

INTERNATIONAL YACHT TRAINING WORLDWIDE

VHF COMMUNICATIONS CERTIFICATE COURSE SYLLABUS, FRAMEWORK AND DEPTH OF KNOWLEDGE

Overview

This course covers general rules for the use and operation of VHF Radios; every crew member needs to know how to operate a marine radio. It covers what to do in the case of an emergency and an introduction to other marine communications equipment.

Radio operator qualifications from a recognised issuing authority will be accepted in lieu of the IYT Worldwide qualification.

The certificate covers the correct and safe use of a VHF radio, SARTs and EPIRBs and an introduction to the use of other marine communications equipment including how to monitor MF and HF Marine radios.

It is the level of competence that all crew needs to be able to operate a VHF radio correctly and in particular to operate in the event of an emergency when life and loss of property may be at stake.

Scope: A 6 to 8 hour course, in class, with written examination incorporating the correct use of VHF radio for normal operating conditions and also in the event of distress and emergencies.

Objective: The expected learning outcome is that the student understands the basic theory and practical applications of:
Basic Radio Theory, VHF Radio Equipment, Subsidiary Equipment, Regulations/Licensing Requirements, Common Radio Terms, Radio Procedures, Emergency Radio Communications, GMDSS, EPIRB and SART, Satellite Communications and introduction to SSB/HF Radio Equipment

Entry Standard: There are no prerequisites for attending this course

Certificate and/or Documentation: To be issued after successful completion of all the modules:
The VHF Communications Certificate

Maximum Class Size: 16 to 1 in class subject to classroom size.

Candidate/Instructor Ratio: 16 to 1 in class subject to classroom size.

Specific Staff Requirements: Instructors will be appropriately qualified to IYT Worldwide requirements.

Teaching Facilities and Equipment:

Facility: Approved by IYT Worldwide:
Member School's classrooms

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Course Equipment: As needed and
PowerPoint Projector and computer
Television and VCR
Whiteboard or Blackboard
VHF Radios, including a handheld
EPRIB
SART

Teaching Aids:

Visual Aids: PowerPoint presentation Slides and Videos

Textbook(s): IYT Worldwide Textbook
PowerPoint Presentations (To be prepared)

Reference Books: Admiralty or local versions of the following:

- 1 International Code of Signals
- 2 List of Radio Signals
- 3 List of Lights
- 4 Notices to Mariners
- 5 Nautical Almanac
- 6 Mariners Hand Book

Teaching Timetable

The content for the VHF Communications course should be taught using the Syllabus and DOK as the Teaching Framework/Plan. The school can be flexible in the way and order the material is delivered. However the syllabus **MUST** be covered and the candidates assessed to the Depth of Knowledge outlined below.

Exam Policy

A written examination will be given before the end of the course.

A grade of 70% or higher is required for a pass.

There is no formal Practical assessment for the VHF Communications Course. Candidates should however meet the minimum competencies defined in the Depth of Knowledge section below and in the International Yachting Passport.

Re-Testing Policy

Where a candidate fails an examination, that candidate will be allowed to retake the theory and practical examination after further experience and training.

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Syllabus

Radio Operator/Communications Certificate – Module 7 – Theory

Radio operator qualifications from a recognized issuing authority will be accepted in lieu of the IYT Worldwide qualification.

1. Introduction
2. Basic Radio Theory
3. Subsidiary Equipment
4. Common Radio Terms
5. Regulations/Licensing Requirements
6. VHF Radio Equipment
7. SSB/HF Radio Equipment
8. Radio Procedures
9. Emergency Radio Communications
10. GMDSS
11. EPIRB and SART
12. Satellite Communications

Depth of Knowledge

One of 4 levels of Depth of Knowledge will be required for every subject within each training level, these levels are Introductory, Outline, Working and Complete, and the level for each is defined below:

Introductory

The material is introduced to the candidate without the knowledge having to be retained. The candidate is shown how to carry out certain tasks or exercises, and is made aware of the correct and safe way of carrying these out.

Outline

The candidate will need to demonstrate an outline knowledge of the syllabus and should be able to carry out basic tasks the correct and safe way with some supervision.

Working

The candidate will need to demonstrate a working knowledge of the syllabus and be able to carry out tasks without prompting, in a correct and safe way.

Complete

The candidate will need to demonstrate a thorough and complete knowledge of the syllabus and be able to carry out all the tasks without prompting or hesitation in a safe and correct way.

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DOK

Competency requirements

The candidate must be able:

To demonstrate a basic working knowledge of the syllabus outlined in above,
and;

To demonstrate the ability to perform the required practical skills

Theory and Practical Components

This may take the form of both written and oral assessments and practical demonstrations of skills

The candidate is required to demonstrate successfully the following skills:

Basic Radio Theory

Demonstrates a working knowledge of Transmitter, receiver, transceiver, antenna, Radio waves/wavelength and frequency

Subsidiary Equipment

Demonstrates a working knowledge of batteries, SWR metres and the need for coaxial cables to antenna

Common Radio Terms

Understands the terms Simplex and duplex

Regulations/Licensing Requirements

Is familiar with the requirements to have a Station License, Operator's Certificate/license, International rules for radio communications and the rules governing silence periods

VHF Radio Equipment

Can demonstrate the proper use of a VHF radio and adjust correctly all the controls for optimum operation, particularly squelch and when to use High and Low Power

Factors affecting range, line of sight

Knows the allocation of channels in particular Channel 16 and the concept of DSC

SSB/HF Radio Equipment

Has been introduced to MF, HF/SSB radio communications equipment, its advantages and disadvantages, range and antenna types

Radio Procedures

Demonstrates the correct use of a VHF radio using the proper terminology

Demonstrates the phonetic alphabet

Emergency Radio Communications

Demonstrates ability to select the correct type or emergency communication, Distress, Urgency and Safety calls and can correctly send and respond in each type of situation

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GMDSS

Is familiar with the concepts of GMDSS and in particular DSC

EPIRB and SART

Demonstrates when and how these are used and understands the way they work

Satellite Communications

Has been introduced to the concept of Inmarsat