Gear details (GN)

Total no. nets onboard	<input type="text"/>	Float type	<input type="text"/>	Sinker weight	<input type="text"/>
Net drum/ hauler	<input type="text"/>	Sinker type	<input type="text"/>		

Net details	Net type 1	Net type 2	Net type 3	Net type 4	Net type 5
No. of net panels	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
Net material	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
Net length (m)	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
Net depth (m)	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
Stretched mesh size	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
Net colour	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
Total no. nets	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>

Remarks



Indian Ocean Tuna Commission

Operation information - GN

Form OP-GN

IOTC Trip number	
IOTC Operation number	

Operation details (GN)									
Set start date and time					Haul start date and time				
DD	MM	YYYY	hh	mm	DD	MM	YYYY	hh	mm
Set start location					Haul start location				
Latitude (units)		Longitude (units)			Latitude (units)		Longitude (units)		
Remarks									

Net details			
Set type		Hanging ratio	
Vertical set		No. panels set	
Net type (code from Trip form)		No. panels retrieved	
No. weights used		No. panels observed	
Net configuration			

Sampling details

Remarks

