

**TMO-3**



FISHERIES TRAINING CENTRE

# LONG LINE FISHING COURSE OUTLINE

REPUBLIC OF KIRIBATI

Control Number

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## **Introduction**

This Course Outline is designed to reflect the notes written and compiled based on the provided information on the origin and history of horizontal tuna long lining, the latest science, and the current importance of this fishing method to developing domestic tuna longline fisheries in the Pacific region.

The main target, byproduct and by catch species are examined, looking at the habits that fishermen can use to their advantage in locating them and the baits that can be used. Knots and splices suitable for making up the different components of gear are described, as well as the use of ropes and lines for both fishing activities and general boat handling.

It also briefly looks at the different types of tuna Longline vessels used in the region, for small, medium, and large scale operations. Finally, sea safety and the relevant rules of the road are covered to emphasize the importance of taking precautions and being prepared, as tuna long lining can be a hazardous occupation if not conducted in a safe and professional manner.

Instructors are expected to follow this guide bearing in mind that their knowledge, skills and dedications are the key components in the transfer of knowledge and skills to those being trained.

***Bauro Uerem  
Fisheries Training Centre***

## Part A

### Course Framework

- **Scope**

This course covers the training requirements of ship owners and ship operators of Longline fishing vessels. Junior stage covers most of the theoretical lessons introducing Longline Fishing techniques while the Senior Stage concentrate more on the practical aspects.

- **Objective**

A trainee successfully completing this course will be able to work onboard a Longline Fishing vessel. Depending on Fishing Company's and vessel's policy the fresh crew may only assist but should he be given a chance to hold the position, the newly graduated trainee should be able to perform the job efficiently.

- **Entry standards**

The course is open to prospective seafarers and should preferably be given prior to their employment on a sea-going fishing vessel. Class Nine or Form Three Junior Secondary level is the minimum requirements and all candidates must be certified by a doctor to be in a good health and possess a Clean Police Clearance record. Elements of entry standard are detailed in the Quality Manual and Intake Procedure.

- **Course certificate**

Provided that the course has been approved by the Administration, a trainee who successfully completes it may be issued with a certificate attesting that he has completed a course based on standards set in the Course Curriculum. This certificate must be signed by the Principal and the Secretary for Ministry of Labour & Human Resource Development, the governing body of the institute.

- **Course intake limitations**

The number of trainees is demand driven depending on employer's demands. Trainees are to be sorted in classes with not more than twenty five trainees in a class. The class may also be split into groups of not more than five trainees for group search, studies and projects.

- **Staff**

The Fishing Department is headed by the Senior Instructor (Fishing) holding a minimum of Master Class V ticket with sufficient sea service experience as stated in the Organization Structure and Staff Personal Details (*QM Part A 3.1 Organization Structure*). Assistant instructor with practical knowledge of LongLine Fishing is to assist the Senior Instructor.

- **Teaching facilities and equipments**

Classroom facilities and audio/video projector are available for the theoretical part of the course. Video room is available at all times for audiovisual materials.

For the practical part of the course the following resources are of adequate quantity to train more than the whole course participants and are made available at all times:

- ❖ *Fishing Vessel (Tiakawa)*
- ❖ *Monofilaments*
- ❖ Fishing Hooks of assorted sizes
- ❖ Raincoats
- ❖ Safety Helmets
- ❖ Rubber Boots
- ❖ Safety Belts
- ❖ Branchline

- ❖ Floats
- ❖ Knife
- ❖ Bench Crimpers
- ❖ Long Handled Fishing Hooks
- ❖ Artificial lures
- ❖ Cutting pliers
- ❖ Flat Pliers
- ❖ Gloves
- ❖ Fish replicas of different sizes and weights
- ❖ Baskets
- ❖ Hooks for live baits
- ❖ Swivels
- ❖ Clips
- ❖ Wooden Hammer
- ❖ Radio beacon buoy
- ❖ Swivels
- ❖ Line hauler
- ❖ Ropes

▪ **Teaching aids (A)**

Instructor's Manual (Part D of the course) and Trainees Text Books.

- Fishermen's Outfits
- Fishing Branch lines with Hooks
- Assorted sizes of Fish replicas
- Power points presentation
- Mainline for Longline
- Branchline Hauler

**Audiovisual aids**

The following are available:

- Tuna Handling for Sashimi
- SPC Program CD 1,2
- Power Points

▪ **Textbooks (T)**

A copy of Longline Text Book is available for every trainee to keep throughout the course period.

## Part B

### Course Outline

Subject Area		Period.	
		Lecture	Demonstrations
3.0	<b>Section Introduction</b>	1	
<hr/>			
3.1	<b>Basic information and Techniques</b>		
	• What is Longline	1	1
	• The Western and Pacific Ocean tuna longline fishery	1	1
	• The catch: target species	2	1
	• Bait used in longline fishing	2	1
	• Knots used with monofilament and the used of crimps	2	1
	• Longline boats	1	1
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3.2	<b>Fishing Gear and Equipment</b>		
	• Basic gear configuration and storage	1	1
	• Hydraulically powered machinery used with longline gear	2	1
	• Mainline and branchline materials and connection points	2	1
	• Branchline hardware & Making up branchlines	2	1
	• Floats & Radio buoys	2	1
	• Vessel electronics	1	1
	• Vessel hydraulics	1	1
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3.3	<b>Fishing Operation</b>		
	• Preparing for a fishing trip	2	1
	• Deciding where to fish: When leaving port	2	1

• Deciding where to fish: when arriving at the fishing ground	2	1
• Deciding where to fish : during the trip	1	1
• Targeting the gear: the surface layer and the thermo cline	1	1
• Targeting the gear: depth of the set	1	1
• Setting and hauling the gear: general	2	1
• Setting monofilament gear	1	2
• Setting the rope, data recording and soaking time	1	1
• Some variations on the setting	1	1
• Finding the gear	1	1
• Hauling the basket gear	2	1
• Hauling monofilament gear	2	1
• Encountering problems when hauling the gear	1	1
• Fish on the line	1	1

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### 3.4 ***Handling and Preserving the Catch***

• The basic and the tools needed	1	1
• Landing, killing and bleeding the catch	1	1

• Dressing sashimi tuna ready for the chilling	1	1
• Onboard preservation(icing the catch)	1	1
• Onboard preservation (CSW and RSW)	1	1
• Onboard preservation (freezing)	1	1
• Cleaning & Sanitising	1	1
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<b>3.10 Review and Final Assessment</b>	<b>3</b>	
	52	37
SUBTOTALS		<u>89</u>
TOTAL		
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## **Longline Fishing Course Timetable**

Duration of the training is Twelve Months of which twenty weeks covers the Junior Stage and nineteen weeks for Senior Stage. Time Tables covering all aspect of FTC modules, including practical onboard trainings, are incorporated in the Time Table to cover all sections of different modules throughout the thirty nine weeks of the Course.

## Part C

### Detailed Teaching Syllabus

The detailed teaching syllabus has been written in learning objective format in which the objective describes what the trainee must do to demonstrate that knowledge has been transferred.

The following demonstrations illustrates that trainees absorbed what has been taught.

- Practical Longline Fishing
- Float net Preparation
- Branchline making
- Branchline Repairs
- Fishing Knots (joining the mainline)
- Fish Preservation
- Hauling branchline
- Fish Gaffing
- Setting branchline
- Operating line hauler
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Throughout the course, safe working practices are clearly defined and emphasized.

	<b>Learning Objectives</b>	<b>IMO Reference</b>	<b>Textbooks Bibliography</b>	<b>Teaching Aid</b>
3.0	<b>Section Introduction</b> <i>Introduction of the Longline fishing boat so that trainees may be able to identify different fishing boats.</i>	STCW-95-F Chapter3	Page 3-26  SPC, HLL Method & Techniques	Notes , Flash cards,
3.1	<i>This unit also provides sound background knowledge of a Longline fishing vessel with targeted catch and general understanding of basic history of fishery in the Pacific region.</i>	FAO/ILO/IMO Chapter 2 (2.2)	Manual for fisherman SPC	video CDs Text Books
3.2	<b>Fishing gear and Equipment</b> <i>Trainees are to appreciate the gear and equipment used in horizontal tuna longline fishing activities including hydraulics used and</i>	FAO/ILO/ IMO Chapter 2 (2.13.3)	Marine identification manual for horizontal longline	Notes , Flash

	<p><i>the habits of the species being targeted.</i></p> <ul style="list-style-type: none"> <li>• <i>Basic gear configuration and storage</i></li> <li>• <i>Hydraulically powered machinery used with longline gear</i></li> <li>• <i>Mainline and branchline materials and connection points</i></li> <li>• <i>Branchline hardware &amp; Making up branclines*</i></li> <li>• <i>Floats &amp; Radio buoys</i></li> <li>• <i>Vessel electronics</i></li> <li>• <i>Vessel hydraulics</i></li> </ul>	<p>FAO/ILO/IMO Chapter 3.25, 3.27</p> <p>FAO/ILO/IMO Appendix 5 Pg219</p>	<p>fishermen</p> <p>SPC, Handbook No 28 (1987) A manual for Fisherman</p> <p>SPC, HLL Method &amp; Techniques Manual for fisherman</p>	<p>cards, video CDs Text Books</p>
<p>3.3</p>	<p><b>Fishing Operation</b></p> <ul style="list-style-type: none"> <li>• <i>Preparing for a fishing trip</i></li> <li>• <i>Deciding where to fish: When leaving port</i></li> <li>• <i>Deciding where to fish : When arriving at the fishing ground</i></li> <li>• <i>Deciding where to fish: during the trip</i></li> <li>• <i>Targeting the gear: the surface layer and the thermocline</i></li> <li>• <i>6Targeting the gear: depth of the set</i></li> <li>• <i>Setting and hauling the gear: general</i></li> <li>• <i>Setting monofilament gear</i></li> <li>• <i>Setting the rope gear, data recording and soaking time</i></li> <li>• <i>Some variations on setting</i></li> <li>• <i>finding the gear</i></li> <li>• <i>Hauling monofilament gear</i></li> <li>• <i>Encountering problems when hauling the gear</i></li> </ul>	<p>FAO/ILO/IMO chapt, 2 (2.13.3)</p>	<p>SPC Pages 27 – 54 SPC, HLL Method &amp; Techniques Manual for fisherman SPC</p> <p>SPC, HLL Method &amp; Techniques Manual for fisherman SPC</p>	<p>Notes , Flash cards, video CDs Text Books</p>
<p>3.4</p>	<p><b>Handling and Preserving the Catch</b></p> <ul style="list-style-type: none"> <li>• <i>The basic and the tools needed</i></li> <li>• <i>Landing, killing and bleeding the catch</i></li> <li>• <i>Dressing sashimi tuna ready for the chilling</i></li> <li>• <i>Onboard preservation(icing the catch)</i></li> <li>• <i>Onboard preservation (CSW and RSW)</i></li> <li>• <i>Cleaning &amp; Sanitizing</i></li> </ul>	<p>FAO/ILO/IMO Chapter 2 (2.13.3), (2.16.2.1)</p> <p>FAO/ILO/IMO Chapter 2, Chapter 3.26 Chapter4 (4.25)</p>	<p>SPC, HLL Method &amp; Techniques Manual for fisherman SPC</p> <p>SPC, HLL Method &amp; Techniques Manual for fisherman SPC</p>	<p>Notes , Flash cards, video CDs Text Books</p>

## **Part D**

# **Instructor Manual**

### **▪ Introduction**

The instructor manual provides guidance on the material that is to be presented during the course. The course material reflects the requirements for the training of ratings before engaged on sea board services, particularly on fishing vessels. For every topic, instructors should highlight key points to trainees to ensure that they are well understood and absorbed.

The material has been arranged under three main headings:

- 3.1 Basic Information and Techniques
- 3.2 Fishing Gear and Equipment
- 3.3 Fishing Operation
- 3.4 Fish Handling

## **Part E**

# **Evaluation**

### **▪ Introduction**

The effectiveness of any evaluation depends upon the accuracy of the description of what is to be measured.

The learning objectives used in the detailed syllabus will provide a sound base for the construction of suitable tests for evaluating trainee's progress.

### **▪ Method of evaluation**

Having a defined objective as detailed in Learning Objectives the following Evaluation methods are to be conducted:

- Unit Tests &
- End of Stage Exams
- Course End Results

#### **Unit Tests**

At the end of every topic, trainees are to be given a written and/or practical test to ascertain how much the trainees had absorbed. Trainees failing the unit test are to be given extra study hours under close guidance of the topic instructor in accordance with FTC Rules for trainees and the Quality Management System. Re-testing of these trainees will be conducted after a considerable time of extra study hours given and the instructors satisfies that they are ready. A test at the end of the topic is also a self evaluation process of instructors.

#### **End of Stage Exam**

Before the end of each stage, Junior & Senior Stage, trainees are to be given two weeks revision in preparation before the Final Exams.

Junior Stage Exam covers all the topics taught from the beginning to the end of the Junior Stage. Exams are in the form of Written and Practical Demonstrations.

Senior Stage Exam comprises with Written, Practical and Orals where required. Trainees could be assessed/evaluated in a group for practical exams.

▪ **Scoring**

Scoring of written Papers are by marks awarded for each question while practical exams are awarded with either a straight Pass or FAIL.

Written Papers comprises with a combination of either of the following:

- Multiple Choice questions.
- Short Answers
- Long Answers
- True or False

Questions, particularly long answer questions are to be weighted to reflect the relative importance of questions, or of sections of an evaluation.