



## STANDARD OPERATING PROCEDURES



### References:

- A. JSP 660 Part 1 V2.6 Nov 23 – Sport in the UK Armed Forces.
- B. AP 3415 – Sport in the RAF V 4.1 dated Dec 22.
- C. RAFSA Sport Safety Management Plan (SSMP) V9, dated 5 Mar 24.
- D. MGN 599 – Pleasure Vessels – Regulations & Exemptions.
- E. MGN 280 – Small Vessels in Commercial Use for Sport or Pleasure, Workboats and Pilot Boats – Alternative Construction Standards.
- F. MGN 564 – Marine Casualty and Marine Incident Reporting.
- G. MGN 1905 – Ships’ Medical Stores AL3.
- H. JSP 375 Vol 1 Chap 41 & 42.
- I. MGN 590 – Standards of Training, Certification and Watchkeeping Convention 1978 (STCW) as Amended Manila Amendments: Alcohol Limits.
- J. JSP 835 Pt 1 V5.2 Aug 23 – Alcohol and Substance Misuse and Testing

### INTRODUCTION

1. **SPORT.** Reference A sets out the MOD’s rationale and policy for sport in the UK Armed forces. It recognizes that Physical Development is a key component of operational capability, and that sport makes a significant contribution to operational effectiveness, fighting spirit and personal development, and plays an important part in Service life including recruiting and retention. Sport also contributes to fitness, teamwork, leadership, self-discipline, determination, co-ordination, courage, competitive spirit, individual and collective resilience, and consequently military ethos. The policy at Reference A applies to Regular and Reserve Service Personnel. Several terms in the SOPs have the following specific meaning:

<b>Skipper</b>	The person in command of the vessel, including an RYA qualified Instructor delivering instruction. They are also the event organizer as defined in the RAFSA SSMP
<b>Is to / are to</b>	This is <b>mandatory</b> as a condition of sailing RAFSA(O) yachts.
<b>Must</b>	This is the procedure to be followed unless <b>exceptional</b> circumstances dictate otherwise.
<b>Should</b>	This is the <b>normal</b> procedure to be followed unless circumstances dictate otherwise.

2. **RAFSA.** RAFSA’s Objectives are to promote the efficiency of His Majesty’s Armed Forces by increasing physical fitness, fostering the *esprit de corps* and raising morale of members of the Royal Air Force and other services, in particular (but not by way of limitation), through promoting, encouraging participation in and providing or assisting in the provision of facilities for sailing.

3. **RAFSA(O) SOPs.** These SOPs have been derived from a wealth of hard-earned experience; they cannot cover every eventuality but set out good practice in many areas and implement the policy for Sport in the RAF at Reference B and RAFSA’s Sport Safety Management Plan (SSMP) at Reference C. They are written for all personnel who sail onboard the RAFSA(O)’s HR 32.4 yachts. **Nothing in these SOPs detracts from the Skipper’s duties and responsibilities in**

law, or from good seamanship and common-sense. Deviation from SOPs should be carefully considered and justified. Skippers will likely be required to account for their actions.

4. **RYA RECOGNISED TRAINING CENTRES (RTC).** RAFSA(O) delivers its aims and objectives to Association Members through the provision of two Royal Yachting Association (RYA) RTCs each operating one Hallberg Rassy (HR)34.2 Yacht. The RTCs are located at Plymouth Yacht Haven Marina and Hornet Service Sailing Club (HSSC), Gosport. Both yachts are available for training and charter.

5. **RAFSA Structure and Accountability.** The structure of the RASA Board of Trustees is shown at diagram 1 and the structure of the RAFSA(O) Training Division at diagram 2:

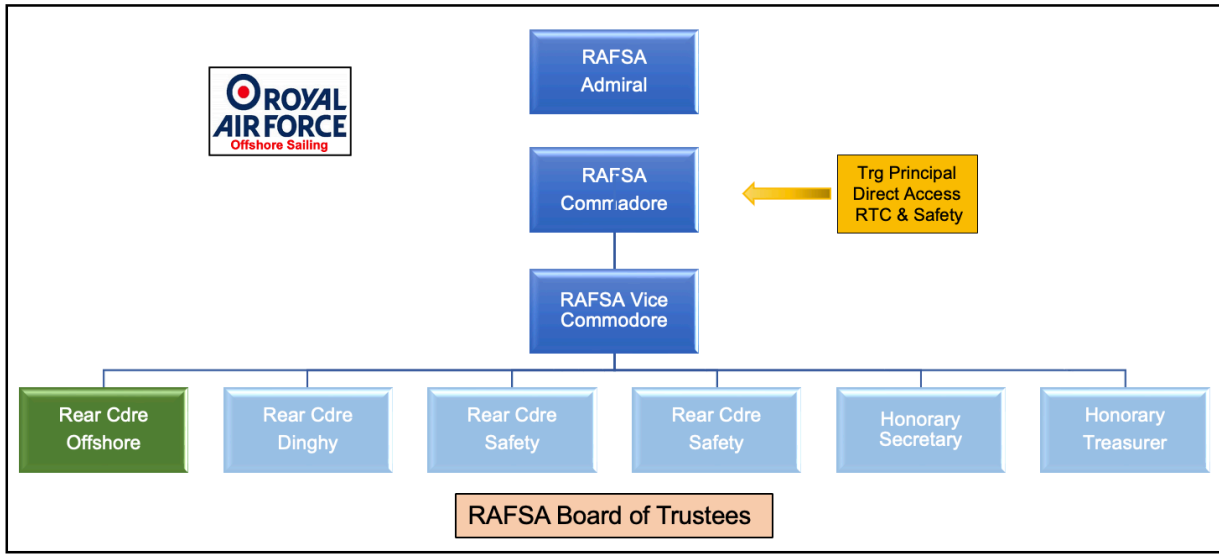


Diagram 1 - RAFSA Board of Trustees

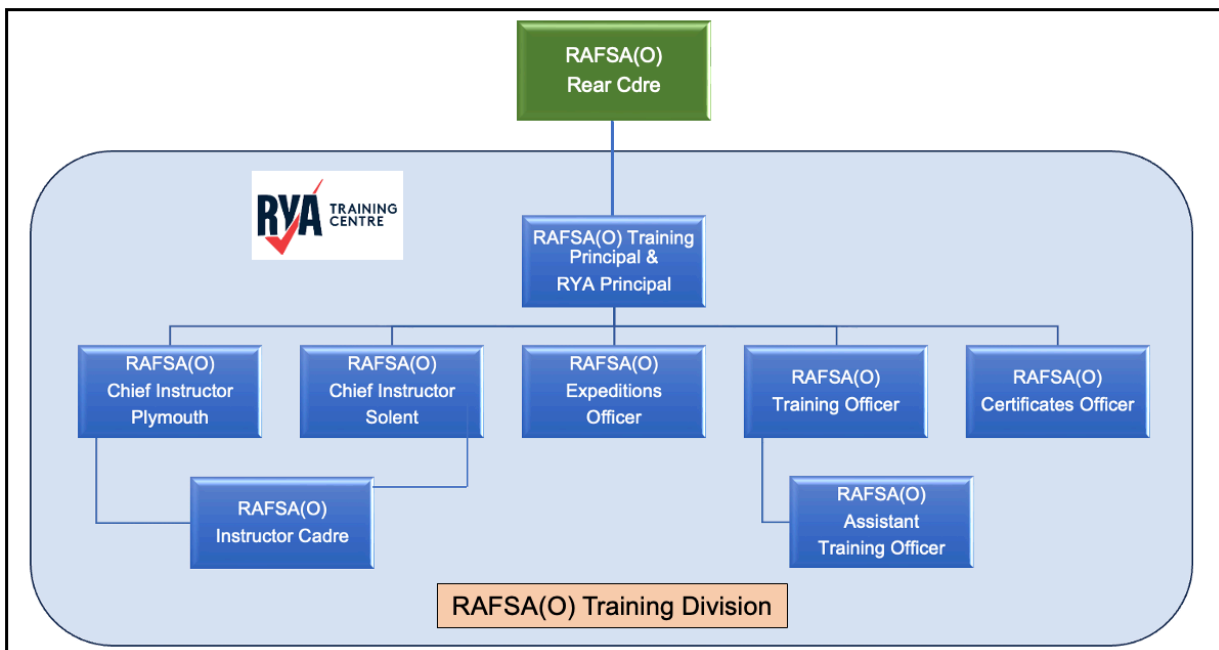


Diagram 2 – RAFSA(O) RYA Recognized Training Centre (RTC)

6. **Supporting Documentation.** These SOPs must be read in conjunction with the [RAFSA\(O\) HR 34.2 Document Set](#)<sup>1</sup> (available online (.pdf), and on board the vessel), which provides skippers and their crews the requisite information to enable safe operation of RAFSA(O) HR 34.2 yachts.

<sup>1</sup> As defined in the RAFSA HR34.2 [Crew Reference Cards](#).

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### SECTION 4 – SECURITY

SOP	Title	pg	SOP	Title	pg
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NB:

- Text in **Blue** refers to the **RAFSA(O) HR34.2 Document Set** and its contents.
- Text in **Red** indicates **special emphasis on important procedures**.

## LIST OF AMMENDMENTS

Ser	AL	Pages	Remarks
1	Apr 19	iv, 6, 7, 9.	Revised Plymouth sailing area – Day Skippers
2	Jul 20	All	Introduces New SOP 13 & minor editorial changes
3	Apr 21	i, ii, iv, 6, 17, 18.	Introduction of SMP V7, move to Ardrossan, adoption of FSOR
4	Apr 21	ii	V1.1 amends Diagram 2
5	Mar 23	i - iv	Minor changes and Emergency Procedures card
6	Mar 24	All	Full Revision

## SECTION 1 – GENERAL

### SOP 1 - SKIPPER'S RESPONSIBILITIES

1. The Skipper's (the term skipper includes Instructors) prime responsibility is for the safety and wellbeing of the crew, and the safety and security of the vessel and its equipment. As skippers, you have a duty of care, in law, to your crew and other persons ashore and on the water. In law “you **must** take reasonable care to avoid acts or omissions which you reasonably foresee would be likely to injure your neighbour (i.e. any person closely or directly affected by my act)”. All skippers **are to** comply with Reference C.
2. All Skippers **are to** conduct an Event Daily Dynamic Risk Assessment (EDDRA) before operating the yacht and its equipment or directing the crew. Comprehensive guidance and the EDDRA forms are in the EDDRA booklet, kept in the Chart Table. Skippers and Instructors are to ensure they elevate risks that score higher than their own authority to authorise. An Emergency Procedures card is at Annex A.
3. On taking over the vessel, and before proceeding to sea, the Skipper **is to** ensure that:
  - a. The vessel is checked as set out in SOP 2 and is, in their judgement, is seaworthy and suitably equipped and crewed to go to sea in the prevailing and forecast conditions
  - b. The crew has been fully briefed in accordance with SOP 3.
  - c. The crew composition and planned sailing areas meet the criteria laid down in SOPs 4 & 5.
  - d. The crew understand and acknowledge the RAFSA Participation Statement which is as follows:

**Those participating in RAFSA organised water-based activities note and accept their remains an inherent risk of personal injury, which, could be fatal. Participants acknowledge this and confirm they will take responsibility for their own actions and involvement.**

4. On first proceeding to sea, and before leaving the vicinity of the departure port, the Skipper **must** carry out the following sail training drills:
  - a. Tacking & Gybing.
  - b. Heaving to.
  - c. Man overboard.
  - d. Reefing.
  - e. Rigging the preventer.

**Instructors** delivering the RYA syllabus will conduct the drills at b. and c. above at the earliest opportunity appropriate to the conditions and the experience of their trainees.

Annex:

- A. RAFSA(O) HR34.2 Emergency Procedures Card – Located in the laminated [Crew Reference Cards \(CRC\)](#) in the chart table.

## SOP 2 - YACHT TAKEOVER AND HAND BACK ROUTINE

1. RAFSA does not have permanent staff to attend takeovers or hand backs; the [RAFSA\(O\) Document Set](#) defined in the [Crew Reference Cards](#), serves to bridge this gap. If you have questions or issues, the OIC, Charter Manager and other key RAFSA(O) personnel are contactable by telephone; details are in the [Boat Folder](#). Skippers **must** complete a vessel condition and safety check (a guide is at Annex A) a thorough inventory check, and ensure equipment is stowed securely; The [Inventory and Equipment Stowage Plan](#) is at Annexes B and C respectively. All deficiencies and issues **are to** be noted in the [Defects Log](#) in the [Boat Folder](#). On completion of the trip, and prior to the crew's departure, the vessel is to be cleaned to a high standard and handed back in good order; the [Yacht Cleaning Routine](#) and [Hand Back Routine](#) are at Annexes D and E respectively. Skippers **are to** ensure that they complete the [Defects Log](#), [Engine and Gearbox Running Log](#), [Routine Monthly Maintenance Log](#) and the [Takeover and Hand Back Forms](#). **Copies must be uploaded to** the [RAFSA Website](#) at the start and end of the charter/training period.

2. The following Annexes are located in the [Boat Folder](#); laminated [CRC](#) are in the chart table:

Annexes:

- A. [HR 34.2 Takeover Routine](#).
- B. [HR 34.2 Inventory and Equipment Stowage Plan](#).
- C. [HR 34.2 Equipment Location](#)
- D. [HR 34.2 Yacht Cleaning Guide](#).
- E. [HR 34.2 Hand Back Routine](#).
- F. [HR 34.2 Takeover Form](#).
- G. [HR 34.2 Hand Back Form](#).

## SOP 3 - CREW BRIEFING

1. The crew brief at Annex A implements key elements of the RAFSA SSMP and is therefore **mandatory**. Skippers are to ensure all crew are appropriately briefed before putting to sea. The Skipper's pre-departure Checklist at Annex B is advisory and is designed to aid the skipper manage the yacht and its crew.

Annexes: (held in the [Boat Folder](#) & laminated ([CRC](#)) in the chart table).

- A. [Crew Briefing Guide \(Mandatory\)](#).
- B. [Skipper Pre-Departure Checklist](#).

**ANNEX A TO SOP 3 - CREW BRIEF GUIDE (MANDATORY)**

**Safety**

- Hatch/window discipline - Secure at sea, **emergency exits**, use of locks
- Firefighting equipment - Location & operation. **alarms**: smoke & CO
- Gas & gas cooker - Switch on/off routine; **alarm** and control panel
- Cooking - Burns/scalds prevention: wear oilskins & boots
- Bilge pumps - Location & operation/routine, gas, bilge **alarm**
- Heads - Correct operation. NB dry position at sea
- Seacocks - Location & operation, use of bungs
- Radio - Procedures and operation in an **emergency**
- Navigating – chart plotter - Method of navigating to a suitable port or refuge
- Navigation lights - Use and battery conservation
- Lookouts at Sea - Requirement (COLREGS) & reports
- Searchlight - Location (day) and ready use stowage
- EPIRB - Location operation & use
- Pyrotechnics - Location operation & use
- Abandon Ship - Liferaft brief, method & options} **Show pictures in**
- Safety Lines & Lifejackets - Daily checks, fitting & wearing } **Operating Manual**
- Knives - Yachts knife & personal knives
- Man Overboard Procedure - Hove to, Skipper/Mate take charge  
MOB recovery: see **Operating Manual**
- Heat Illness & Cold Injury - Confirm crew have read individual's guides to both
- Engine - Procedures for starting and stopping
- Friction burns/crush injuries - From lines, winches, mainsheet traveller & boom
- Risk Assessments - Ensure crew aware of content of RAFSA Offshore, Cold Injury and Heat Illness Risk Assessments

**General**

- Smoking - Not below decks or when handling sails
- Oilskins - Correct donning and wet areas
- Tidiness and Hygiene - Consideration for others, feeding, personal gear
- Ensign and Burgee - Burgee Starboard signal halyard
- Noise - Alongside other yachts, crew asleep, fog
- Security - Current instructions for ports visited

**Medical**

- Medication - Ask crew members privately to inform skipper of any conditions requiring continuing medication
- Alcohol - State limits (same as drink drive) & safety risks
- Sunburn, Heat Illness, Cold Injury - Hazards and symptoms
- Seasickness - Prevention and recognition

**Deck**

- Head sail, baby stay & **storm jib** - Furling/unfurling, **rigging**, sheet leads, changing
- Mast - Halyards, topping lifts etc
- Mainsail - Reefing, earing, clew outhaul
- Winches & lines - Operation, safety, security of handles
- Jackstay, secure points - For clipping on
- Safety Equipment - Life rafts, danbuoys, floating & heaving lines
- Ropes and Fenders - How to tie on and store, usage, roving fender

## ANNEX B TO SOP 3 - SKIPPERS PRE-DEPARTURE CHECKLIST & CREW BRIEFING

1. **Delegate:** Water, Diesel, Victuals, Gas.
  2. **Delegate:** Daily Engine Checks (**Water, Oil, Belts, Bilges, Lines and Linkages, Electrics**).
  3. **Delegate:** Yacht Prep.
  4. **Prepare Passage Plan: Appraise, Plan, Execute & Monitor.** Consider: **Weather, Tides & Gates, Vessel, Crew, Navigation** (dangers, pilotage, depths, lights, marks, comms, GPS plan, Sun/Moon), **Contingency** (refuges), **Info ashore** (SAFETRX), **Timings** (ETD, ETAs).
  5. **Electrics:** Voltage check (min 11.5V – page on Furuno cockpit instrument), Bilge Pump & Alarm switched on/check: Gas Alarm; GPS; Radar; Radios; Instruments; Nav Lights (check).
  6. **Communications:** VHF on, Local Ch, Dual Watch, Set-up Listening Watch? Phone Marina, Phone Base, RYA SAFETRX.
  7. **Navigation:** First chart on table, others inside in order. Tidal Calculations and Graphs drawn up. Route in GPS & cross-checked. Alternate Ports/Refuges in GPS.
8. **Crew Brief:**
    - a. **Route overview** – NOT too much detail (no bearings/headings!). Safe Haven.
    - b. **Tidal heights and flows** – Timing gates for departure/en-route/arrival.
    - c. **Timings** – Departure, arrival, watches, eating.
    - d. **Weather**
    - e. **Sail Plan** – e.g. 2nd reef in mainsail, 1<sup>st</sup> reef in foresail.
    - f. **Cold Injury/Heat Illness** – Risk and protection measures
    - g. **Dress** – Wet weather clothing, life jackets, sea boots, sun block, head torches, knife.
    - h. **Specific Roles** – Watch Leader, Radio Man, Mother.
    - i. **Departure Brief** – On deck? Diagram if needed, allocate crew to warps, roving fender, escape plan, lookout!
9. **Check delegated tasks.**
  10. **Final Checks – whilst at wheel/tiller:** shore-power disconnected; all wearing lifejackets; engine on; Tiller full and free movement; morse engages fwd/aft gears; hatches secure; secure below; VHF channel, dual watch, squelch, volume & cockpit speaker set; instruments on, Nav lights A/R; all aboard; cast-off!
  11. **Notes:**



## SOP 4 - MINIMUM MANNING AND CREW QUALIFICATIONS

1. **Minimum Manning and Qualification Level.** The minimum crew numbers and qualifications are intended to prevent the yacht and crew from going to sea with inadequate experience or manpower. Skippers are to comply with the minimum manning and qualifications tabulated below:

RAFSA(O) HR 34.2 – Minimum Manning and Crew Qualifications (Drawn from MGN 280 – Annex 3)					
Area Of Operation (Dist. From Safe Haven) (a)	Min Qualification of Skipper (b)	Min Qualification of Mate (c)	Min Qualification of Crew (d)	Min Crew Including Skipper and Mate (e)	Max Crew Including Skipper and Mate (f)
<b>Day Sailing</b> Area defined below (Sun Rise to Sun Set)	Day Skipper (<14 days as skipper)	Competent Crew	NIL	3	6 (Liferaft Capacity)
<b>Day Sailing</b> Area defined below (Sun Rise to Sun Set)	Day Skipper (14 days or more as skipper)	Competent Crew	NIL	3	6 (Liferaft Capacity)
<b>Coastal Sailing</b> up to 20 NM – Cat 4	YM Coastal Skipper <sup>2</sup>	Day Skipper	NIL	3	6 (Liferaft Capacity)
<b>Offshore</b> up to 60 NM - Cat 2	YM Offshore	Day Skipper	1 x Competent Crew	3	6 (Liferaft Capacity)
<b>Offshore</b> up to 150 NM Cat 1	YM Offshore	Coastal Skipper	1 x Competent Crew	4	6 (Liferaft Capacity)

Table 1 – RAFSA(O) Minimum Manning & Crew Qualifications

2. **RYA Training Courses.** On RAFSA RYA training courses, qualified RYA Instructors are permitted to sail by day and by night, with no other qualified crew on board; they **are to** take full account of the crew's ability in their planning and execution of the syllabus and record risk mitigations in the [Event Daily Dynamic Risk Assessment \(EDDRA\)](#) booklet. These arrangements are recognised by the RYA and instructors are trained to manage the courses within the ability of their crew.

## SOP 5 - SKIPPER'S QUALIFICATIONS AND SAILING AREAS

1. **Skipper Qualification.** Skipper and crew qualification minima are tabulated in SOP 4. The qualifications refer to the current RYA cruising standards.

2. **Area Limitations for Skippers.** Skippers are restricted to the following areas:

a. **RYA Day Skipper (DS).** May sail in the waters defined below, commensurate with experience, between sunrise and sunset:

(1) **From Gosport.** The navigable waters:

(i) **DS <14 Days as Skipper.** The area bounded in red at Annex A within 10nm of a viable safe haven.

<sup>2</sup> YM Coastal or the old RYA Coastal Skipper qualification where an examination was passed.

(ii) **DS 14 Days or More as Skipper.** The Area bounded in Blue at Annex B, within 20nm of a viable safe haven **when approved by the Cdre, Vice Cdre, Rear Cdre Offshore or a RAFSA(O) Chief Instructor or the Offshore Training Principal.**

(2) **From Plymouth.** The navigable waters:

(i) **DS <14 Days as Skipper.** The area bounded in red at Annex C within 10nm of a viable safe haven.

(ii) **DS 14 Days or More as Skipper.** The Area bounded in Blue at Annex D, within 20nm of a viable safe haven **when approved by the Cdre, Vice Cdre, Rear Cdre Offshore or a RAFSA(O) Chief Instructor or the Offshore Training Principal.**

b. **RYA Coastal Skipper.** Coastal waters within 20nm of a viable safe haven. They are not permitted to cross the English Channel or to visit the Isles of Scilly.

c. **Yachtmaster Coastal.** Coastal waters within 30nm of safe haven. They are not permitted to cross the English Channel or to visit the Isles of Scilly.

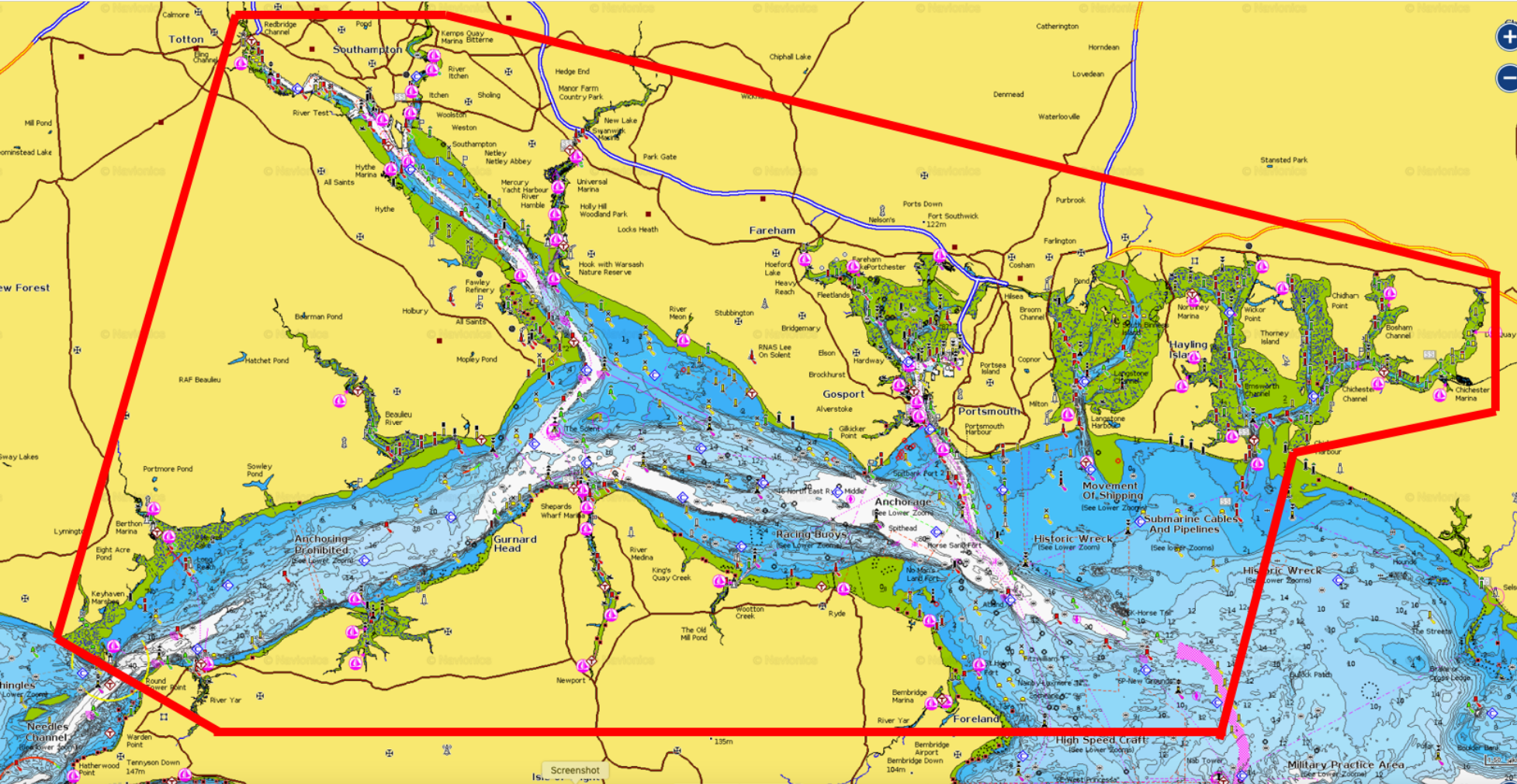
d. **Yachtmaster Offshore.** Up to 150 miles offshore within 150 miles of a safe haven.

3. **RYA Instructional Courses.** RAFSA(O) Cruising Instructors (CI) delivering RAFSA(O) Authorised RYA Day Skipper and Competent Crew Courses are **permitted to operate to Coastal Sailing criteria**, subject to completing an Event Daily Dynamic Risk Assessment and the Risk Grade remains within their ability to authorise.

Annexes:

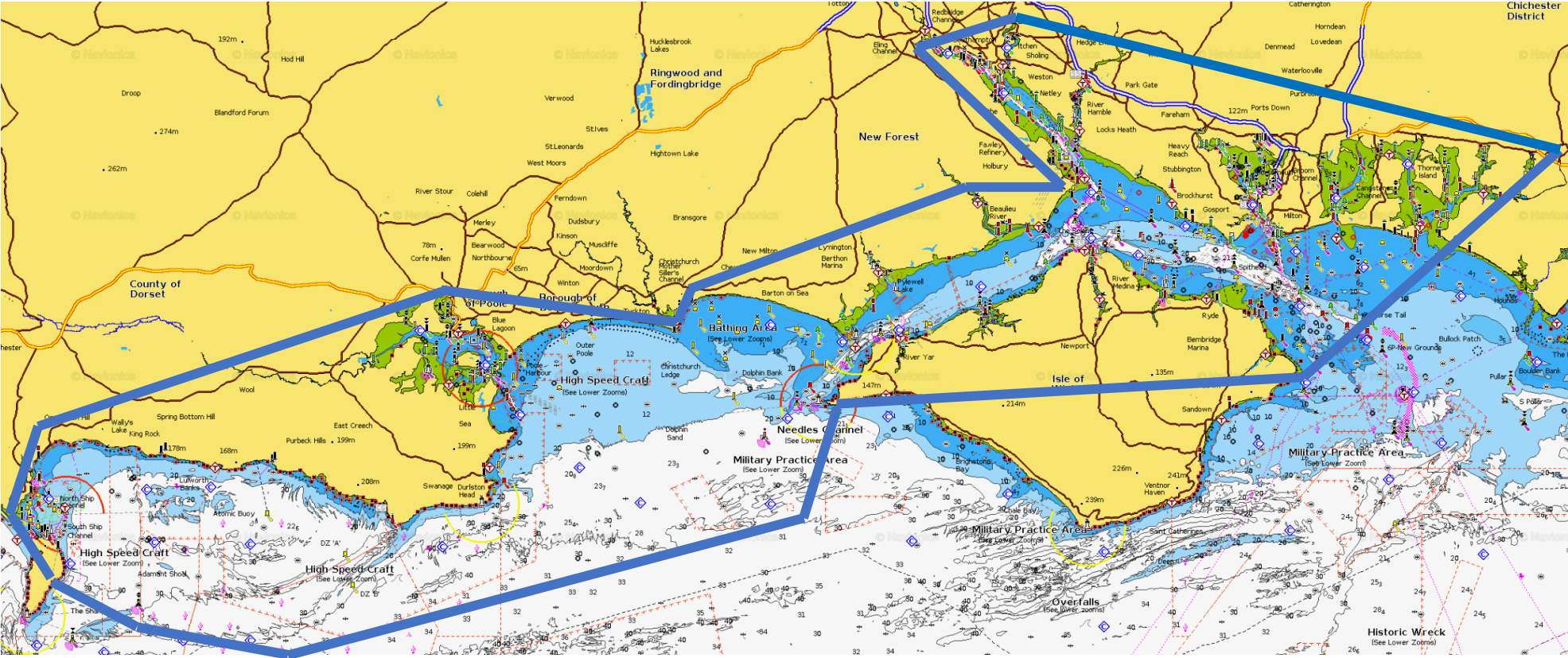
- A. Solent Sailing Area – Day Skippers <14 Days as Skipper.
- B. Solent Sailing Area – Day Skippers 14 Days or More as Skipper.
- C. Plymouth Sailing Area – Day Skippers <14 Days as Skipper.
- D. Plymouth Sailing Area – Day Skippers 14 Days or More as Skipper.

ANNEX A TO SOP 5 - SOLENT SAILING AREA – DAY SKIPPERS <14 DAYS AS SKIPPER

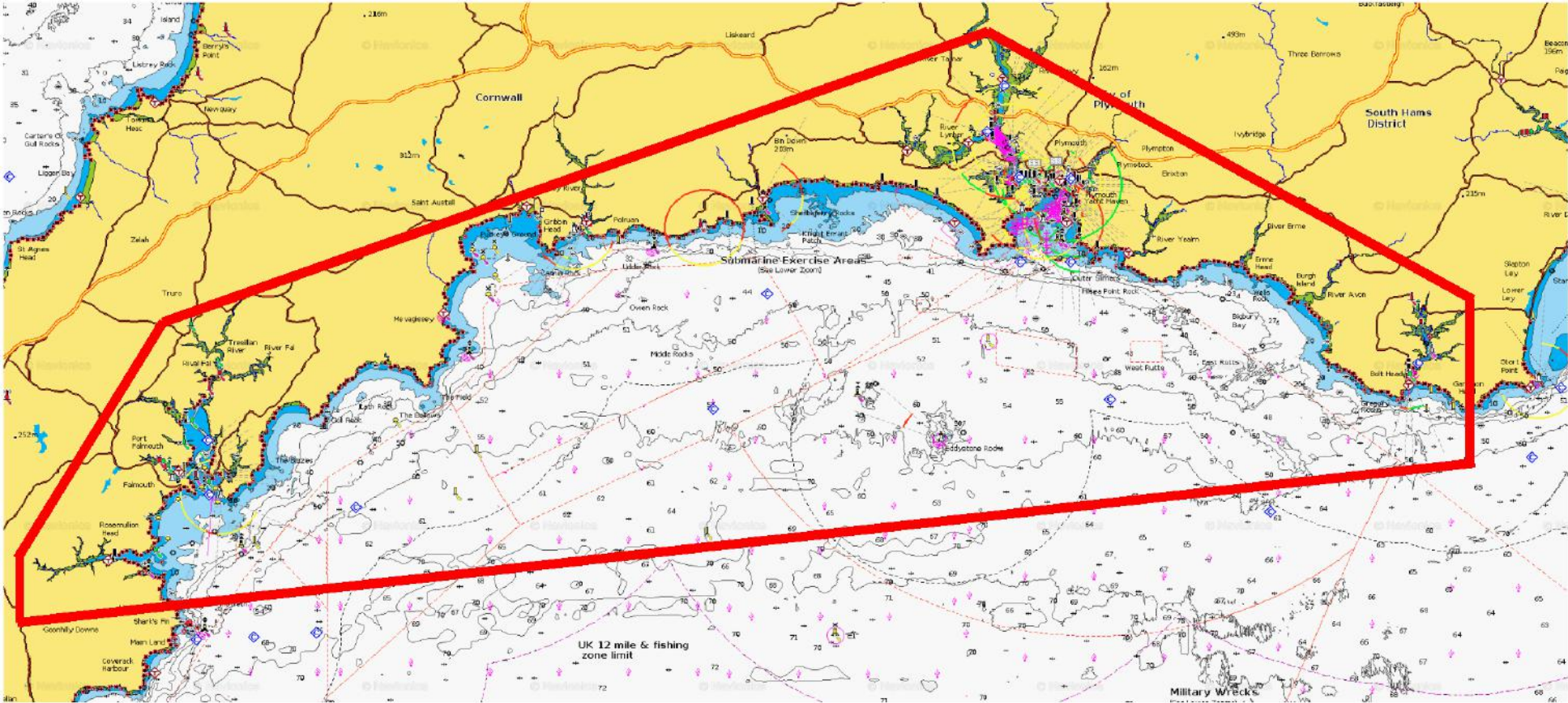




**ANNEX B TO SOP 5 - SOLENT SAILING AREA – DAY SKIPPERS 14 DAYS OR MORE AS SKIPPER**

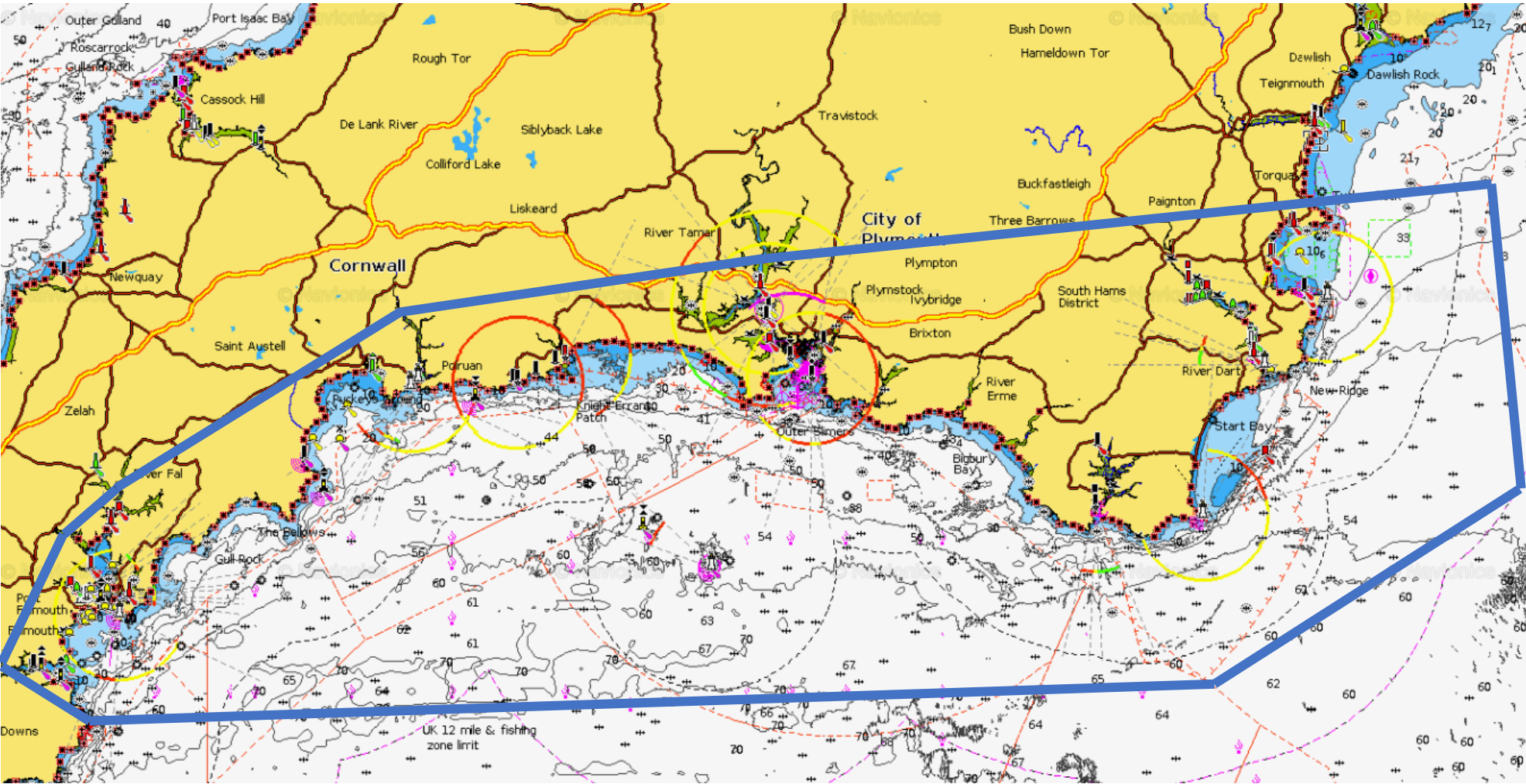


**ANNEX C TO SOP 5 - PLYMOUTH SAILING AREA – DAY SKIPPERS <14 DAYS AS SKIPPER**





ANNEX D TO SOP 5 - PLYMOUTH SAILING AREA – DAY SKIPPERS 14 DAYS OR MORE AS SKIPPER



## SOP 6 - VOYAGE PLANNING AND SAFE NAVIGATION

1. **Regulations.** MGN 538 (Reference E) sets out the requirements which apply to all vessels, irrespective of size. If you are involved in a boating accident and it is subsequently shown that you have not applied the basic principles outlined at Reference E, **you may be breaking the law and could ultimately face prosecution.** SOLAS Regulation V/34 (Safe Navigation and Avoidance of Dangerous Situations), concerns prior planning for your voyage, commonly referred to as voyage or passage planning. Passage planning is largely common sense and formed part of your RYA training. SOLAS sets out four key elements of the voyage plan:

- **Appraising** all relevant information.
- **Planning** the intended voyage.
- **Executing** the plan taking account of prevailing conditions.
- **Monitoring** the vessel's progress against the plan continuously.

2. As a pleasure vessel user, you **should** particularly take into account the following points when planning your passage:

- **Weather:** before you go sailing, check the weather forecast and get regular updates if you are planning to be out for any length of time.
- **Tides:** check the tidal predictions for your trip and ensure that your plans fit or adjust the plan accordingly. Consider wind with or over tide.
- **Limitations of the vessel:** consider whether your boat is up to the proposed trip and that you have sufficient safety equipment and stores with you.
- **Crew:** take into account the experience and physical ability of your crew. Crew members suffering from cold, tiredness and seasickness won't be able to do their job properly and could even result in an overburdened skipper.
- **Navigational dangers:** make sure you are familiar with any navigational dangers you may encounter during your boating trip. This generally means checking an up-to-date chart and a current pilot book or almanac carried onboard.
- **Contingency plan:** always have a contingency plan in case something goes wrong. Before you go, consider places where you can take refuge should conditions deteriorate or if you suffer an incident or injury. Bear in mind that your GPS set is potentially vulnerable and could fail at the most inconvenient time. This might be due to problems with electrical systems, jamming or interference with the signals or meteorological activity. It is sensible and good practice to make sure you are not over-reliant on your GPS set and that you have sufficient skills and information (charts, almanac and pilot book) to navigate yourself to safety without it, should it fail.
- **Information ashore:** make sure that someone ashore knows your plans and knows what to do should they become concerned for your wellbeing. The RYA SafeTrx scheme, an App based system which operates on smart phones and GPS enabled tablets, has now replaced the CG66 form. The App aims to help the coastguard to help you quickly should you get into trouble while sailing. It could save your life if used.

3. **Passage and Pilotage Plans – RAFSA(O) Yachts.** Many errors and groundings arise from poor planning, over familiarity and no planning, or unplanned changes to the original passage plan. In deteriorating conditions, the skipper invariably needs to be on deck, not below. Skippers **must** make a passage plan that will enable them to keep the vessel and crew in safe water, even when things are going wrong. A pilotage plan enables navigation using visual references and is often the only sure way of keeping the vessel safe entering port and navigating channels where numerous hazards prevail. Skipper **should** utilize a pilotage plan commensurate with the navigational challenge, the hazards, and the prevailing conditions, to ensure safe navigation of the vessel. Skippers must avoid becoming overreliant on electronic aids and mobile devices.

4. **Navigational Watch.** Reference F sets out the regulatory requirement for watch keeping and provides sound advice for Pleasure Vessels: *“It is the responsibility of the skipper to ensure that there is, at all times, a person with adequate experience in charge of the navigational watch. In taking this decision the skipper should take into account all the factors affecting the safety of the vessel, including:*

- The present and forecast state of the weather, visibility and sea.
- The proximity of navigational hazards.
- The density of traffic in the area.

All skippers **are to** comply with the best practice set out above.

## SOP 7 – SHIP’S LOGBOOK

1. The ship’s log and navigation log are contained in a single [Ship’s Logbook](#) kept in or on the chart table. They **should** be completed hourly as follows:

a. **Ship’s Log.** Skippers **are to** keep the Ship’s Log up to date whenever there is a crew member on board, whether at sea or in harbour. The names of all crew members, along with their crew role and sailing qualification if held, **is to** be entered in the Log as they embark. The ship and crew configuration, watch changes, accidents, incidents, and significant occurrences **must** also be recorded in the Ship’s Log. **Any change in command of the vessel (Skipper) is to be entered in the ships log and the time noted** (e.g. A change of skipper as one exam candidate hands over command to another candidate). Weather and tidal information **should** also be recorded for ease of reference. The Log acts as the skipper’s contemporaneous record of the voyage and can be used as evidence in any subsequent investigation or inquiry.

b. **Navigation Log.** Skippers **are to** ensure that the Navigation Log is completed so as to comprise a record of the navigational activities on board. Information in the log can then be used to establish the vessel's position in the event of an electronics failure or for investigations following an incident. Position recordings and Log entries **must** be made at regular intervals, sufficient to enable the voyage to be reconstructed. If any other form of navigational aid is used such as electronic or paper charts, then these should also be retained (photographed) if there is an incident during the voyage.

2. A guide to filling in the Ship’s Logbook is included therein.



## SOP 8 - MAINTAINING SAFE DEPTH

1. **Draught.** The HR 34.2 has a draught of 1.82m when empty; this can increase to **2.0m** with a fully laden yacht. RAFSA has adopted **2.0m** as the minimum draught that **is to** be used. Since the Cheeky Rafiki incident, yachts that have been grounded are generally lifted from the water for the keel and hull to be inspected and a log **must** be kept monitoring cumulative effect; lifting incurs considerable expense. **Groundings are to be avoided**, but if any grounding occurs, the procedures in SOP 13 **are to** be followed.
2. **Depth Gauge.** The depth gauge is set to read the **depth of water** not the depth under the keel. This enables the depth gauge to be used more easily for navigation. The depth gauge **must not** to be adjusted to read water below the keel given the chance for confusion. Warning notices have been posted at the chart table accordingly. Skippers **are to** cross check the depth gauge reading with the lead line on taking over the yacht.
3. **Safety Margin.** Skippers **are to** employ a **minimum 1.0m safety margin** when calculating safe water depth for normal operations. They **are to** operate the yacht with no less than 3.0m of water, when sailing or motoring in calm seas. When manoeuvring on the engine, at reduced speed, Skipper **may** employ a reduced safety margin of 0.5m depth of water below the keel and operate to a minimum depth of 2.5m when they judge it is safe to do so. Skippers **must** increase these minima if the prevailing conditions or good seamanship dictate it would be prudent to do so (i.e. in a swell, in conditions of high atmospheric pressure or when wind surge might reduce tide heights).

## SOP 9 - USE OF TENDER

1. Lifejackets or buoyancy aids **are to** be worn when embarking, operating, and disembarking from the tender. The use of a tender presents a significant risk of falling overboard. This risk is exacerbated if alcohol is consumed. Use of the tender must be supervised by the skipper or a suitably trained member of the crew. A white light **must** be shown at night and a directional torch carried.
2. When an outboard motor is used, the kill-cord **is to** be used by the helm.

## SOP 10 - ANCHORING

1. The skipper is responsible for checking the security of the anchor system (anchor secure – pinned, tied and the bitter end is attached) and for training the crew to operate the anchor and chain safely. **Care must be taken to avoid personal injury during manual handling** as there is no capstan. The crew **must** avoid dragging the chain across the teak deck, it **is to** be lifted out and 'handed back'. Care must also be taken to ensure a suitable anchoring location is utilised. When at anchor, the yacht is to have a minimum of 2 crew on board at all times who can deal with an anchor drag. An anchor watch should normally be maintained whilst at anchor; this can be backed up by the anchor alarm on the chart plotter. In calm weather the skipper may choose not to keep a waking anchor watch overnight. In this case, an electronic anchor alarm **is to** be set. The anchor ball and anchor light **is to** be used when at anchor by day and night respectively. A snubber **should** also be used. Skippers **are to** avoid making way when there is a risk that the anchor may strike and damage the yachts hull.

## SOP 11 - FLAG ETIQUETTE

1. **Introduction.** Flag etiquette is a combination of **law** (what you must do) and maritime **tradition** (expectations of behaviour within the sea faring community). Being ill-informed of your obligations could lead you to cause insult at home or abroad, by giving a signal you do not intend to give, or could lead you to a fine for breaking the law. For many who go to sea, flag etiquette and flag rules are an essential part of the overall sailing process. Only with the right flag, correctly positioned, can you be sure that you are giving the correct message and that any signal you are giving is clear. Ensigns and Burgees are to be kept clean and in good repair.
2. **Raising and Lowering** (see Reeds Almanac – Communications). In British harbours, by tradition, the ensign is:
  - a. **Hoisted** at 0800 (0900 between 1 Nov and 14 Feb) or as soon after that time as the crew come on board.
  - b. **Lowered** at sunset (or 2100 local time if earlier) or earlier if the crew is leaving the yacht.
  - c. **At Sea** the ensign must be worn when meeting other vessels, entering or leaving foreign ports or when approaching forts, Signal and CG Stations.
3. The Starboard spreader halyard is the senior halyard used for signalling (E.G. Courtesy flags and the Q Flag). The RAFSA Burgee must be flown with the RAFSA Ensign. The Burgee should normally be flown from the Port spreader Halyard.

## SOP 12 - HELICOPTER RESCUE OR TRANSFER

1. There are important safety considerations when operating with a helicopter; the procedures are set out in the [RAFSA\(O\) HR 34.2 Operating Manual](#).

## SECTION 2 - HEALTH AND SAFETY

### SOP 13 - Engine Emergencies and Problems

- 1. Introduction.** Engines and their associated systems can and do fail; the well-prepared yachtsman will be constantly assessing his options should he experience a critical failure. Out at sea, most engine problems will not present any immediate danger to the safety of the yacht or her crew. Inshore, and especially when manoeuvring in tidal channels and marinas, immediate action will be required, to ensure the safety of the vessel and prevent catastrophic further damage.
- 2. Purpose.** This SOP sets out the **immediate actions** in several specific circumstances and offers a brief checklist to assist in problem diagnosis and emergency repairs. Nothing here in is a substitute for sound preparation, practise and good seamanship which may well dictate the declaration of an urgency or distress situation and external assistance, including routine telephone enquiries of an engineer or the yacht OIC. The [RAFSA\(O\) HR34.2 Systems Manual](#) provides a useful guide to the layout of the engine and its associated systems.
- 3. Boat Handling Under Sail.** The RYA training syllabus teaches sailing onto buoys and anchoring under sail, specifically to cater for situations in which an engine is not available. These are skills that refreshing through practise. The HR 34.2 sails well under headsail alone. Both RAFSA(O) Yachts have furling Genoas, and this is the quickest and easiest sail to use immediately following the loss of engine power. A well sheeted full Genoa will enable the yacht to point almost as high as with the main sail raised.
- 4. Method.** Below is a list of common engine related failures and problems. These are set out in the style: indication; action; possible causes; and likely implications.




#### Rotating parts and hot surfaces

##### **⚠ DANGER!**

Working with or approaching a running engine is a safety risk. Watch out for rotating components and hot surfaces.

- 5. Engine Stalls When in Gear.**
  - **Indication:** Engine unexpectedly stops when in gear (i.e. propeller rotating).
  - **Action:** Stop engine, throttle neutral (do not force), Electronic Vessel Control panel (EVC) in cockpit – switch off (to avoid oil pressure alarm).
  - **Causes:** Likely fouled propeller. Even fine lines will foul the propeller and stall the engine. Expect damage to propeller.
  - **Implications:** Engine should start in neutral and can be used to charge batteries. Propeller will require clearing and inspecting by a diver when safely alongside, at anchor or on a mooring. Use Sea Start Service.
- 6. Electrical Burning or Burning Rubber Smell from Engine Bay.**
  - **Indication:** Smell of electrical or rubber burning – may see some smoke. Cabin fire alarms may sound.

- **Action:** Check exhaust water flow. **Close down engine Immediately.** If exhaust water present, isolate both battery switches.
- **Causes:** Failure of seawater coolant. Engine bay electrical fire.
- **Implications:** Engine unusable except in emergency and then only very briefly. Both batteries isolated, only independently powered electrical services available e.g. handheld VHF.

7. **Engine Alarm:**  Eng Overheat  Eng Oil Pressure

- **Indication:** **Audio alarm** on EVC in cockpit. Flashing symbol appears in tachometer window and warning light flashes on the engine start/stop panel:
- **Action:** **Shut down engine immediately (within 15 secs).** The audio alarm can be cancelled by pressing the Alarm/Dim button on the EVC; the light stays on steady.
- **Possible causes:** Engine overheating – coolant/seawater issue. Loss of lubricating oil pressure in engine – low oil level or leak.
- **Implications:** The engine will overheat and seize if run and cannot be started again. Likely catastrophic damage requiring replacement engine.

8. **No Water Flow from Engine Exhaust**

- **Indication:** No water being ejected in regular bursts from engine exhaust – checked visually. Increase in exhaust noise.
- **Action:** **Shut down engine promptly (30 Secs) – if audio alarm sounds (Eng Overheat) shut down immediately.**
- **Causes:** Seawater cooling sea cock closed or blocked. Seawater course filter lid not fitted properly. Seawater cooling pipes disconnected or leaking – water in engine bilge.
- **Implications:** Engine will quickly overheat. Plan to close down engine promptly, **do not wait for overheat alarm.**

9. **Engine Alarm:**  Battery Charging Lamp – Alternator Not Charging

- **Indication:** **Audio alarm** on EVC in cockpit. Flashing symbol appears in tachometer window and warning light flashes on the engine start/stop panel:
- **Action:** Check belt tension. Check for cable breaks/chafing. Check battery connections and fluid levels.
- **Causes:** Disconnected cables, belt too loose (**Caution** – drives seawater pump) or alternator fault.
- **Implications:** Only power remaining will be charge held by battery. Conserve power.

10. **Engine Alarm:**  System Failure or Ignition Left On

- **Indication:** **Audio alarm** on the EVC in cockpit. Flashing symbol appears in tachometer window and warning light flashes on the engine start/stop panel:
- **Action:** Turn off ignition using On/Off button on the EVC.
- **Causes:** Ignition left on or chafed wires or system failures.
- **Implications:** Use engine with caution. Have contingency plan to hand.

11. **Engine Responds to Throttle Movement - Propeller does not drive**

- **Indication:** Engine responds to throttle movement but propeller not driving.
- **Action:** Close down engine unless needed to charge batteries
- **Causes:** Gear selector cable may be broken or disconnected. Propeller may have fallen off.
- **Implications:** The gear lever can be operated manually but this will need careful coordination.

10. **Engine Running – No Response to Throttle Movement.**

- **Indication:** Engine RPM does not respond to throttle movement – propeller may or may not engage/disengage.
- **Action:** If propeller can be engaged use engine assistance if required.
- **Causes:** Throttle cable or linkage broken or disconnected.
- **Implications:** Only engine idle RPM available if gears still engaging.

12. **Engine Stops Running or Fails to Start.**

- **Indication:** No alarms, engine stops unexpectedly or fails to start.
- **Action:** Turn off ignition and investigate cause.
- **Causes:** No fuel. Contaminated fuel. Propeller fouled
- **Implications:** Engine may be available in neutral if propeller fouled, and gear disengaged – (**Caution:** blocked seawater inlet).

## SOP 14 - UNSAFE ACTS OR CONDITIONS, NEAR MISSES, INCIDENTS, ACCIDENTS, DAMAGE, GROUNDINGS, AND EQUIPMENT LOSSES

See also:

- A. [RAFSA\(O\) Crew Reference Cards – Emergency Card](#) (back page).
- B. [RAFSA SSMP, Encl 1 – RAF Sport Accident/Incident Management Order](#)
- C. [Boat Folder, Secn 1 – RAFSA\(O\) Officials & useful contact numbers.](#)
- D. [RAFSA\(O\) Med Plan Solent or Plymouth.](#)
- E. [RAFSA\(O\) HR 34.2 Operating Manual.](#)
- F. HR34.2 Technical manuals – (forepeak cupboard, port aft).

1. **Culture.** RAFSA(O) operates a **just culture**: this is a culture in which skippers and crew members are not punished for actions, omissions or decisions taken by them which are commensurate with their experience and training, provided they have followed the direction and advice in the RAFSA(O) document set, but where gross negligence, wilful violations and destructive acts are not tolerated. We have adopted a just culture to promote open, honest reporting, to enable learning from experience and to ensure all incidents are reported fully and honestly. This enables us to minimise inconvenience to other charterers and ensure the vessels safety. **Near miss reporting** is essential to enable us to prevent future incidents and accidents.

2. **Immediate Actions.** The skipper's immediate priorities, in order, are likely to be: the **safety of life; the safety of other water users; the safety of their vessel and other vessels; and the prevention of further damage and/or pollution.** First aid should be used to preserve life; if necessary, external assistance **must** be sought without delay via the Coastguard on VHF Channel 16. If less urgent, assistance could be sought from another vessel; if in doubt inform, the Coastguard. The skipper is to ensure a **detailed log** is kept as the situation develops – use more than one page if necessary.

3. **Dealing with Third Parties.** It is important in all communications with a third party to avoid the suggestion of any admission of liability, or the waiver of any legal right. It should be made clear that any action is taken "without prejudice". These words imply that the action proposed to be taken does not involve any acceptance of liability. The skipper should record in detail the events in the [Ship's Logbook](#). Should assistance be required and the yacht or its crew/passengers be in real danger<sup>3</sup>, the skipper should use the [RYA Simple Form of Salvage Agreement](#), (copies of the form are in the [Boat Folder, Section 9](#)), on a 'no cure no pay' basis; a signed copy should be kept by both parties and the fact an agreement reached, entered in the [Ship's Logbook](#).

4. **Reporting.** On all occasions following an incident, the [RAFSA\(O\) Functional Safety Occurrence Report \(FSOR\) Form](#) (copies of which are in the [Boat Folder](#)) is to be used to report all reportable events. This single form will enable onward reporting when appropriate.

a. **Injury to Personnel.** The RAFSA SSMP (Reference C) sets out reporting requirement and procedures when **injury to personnel occurs** or the **Emergency Services are called upon**. Skippers **are to** familiarize themselves with the reporting requirement and ensure they have a nominal roll for all crew and the contact details for next of kin (NOK), immediately to hand once the crew have embarked.

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<sup>3</sup> Danger: the boat involved or someone on it must be in real danger. The test is, would a prudent mariner in the existing circumstances have asked for help.

b. **Damage, Equipment Losses, and Groundings.** Damage (including to third parties or their equipment), losses and groundings (however slight), **are to** be reported to the yacht's OIC as soon as practicable after the event (normally by telephone within 24 hrs). A verbal report **should** be made in the first instance, but this **is to** be followed up by a written report using the RAFSA(O) FSOR Form. **The completed form, together with any additional documents specified, is to be photographed and uploaded to the [RAFSA Website](#)** as soon as practical after the incident. A soft copy of the FSOR is available on the RAFSA(O) Website ([Downloads](#)).

c. **External Reporting.** As detailed in MGN 564 (Reference G), there is no statutory requirement for pleasure vessels<sup>4</sup> to report accidents to the Maritime Accident Investigation Branch (MAIB), however, voluntary reporting is encouraged. A copy of the [MAIB Accident Report Form \(ARF\)](#) is in the [Boat Folder](#). Any reporting to the MAIB **must be preceded by notification to RAFSA(O) officials**, so that any parallel Service reporting can also be initiated.

5. **Loss and Damage.** **All loss or damage, however minor, is to be logged and reported in the [Defects Log \(Boat Folder\)](#).** Whilst the yacht is insured, there is an excess payable for any insurance claims arising from charter activity (see terms and conditions of charter). On all occasions, any equipment lost or damaged due to carelessness or incorrect use (e.g. loss of winch handle or lead line overboard, bent boat hook) **is to be replaced at the crew's expense prior to handover.** Skipper's will be held accountable for losses and/or damage.

6. **Further Reporting.** The following three organisations accept reports of incidents and accidents at sea; The following RAFSA(O) officials **must** be informed by email of any further reporting: RC(O); RYA Principal; Chief Instructor.

a. **Confidential Hazardous Incident Reporting Programme (CHIRP).** This is an independent confidential reporting programme for people employed or having an active interest in the maritime industry. Pleasure boaters can use CHIRP to highlight safety related issues or dangerous situations which are then analysed, and the lessons learnt are distributed for the benefit of others in the maritime sector. CHIRP is an independent charity. This status allows it to be impartial in dealing with reports received, no matter what the source of the information. All personal details are removed from the report before it is passed on; absolute confidentiality of personal details is assured.

b. **Marine Accident Investigation Branch (MAIB).** If an accident happens in UK waters or to a UK registered vessel abroad, it is the MAIB which undertakes the investigation of the accident to ensure that all possible steps are taken to prevent similar accidents in the future. The MAIB produces a safety digest periodically through which information about their investigations and lessons to be learnt are shared. Accident reports are also published on the MAIB website.

c. **Marine Accident Reporting Scheme (MARS).** This scheme allows you to report near miss situations with commercial ships. The form, which is submitted direct to MARS,

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<sup>4</sup> Reference E: MGN 538 para 1.1 (b) any vessel wholly owned by or on behalf of a members' club formed for the purpose of sport or pleasure which, at the time it is being used, is used only for the sport or pleasure of members of that club or their immediate family, and for the use of which any charges levied are paid into club funds and applied for the general use of the club; and (c) in the case of any vessel referred to in paragraphs (a) or (b) above no other payments are made by or on behalf of users of the vessel, other than by the owner.



guides you step by step through the information needed to report a near collision.

## SOP 15 - LIFEJACKETS & SAFETY LINES - USE

1. **Lifejackets.** Lifejackets are **useless unless worn**. Skippers **are to**:
  - a. Inspect each lifejacket to ensure it is serviceable. Specifically, they are to check that all green tell-tales are correctly in place.
  - b. Ensure that each person on board has a lifejacket fitted for size.
  - c. Ensure that all crew members are briefed on the correct fit, operation and functionality of their Lifejackets. **The diagrams in the Operating Manual are to be used to brief crewmembers.**
  - d. Ensure that manual inflation toggles are accessible to the wearer at all times. Inflation toggles are **never** to be tucked away.
2. **Safety Lines.** Safety lines are also **useless unless worn**. Skippers **are to** ensure that:
  - a. All crew are briefed on the correct single-handed operation of their safety line's attachment clips.
  - b. All crew are briefed on the wearing, operation and use of their safety lines and where they can clip on (Jackstays, cockpit D rings) and should not clip on (standing rigging, stanchions and rails).
  - c. All crew are warned **not** to wear the safety line looped around their necks. If the jacket inflates the face is forced forward into the chest/water, impairing breathing.
3. **Wearing Lifejackets and Safety Lines.** Personnel should wear lifejackets and lines at **all times** unless the skipper decides otherwise, and the individual crew member is content to accept the additional risk. Any dispensation would be unusual and **is to be entered in the Ship's Logbook**. Safety lines can be used by any crew member when they judge it appropriate. They **are to** be used when ordered by the skipper. They should be used when reefed or the wind conditions are such that the yacht could not carry full sail to windward, and when sea or weather conditions would make recovery of a man overboard difficult. They **must always** be worn during the hours of darkness and in fog. Additionally, a person alone on deck, whilst underway, should be clipped on.

## SOP 16 - FIRE SAFETY AND FIRE FIGHTING EQUIPMENT - BRIEFING

1. The main fire hazards on board are:
  - Gas supply
  - Cooker
  - Fuel
  - Engine
  - Electrical
  - Smoking



- Pyrotechnics

2. **Fire Fighting Equipment.** Dry powder fire extinguishers and a fire blanket are provided onboard; further guidance is contained in the [RAFSA\(O\) HR 34.2 Operating Manual](#). The skipper is responsible for establishing the location and method of operation of all firefighting equipment. The skipper **is to** brief the crew on **fire safety, firefighting and escape routes** soon after they embark on the vessel; this brief **is to** be completed for all crew before they spend their first night onboard. **All roof hatches are to be unlocked (red knobs on handles) when any crew member is on board.**

3. **Fire Alarms.** Domestic type fire and CO alarms are fitted, and a gas alarm is installed on the vessel. Skippers **are to** locate and test all alarms as part of their fire safety brief.

#### **SOP 17 - SPARE / EMERGENCY FUEL STOWAGE.**

1. **Diesel.** Emergency Diesel is to be stored in the starboard cockpit locker in the plastic container provided, which is to be kept upright. Skippers **must** check on takeover and handover that the container is secure, upright and is not leaking. The container is deliberately left 80% full.

2. **Petrol.** Petrol for an outboard motor may be carried in an approved, plastic 5L petrol container. The skipper **is to** ensure: the petrol container does not leak; the petrol-can is only stored in the Starboard Quarter Locker: and that the locker drain is clear (test with water).

#### **SOP 18 - GAS SAFETY**

1. **Risk.** Gas presents a risk of fire and explosion. It is heavier than air and leaking gas will likely collect in the lowest available space, such as the bilge, unless vented overboard. The gas system is designed and fitted to comply with MGN 280 (Reference F) and is maintained and certified annually. An approved gas detector and alarm system is also fitted ([see RAFSA\(O\) HR 34.2 Operating Manual](#)). Except for replacing the gas bottle, all work on the gas and alarm system **is to** be carried out by a qualified Gas Safe technician.

2. **Hazard.** The main hazards associated with the gas system are:

- a. Incorrect operation of the cooker.
- b. Failure to turn gas off at the bottle when not in use.
- c. Incorrect installation of replacement gas bottle.
- d. Blocked gas locker drains.

3. **Cooker Operation.** Whilst underway, sea boots and foul weather trousers **must** be worn when operating the cooker. When lighting the cooker, the gas is to be turned on using the challenge and response **“gas on”** from the galley operator, where upon a crew member turns the gas on at the bottle and replies **“gas is on”**. The cooker is then to be lit promptly by the galley operator. To extinguish the last burner (don't forget the oven/grill) the gas is turned off at the bottle using the challenge and response **“gas off”, “gas is off”**. The galley operator **must** ensure the flame dies, this can take up to 1 min at low settings, before selecting the associated burner knob to off. This ensures the gas in the line is burnt, reducing the possibility of an inboard leak. The gas **is to** be left turned off at the bottle when the cooker is not in use.

4. **Installation of Gas Bottle.** The skipper is personally responsible for ensuring the correct fitment of the gas regulator to the gas bottle; a leak check **is** always **to** be carried out using soapy

water. These actions are to be recorded on the ship's log. **CAUTION:** gas threads are often counter clockwise to screw in; it is easy to cross thread the union or regulator. **The skipper is to ensure that the gas compartment drains are not blocked (test with water) to enable safe venting.**

5. **Action on Suspected Gas Leak.** The gas alarm has two detector heads and single or dual operation is indicated on the alarm control panel, located on the electrical switch panel beside the chart table. Transmissions on the main VHF radio can trigger a false gas alarm. There is a button to silence the alarm. If a gas leak is suspected the following actions **are to be** carried out.

- Extinguish all naked flames
- In port - get everyone off the boat
- Switch off gas supply at the bottle
- Lift floorboards open all the hatches and ventilate the boat
- If practicable, turn the yacht downwind; open as many hatches as is safe
- Do not operate any switches or electrical equipment
- Do not use the gas system until it has been made safe

## SOP 19 - BILGE PUMPING

1. Manual pumping enables the crew to monitor the rate of any water ingress. Pumping the bilges will not expel gas, although it may help create airflow through the bilge. The Electric bilge pump and alarm are controlled by circuit breakers on the Electrical Control Panel by the Chart Table. The electric bilge pump is manually selected on using the switch above the EVC panel in the Cockpit. When selected on, an alarm sounds; this is the same alarm as the bilge water level alarm. The manual bilge pump should be operated until all water is pumped (hard pumps) followed by a further 20 dry pumps. Bilges **are to be** pumped as follows:

- a. In harbour. Manually (20 dry pumps) first thing every morning before the operation of any electrical switches or ignition of any flame and last thing at night.
- b. At sea. Manually, every hour.

2. Bilge pumping should be recorded in the Ship's Logbook (4/20 = 4 wet followed by 20 dry).

## SOP 20 - FOOD HYGIENE

1. The skipper **is to** ensure that the highest levels of food hygiene are maintained at all times when purchasing, transporting, storing and preparing food on board. D&V type infection is debilitating and spreads very rapidly. The skipper **is to** make sure that all crew are aware of the risks involved in storing, handling and preparing food and the precautions to be taken to prevent food related illnesses. Detailed guidance is set out in the [RASFS\(O\) Food Hygiene Policy](#) and **should** be followed carefully.

## SOP 21 - FIRST AID EQUIPMENT

1. The skipper **is to** ensure that the two First Aid Kits and approved First Aid Manual are kept in the port side saloon bookshelf. Their location **must** be identified to all crew members during the

crew brief. Details of the First Aid Kit Contents are in MGN 1905 (Reference G) a copy of which **is to** be kept with the medical kits.

2. Usage of first aid supplies **is to** be recorded in the [Defects Log](#) in the [Boat Folder](#) to aid timely replacement. Skippers are reminded to record injuries and any treatment provided in the ship's Log.

## SOP 22 - WINCH SAFETY

1. It is reasonably assumed that skippers are aware of the hazards presented by winches. In their safety brief, skippers **must** set out the risks and consequences of trapping fingers, other body parts or safety lines in the winches. Specifically, they **should** brief and demonstrate the function, purpose and safe operation of the winches to all crew, before proceeding to sea. In particular, they are to cover the safe procedures for:

- a. Loading a line onto the winch and tailing it.
- b. Fitting, using and removing the winch handle.
- d. Releasing lines from a winch, especially when under load.

2. For safety reasons, sheet winches should be left with a **safety turn** on the working winch. The Main Sheet should have a **safety bite** pulled through the mainsheet tails. Both operating lines for the mainsheet traveller should be passed under and then over the traveller rail once the traveller is set. The Skipper **is to** brief the crew to avoid loitering close to the mainsheet traveller track.

## SOP 23 - CRUSH INJURIES AND FRICTION BURNS

1. Skippers **must** brief crew members of the dangers of handling sheets and halyards, especially where these are under extreme load. The potential, when mishandled, to sustain serious friction burns or crush injuries to hands and feet, especially where lines pass through sheaves, blocks or fairleads, **must** be emphasized.

## SOP 24 - MANUAL HANDLING

1. Sailing, at times, requires significant physical effort from crew members, but mainly for short periods. The skipper **is to** exercise their responsibility to take all reasonable precautions to protect crew members from physical injury, particularly back injuries. All activities **must** be properly briefed and supervised to ensure that tasks are within the physical capability of the crew.

## SOP 25 - GEAR FAILURE UNDER LOAD

1. It is possible for turning blocks to fail under load. The crew should be made aware of the likely change in routing of a heavily loaded rope, should a block fail. When towing or being towed, the skipper **should** brief all crew members on the potential for the tow to part under load, and the line to snap back. They **must** identify the likely areas of danger on deck and ensure crew members are briefed to avoid these areas where practicable.

## SOP 26 - WORKING AT HEIGHT - ASCENDING THE MAST

1. Ascending the mast is a potentially hazardous activity that **must** be fully supervised by the skipper at all times. A minimum of one halyard connected to the boson's chair, tied using a bowline and a second safety halyard attached to the individual by separate means, (e.g. climbing harness or

lifejacket), also tied using a bowline, **is to** be used by the crew member ascending the mast. The skipper **is to** ensure that the halyards and boson's chair are correctly fitted. There is a serious hazard from falling objects; all crew members **must** avoid standing beneath the mast when work is being conducted aloft.

## SOP 27 – HEAT ILLNESS PROTECTION (HIP)

1. **HIP.** Heat Illness can kill. Reference H sets out the MOD's policy on managing heat illness; **this is applicable to all personnel taking part in RAFSA(O) water-based activities**. A copy of JSP 375 Vol 1 Chap 41 (Reference H) is held on board for reference. In addition to the RAFSA(O) Generic Divisional Safety Risk Assessments (GDSRA) Skippers **are to** use the **EDDRA** to assess the risk of heat illness and record any additional risk mitigations.

2. **UV Exposure.** Substantial amounts of UV are reflected by the sea, and the white hull and sails, significantly increasing UV exposure to crew members. Novices in particular often underestimate the strength of the sun and are vulnerable to severe sunburn, dehydration and in extreme cases, sunstroke. Moreover, excessive exposure to the sun can lead to skin cancer. Skippers **must** ensure that all crew members are briefed on the hazard of UV exposure and ensure that their crew are adequately protected from the sun.

3. **Hydration.** Despite being surrounded by water, it is very easy to dehydrate when sailing; the wind dries the skin and conceals sweating, a clue to exertion and fluid loss. Vomiting will rapidly cause dehydration; those suffering sea sickness must hydrate well. Dehydration significantly degrades performance and can quickly become debilitating and dangerous to health. Skippers **must** ensure all crew members are briefed on the risks of dehydration at sea and how to monitor their own hydration levels (urine colour); they **should** also ensure regular drinks are provided and that their crew remain sufficiently hydrated.

## SOP 28 – COLD INJURY PROTECTION

1. Cold Injuries can be debilitating; hypothermia can kill. Reference H sets out the MOD's policy on managing heat illness; **this is applicable to all personnel taking part in RAFSA(O) water-based activities**. A copy of JSP 375 Vol 1 Chap 42 (Reference H) is held on board for reference. In addition to the RAFSA(O) Generic Divisional Safety Risk Assessments (GDSRA) Skippers **are to** use the **EDDRA** to assess the risk of cold injury and record any additional risk mitigations.

2. The cumulative effect of wet, cold conditions and tiredness can lead to hypothermia, particularly among inexperienced crew members. Skippers **are to** advise their crews that layered, synthetic clothing should be worn to enable personal thermal control; materials such as cotton, which retains water and is difficult to dry, should be avoided. Foul weather gear is provided as the outer layer designed to minimize water ingress; skippers **must** ensure their crew know how to seal the cuff, neck and foot areas.

3. The onset of exposure is progressive, and the symptoms are seldom recognized by the casualty; in extreme cases it can lead to hypothermia. Skippers **are to** ensure that crew are aware of the symptoms and effects of exposure and the need to take early action to prevent its development. Regarding clothing, **an extra layer for the water** is a good maxim.

## SOP 29 - ALCOHOL

### 1. Alcohol and Boating Law in the UK.

- a. **Merchant Shipping Act 1995.** Boaters may be prosecuted under the Merchant Shipping Act 1995 if their actions on the water are seen to be endangering other vessels, structures or individuals, and they are under the influence of alcohol.
- b. **Harbour byelaws.** Locally, most harbour authorities have harbour byelaws under which they can prosecute if boaters are found to be under the influence of alcohol when in charge of a vessel. The RYA encourages harbour authorities to enforce those rules.
- c. **Railways and Transport Safety Act 2003.** A law to introduce drink driving offences (including specific alcohol limits) for non-professional mariners was included in the Railways and Transport Safety Act 2003. This provision has not been brought into force. The Act did, however, introduce the limits at Reference I into UK Law for all professional mariners, “*at any time on board a vessel if they might be required to undertake emergency duties to protect the safety of passengers*”; this includes those who are commercially endorsed.
- d. **Blood Alcohol Limits.** The limits for alcohol in the blood prescribed in UK legislation are expressed differently and the table below sets out the STCW and UK limits in both notations alongside the England motor vehicle drink-drive limits:

Limit	Railways and Transport Safety Act (RTSA) 2003	Transport Act 1981 (England drink driving)
Blood	50 mg in 100 mil	80 mg in 100 mil
Breath	25 µg in 100 mil	35 µg in 100 mil

Table 2 – UK Legal Alcohol Limits

2. **Commercially Endorsed Skippers.** Current RYA advice is that commercially Endorsed skippers are on duty 24 hours a day whilst they are responsible for a yacht or student and are therefore never to exceed the legal alcohol limit (Table 2 above) between the arrival of the first student and the departure of the last. This includes periods ashore socialising when skipper and students may subsequently return to the yacht. Skippers are not to consume or be unfit due to alcohol, whilst the vessel is under way.
3. **Service Skippers and Crew – on Duty.** **Service personnel engaged in RAF Sports activities are on duty.** Unfitness for duty or misconduct through alcohol or drugs remains an offence under the Armed Forces Act 2006. Reference J sets out the MOD’s policy on alcohol and safety critical duties. Skippering or crewing a sailing vessel is a safety critical duty; all Service skippers and crew **are to** adhere to the Transport Act 1981 limits set out in Table 2 above<sup>5</sup>. These limits **must** apply from the arrival of the first, to the departure of the last crew member.
4. **Civilian Skippers and Crew.** The limits set out above promote safety and are borne out of hard learnt lessons. Civilian Skippers and crew sailing on RAFSA yachts **are to** comply

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<sup>5</sup> The same limits are set out at Annex A to Chap 5 JSP 835 para 1.

with the Transport Act 1981 limits set out in Table 2 above. These limits **must** apply from the arrival of the first, to the departure of the last crew member.

5. **Hazard.** Alcohol will impair your coordination and your ability to think clearly, particularly in an emergency situation. It influences your behaviour and affects your judgement. The RYA urges all boaters not to mix alcohol and boating. Care **should** also be taken when at anchor, transferring to and from a tender or when walking to and from a boat along a pontoon. A person's ability may similarly be impaired by drugs or when suffering from seasickness or other illnesses.

### **SOP 30 – SMOKING POLICY**

1. It is RAFSA(O) policy that there is to be no smoking or vaping on RAFSA(O) Yachts. This is to protect the health and safety of all participants. Skippers **are to** ensure this policy is complied with.

## SECTION 3 – ENVIRONMENTAL

### SOP 31 - ENVIRONMENTAL CONSIDERATIONS

1. We all have a duty in law to protect the environment. RAFSA(O) strongly encourages all skippers and crew to follow the advice in The [Green Blue Guides](#) in the [Boat Folder](#). If we want to continue to use and enjoy the marine environment, then we must all act appropriately to protect and preserve it for ourselves and future generations. Skippers **must** however, follow the guidance below:

a. **Oil and Fuel.** Oil and fuel contain hydrocarbons and heavy metals which can not only affect human health but can also seriously damage our aquatic environment. To reduce the amount of oil and fuel entering the marine environment from your boat:

- Check your bilge before pumping as oil and fuel can leak from the engine and gather in the bilge
- Use a bilge sock to absorb oil and fuel in the bilges
- Use a funnel when pouring fuel or oil
- Use a fuel collar or paper towel to catch drips when refuelling
- Avoid overfilling your tank to reduce the risk of fuel overflowing from vents
- Allow room for expansion in the tank
- Maintain fuel lines, connections and seals to help avoid leaks
- Transfer oil and fuel in proper containers
- Dispose of waste oil at appropriate facilities
- Dispose of oily or fuel-soaked materials in hazardous waste containers
- Never use detergents to deal with spills. Detergents may disperse the fuel or oil, but they can be more toxic to aquatic life than the oil itself

b. **Sewage and Discharge.** Skippers must consider the effects sewage and discharge may have on the surrounding environment and minimize discharge from the vessel through the use of shore toilets and showers.

c. **Refuse.** Refuse means all food, domestic and operational wastes produced on board (except sewage). This includes food wastes, paper products, rags, glass, metal, bottles, crockery. Following [MARPOL Annex V](#), the UK has strict rules on dumping refuse at sea with substantial penalties for offenders. **Food waste** may only be disposed of at sea if they have been pulverized and you are **at least 3 miles offshore (12 miles** in the North Sea or **English Channel)**. There are rules for ports and terminal operators to provide adequate disposal facilities ashore. In dealing with refuse, the basic principles are:

- Put no refuse into the sea
- Retain refuse on board and dispose of it ashore, recycling where possible

d. **Wash and Noise.** Speeding boats can damage habitats and disturb species. Considerate pilotage and good boat handling skills can considerably reduce wake and propeller effects.

e. **Anchoring.** Some seabed habitats, particularly seagrass, may be sensitive to anchoring activities. Make sure that anchoring causes as little damage as possible to the seabed noting the following points:

- Choose an anchorage away from the most sensitive areas wherever possible (e.g. away from seagrass, reefs, shellfish beds, etc).
- Avoid areas where anchoring is prohibited – check your charts and almanacs.



## SECTION 4 – SECURITY

### SOP 32 - SECURITY (Terrorism, Piracy, Yacht Alongside)

1. The main security considerations are as follows:
  - a. **Yacht Security Alongside or at Anchor.** RAFSA yachts are most at risk to unwarranted acts whilst alongside or at anchor. The skipper **must** therefore, remain vigilant to all threats whilst at anchor or alongside. RAFSA yachts **must** not be left unattended in areas that have been identified as high-risk locations, without appropriate security protection.
  - b. **Theft.** Due to the increase in valuable and attractive items carried on board RAFSA yachts (handheld VHF's, handheld GPS units etc.) the Skipper **should** ensure that all crew members are vigilant when these items are in their care. RAFSA yachts **are to** be locked and the hatches secured when left unattended.
  - c. **Piracy.** Although very rare in Northern European waters, it remains a threat. Project Officers will brief skippers on piracy threat levels where appropriate. Project Officers **are to** ensure procedures are provided to minimize the risks of piracy.
  - d. **Terrorism.** The direct terrorism risks to RAFSA yachts are low. However, skippers **should** be cognizant of the ongoing threats to UK military interests and should be alert to any suspicious activities. Skippers will be briefed on specific threats by their Project Officers if appropriate. Any suspicious activities should be reported to the local police immediately.