**SAFETY**

Whilst the boats are entirely responsible for their own safety (RRS 1, RRS 4 and standard safety SIs) the RO has ultimate responsibility whilst on the water for the duty of care held by the Organising Authority.

Prior to the event taking place it is important to carry out a risk assessment and to produce a 'Crisis Management Plan'

The safety management adopted differs according to the nature of the event. Factors influencing the type and amount of safety cover provided include:

- Boat types - the requirements of keelboats, dinghies, boards and model boats are very different from those of each other. Mixed fleets often pose complex problems of safety.
- Number of boats - both the type and the amount of safety cover is often determined by the number of boats and/or competitors.
- Location of racing - the safety requirements of ocean racing differ from offshore racing, racing inland or in an estuary.
- Ability of the competitors - it is often the ability of the less able sailors in the fleet that determines the level and type of safety cover necessary.
- Age of competitors - both the young and old have greater requirements when compared to fit adults.

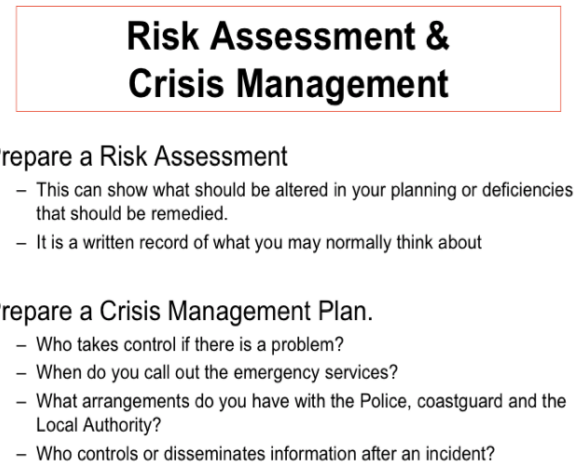
  Medical facilities must be available either through the event itself with a doctor onsite, or through the emergency services and local hospitals. All boats involved in the management of an event should be equipped with a first aid kit as a minimum requirement.

  **Dinghy and Board Events**

  A Safety Officer will deal with safety issues under the direction of the RO. Reporting to the Safety Officer will be a team of individuals in RIBS who are experienced in safety on the water and have patrol boats that are appropriately equipped. As an extension to this aspect of race management the provision of a Mothership may be appropriate.

  A system, such as a conventional tally system, should be in place so that the number of sailors afloat is known at any one time (including the extended Race committee such as Patrol Boat Crews).

  The following issues also need to be considered:
  □ a system with which to identify boats with crews removed such as marking with streamers. □ contingency plans for a change in conditions including the onset of fog.






 liaison with shore-side facilities and emergency services to cope with medical emergencies and injuries including a designated point for landing such incidents.

 a method understood by all safety crews to patrol effectively when boats sail out to the race area, race and return to the dinghy park.

 a policy for identifying and assisting crew at a capsize and when to intervene.
 knowledge of the boats racing and how to right a capsized boat of this type (often best obtained

from coaches of the class concerned).
 methods for effective communication between patrol boats and also with the RO using VHF

(especially when conditions make this difficult such as strong winds).

*Size and Location of the Race Area*

Racing in coastal waters and estuaries is often monitored by VHF on the main committee boat itself. Inland races can be monitored perhaps from the club office with visual contact through a window. A means of communication with the safety fleet will still be required.

*Number of Race Areas*

The requirement for a centralised system of communication and coordination of cover is determined by the number of race areas. At a major event with multiple course areas the most efficient management of the safety systems will be effected through a centralised base. Again, this could be afloat, as in the case of an event safety leader on a boat, or ashore in an office. Communication from the safety fleets to the central base is usually via VHF radio but may also be made with mobile telephones.

When racing is on a single course it is often not necessary to have a base other than the RO or Safety Officer.

*Mode of Assistance*

Dinghies and boats that are likely to capsize are best assisted by RIBs or similar small boats. A patrol plan for the RIBs is essential to effect good safety monitoring and cover. This plan must be defined and understood by all safety crews to patrol effectively. Each safety boat will have designated area to patrol during the race and during transit of boats to and from the racing area. During the races safety boats will move to a pre-allotted patrol zone. Generally 1 or 2 boats would cover each leg of the course with overlapping areas around the marks. Boats should also be stationed at gybe marks as these are often problem areas. In the event of bad visibility, heavy sea, strong wind, etc, boats should also be stationed at the leeward aspect of the course to 'mop up' - this is especially important if the wind is offshore. If more safety boats are available some can have a roving role.

*Patrol Boats*

The number of patrol boats at an event depends on the competition level, age, ability and number of competitors, anticipated conditions, etc. There is no recommended ratio as there are too many variables to consider - so it's a matter of common sense and judgement. The patrol boats should be of a design and size appropriate to the task - RIBs are commonly used.

*Patrol Boat Crews*

All patrol boats should normally have a minimum of two adults aboard, one of whom must be competent and ready to enter the water to help rescue if necessary and to be dressed appropriately for that responsibility. It would be unusual to have more than three people aboard. It is essential that the boat carries enough fuel to cope with any emergency. The driver must use the kill cord at all times when under way.



*Patrol Boat Equipment*

Equipment should be carried by all patrol boats appropriate to the water on which racing is held - a harbour, offshore or an inland waterway. This may include: a fully functional VHF radio; a whistle or fog horn; a compass; an anchor and warp suitable for the race area; a sharp knife (preferably serrated); a kill cord and an easily accessible spare; personal buoyancy for the crew (to be worn at all times); distinctive tape with which to identify abandoned boats; paddles and bailer; drinking water; a tow rope (preferably made of floating line) and towing bridle; distress flares; a waterproof first aid kit and survival bag or thermal protective aid.

The following equipment should also be carried by a proportion of the Patrol Boats on each course, the number being dependent on the size and type of event: wire cutters to cut away rigging and trapeze wires; a tool kit; a GPS; a torch; spare radios.

*Mothership*

In most instances the mothership is best anchored to leeward of the race area. The patrol boats will bring rescued boats and competitors to this boat, thus allowing the patrol boats to stay in the race area. The mothership may also have appropriate equipment to compliment that of the patrol boats. The competitors will be very happy if there is a toilet and the facility to serve hot drinks.

*Emergency Guidelines*

In the event of an emergency occurring (including severe injury to a sailor or event personnel or structural damage endangering the safety of a boat in the event), the first boat on the scene at a dinghy event, should inform all stations using a predetermined code (such as 'Code Red') and the location of the incident. The code itself is to be defined in the safety plan and emphasized at the briefings. An immediate assessment of the situation by the race officer is made and if appropriate the incident plan then becomes active.

If the situation is considered to be hazardous to the rest of the fleet the race officer may elect to stop racing by either shortening course or executing an abandonment as appropriate.

An emergency is only declared closed when the situation has been resolved. The race officer will only then inform all stations that 'Code Red' is cleared.

**Ocean, Offshore and Yacht Racing Events**

The basic concepts of safety remain the same as with dinghies and boards but there are other issues to take into account.

*Size and location of the race area*

Course areas are extended and may be out of sight if land. Offshore racing requires a 'base' that is responsible for monitoring the location and progress of those boats involved using all technology available - tracking devices and satellite communication systems when boats are likely to be far apart; VHF monitoring both by the competitors themselves and/or a 'base' when racing is likely to be relatively compact. The base will be either afloat, as in the case of a mothership, or on land. Whatever system is used it must have the ability to communicate with both the competitors and land based rescue services. Clearly this type of monitoring must exist at all times whilst racing is taking place so is likely to be a 24 hour watch from the start and until all boats have reached a harbour or other safe haven.

*Mode of assistance*

The delivery of assistance to competitors is determined by the types of boats racing. Large yachts are self sufficient to a certain extent until they require the services of specialist rescue services such as is offered by coastguard agencies. In the case of injury to competitors on such yachts, they are

often safer and more comfortable remaining on the yacht than being transferred to another vessel or RIB. Urgent attention is best effected by helicopter transfer.

*Intention to Race and Declarations*

This is a requirement of the SIs that enables the race officer to know who is on the water and who is on land or in harbour. Again, it is dependent on the type of boat involved.
Yachts - common policy is a requirement that boats sail close to the main committee boat in the pre-start period and call the race committee by VHF when retiring from a race or returning to harbour prematurely. Prompt submission of paper declarations after racing is a common addition in offshore racing.

*Personnel*

Fewer personnel are involved in safety for yacht and ocean racing. The skills of those involved are different, the main ability being communication and organisation - to alert the rescue services as is appropriate and coordinate activity where necessary whilst maintaining contact with the competitor and keeping them informed as to progress being made.

*Equipment*

The equipment required for ocean racing is limited to tracking devices, satellite communication systems and VHF radios. VHF radios and mobile telephones are necessary for inshore yacht racing.

*Communication*

Good communication is essential between all involved in any safety plan and, of course, the competitors themselves. Good briefings should be made by the race officer to the competitors before racing takes place. This is sometimes in the form of 'competitors' notes' when boats are not located in the same place and arrive at the race area form many different locations.

*Emergency Guidelines*

In the event of an emergency occurring, the competing yacht should inform all stations using a predetermined code (such as 'Code Red') with incident details including its location.