

Offshore Special Regulations

Appendix G – Training

A submission from the Chairman on behalf of the Training Working Party

Purpose or Objective

Update Appendix G, which was first published in 2002.

Proposal

Amend to read:

**APPENDIX G
TRAINING**

Model Training Course Offshore Personal Survival

With acknowledgements to IMO (International Maritime Organisation), YA (Yachting Australia), RYA (Royal Yachting Association) and US Sailing whose publications have been consulted in the preparation of Appendix G. A possible model course follows. A more detailed model course description is available at www.sailing.org/documents/offshorespecialregs/index.php

INTRODUCTION

1 **Purpose of the model course:** to provide an example of training under World Sailing Offshore Special Regulation Section 6. The model course is not the only means of providing such training. Other courses satisfying the needs of Section 6 may apply to the appropriate MNA for World Sailing Approval (see Introduction paragraph 6). The MNA is vested with the authority to decide which courses meet the requirements and which do not.

2 **Use of the model course:** The course should be adjusted to address the experience and knowledge of the trainees. In addition to offshore sailing experience, trainees should be familiar with the topics in OSR Special Regulations 6.02. A trainee with particular, suitably documented skills may be excused from that part of the course, e.g. professional medical knowledge.

3 **Presentation:** Particular presentations may need repeating until the instructor is satisfied that the trainees understand each topic.

4 **Evaluation:** The final activities on each day are exercises/exams to test the attendees' knowledge. A score of 70% in each of the marked units, plus the instructors' continuous assessments, will provide an overall evaluation.

5 **Structure of the model course:**

Part A describes the course framework, including suggestions for teaching facilities and equipment.

Part B provides a sample outline of lectures and hands-on sessions with suggested timetable, which should be adjusted to ensure trainees achieve proficiency in the required skills.

Part C describes a possible syllabus, including learning objectives. For more detail on a suggested model course, see the website link shown above.

6 **World Sailing Approved Training Courses and Trainee Certification**

6.1.1 The status of "World Sailing Approved" together with authority to use the World Sailing logo may only be awarded to a training course by a World Sailing MNA (Member National Authority), which must be satisfied that the course delivers training as required by OSR Special Regulation Section 6.01 and 6.02.

6.1.2 A grant of approved status requires the MNA to ensure the course provider delivers appropriate training and the MNA must remove such approved status if and when it judges this necessary.

6.2.1 It is not necessary for a training course to follow the Appendix G Model Training Course in order to be approved as in 6.1 above, but the course must deliver the training required by Special Regulation 6.02.

6.2.2 An MNA which lacks experience in offshore training or which, for other reasons, needs or desires advice should contact the World Sailing Secretariat – Offshore and Technical Department.

6.3 A sailor holding an in-date “pass” certificate (each has a validity of 5 years) from an ISAF/World Sailing Approved Offshore Personal Survival Course shall be accepted by a race organiser as having complied with the requirements of World Sailing Offshore Special Regulation 6.01 and 6.02.

6.4 “Pass” certificates issued at an ISAF/World Sailing Approved course shall carry the statement “ISAF/World Sailing Approved Offshore Personal Survival Course” and may carry the ISAF/World Sailing logo.

6.5 Unless otherwise stated in the Notice of Race, it is not mandatory that a training course for compliance with SR 6.01 and 6.02 is “ISAF/World Sailing Approved,” however this status is encouraged wherever possible.

Part A Framework

A1 Class Size: While the class size for the lecture sections of the curriculum may be larger, the maximum recommended group size for hands-on training is twenty (20) with smaller sub-groups as needed for effective communication of specific lessons.

A2 Instructors should have:

- wide experience with offshore sailing including in severe weather
- thorough knowledge of the course material and the requirements of the World Sailing Offshore Special Regulations
- sound understanding of teaching methods
- a current ISAF/World Sailing approved Offshore Personal Survival Course pass certificate
- experience with liferaft and lifejacket use for in-water training

A3 Facilities and equipment:

A 3.1 A classroom with desks or tables and chairs should allow movement of the furniture to create a variety of room arrangements. Ideally, extra rooms will allow the class to split into smaller work groups.

A3.2 The main room should have equipment suitable for all audio-visual presentations positioned appropriately and wired safely.

A3.3 Group rooms should include table, chairs, display board and writing materials for instructors and trainees.

A3.4 A warm-water swimming pool, deep enough to float everyone, is most suitable for demonstration/training with lifejackets and liferafts and must include all appropriate safety equipment, personnel and facilities.

A3.5 An outdoor location with proper safety equipment, personnel and facilities is required for demonstration and training with pyrotechnics and fire extinguishers.

A4 Reference and Display Material

To be modified appropriately by course providers for their own geographic areas.

A 4.1 For Instructors to Understand and have available to Trainees in the classroom:

- World Sailing Offshore Special Regulations
- World Sailing RRS (The Racing Rules of Sailing)
- COLREGS (International Regulations for Preventing Collisions at Sea)
- Appropriate Notices to Mariners
- Appropriate World Sailing MNA Training Book, or, if not available, World Sailing's Guide to Offshore Personal Safety or US Sailing's Safety at Sea, Guide to Safety Under Sail and Personal Survival.

A 4.2 Recommended further study, books on material such as:

- Offshore Special Regulations Handbook, Alan Green (Adlard Coles)
- The Grab Bag Book, F & M Howorth (Adlard Coles)
- Instant Weather Forecasting, Alan Watts (Adlard Coles)
- Heavy Weather Sailing, A Coles & P Bruce, (Adlard Coles)
- Essentials of Sea Survival, F Golden and M Tipton, (Human Kinetics)

Part C Suggested Course Outline

Introduction: Explanation of assessment required for ISAF/World Sailing certificate; OSR overview (structural design requirements, vessel portable safety equipment, personal safety equipment, training both in formal sessions and on-board practice); Responsibility of the person in charge (leadership); Responsibility of each crew member for his/her own safety as well as the safety of the vessel and other crew (situational awareness); Importance of crew briefings and displayed stowage chart; Safety ethos.

Session 1 – Giving Assistance to Other Craft

Learning Objectives: Laws that cover providing assistance; Moral imperative; Responding to a distress call; Assessing whether you can help; Stages of a typical rescue; Types of assistance you can provide; Maneuvering close to a sinking vessel; Tactics if the other vessel is on fire; Towing and being towed.

Session 2 – Personal Safety Gear, Theory and Practice

Learning Objectives: Life jacket performance factors; Life jacket classification systems; Pros and cons of different inflation systems; Maintaining inflatable life jackets; Using harnesses, tethers, and jack lines; Personal signalling devices.

Session 3 – Care and Maintenance of Safety Gear

Learning Objectives: Pre-departure and under-way inspections; Vessel systems; Safety gear preparation and maintenance; Crew overboard equipment maintenance.

Session 4 – Fire Precautions and Firefighting, theory and practical

Learning Objectives: Common causes of on-board fire; Classes of fires; Fire prevention; LPG (Propane) and alcohol stoves; Extinguisher types and regulations; Firefighting techniques.

Session 5 – Crew Overboard Prevention and Recovery

Learning Objectives: Crew overboard (COB) prevention; Challenges of COB rescue; What a Person in the Water (PIW) can do; Maneuvers to return to the PIW; Dangers of the vessel's proximity to the PIW; Getting the PIW back on board; Using COB beacons to signal for help; Techniques for high-performance, fully-crewed boats.

Session 6 – Hypothermia, Cold Shock and Drowning

Learning Objectives: Human thermoregulation; Causes of hypothermia; Phases of cold water immersion; Survival in cold water; Classifications of cold exposure; Assessment, care, and treatment; Drowning.

Session 7 – Crew Health

Learning Objectives: Crew responsibility; Contagious diseases; Dehydration; Caloric depletion, low blood sugar; Seasickness; Sprains and strains; Wound management, infection; Burns; Sun injury; Head trauma; Heart attack; Shock; Anaphylactic shock.

Session 8 – Marine Weather

Learning Objectives: Global weather systems; Weather maps; Lows; Squalls and thunderstorms; Thermals; Storm avoidance; Weather forecast models and sources; Wave Dynamics – Wave development, Significant Wave Height (SWH) definition, Unusual waves, currents, and seamounts, Effects of shoaling and lee shores.

Session 9 – Heavy Weather

Learning Objectives: Preparation & evaluation of boat and crew; On-deck safety; Securing the vessel; Preparing the galley; Being a responsible shipmate; Adjusting the plan; Sea state; Heavy weather techniques; Storm tactics; Seeking shelter; After the storm.

Session 10 – Storm Sails

Learning Objectives: Depowering the rig; Reducing sail; Mast support; Reefing the main; Rigging and setting storm headsails and storm trysails.

Session 11 – Damage Control

Learning Objectives: Priorities of damage control; Question of abandoning the boat; Types of damage and breakdowns; Tools and spares; Short-term fixes; Damage control examples; Grounding hazards and consequences.

Session 12 – Search and Rescue Organization

Learning Objectives: When and how to ask for help; Local Rescue Coordination Center (RCC) organization and assets; Commercial ships (AMVER); Transferring to a ship; Helicopter evacuation; Meeting the RCC halfway

Session 13 – Pyrotechnics and Signalling Gear, theory & practical

Learning Objectives: Sound signals; Lights; Visual signals; Pyrotechnic pointers; Deploying flares safely.

Session 14 – Emergency Communications, theory & practical

Learning Objectives: Emergency procedure words; Marine communication options; Making a Mayday call; VHF and antennas; Know local VHF channels; Digital Selective Calling (DSC) and AIS; GMDSS and why it is important; Crew overboard alarms; Cellular telephone vs VHF; EPIRBs; Single sideband; Satellite data and voice systems.

Session 15 – Liferafts and Abandon Ship, theory & practical

Learning Objectives: Life raft categories; International standards; Valise or canister; Servicing your raft; Emergency packs; Raft storage; Grab or “Ditch” bags; When to launch; Life raft stability; Boarding the raft; Righting after a capsized; Maximizing your chance of survival on-board the raft.

End of each day Evaluations/Exams:

Instructor to facilitate small group discussions of challenging scenarios, which require crucial decision-making, with solutions shared among the entire class **and/or** administer written exam(s) comprising about 15 minutes of multiple choice questions, plus 2 short essays/listings with 5 minutes for marking after swapping the papers amongst the class. Overall assessment for the course will be a combination of the discussions/exams plus the instructor's overall assessment during both theory and practical sessions.

World Sailing Offshore Special Regulations Appendix G Model Training Course Part B Day 1

Session	SR	Topic	Theory	Start	Stop
1		Introduction: OSRs, Safety Ethos, Responsibility of PIC, Leadership	00:30	09:00	09:30
2	6.02.1	Giving Assistance to Other Craft	00:30	09:30	10:00
3	6.02.3	Care and Maintenance of Safety Gear, theory	00:45	10:00	10:45
4	6.02.5	Crew overboard prevention and recovery	00:30	10:45	11:15
5	6.02.6	Hypothermia, Cold Shock & Drowning	00:30	11:15	11:45
	6.02.7	Crew Health	00:30	11:45	12:15
		Break, with demonstrations	01:00	12:15	13:15
6	6.02.8	Marine Weather	00:30	13:15	13:45
7	6.02.9	Heavy Weather Techniques	00:30	13:45	14:15
8	6.02.10	Storm sails	00:30	14:15	14:45
		Break	00:30	14:45	15:15
9	6.02.11	Damage Control	00:30	15:15	15:45
10	6.02.12	Search and Rescue Organization	00:30	15:45	16:15
		Test Scenarios from Lessons Learned and/or exam	00:45	16:15	17:00
		Day 1 total hours including breaks	08:00		

<u>World Sailing Offshore Special Regulations Appendix G Model Training Course Part B Day 2</u>						
Session	SR	Topic	Theory	Practical	Start	Stop
	Introduction to Hands-On Training		00:15		08:30	08:45
11	6.02.3	Care and Maintenance of Safety Gear, practical		00:30	08:45	09:15
12	6.02.2	Personal Safety Gear, theory & practice	00:30	00:45	09:15	10:30
	6.02.15	Life Rafts and Abandon Ship, theory & practice	00:30	00:45	10:30	11:45
		Lunch Break, with demonstrations			11:45	12:30
13	6.02.4	Fire Precautions/Fire Fighting, theory & practice	00:20	00:40	12:30	13:30
14	6.02.14	Emergency Communications, theory & practice	00:20	00:40	13:30	14:30
15	6.02.13	Pyrotechnics & Signalling Gear, theory & practice	00:20	00:40	14:30	15:30
		Lessons Learned, Situational Awareness	00:30		15:30	16:00
		Exam & Wrap-up	00:30		16:00	16:30
		Day Two, Total Hours, including break = 8:00	03:15	04:00		

Current Position

APPENDIX G
TRAINING

Model Training Course Offshore Personal Safety

With acknowledgements to IMO (International Maritime Organisation), YA (Yachting Australia) and RYA (Royal Yachting Association) whose publications have been consulted in the preparation of Appendix G.

INTRODUCTION

1 Purpose of the model course. To help provide training under World Sailing Offshore Special Regulation Section 6. The model course is not the only means of providing such training. Other courses meeting the needs of Section 6 may apply to the appropriate MNA for World Sailing Approval (see Introduction paragraph 7).

2 Use of the model course. The chief instructor should review the experience and knowledge of the trainees before the course starts and revise details of the course plan accordingly. Trainees, who should have practical offshore sailing experience, should be encouraged to prepare for the course by familiarising themselves with the topics in Special Regulations 6.02 and 6.03. See also the reading list in A 4.2. Particular skills (e.g. First Aid or professional medical knowledge) when suitably documented, may be accepted to excuse a trainee from that part of the course.

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 activities on each day are examinations, which should be used together with instructors' continuous assessments to provide an overall evaluation. The pass mark is to be taken as 60% in each of the marked units.

5 Implementation. Detailed requirements are given below. Thorough preparation is the key to successful implementation of the course.

6 Structure of the model course.

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

Part B provides an outline of lectures, and practical sessions. A suggested timetable is included but it is more important that trainees achieve proficiency in the required skills than that a strict timetable is followed.

Part C sets out the detailed syllabus.

7 World Sailing Approved Training Courses and Trainee Certification.

7.1.1 The status of "World Sailing Approved" together with authority to use the World Sailing logo may only be awarded to a training course by a World Sailing MNA (Member National Authority) who must be satisfied that the course delivers training as required by Special Regulation 6.01 and 6.02.

7.1.2 A grant of approved status carries with it a duty on the MNA to ensure that the course provider continues to deliver appropriate training over the course of time. An annual review may be appropriate for this purpose.

7.1.3 The MNA must remove approved status from the course provider if and when it judges this necessary.

7.2 It is not necessary for a training course to follow Appendix G Model Training Course in order to receive approval as in 7.1 above. The overriding requirement is that the course must deliver the training required by Special Regulation 6.01 and 6.02.

7.2 An MNA which lacks experience in offshore training or for other reasons needs advice should contact the World Sailing Secretariat – Offshore and Technical Department.

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

7.4 “Pass” certificates issued at an ISAF/World Sailing Approved course shall carry the statement “ISAF/World Sailing Approved Offshore Personal Survival Course” and may carry the ISAF/World Sailing 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/World Sailing Approved” however this status is encouraged wherever possible.

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.

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 World Sailing Offshore Special Regulations
- a good understanding of teaching methods
- an ISAF/World Sailing approved Offshore Personal Safety Course pass certificate
- experience of using a liferaft and lifejackets for in-water training purposes

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:

- a whiteboard or blackboard or flip chart
- writing materials for trainees
- a computer projector (with additional sound channel if not integral)
- a video player compatible with the computer projector
- a PC or laptop compatible 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 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 3.5 An outdoor location with appropriate safety equipment, personnel and facilities making it suitable for demonstration and training with pyrotechnics and fire extinguishers.

A4 Recommended Reference and Display Material

This section will be updated as information is submitted from MNA's. Course providers are encouraged to refer to materials relevant to their own areas of operation.

A 4.1 For the Instructors

Printed Material

- World Sailing Offshore Special Regulations
- World Sailing RRS (The Racing Rules of Sailing)
- International Regulations for the Prevention of Collision at Sea
- Admiralty Summary of Notices to Mariners (NP 247)
- IAMSAR (International Aeronautical and Maritime Search and Rescue) manual, or manual for small craft (in preparation)
- ALRS (Admiralty List of Radio Signals) Volume 5 GMDSS (NP 285)
- Appropriate World Sailing Member National Authority Training Booklet and the World Sailing Guide to Offshore Personal Safety

A 4.2 For the Trainees

A 4.2.1 Available in the Class Room:

- World Sailing Offshore Special Regulations
- World Sailing RRS (The Racing Rules of Sailing)
- International Regulations for the Prevention of Collision at Sea
- Admiralty Summary of Notices to Mariners (NP 247)
- IAMSAR (International Aeronautical and Maritime Search and Rescue) manual, or manual for small craft (in preparation).
- Appropriate World Sailing Member National Authority Training Booklet or where not available the World Sailing Guide to Offshore Personal Safety

A 4.2.2 Recommended further study:

- The Offshore Special Regulations Handbook by Alan Green (Adlard Coles)
- The Grab Bag Book (F & M Howorth, Adlard Coles)
- Instant Weather Forecasting (A Watts, Adlard Coles)
- Heavy Weather Sailing (A Coles & P Bruce, Adlard Coles)
- Essentials of Sea Survival (F Golden and M Tipton, Human Kinetics)

Part C Detailed Syllabus

paragraph numbers refer to session numbers in Part B

Session 1 Introduction

- 1.0 The instructor gives an overview of the course and administrative arrangements, and explains the assessment and exam procedures.
If the course has ISAF/World Sailing Approval (see introduction paragraph 7) the certificate will be so endorsed. The instructor should also deliver a final course timetable.
- 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"

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- 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, qualifications 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 Care and maintenance of safety and other equipment

- 2.1 Routine to check, service, clean, dry, fit and adjust to wearer, and correctly store safety equipment. Give examples eg safety harness, inflatable lifejackets, liferafts etc.
- 2.2 Checks to continue under way including e.g. rigging (types of ropes used for specific tasks and the loss of strength caused by splices, hitches or knots), pins in place and undistorted, wires not fractured, running rigging not unduly chafed, shackles seized when appropriate), seacocks, stern gland, toilet plumbing, etc.
- 2.3 Availability of reserve navigation lights and general spares.
- 2.4 Marking of floating equipment with vessel name.
- 2.5 Check and overhaul dan buoy, Jon Buoy, MoB modules, Recovery slings etc.
- 2.6 Understand that dormant water or dirt in a fuel tank may be kicked up and taken into the engine in very rough weather - ensure that engine oil and fuel filler caps etc are kept clean and secure.
- 2.7 Raise awareness of the potential consequences of running aground, and the need to carry out an inspection following any grounding incident, taking into account the danger of potential unseen damage.

Session 3 Storm sails

- 3.1 Storm and heavy-weather sails including those on board the trainee's boat.
- 3.2 How are they set?
- 3.3 Where are they stowed?
- 3.4 importance of practicing from time to time even in light weather.
- 3.5 Understand the changed pressures on the rig when using reduced sail in very heavy weather.
- 3.6 Dangers of heavy water breaking over the boat and carrying away poorly-stowed sails and sails set too low down.
- 3.7 Danger of heavy metal shackles in storm sails
- 3.8 Importance of bright colour in storm sails.
- 3.9 Value (in some boats) of lashing down the main boom in heavy weather and setting a trysail without the boom.

Session 4 Damage Control and Repair

- 4.1 Plan to minimise damage in forthcoming heavy weather
- 4.2 Remedial action including use of spare materials and tools to cope with:-
 - .1 loss of rudder/steering
 - .2 loss of mast
 - .3 flooding due to (a) collision damage forward, (b) amidships, (c) aft, (d) seacock failure
 - .4 stranding
 - .5 severe weather damage eg (a) hatch ripped off, (b) coachroof split
 - .6 In the event of keel damage a yacht's rapid capsize and inversion is possible, outline the potential cause of keel failure and how it can be avoided, and suggest actions that can be taken when there is concern over the security of a keel.
 - .7 collision with another vessel, a submerged object (eg container), sea life, etc.

Session 5 Heavy Weather – crew routines, boat handling, drogues

- 5.1 Detailed examination of risks, solutions and contingency plans including crew routines for:-
- .1 general working in exposed positions – hooking on before leaving hatchway, remaining hooked on at all times (dual hooking), dangers of hooking on, dangers of not hooking on, importance of stopping boat, telling someone when going forward, when lifejackets and harnesses shall be worn, value of personal EPIRBs (PLBs) especially with on-board D/F and personal AIS locating devices.
 - .2 preparation for rough weather – secure stowage for moving items.
 - .3 ensure jackstays rigged
 - .4 rough weather operations
 - .5 severe weather strategies
 - .6 galley operations lee stops, preparing hot food in thermos containers in advance of heavy weather
 - .7 importance of high visibility of yacht in heavy seaway: display of orange surface, use of white light, consider flying robust radar reflector.
- 5.2 boat handling in a seaway noting in particular helming techniques and effect of conditions on boat and crew taking into account:-
- .1 strength of wind
 - .2 duration of high wind
 - .3 length of fetch
 - .4 wave pattern
 - .5 definition of wave height and length including assessment methods
 - .6 wave refraction
 - .7 multiple wave patterns
 - .8 waves in tidal/current conditions
 - .9 predicting dangerous wave conditions
 - .10 angle of boat to a seaway and to individual waves
 - .11 early sail changes, sail change procedures, knowing the boat and its characteristics and tendencies
 - .12 heaving-to
 - .13 assessing options e.g. to stand off or cross a barred entrance
- 5.3 Effect of a drogue or a sea anchor on a boat in severe weather

Session 6 Man overboard prevention and recovery

- 6.1 Prevention
- .1 lifelines to be maintained in accordance with Special Regulations
 - .2 harness to be clipped on at night and in rough weather (see C5.1.1)
 - .3 drawback of plain harness hooks
 - .4 harness crotch straps prevent “slip-out”
 - .5 use the sea toilet in bad weather not the stern
 - .6 encourage the use of shorter safety line and in particular lines with mid-line clips as being most adaptable (highlighting issues with being towed in the water at speed while in a harness and how a shorter line (less than 1m) both aids recovery and reduces potential risk particularly on high performance boats)
- 6.2 Recovery
- .1 well-drilled routine
 - .2 “Mayday” on radio is valid
 - .3 quickly accessible hoisting rig

- .4 value of horizontal lift and retention of horizontal position
- .5 procedure and team ready to re-clothe, re-warm and check recovered person for injury, advising shore if necessary
- .6 use of whistle, SOLAS-type lifejacket light, strobe light.

6.3 Search Patterns

- .1 Explain the most common standard search patterns for finding a lost MOB (Expanding Square Search, Creeping Line, Parallel Search and Sector Search)
- .2 Navigation consideration (establishing a datum and then what affects the position of the MOB relative to the boat and the ground)
- .3 Importance of search lights, the use of PLB and high visibility clothing

Session 7 Giving Assistance to other craft

- 7.1 Legal and rules requirements
 - .1 SOLAS obligations apply to all ships on all voyages**
 - .2 Racing Rules of Sailing**
 - .3 moral imperative
 - .4 communications obligations**
 - .5 log-keeping obligations**

**see supplement one (below)

- 7.2 manoeuvring close to a vessel sinking
 - .1 keep other vessel and shore informed
 - .2 be prepared to recover personnel from the water or a liferaft
 - .3 tactics if other vessel is on fire
- 7.3 understand that another yacht may be the only source of help.
- 7.4 towing and being towed

Session 8 Cold Shock, Drowning and Hypothermia

- 8.1 Actively counter its development by wearing proper protective clothing
- 8.2 Know the symptoms- shivering, irritability, lethargy, stumbling, slurred speech, loss of memory, victim feels cold, looks pale, breathing slow, pulse weak, leading to collapse and unconsciousness.
- 8.3 treatment - see textbook
- 8.4 do not – give alcohol, rub the skin to warm, or give up resuscitation.
- 8.5 value of immersion suits, thermal protective aids (TPA's)
- 8.6 Cold Shock
- 8.7 Actions in the water to reduce heat loss, increase visibility
- 8.8 Drowning and airway management

Session 9 Search and Rescue organisation and methods

- 9.1 with regard to the SAR authorities, teach the method in the given country, (and outline that other methods are possible but await instructions from rescue craft) knowing:
 - .2 their landline number to advise them of passage planning if appropriate
 - .3 how to call them in emergency
 - .4 what facilities they have (and don't have)
 - .5 if helicopters are in use, know the sea-rescue system (hi-line, basket pick-up, winchman bridle, etc.) and whether a pick-up from a deck, in the water, or in a liferaft is preferred
 - .6 know what radio frequency to expect to use for direct contact
 - .7 know what fixed-wing aircraft may be deployed
 - .8 understand fixed-wing search patterns, signal flares
 - .9 have a knowledge of global SAR organisation

- .10 how to cope with rescue attempts from passing ships
- .11 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 Beaufort wind scale compared with mph (statute miles per hour) and speed in knots (nautical miles per hour), and sea state scale. Know that wind gusts may exceed forecast speeds by 40% or more and wave height may exceed forecast height by 87% or more
- 10.4 logging own weather observations of cloud, wind, sea, barometer, sea temperature (sometimes critical) and air temperature, etc.:
making own deductions
- 10.5 be prepared for local abnormalities, what areas can create local heavy weather problems such as wind against stream, headlands, reefs, shallow areas – squeezes between land masses.

Session 11 Liferafts and Lifejackets (theory)

11.1 Liferafts (theory)

- 11.1.2 knowledge of liferaft standards: SOLAS, ISAF and ORC and ISO 9650:1 Type 1 Group A plus OSR requirements.
- 11.1.3 care and servicing of liferafts, stowage. In the event of a yacht capsizing and then inverting in circumstances in which survival is dependent on liferaft availability, it is vital that every effort is made to ensure that a liferaft remains readily accessible and capable of being deployed for use quickly and easily.
- 11.1.4 liferaft emergency packs
- 11.1.5 grab bag contents and application
- 11.1.6 two key elements in combating liferaft capsize – drogue, ballast water pockets
- 11.1.7 the capsize mechanism and the re-righting procedure
- 11.1.8 when and how to launch a liferaft
- 11.1.9 protecting a liferaft in the minimum time it is alongside after launch
- 11.1.10 boarding a liferaft if possible dry: use of dry suits if possible
- 11.1.11 boarding a liferaft from the water: importance of boarding ramp and grab lines
- 11.1.12 crew organisation before boarding and priority of actions within liferaft.
- 11.1.13 use of SART (optional in grab bag).

Session 11.2 Lifejackets (theory)

- 11.2.1 Understand the terminology in your part of the world: know the difference between a 150N lifejacket (or equivalent title) 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.
- 11.2.2 Understand the accessories required in Special Regulations:
whistle, marine-grade retro-reflective material, yacht's or wearer's name
- 11.2.3 Understand the accessories and attributes recommended in Special Regulations:
light in accordance with the SOLAS LSA code, compliance with EN376 (ISO 12402) or near equivalent, crotch strap, splash guard
- 11.2.3 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.
- 11.2.3 Know the importance of a good fit, lifejacket organised for quick donning, compatibility with harness.

Session 12 Exam (1)

This exam is one of two. 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 two exams plus the tutors' assessments during class and practical work. (See introduction paragraph 4)

Session 13 Liferrafts and Lifejackets (practical - recommend 2 hours)

- .1 a pool with a wave-making facility will add realism
- .2 trainees to don shirt and trousers plus oilskins and to try swimming first without, then with 150N lifejackets. Majority of exercises with all trainees wearing 150N lifejackets.
- .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 capsize a liferaft and have each trainee right the raft whilst swimming
- .5 trainees to haul into a raft one survivor who plays helpless
- .6 In fully-loaded raft trainees to check out all equipment
- .7 trainees to try lifejackets both with and without crotch straps in place.
- .8 each trainee to experience use of the splashguard in wave conditions.
- .9 group to investigate ability of lifejacket to self-right.
- .10 forming circle in water to aid visibility/morale – HELP/Huddle techniques
- .11 towing an unconscious person
- .12 assistance using throwing line to recover nearby survivor
- .13 the opportunity of using the pool may be taken to demonstrate MOB modules, Lifeslings, lifebuoys etc.
- .14 if a darkened pool is available, demonstrate retro-reflective tape.

Sessions 14/15 Fire precautions and fire fighting (theory and practical)

- .1 fire theory
- .2 most common causes of fire in small craft
- .3 prevention
- .4 equipment – fire extinguishers, fire blankets, services, tested, maintained, fit for purpose. Advantages/ disadvantages of various types of extinguisher.
- .5 practical operation of fire extinguishers (actual fire is not required in this training course)

Sessions 16/17 Communications equipment(VHF, GMDSS, satcomms)(theory and practical)

- .1 VHF main installations and hand-helds.
- .2 Special Regulations requirements for VHF 25W output, masthead antenna, emergency antenna.
- .3 SSB (knowledge of email and other services via some shore stations, daily cruising yacht schedules, etc.).
- .4 Satcoms: A, B, C, D and M. Non-INMARSAT types (eg Iridium).
- .5 Terrestrial cellphones. Limitations.
- .6 GMDSS, DSC, AIS.
- .7 Aviation VHF and its use in SAR.
- .8 Obligation to log communications with distress working**

**see Supplement below

Sessions 18/19 Pyrotechnics and EPIRBs (theory and practical)

- .1 pyrotechnics required in 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.
- .2 stowage of pyrotechnics including some for ready use.
- .3 use of white flares
- .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.
- .5 understand the operation of ARGOS-type beacons.
- .6 understand the integration of distress beacons in the GMDSS framework.
- .7 Draw attention to Inmarsat Safety Services' web link: www.inmarsat.com/safety which contains a wealth of information about maritime safety and security – including reception of maritime safety information via Inmarsat C or mini-C. It is useful for more than GMDSS alone.

Session 20 Exam (2)

This exam is one of two. 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 two exams plus the tutors' assessments during class and practical work. (See Introduction paragraph 4 for marking details).

Supplement One

1 The Racing Rules of Sailing state:-

"1 SAFETY

1.1 Helping Those in Danger

A boat or competitor shall give all possible help to any person or vessel in danger"

2 SOLAS Convention Chapter V

Regulation 33 Distress Situations (replaces old Regulation 10) states:- "The master of a ship at sea which is in a position to be able to provide assistance, on receiving a signal from any source that persons are in distress at sea, is bound to proceed with all speed to their assistance, if possible informing them or the SAR service that the ship is doing so. If the ship receiving the distress alert is unable or, in the special circumstances of the case, considers it unreasonable or unnecessary to proceed to their assistance, the master must enter in the log-book the reason for failing to proceed to the assistance of the persons in distress and, taking into account the recommendations of the Organization++, inform the appropriate SAR service accordingly.

++Refer to the immediate action to be taken by each ship on receipt of a distress message in the IAMSAR Manual, as it may be amended."

Reference to the original text and its context is strongly recommended.

3 Annual Summary of Admiralty Notices to Mariners NP 247 Section 4

Paragraph 1 states:-

"The radio watch on the international distress frequencies, which certain classes of ships are required to keep when at sea, is one of the most important factors in the arrangements for the rescue of people in distress at sea, and every ship should make its contribution to safety by guarding one or more of these distress frequencies for as long as is practicable whether or not required to do so by regulation."

Part B Outline Timetable (2 pages)

World Sailing Offshore Special Regulations Appendix G Model Training Course Part B Day 1

Session	SR	Topic	theory*	practical	start	stop
1		Introduction	00:30		11:00	11:30
	6.02.0	Training topics for theoretical sessions				
2	6.02.1	care and maintenance of safety equipment	00:15		11:30	11:45
3	6.02.2	storm sails	00:20		11:45	12:05
4	6.02.3	damage control and repair	00:20		12:05	12:25
5	6.02.4	"heavy weather – crew routines, boat handling, break	00:25 01:00		12:25 13:00	13:00 14:00
6	6.02.5	man overboard prevention and recovery	00:30		14:00	14:30
7	6.02.6	giving assistance to other craft	00:15		14:30	14:45
8	6.02.7	hypothermia	00:20		14:45	15:05
	Break		00:15	15:05		15:20
9	6.02.8	SAR organisation and methods	00:30		15:20	15:40
10	6.02.9	weather forecasting.	00:30		15:40	16:10
	6.03.0	Training topics to include practical, hand-on				
11	6.03.1	liferrafts and lifejackets (theory)	00:30		16:10	16:40
12	exam		00:20		16:40	17:00

Day 1 total tuition including breaks

6:00

Day 1 net tuition

04:45

Day 1 net breaks

01:15

*includes breaks

World Sailing Offshore Special Regulations Appendix G Model Training Course Part B Day 2

Session	SR	Topic	theory*	practical	start	stop
13		liferrafts and lifejackets (practical)		02:00	09:00	11:00
		break	00:15		11:00	11:15
14	6.03.2	fire precautions and firefighting (theory)	00:15		11:15	11:30
15	6.03.2	fire precautions and firefighting (practical)		00:30	11:30	12:00
16	6.03.3	communications equipment "(VHF, GMDSS, satcomms. etc- theory)"	00:20		12:00	12:20
17	6.03.3	communications equipment "(VHF, GMDSS, satcomms. etc- practice)"		00:25	12:20	12:45
	break		00:45		12:45	13:30
18	6.03.4	pyrotechnics and EPIRBs (theory)	00:20		13:30	13:50
19	6.03.4	pyrotechnics and EPIRBs (practical)		00:30	13:50	14:20
20	exam		00:20		14:20	14:40

Day 2 total tuition including breaks

02:05

Day 2 net tuition

01:05

Day 2 net breaks

01:00

net total tuition including

08:05

breaks net tuition

05:50

net breaks

02:15

Reasons

1. Align Appendix G Training Guidelines with the newly adopted Training Topics: OSR 6.02
 2. Update Appendix G Training Guidelines to incorporate current best practices
 3. Make available to MNAs additional detailed guidelines via the World Sailing website
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