

US SAILING HANDS-ON TRAINING

Offshore Personal Survival

INTRODUCTION

1 Purpose of the US SAILING Hands-On course. To help provide training under ISAF Offshore Special Regulation Section **6.03**. ***This extract of the ISAF Offshore Special Regulations (OSR), Appendix G, is a stand alone document tailored for use in the US by qualified instructors to conduct the Practical, Hands-On Training required by OSR 6.03.****

2 Use of the Hands-On course. ***This US SAILING Hands-On Training Course combines some theoretical review with the practical portion of the ISAF Model Training Course for presentation by US SAILING designated instructors to students seeking ISAF Approved Offshore Personal Survival Course certificates. The US SAILING Director of Offshore Sailing will issue "ISAF Approved" certificates to candidates who complete this course plus a US SAILING Sanctioned Safety at Sea Seminar defined in US SAILING's SAS Seminar Planning Document at www.ussailing.org/safety/seminars within one year.***

3 Presentation. The presentation may have to be repeated in various ways until the instructor is satisfied that the trainees have attained a good understanding of each topic.

4 Evaluation. The final activity in each training day is an examination, which should be used together with instructors' continuous assessments to provide a overall evaluation. The pass mark is to be taken as 60% in each of the marked units.

5 Implementation. Detailed requirements ***for Hands-On training*** are given below. Thorough preparation is the key to successful implementation of the course.

6 Structure of the US SAILING Hands-On Course.

Part A describes the framework for the course, with aims and objectives and notes on suggested teaching facilities and equipment.

Part B sets out the detailed syllabus.

7 ISAF Approved Training Courses and Trainee Certification.

7.1 The status of "ISAF Approved" together with authority to use the ISAF logo may only be awarded to a training course by an ISAF MNA (Member National Authority) ***which is the US SAILING Director of Offshore Sailing in the U.S.***

7.3 A sailor holding an in-date "pass" certificate (each has a validity of 5 years) from an ISAF Approved Offshore Personal Survival Course shall be accepted by a race organizer as having complied with the requirements of ISAF Offshore Special Regulation 6.01.

7.4 "Pass" certificates issued at an ISAF Approved course shall carry the statement "ISAF Approved Offshore Personal Survival Course" and may carry the ISAF logo.

7.5 Unless otherwise stated in the Notice of Race, it is not mandatory that a training course for compliance with SR 6.01 is "ISAF Approved" however this status is encouraged wherever possible.

**** US SAILING additions are printed in bold, italic letters.***

Part A Framework

A1 Class Size The maximum recommended class size is 20. When smaller work groups are established, this will allow for about four in each group. A suggested minimum number for the class would be ten. Otherwise it is difficult to promote discussion in smaller work groups.

A2 Instructors should have:

- wide experience of offshore sailing including sailing in severe weather
- a thorough knowledge of the course material
- a thorough knowledge of the requirements of the ISAF Offshore Special Regulations
- a good understanding of teaching methods

In the U.S. all instructors providing Hands-On training will be approved/designated by the US SAILING Director of Offshore Sailing.

A3 Facilities and equipment

A 3.1 A suitable classroom is required with desks or tables and chairs. It should be possible to move the furniture around so that a variety of room arrangements can be used. Ideally, extra rooms will be available for when the class is split into groups, since each group should have a separate space in which to work.

A 3.2 The main room should be provided with the following equipment, ***when required to support the syllabus:***

- a whiteboard or blackboard
- a flip chart
- writing materials for trainees
- an overhead projector (OHP) for transparencies
- a computer projector (with additional sound channel if not integral)
- a video tape player compatible with the computer projector
- a PC or laptop with CD-ROM drive, all compatible with the computer projector
- a reflective screen designed for use with the computer projector
- adequate electric sockets located so that the equipment can be positioned safely.

A 3.3 Group rooms should be provided with a table and chairs and some form of board and writing materials.

A 3.4 A video camera may be useful and should be compatible with the computer projector or alternatively must produce video tapes compatible with the video tape player.

A 3.5 A warm-water swimming pool with all appropriate safety equipment, personnel and facilities making it suitable for demonstration and training with lifejackets and liferafts. A wave-generator may provide added realism.

A 3.6 An outdoor location with appropriate safety equipment, personnel and facilities making it suitable for demonstration and training with pyrotechnics and fire extinguishers.

Part B Detailed Syllabus

Session 1 Introduction (30 min)

- 1.0 The instructor gives an overview of the course and administrative arrangements, and explains the assessment and exam procedures.
- 1.1 The importance of training both in formal sessions and also as part of the routine in running a sailing yacht.
- 1.2 The importance of a “safety ethos”
- 1.3 The crew brief including safety equipment, stowage details, emergency procedures, responsibilities and how to send a Mayday call and use EPIRB and flares in case the skipper and key crew members are incapacitated. Show stowage chart required in Special Regulations. Crew experience and fitness must be adequate
- 1.4 Responsibility of person in charge for safe conduct of vessel and oversight and direction of crew actions. Responsibility of crew members for their own safety and in the discharge of their duties, to contribute to the safety of the vessel and the rest of the crew.

Session 2 OSR 6.03.1 - Liferafts (theory review) (15 min)

- 2.1 knowledge of (*familiarization with*) liferaft standards: SOLAS, ISAF Appendix A Part II, ORC and ISO 9650 Part 1 Type 1 Group A plus OSR requirements.
- 2.2 stowage, care and servicing of liferafts
- 2.3 liferaft emergency packs
- 2.4 grab bag contents and application
- 2.5 two key elements in combating liferaft capsize – drogue, ballast water pockets
- 2.6 the capsize mechanism and the re-righting procedure
- 2.7 when and how to launch a liferaft
- 2.8 protecting a liferaft in the minimum time it is alongside after launch
- 2.9 boarding a liferaft if possible dry: use of dry suits if possible
- 2.10 boarding a liferaft from the water: importance of boarding ramp and grab lines
- 2.11 crew organization both before boarding and within liferaft: signalling for help, watchkeeping, damage repair, medical, water, food, keeping up morale, psychology of survival.
- 2.12 knowledge of physiological shock of cold water and hypothermia and its effect on human performance in tasks like liferaft operation and survival.
- 2.13 use of SART (optional in grab bag).

Session 3 OSR 6.03.1 - Lifejackets (theory review) (15 min)

- 3.1 Understand the terminology in your part of the world: know the difference between a 150N/33 lb lifejacket / **PFD** capable of turning over an unconscious person in the water to the face-up position within 30 seconds, and a lesser device which may only aid buoyancy.
- 3.2 Understand the accessories required in Offshore Special Regulations: whistle, marine-grade retro-reflective material, yacht's or wearer's name
- 3.3 Understand the accessories and attributes recommended in Offshore Special Regulations: light in accordance with the SOLAS LSA code, compliance with EN376 (ISO 12402) or near equivalent, crotch strap, splash guard
- 3.4 Know the relative merits and methods of use of all-inflatable buoyancy and part-fixed, part-inflatable, automatic inflation, gas inflation on demand, mouth-only inflation.
- 3.5 Know the importance of a good fit, lifejacket organized for quick donning, compatibility with harness.

Session 4 OSR 6.03.1 - Liferrafts and Lifejackets (practical) (2 hours)

- 4.1 a pool with a wave-making facility will add realism
- 4.2 trainees to don shirt and trousers plus oilskins/**foul weather gear** and to try swimming first without, then with 150N/33lb **inherently buoyant** lifejackets. Majority of exercises with all trainees wearing 150N/33lb lifejackets, **safety harnesses and tethers/safety lines**.
- 4.3 inflate a liferaft and transfer a full complement into the raft (a) from the poolside (b) from the water (show difference between boarding with ramp and without): paddle the liferaft for a distance.
- 4.4 capsize a liferaft and have each trainee right the raft whilst swimming
- 4.5 trainees to haul into a raft one survivor who plays helpless
- 4.6 In fully-loaded raft trainees to check out all equipment, including that in grab bag, deploying or using everything including food and water.
- 4.7 trainee to attempt heliograph/**signal mirror** signalling (using spotlight in roof) from liferaft (more difficult if in wave-making pool).
- 4.8 trainees to operate WT VHF hand-held and WT hand-held GPS talking to instructor as if a rescue vessel.
- 4.9 trainees to try lifejackets both with and without crotch straps in place.
- 4.10 each trainee to experience use of the splashguard in wave conditions.
- 4.11 group to investigate ability of lifejacket to self-right.
- 4.12 forming circle in water to aid visibility/morale – HELP/Huddle techniques
- 4.13 towing an unconscious person
- 4.14 assistance using throwing line to recover nearby survivor
- 4.15 the opportunity of using the pool may be taken to demonstrate MOB modules, Lifeslings, lifebuoys etc.

- 4.16 if a darkened pool is available, demonstrate retro-reflective tape.
- 4.17 trainees who depend on spectacles/**eye glasses** may consider having an indestructible pair as part of their personal survival kit.

Sessions 5/6 OSR 6.03.2 - Fire precautions and use of fire extinguishers - theory (15 min) and practical (30 min)

- 5.1 fire theory
- 5.2 most common causes of fire in small craft
- 5.3 prevention
- 5.4 equipment – fire extinguishers, fire blankets, services, tested, maintained, fit for purpose. Advantages/ disadvantages of various types of extinguishers.
- 5.5 practical operation of fire extinguishers (actual fire is not required in this training course)

Sessions 7/8 OSR 6.03.3 - Communications equipment (VHF, GMDSS, satcomms) - theory (20 min) and practical (30 min)

- 7.1 VHF main installations and hand-helds.
- 7.2 Special Regulations requirements for VHF 25W output, masthead antenna, emergency antenna.
- 7.3 SSB
- 7.4 Satcoms: A, B, C, D and M. Non-INMARSAT types (eg Iridium). Terrestrial cellphones. Limitations. (***CG no longer used in U.S.**)
- 7.6 GMDSS, DSC, AIS, **MMSI**
- 7.7 Aviation VHF and its use in SAR.
- 7.8 Obligation to log communications connected with distress working
- 7.9 **MAYDAY procedures, voice and DSC**

Sessions 9/10 OSR 6.03.4 - Pyrotechnics and EPIRBs - theory (20 min) and practical (30 min)

- 9.1 pyrotechnics required in Offshore Special Regulations: hand flares, parachute flares, smoke signals. Usage, precautions, range of visibility, duration, behaviour in high winds, altitude of parachute flares and avoiding conflict with aircraft, different operating mechanisms.
- 9.2 stowage of pyrotechnics including some for ready use.
- 9.3 use of white flares
- 9.4 understand the operation of the 406 MHz EPIRB and its ancillary 121.5 beacon; the phasing out of 121.5 MHz as a distress alert system but its use in

local area homing by SAR units and yachts with special-purpose D/F receivers on board in conjunction with PLB's.

9.5 understand the operation of ARGOS-type beacons.

9.6 understand the integration of distress beacons in the GMDSS framework.

Session 11 Exam (20 min)

Time for answering questions -about 15 minutes, with 5 minutes for marking after swapping the papers amongst the class. . Questions should be set to be answered quickly, eg multiple-choice, with at least two questions needing some narrative or listing. Overall assessment for the course will be a combination of the exam plus the tutors' assessments during class and practical work. (See Introduction paragraph 4 for marking details).

Completion Certification. On completion of this Hand-On Training course the instructor must provide to the Director Offshore Sailing at US SAILING an Excel spreadsheet of the participant's names, mailing addresses, membership status and attendance information from a Sanctioned SAS Seminar completed in the same calendar year:

Last Name

First name middle initial

Street address line 1

Street address line 2

City

State

Zip code

E-mail address

Date of Sanctioned SAS Seminar

Location of Sanctioned Seminar

ISAF Approved Offshore Personal Survival Course certificates will be prepared and mailed to attendees from this information by the Director Offshore Sailing (offshore@ussailing.org)

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