

**BC Sailing Safety at Sea**  
**CYA-ISAF Approved Offshore Personal Survival Course**  
**Syllabus**  
**2011-03-03a**

**This course syllabus follows, with modifications, the ISAF Offshore Special Regulations, Appendix G Model Training Course.**

**Session 1 Introduction**

- 1.0 Overview of the course, administrative arrangements, timetable
- 1.1 Importance of training
- 1.2 Importance of a “safety culture”
- 1.3 Crew briefing, stowage chart, crew experience and fitness
- 1.4 Responsibilities of person in charge, crew members

**Session 2 Care and maintenance of safety and other equipment**

- 2.1 Routine to maintain, fit and store safety equipment
- 2.2 Checks to continue when under way
- 2.3 Availability of reserve navigation lights and general spares.
- 2.4 Marking of floating equipment with vessel name.
- 2.5 Check and maintain floating safety equipment.
- 2.6 Preventing fuel contamination

**Session 3 Storm sails**

- 3.1 Storm and heavy-weather sails
- 3.2 How are they set?
- 3.3 Where are they stowed?
- 3.4 Importance of practicing periodically
- 3.5 Effects on the rig when using reduced sail in heavy weather
- 3.6 Dangers of heavy water breaking over the boat
- 3.7 Danger of heavy metal shackles in storm sails

- 3.8 Importance of bright colour in storm sails
- 3.9 Setting the trysail without the boom, securing the boom

#### **Session 4 Damage Control and Repair**

- 4.1 Preparing for expected heavy weather
- 4.2 Remedial action for loss of rudder/steering, loss of mast, flooding, stranding, severe weather damage, loss of keel or capsize, collision

#### **Session 5 Heavy Weather**

- 5.1 Crew routines for working in exposed positions, secure stowage for moveable items, jack lines, rough weather operations, severe weather strategies, galley operations, visibility of yacht in heavy seaway
- 5.2 Boat handling in a seaway, helming techniques, effects of wind and wave conditions on boat and crew, sail changes, assessing options
- 5.3 Drogues and sea anchors

#### **Session 6 Man overboard prevention and recovery**

- 6.1 Prevention: lifeline maintenance, safety harnesses, crotch/thigh straps, use of head, safety tethers
- 6.2 Recovery: technique, practice, requesting assistance, getting MOB onboard, post-recovery assessment, actions by MOB

#### **Session 7 Giving Assistance to other craft**

- 7.1 Requirements: SOLAS, RRS, moral imperative, communications, log-keeping
- 7.2 Maneuvering close to another vessel, keeping informed, recovering personnel from water or raft, tactics for fire
- 7.3 Assistance from another yacht or vessel
- 7.4 Towing and being towed

#### **Session 8 Hypothermia**

- 8.1 Prevention
- 8.2 Symptoms
- 8.3 Treatment
- 8.4 Immersion suits, thermal protective aids

## **Session 9 SAR organization and methods**

- 9.1 With respect to the region sailed:
  - 9.1.1 Passage plans
  - 9.1.2 Emergency contact methods
  - 9.1.3 SAR facilities
  - 9.1.4 Helicopter rescue techniques used
  - 9.1.5 Radio frequencies used
  - 9.1.6 Fixed wing aircraft used
  - 9.1.7 Fixed-wing aircraft search patterns, signal flares
  - 9.1.8 Global SAR organization
  - 9.1.9 How to cope with rescue attempts from passing ships
  - 9.1.10 Knowledge of new IAMSAR for small craft

## **Session 10 Weather Forecasting**

- 10.1 Sources of weather forecasts
- 10.2 Terms and definitions and their exact meaning
- 10.3 Wind and sea state scales
- 10.4 Logging own weather observations, making own deductions
- 10.5 Being prepared for local abnormalities

## **Session 11.1 Liferafts (theory)**

- 11.1.2 Standards
- 11.1.3 Stowage, care and servicing
- 11.1.4 Emergency packs
- 11.1.5 Grab bag contents and application
- 11.1.6 Combating liferaft capsize
- 11.1.7 Capsize mechanisms and re-righting procedure
- 11.1.8 When and how to launch a liferaft
- 11.1.9 Protecting a liferaft while alongside
- 11.1.10 Boarding a liferaft from vessel
- 11.1.11 Boarding a liferaft from the water
- 11.1.12 Crew organisation before boarding and within liferaft: signalling, watchkeeping, damage repair, medical, water, food, keeping up morale, psychology of survival

- 11.1.13 Cold water immersion shock and hypothermia; effects on performance
- 11.1.14 Use of SART

### **Session 11.2 Lifejackets (theory)**

- 11.2.1 Regional terminology and types of lifejackets
- 11.2.2 Accessories required in the Offshore Special Regulations
- 11.2.3 Accessories recommended in the Offshore Special Regulations
- 11.2.4 Inflatable lifejackets - automatic, manual and oral inflation
- 11.2.5 Lifejacket fit, donning, compatibility with harness

### **Session 12 Knowledge Review**

This written examination covers sessions 1 - 11 and is completed by participants. A mark of 60% or higher constitutes a passing grade.

### **Session 13 Liferrafts and Lifejackets (practical)**

- 13.1 This session is conducted in-the-water at a pool
- 13.2 Participants don swimsuit and wet weather gear, then swim without lifejackets, then swim with lifejackets. Most exercises are done with lifejackets.
- 13.3 Inflate a liferaft, transfer crew into the raft, paddle the liferaft
- 13.4 Capsize a liferaft, right the raft while in the water
- 13.5 Assist one 'incapacitated' participant into a liferaft
- 13.6 Check and review use of all liferaft equipment
- 13.7 Use signal mirror from raft
- 13.8 Simulate use of handheld VHF radio and handheld GPS
- 13.9 Use of lifejacket with and without crotch/thigh straps
- 13.10 Use of lifejacket splashguard
- 13.11 Investigate ability of lifejacket to self-right
- 13.12 Group techniques in the water
- 13.13 Towing an unconscious person
- 13.14 Use of throwing line
- 13.15 Demonstration of MOB safety equipment (optional)
- 13.16 Demonstration of retro-reflective tape (optional)
- 13.17 Contents of personal survival kit

### **Sessions 14/15 Fire (theory and practical)**

- 14/15.1 Theory
- 14/15.2 Common causes of fire in small craft
- 14/15.3 Prevention
- 14/15.4 Equipment
- 14/15.5 Practical operation of fire extinguishers (actual fire is not used)

### **Sessions 16/17 Communications (theory and practical)**

- 16/17.1 VHF radios - ship and handheld
- 16/17.2 Offshore Special Regulations radio requirements
- 16/17.3 SSB radios
- 16/17.4 Satellite communications
- 16/17.5 Mobile / cellular phones
- 16/17.6 Enhanced services - GMDSS, DSC, AIS
- 16/17.7 Aviation VHF radios
- 16/17.8 Logging distress communications

### **Sessions 18/19 Emergency Signaling (theory and practical)**

- 18/19.1 Flares - handheld, parachute, smoke; usage, precautions, visibility
- 18/19.2 Flares - stowage, readiness for use
- 18/19.3 Anti-collision signals - flares, spotlights
- 18/19.4 Operation of EPIRBs and PLBs
- 18/19.5 Operation of ARGOS-type beacons
- 18/19.6 Integration of distress beacons in the GMDSS framework
- 18/19.7 Inmarsat Safety Services

### **Session 20 Knowledge Review**

This written examination covers sessions 13 - 19 and is completed by participants. A mark of 60% or higher constitutes a passing grade.