Safety

Contents

Safety in sailing

The following two extracts are from the NSSA booklet 'Safety Afloat'.
The full text is also available from the NSSA home page on the Internet at http://ourworld.compuserve.com:80/homepages/nssa/

School sailing: NSSA Safety Guidelines

Recommendations
A responsible, experienced and suitably qualified person (hereafter referred to as the Director) should be in charge of the party and its activities; s/he may be a teacher or some other qualified person (eg Youth Worker) and should hold the RYA Senior Instructor's Certificate. S/he should be assisted by RYA Instructors (see RYA G7 booklets for details or contact the Secretary of the local or National School Sailing Association). These awards are accepted by most LEAs as the necessary qualification for teaching dinghy sailing in school/youth groups. It is expected that the Director will be familiar with the requirements of the organisation under whose auspices they are operating.

Ratios
The correct staff/pupil ratio will be determined by consideration of the type of activity, equipment to be used, ability and experience of the students and staff, prevailing and anticipated weather conditions such as tidal flow and water temperature and the length of time available. For this reason the NSSA does not make recommendations on ratios; these decisions are the responsibility of the Director.

Role of the Director
The Director is responsible for the conduct and safety of all concerned.

(a) Staff and Pupils The Director should:

i) be satisfied with their fitness, general health and ability to carry out all the tasks involved
ii) ensure that they are familiar with local conditions and are aware of any special, dangerous features
iii) satisfy himself that all persons taking part in a sailing activity are "confident" in water (See Appendix I)
iv) ensure adequate, suitable clothing is worn (as appropriate). This includes personal buoyancy (See Appendix II), waterproofs and footwear, eg sailing shoes, boots or any light footwear which provides grip and will keep feet dry and warm

(b) Sailing Craft: Dinghies The Director should:

i) ensure their suitability for use in local conditions, in particular the facility to keep buoyant, provision for bailers, paddles and oars. In addition, in tidal waters, an anchor and suitable length of warp should be provided
ii) consider provision of charts, compasses, flares, torch, spare food and clothes, this provision to be made whenever sailing outside the confines of restricted areas such as an estuary or local bay
iii) if charts are to be carried, it is most important that at least one member of each crew thoroughly understands their use
iv) ensure that all loose equipment is secured into/onto the craft

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(c) The Sailing Group The Director should:

i) ensure that the sailing area is well defined, that recall signals are clear and fully understood and that adequate rescue boats are allocated
ii) ensure that the Coast Guard and Harbour Master are informed of the group's intention (as appropriate) and check on weather and tides

(d) Arrangements for Safety Cover These are particularly important when boats are used in tidal or exposed waters. The Director should ensure that arrangements are made to meet all foreseeable contingencies and that assurances are given by all participants that these arrangements are fully understood.

The Director should:

i) ensure that righting techniques are familiar to all taking part in sailing activities and references should be made to the RYA Coaching Method for a method that is applicable to beginners
ii) ensure that appropriate safety craft are in attendance and that such craft are staffed by people who are experienced both in power boat driving and sailing. (See RYA booklets G7, W3 and G20 with regard to staff experience and qualification, and G16 for details of safety boats.)

(e) Administrative Requirements The Director should:

i) ensure that all personnel, property and boats are adequately insured (See Appendix III)
ii) oversee course planning and preparation, including an adequate ratio of instructors

Hypothermia

Notes on the prevention and treatment of hypothermia

Preamble

Whilst a large proportion of dinghy sailors tend to restrict their activities to no more than one or two hours afloat at any one time, there are many who undertake extensive expeditions, spending many hours afloat at a stretch in open boats. From the available medical information, it would appear that all dinghy sailors could suffer from the cold in two ways:

i) An immersion in water after capsize or man overboard, resulting in rapid cooling of the body
ii) A gradual cooling and loss of energy from the body due to prolonged physical exercise. This, coupled with the effect of wind, rain and water, accelerates the heat loss from the body to a point where body heat output is overtaken, hence cooling begins

Prevention

a) Hypothermia due to immersion should be minimised by having available suitable safety boats, which in the event of potential prolonged immersion, would retrieve crews from the water. Persons manning such safety boats should have in mind the temperature of the water v. length of immersion safety margins and act accordingly
b) Hypothermia due to exposure and possibly linked with exhaustion should be minimised by ensuring that all sailors are in a normal state of health and not suffering from any debilitating illness
c) Food: Ensure that all sailors are adequately fed. Where appropriate, ensure an adequate supply of food and hot drinks
(d) Clothing: It is essential that adequate clothing be worn, with spare clothes available at all times, when taking part in water-based activities. Perhaps most important are good-quality water/wind proof outer garments, as these will inhibit heat loss from the body. The use of a wet suit will not suffice after immersion,

unless covered by other layers, including a wind/water proof layer. Naturally a wet-suit, or better still a dry suit, with suitable clothes under, are the most efficient when a person is immersed in water. It is important to keep feet warm from a morale point of view but essential to cut down heat loss from the head (20-40% of heat loss is through the head). Some form of personal buoyancy can form an additional insulating layer and may help to influence the type of buoyancy worn.

Recovery from Water and Initial Treatment of Hypothermic Victims
The actual technique of rescuing persons from the water may have a direct relationship to their well-being thereafter. All handling of the casualty must be with care and movements should be even and kept to the minimum practicably possible. Treatment of a hypothermic victim should commence immediately upon clearing the water.

Initially, while being transferred ashore, treatment will probably mean making sure that a wind/water proof environment is provided and that the casualty is not allowed to chill further. Wrap the victim in dry clothing, eg sleeping bag, but do not remove wet clothing unless you are in a warm environment. Try to keep their head slightly down. It is unlikely that active rewarming can commence until a facility ashore is reached. Once ashore, the aim should be to prevent further heat loss, improve body heat and circulation and to obtain medical aid or transport the casualty to hospital. A close watch should be kept on the victim as a common complication is sudden collapse on or within 15 minutes of rescue. As indicated earlier, the victim could be suffering from either of the following:

Immersion resulting in rapid cooling of the body.

Exposure exhaustion built up over a period of time.

Medical opinion would seem to agree that in the case of rapid cooling of the body, such as may be experienced by post-capsize immersion and where the victim is conscious and has no breathing problems, they may be rapidly rewarmed. Ideally the whole body, except the head, should be in a bath of stirred water at 41°C (hand hot). Should a hot bath not be available, conscious shivering victims may be placed under warm showers but attendants must be watchful for collapse. Tepid or warm, sweet drinks could be given.

For the treatment of those suffering from a more prolonged exposure, possibly not linked to immersion, one needs to consider the treatment advised by doctors versed in the treatment of exhaustion/exposure victims from the mountains and fells. Here it is felt that a slow rewarming of the patient, allowing the person to regenerate his/her own body heat from within, is far safer. Hence the casualty needs to be placed in a well-insulated environment - survival/polythene bag with sleeping bag and spare clothing - in close company with others who may help to raise the temperature of the inhaled air.

Do not use hot water bottles or electric blankets.

Finally, the difficulty for the person administering the treatment may be in deciding which of the two treatments to follow, particularly in view of the likelihood that already cold and exhausted people are more likely to capsize or fall overboard. Thus, although immersed in water, such people could still be suffering from a more prolonged exposure and therefore are in need of treatment for exhaustion exposure rather than rapid re-warming. Since the immediate available treatment is likely to be in the form of slow rewarming, it is perhaps safest to follow this method, unless it is obvious that the casualty has suffered an immersion in cold water without prior exhaustion/exposure, when the hot bath treatment, if available, should be used. In any event, the casualty should receive expert medical help as soon as possible.

Remember: “Fast cool, fast warm. Slow cool, slow warm”.

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The treatment of Hypothermia, like all other medical problems, is constantly being reviewed and it may prove wise for members of the Association to keep in touch with some of the leading medical authorities involved in these studies.

Appendix I: Water Confidence

"The importance of confidence when in and on the water needs to be reiterated, particularly for dinghy sailors who may be required to work in the water wearing sailing clothing and personal buoyancy in order to rectify a capsize. The ability of sailors to swim prescribed distances is of less significance than their general confidence in water, given that they are urged to remain with the boat in the event of a capsize." Ref: Safety in Outdoor Education - DES 1989 : HMSO.

Appendix II: Personal Buoyancy Aids

Such garments should meet the specification for the CE marking within the European Economic Area. In normal circumstances, a CE 50 Newton Personal Buoyancy Aid is appropriate for most small boat activities. In the event of concerns over a physical disability or medical condition, eg epilepsy, a 150 Newton garment may be more appropriate. Where this is the case, such a garment must include at least 50 Newton of permanent (foam) buoyancy.

Appendix III: Insurance

All those involved in the supervision of school sailing are advised to ensure that adequate insurance cover is obtained, with particular reference to third parties, staff, pupils, craft, equipment and location. Most Local Education Authorities and Associations have their own arrangements.

The National School Sailing Association itself carries Public Liability Insurance. Membership of the Association includes insurance cover. For further information contact: Barbara Darling, NSSA Treasurer, 21 Willow Way, Ponteland, Newcastle upon Tyne, NE20 9RF tel/fax: 01661 872155.

LEA safety guidance and support

In addition to direct support from advisory staff, all Local Authorities provide their schools with guidance on health and safety issues related to school visits and journeys. The following checklist indicates the types of supportive documentation which can be expected.

Planning
- definitions of roles and responsibilities
- submission of detailed plans and rationale to senior management
- competence and qualifications of group leader, staff and supervising adults
- preliminary visits and assessment of safety arrangements
- consideration of fitness of participants
- meeting legal requirements of host country

Organisation
- compliance with LEA policy and guidance
- provision of written information and obtaining parental consent
- travel and transport arrangements
- communication of safety arrangements
- incident / accident reporting procedures
- provision and maintenance of equipment
- emergency contact arrangements
- personal accident insurance

Supervision
- supervision ratios and arrangements
- police checks on accompanying adults
- staff briefing on roles and responsibilities

Example forms
- activity programme information
- parental consent forms
- medical consent forms
- emergency contact forms
- volunteer agreement

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Safety boat procedures

Based on guidance notes devised by Woolmer Green JMI School for use at one specific centre.

NOTE
This guidance has been developed to meet local needs and is not part of NSSA policy/guidance. For additional information refer to the RYA Safety Boat Handbook G16/90.

The function of a safety boat and its crew is to maintain, at all times, the constant watch on all craft under its care; to offer immediate help and advice when required and, in extreme cases, to rescue the crew and leave the boats. As teachers in charge of children, the thought of their safety should always be foremost in our minds and the safety boat service which we offer must be the best available. For the safety service to be effective, a routine should be followed before, during and after, a day's sailing:

The crew

- Should be competent dinghy sailors - so that they are capable of offering advice
- Minimum qualification RYA Powerboat Level 2, preferably Level 3
- Must be able to handle the safety boat carefully and skillfully
- Must consist of at least 2 members, with a maximum being determined by the size of the safety boat
- Must wear buoyancy jackets at all times
- Must have a sharp knife on a lanyard, worn outside waterproofs
- Should wear extra, warm clothes
- Should be dressed ready to go into the water if necessary

What should a crew do before sailing starts?

- Find out how many boats will be under their care and which ones they are
- Enquire about sailing areas
- Ask which manoeuvres are being undertaken that day
- Collect a flask of hot coffee
- Collect fuel, survival gear etc
- Leave moorings a few minutes before the sailing crews

What should be done at the safety boat?

- Check the inventory
- Check the fuel and oil, stem gland as appropriate, pump or bail if necessary
- Stow all gear neatly and safely where it can easily be found
- Make sure that the warps are free running
- See that a lifebelt and throwing line are ready to hand

The safety boat inventory

- Spare tank of fuel
- Oars or paddles
- Buckets and pump
- Lifebelt and throwing line
- Warps
- First aid kit
- Engine tools and spares
- Survival gear in a polythene bag
- Flask of hot drink
- Signal flags
- Anchor/Mud weight
- Mobile telephone/radio communications
- Outboard engines must have a kill cord fitted

Signals

Every party will be controlled by the safety crew and therefore, some means of communication should be arranged beforehand. eg:

- Red and White Vertical Stripes.....“Reef!”
- Triangular Yellow with Blue Edge .....“Sail near me, I wish to speak to you.”
- Blue and White Check.....“Return to base.”

On the water

- The safety boat should escort all boats out to the sailing area
- Select suitable anchorage or mooring slightly to windward of the fleet. This enables fuel to be saved, allows the crew to concentrate all their attention on their fleet and, should something happen, they will be in a fair position to speed to the rescue
- The crew should know the position of all boats at any given time
- Watch for boats sailing near to lee shores, shallow water or areas not in use
- Change in weather conditions should be watched for and prompt action taken
- At intervals make a short patrol around the fleet. This helps to reassure the beginners
- Should not, as a rule, assist other boats not in their own fleet
- Signal time to return and escort back to base

On reaching base

- Moor the safety boat securely
- Clean and tidy
- Return all gear

When things go wrong

Crews stuck on a lee shore

- Approach within hailing distance, ask if they require help
- If help is needed, try to talk them out with advice given by one member only.
- Should this fail, approach slowly bows first, throw a towing line. Carefully reverse out and pull them clear of the shore to a buoy, or until they have sufficient room to hoist sail and cast off. It is important to keep the propeller and shaft clear of weed, rushes, etc. when going to help
- If waves are present, drop anchor, drift in backwards (outboard engine raised) Throw a line, then haul own boat off on anchor line, lower engine etc
- Remember you still have other boats to watch over

Capsize

- Wherever possible the dinghy crew should right their own dinghy
- If this is not possible, owing to inexperience or cold weather, approach from downwind carefully and lift them into the safety boat
- Remember that the engine should be stopped when near crew or boats or when people are in the water

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- If the sails are flat on the water, turn the boat head to wind, apply downward force on the centre-plate, easing the pressure as the boat rights itself. Care must be taken that it does not fall over into the safety boat. Alternatively, go to top of mast, motor around so that dinghy is head to wind. Hold position and 'walk' hands along shroud or mast to right it
- If the dinghy is upside down, press on near side gunnel and pull on far side jib sheet or line passed around the shroud. Once the sails break water repeat as before
- Should the mast be stuck in the bottom lift the transom of the dinghy onto the safety boat or, if the mast is deck mounted, unshackle one shroud. Alternatively, tie a rope to the transom, another to the bow, equalise lengths then tow the boat sideways to pull the mast out
- Wet crews should sail back to base as soon as possible in cold weather Alternatively, anchor or moor boats, take crews ashore and bring back experienced sailors to sail boats back to base. Watch for signs of hypothermia. If it is suspected, wrap up crew and return to shore immediately

Towing dinghies

Sometimes owing to lack of wind, broken rudders etc. there is a need to tow one or more dinghies back to base. This can be done in two ways, either alongside or line astern.

Towing alongside One or two boats can be towed this way quite easily. The boats should be secured fore and aft forward of the stern of the rescue boat, plate up and rudder either removed or lashed amidships.

Towing astern Use a towline of between 1 to 2 boat's lengths, half plate to minimise yawing, remove tiller/rudder or have someone steering. Boats should never be towed full of water, or on their side, at speed.

Capsize recovery procedure: two person method

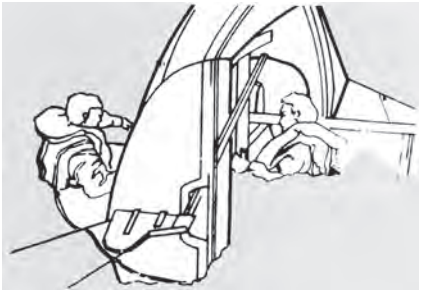
Simplified summary adapted by Tewin Water School.

Diagrams reproduced with permission from RYA Dinghy Coaching Handbook

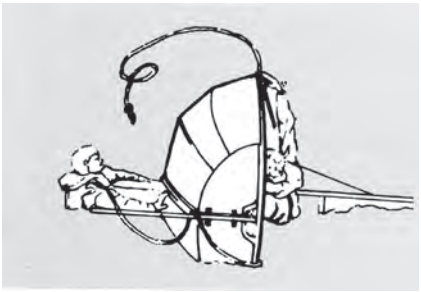
Step 1
Everybody goes to the back of the boat.

Step 2
Helm goes round the hull (bottom) holding the mainsheet, to the centreboard.

Crew goes to the inside between hull and boom.



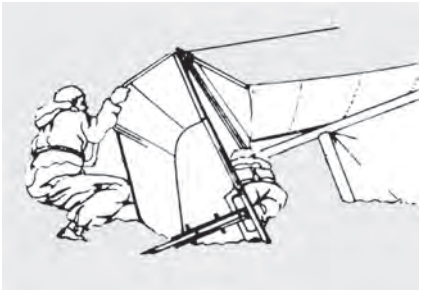
Step 3
Crew throws jib sheet over hull to the helm.



Step 4
Crew floats, head near mast.

Step 5
Helm climbs on to centreboard - near the hull and holding the jib sheet.

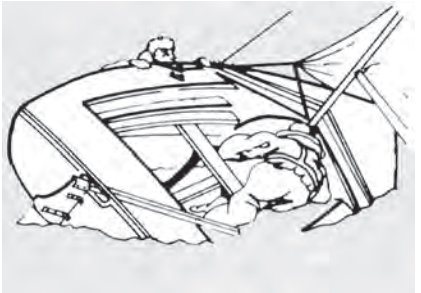
Helm stands on centreboard, feet near hull, arms straight and **leans back** while pulling the jib sheet.



Step 6
As the dinghy comes up, the crew is scooped into the boat.

The helm may be able to scramble in.
If not, crew helps him/her.

If necessary BALE!



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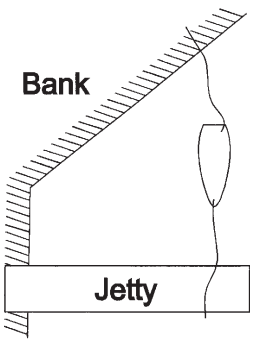
Capsize recovery procedure: single person “keep dry” method

When a single-handed boat capsizes it can be difficult to right if you fall in the water because the centreboard floats high and the wind can blow the boat away from you. With a little experience and a benevolent breeze, the following method will allow you to right the boat quickly and stay dry!

- Before the sail hits the water, scramble quickly over the gunwale to avoid falling in
- Stand on the centreboard, pull on the gunwale and lean over to right the boat
- As the sail comes up and the boat is nearly righted, slide back on board to avoid falling in

If you do fall in, move round to the bow. Pull on the bow to sink it. The boat will then rotate in the water and return to its normal floating position.

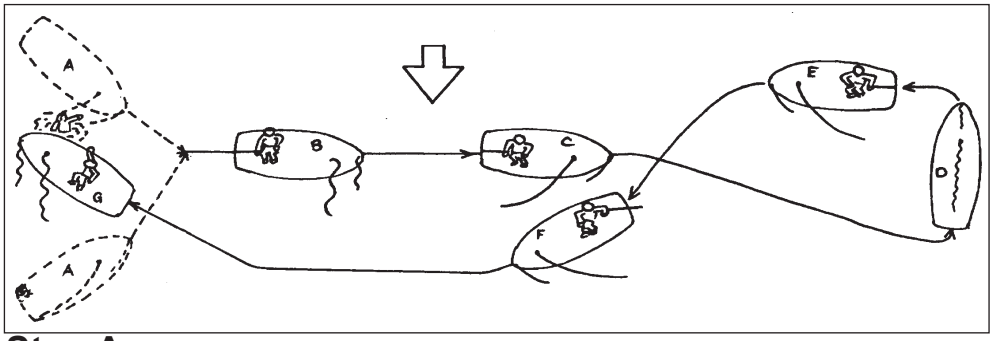
Capsize recovery practice: teaching points



- Secure practice boat between two jetties or jetty and bank with fore and aft lines
- Ropes to be at least 2½ times width of water to allow boat to be pulled to bank or jetty for new crew and into centre space to capsize
- Boat does not drift with this controlled system and gives pupils a lot of confidence - it’s a spectacular sport at this stage
- Someone to be ready to go into water, or swimming around in case of either panic or need to help someone righting boat
- Hot showers really need to be available
- Clothing - pupils to wear minimum, weather permitting
- Be aware of blue-green algae and other water quality/safety issues

NOTE:
Variations on capsize methods will be needed for single-handers or high performance two-handed craft which may need to be swum head to wind to allow righting.

Man overboard: recovery procedure



Summary notes devised by Woolmer Green School.

Step A
From any point of sailing call “MAN OVERBOARD!”
Throw something overboard which will float to mark person in water

Step B
Gain control - basic hove-to - **Think**

Step C
Harden up - sail away on to a reach - keep an eye on the person

Step D
Judge approach - pull in sheets - go about

Step E
Sail back on a beam reach

Step F
Sail slightly down wind

Step G
Approach on a fine reach
Ease sheets to slow down
Stop in basic hove-to position
Take person by windward shroud when boat has stopped - roll in over side

Notes:
Advise against the common fault of not allowing sufficient time and space for a fine reach in Step G. An approach on a beam reach and last minute turn does not make for a controlled safe approach.

Practice procedures provide more realistic simulations if the helmsman falls out occasionally and if crew fall out from a variety of positions rather than just from the middle of the boat.

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Safe communication on the water - signalling system

Based on a conventional system adapted by Tewin Water School for hearing-impaired pupils.

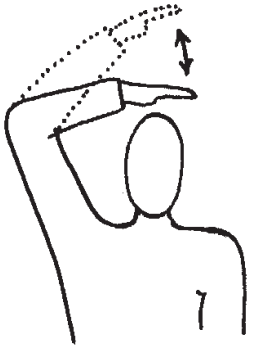
Responses to these signals can be practised on dry land, the first two being a useful addition to playground duty routines.

Note possibility of confusion with other signalling systems - 'mainsail' signal can mean 'heave to' or 'lie with the wind'.

Attention!

1 Whistle
2 Arm straight up in air
3 Lower arm towards craft required to...

Come to me!

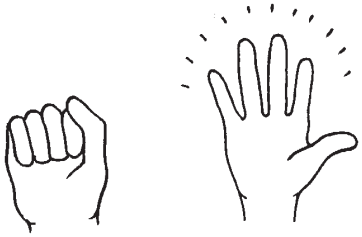


Come to me here!
Pat head

Come to me over there!
Pat head whilst pointing

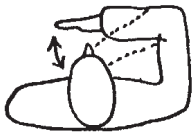
All come to me!
Lower pointing arm whilst sweeping arm around

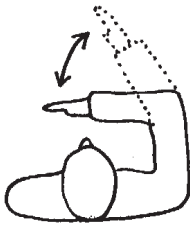
Let go!



Open and close fist repeatedly

Move your tiller!





Pull tiller towards you!
Arm movement towards body

Push tiller away from you!
Arm movement away from body

There is something wrong with your sails!

Jib
Make triangle with hands

Mainsail
Make triangle with arms and shoulders

Safety and Sailing Centres

The Code of Practice

Based on summary from **The Outdoor Source Book** published by Adventure Education.

See **Sailing centre and club directories** in **Resources** section.

A code of practice that describes the standard of safety and welfare a customer can expect from a provider of outdoor experiences was launched during 1994. It was developed for the Council for Outdoor Education Recreation and Training by the Activity Centre Advisory Committee which represents all the organisations working in the field. The Code is a statement of principles for the responsible provision of organised outdoor adventure activities. An accreditation scheme that goes beyond the new licensing regulations is currently under review and may be introduced in the future.

The emphasis within the Code is placed on the safety and welfare of participants. The following is a summary of its contents:

Customer Care The aims of a programme must be clearly stated and the facilities and activities accurately described. Any pre-entry requirements and preparation by participants must be communicated, as must full details of charges, all in writing and in a prompt manner.

Activity Management and Staffing Providers will hold written procedures for all activities and sites used. These must define the competences and/or qualifications required by both management and staff to undertake different roles in the programme. There will also be a staff recruitment and development policy with clear procedures for assessment. A full list of staff and their details must be available to customers as should the accountability structure. Operating procedures must conform to the Code of Practice and, where applicable, governing body guidelines. The provider will create an effective safety culture amongst its staff ensuring they have the skills and attitude to respond flexibly to what is a dynamic situation of safety management at all levels. Written accident and emergency procedures will be available and a procedure in place to review the accident and near miss records. A first aider will be available to the participants at all times.

Welfare Clear arrangements for the supervision of those under 18 will be agreed with the customer in advance. Overnight supervision will be by an appropriate adult. Special needs will be identified and met. Providers must consider the psychological as well as physical welfare of participants.

Facilities Vehicles, equipment and premises must all meet appropriate standards and be regularly checked and maintained.

Environmental Concerns The impact on places, communities and other users must be considered and the principle of sustainable use upheld.

In General Providers must meet all their statutory obligations, be appropriately insured and ensure that any subcontractors also meet the standards in the Code of Practice. The Code is a major step forward in providing a common base on which a customer can evaluate a provider. It will replace a number of the various schemes currently used and complement national governing body guidance to form a reliable and national basis on which to form a judgement about risk-free provision. No activity, including being outdoors, can be entirely safe. This Code will ensure that those who subscribe to it will be at least as safe as normal life - and probably safer!

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How do I know that my pupils will be safe at this centre?

Based on notes by John Coombes and "Guidance notes for inspection of recognised teaching establishments" published by RYA.

Note: RYA recognition covers all of the points in this checklist, but it would be prudent to include them in your own preparation.

Preparatory visits

It is essential to visit a new centre before entrusting the care of your group. A preparatory visit will allow you to become familiar with the environment, meet staff, check qualifications and facilities on offer. If possible, an earlier unofficial visit to hire out and enquire about public facilities could prove very informative.

What to look for in a sailing centre

The Base

- q Is the centre registered with the Adventure Activities Licensing Authority? (Relevant to centres operating on a commercial basis and open to under-18s. Schools, charities and youth groups are exempt but in the near future parallel voluntary registration is to be introduced.)
- q Ask to see the Centre's RYA Certificate or copy, it should be dated within the last year. This recognition covers administration, the operating area and facilities, qualifications of staff, tuition, seaworthiness of dinghies, safety craft, clothing, buoyancy aids etc
- q Ask to see the Centre's Health & Safety Policy
- q Ask to see the Centre's Risk Assessments which cover the planned activities
- q Ask to see the Centre's insurance cover for public and third party liability (and for employer's liability if appropriate). Note that visiting groups should also be covered by their own separate insurance
- q Do booking forms include details of pre-course requirements, emergency contacts and health problem declarations?
- q Can the Centre cater for disabled students?
- q Are emergency telephones well sited?
- q Are there adequate toilets, washing facilities and showers?
- q Is there an evaluation system for customer feedback and complaints?

The staff

- q Is the course run by a Senior Instructor (SI)? Does SI have a tidal endorsement (if appropriate)?
- q What is the ratio of instructors to pupils? Requirements for RYA basic skills courses are not to exceed:
  - crewed dinghies 3:1
  - single-handed dinghies 6:1
  - keelboats 5:1

  For other courses and activities different ratios may apply.
  See also NSSA **Safety Afloat**.
- q Are all the other staff qualified Instructors?
- q Are there any Assistant Instructors? If so they should not form more than half the teaching team
- q Is the rescue boat driver qualified? If s/he is not one of the qualified instructors or the SI, does s/he have an RYA powerboat qualification at least Level 2?
- q Do the staff have all relevant local qualifications or are RYA ones accepted?

Evidence of qualifications

- q Ask to see copies of SI and Instructor certificates. Check that they have been validated within the last five years
- q Check the First Aid certificates to see that they are up to date. **HSE Emergency Aid in the Workplace: Appointed Persons** is the minimum accepted. There could still be people with older type certificates (No problem if they are still within three years of the issue date)
- q Ensure that staff comply with current legislation and work at the centre regularly. Ask for copies of the last pages of the appropriate log books

Tuition - observing while a group is being taught

- q Assess teaching approaches, ideas, rapport with pupils/students etc
- q Check that instructing team is same one as you have seen certificates for!
- q Watch that rescue cover is available, that the driver does wear a kill cord
- q Check that the SI knows how many students s/he has on the water, that it is clear they are all being watched and are all checked back ashore!

The rescue boat

- q Is the rescue craft of a suitable type, eg is the freeboard low enough to pick people out of the water?
- q Does it carry an appropriate first aid kit?
- q Does it carry flares? (Not needed on inland waters)
- q Does it carry a heaving line? (ie to throw to and tow away stranded dinghies)
- q Does it have a kill switch?
- q Is there both a safety boat and a teaching boat? If there is only one motor boat ask how the SI and/or the instructors go out and teach. (Hopefully they, or at least some, are on the water in sailing boats as well.) The teaching boat can also be a safety boat as long as it is only covering one group - ie it does not have to leave one group alone to rescue another.

Accreditation

Based on summary from **The Outdoor Source Book**.

The Outdoor Source Book contains an extensive **Directory of Outdoor Providers** which lists organisations with their affiliations and accreditations. Although the Activity Centres (Young Persons' Safety) Act 1995 is now in place, existing systems of professional affiliation and accreditation listed below continue to provide a guide to the quality of provision.

AHOEC ..... Association of Heads of Outdoor Centres: Individual members are assessed for their ability to manage a safe and effective outdoor centre.

ASTO ..... Association of Sail Training Organisations: Members meet Board of Trade standards for sail training.

BAHA ..... British Activity Holiday Association: Organisations are assessed for their ability to provide safe and effective outdoor courses.

BS5750 ..... British Standards Institution: Standard for quality management now replaced by ISO 9000 (see below).

IIP ..... Investors in People award.

IPD ..... Institute of Personnel and Development: Members hold professional qualifications in training.

ISO 9000 ..... International Standards Organization: Standard for quality management systems (registered with the British Standards Institution).

N/S/SC/W COETR ..... Northern/Southern/Scottish/Welsh Council for Outdoor Education Training and Recreation: Accredited organisations are assessed for their ability to provide safe and effective outdoor courses.

RYA ..... Royal Yachting Association approved centres as providers of sailing.

WTBS ..... Welsh Tourist Board Standard: Organisations are assessed for their ability to provide safe and effective outdoor courses.

The absence of an accreditation or professional membership from a **Directory** entry does not mean that a provider is unsafe but group leaders will have to rely on their own judgement rather than the experience of the accrediting and professional bodies.

The 1998 edition of **The Outdoor Source Book** will list providers who are registered with the Licensing Authority to become licensed. Further information on licensing will be included on the Adventure Education web site at **www.adventure-ed.co.uk**

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School risk assessments

Based on Risk Assessment documentation produced by St Peter's Primary School and Herts. Young Mariner's Base 'Multi Activity Primary Project' materials.

Definitions:

Risk Assessment ..... the formal process used to make judgements about the risk of something occurring
Hazard ..... a condition that creates danger
Risk ..... the likelihood of a dangerous event occurring

Context

Conscientious professionals in schools have always assessed the risks they, their colleagues and the pupils in their care encounter on a daily basis. Predicting risks, avoiding them whenever possible, minimising and controlling them, has always been part of normal planning and preparation and part of the minute by minute practice of the classroom teacher.

During recent years intense media attention has been given to accidents involving school parties and the spotlight on health and safety in schools has grown increasingly brighter. OFSTED is responsible for checking that schools have "clear procedures to identify and control health and safety risks" and to "comment on any health and safety risks observed during inspection".

However thorough risk management has been, until recent legislation was introduced, there had been no statutory requirement to systematically document the process. The **Management of Health and Safety at Work Regulations** which came into force on 1st January 1993 require all employers to adopt a structured, systematic approach to **risk assessment**, to ensure that consistent standards are applied and safe procedures followed in all workplaces. Risk assessments should be carried out for all school activities including sailing sessions and other off-site visits. The visible evidence of risk assessments is a set of individual records which can be computer files or paper forms kept in a folder.

It is vitally important that risk assessment records are not just a 'paper exercise' but the controls they describe are fully implemented and monitoring is built into the school Annual Health and Safety Audit Programme.

Who is responsible for risk assessments?

The MHSW Regulations require every **employer** to make a 'suitable and sufficient' assessment of the risks which employees are exposed to in the work place. The Regulations cover risks to all groups of employees and others who might be affected such as pupils and visitors. The **employer** responsible for the risk assessments in local authority schools is both the LEA and the governing body but, in practice, the headteacher has the day to day responsibility for implementing the regulations. (The employers of Activity Centre staff have responsibility for carrying out their own separate risk assessments.)

* Health and Safety at Work Act 1974

Every individual* member of staff has a responsibility to themselves and others to ensure that their own practices are safe and to report to the headteacher any concern they have about health and safety with regard to equipment, premises or practice. Staff have a further professional duty to safeguard the health and safety of children in their care. This includes ensuring that equipment, practice and usage conforms to advice and school policy. Staff should check that their working area is safe and that protective equipment is used as appropriate. If in doubt advice should be sought from the headteacher.

All members of staff have a responsibility to use equipment safely and to direct others who are responsible to them in the safe usage of equipment. This includes checking, within the bounds of reason, that equipment is safe to use.

Carrying out a risk assessment for sailing

There is no single way to carry out or record risk assessments. It is possible to comply with legal requirements in a variety of ways according to the circumstances of the workplace. The procedure and record format following have been developed by three county primary schools and may provide a useful starting point for others. The guidance applies equally to all risk assessments and is followed by a worked example for sailing activities which can be readily modified to suit the circumstances of an individual school.

See an alternative format in the **Sailing centres, clubs and schools** section.

NB: This guidance is intended as an aide-memoire rather than a substitute for appropriate training. It is important that all staff engaged in risk assessment are fully trained and aware of legal requirements before undertaking their own assessments.

There are four main elements in the process of risk assessment:

- identification of hazards - physical, ergonomic, biological, chemical
- identification of those at risk
- evaluation of risk which may include calculation of a numerical rating
- decision on control measures

The risk assessment record sheet notes the detail of each of these elements.

1. Identification of hazards The risk assessment process can be applied to a wide variety of situations and activities such as teaching and learning activities, use of equipment, management activities and the school premises or off-site locations. The list of hazards in the worked example is not exhaustive and the school will need to study carefully their own sailing activities and locations. Situations change and regular reviews are important - from time to time extra items will need to be added to, or removed from, the school Risk Assessment File.

2. Identification of those at risk The risk assessment process requires the identification of the person or persons at risk. This is normally the individual or group of people directly involved in the activity. There are occasions however when visitors, members of the public and others may also be at risk. Situations could arise where one category of person is assessed differently from another because of differences in age, experience or special educational needs. More than one assessment might be needed.

3. Evaluation of the risk There are many day-to-day activities where the risk is particularly low. In extremely low risk situations where good professional practice is assumed and school policies are being fully implemented, a formal risk assessment is not needed. When the risk is deemed significant, it can be helpful to determine a numerical rating. This risk rating will enable the headteacher to assess whether or
not the current control measures are adequate and what should be done to improve the situation. Two factors are taken into consideration:

- the **severity of adverse effects** if the 'accident' were to happen and
- the **probability** or likelihood of the 'accident' occurring.

These two factors are determined from a reference table, then multiplied together to arrive at the **risk rating**. By reference to a third table, the risk rating will indicate the level of action which must be taken.

4. Decisions on control measures Step 6 in the Summary Guidance below details the various types of risk control. The main categories, which should be considered in order of priority and potential effectiveness are:

a eliminating/substituting
b setting up controls at source - eg restricting use to certain individuals/groups
c minimising risk by considering how to make the learning environment safer eg training, storage
d using protective clothing and equipment, eg buoyancy control devices

5. Records and Reporting The MHSW Regulations now require risk assessments to be formally recorded either in a paper file or on computer files. All staff should have access to these files and should be kept fully informed about additions and changes. Associated records also kept in school include:

- termly and yearly Health and Safety Audits
- accident records of injuries to staff and pupils

Records of significant injuries are kept on the appropriate forms and passed on to the LEA. There is a duty to report fatal or major injuries immediately by telephone (and later by form) to the HSE . There is also a duty to report dangerous occurrences and notifiable diseases.

Summary Guidance

NB Direct observation of an activity or situation is important - a thorough and accurate risk assessment is difficult to achieve by a desk top exercise alone.

Step 1 Title

Name the activity which is the subject of this risk assessment.

Step 2 Description of activity

Briefly describe the activity, group of related activities, equipment or situation which is associated with this risk.

Step 3 Significant hazards; severity of adverse effects/probability

List all significant hazards and for each one, assign a pair of risk factors by referring to the following tables:

Severity of adverse effects	Factor
Minor injury eg bruising or grazing	1
Injury needing first aid or medical attention	2
Temporary disability - “three day injury”	3
Major injury - long term absence	4
Fatality or permanent disability	5

Probability	Factor
Remote possibility	1
Possible - unlikely but might happen	2
Feasible - could occur some time	3
Highly probable - could occur several times	4
Will invariably happen - could occur repeatedly	5

Step 4 Risk rating

For each significant hazard multiply the severity and probability factors to determine the risk rating.

Step 5 People at risk

For each significant hazard determine and note down groups and sub-groups of people at risk.

Step 6 Existing control measures

Describe all existing control measures covering the listed hazards. The main categories of potential control are:

1 Elimination
2 Substitution
3 Enclosure
4 Guarding
5 Safe system of work in place
6 Written procedures/policies
7 Adequate supervision
8 Training/instruction/information
9 Personal protective equipment

Some control measures may cover more than one hazard.

Step 7 Revised risk ratings

In the light of existing control measures, review the probability factor and re-calculate the risk rating.

Step 8 Action and time scales

For each hazard or group of related hazards refer the risk rating to the table below to decide whether or not further action is required:

Risk Rating	Action required
1 - 2	Low risk - no further action required
3 - 5	Low priority - further risk reduction may not be feasible or cost effective
6 - 9	Medium risk - action required so far as is reasonably practicable
10 - 15	Risk reduction required - high priority
16 - 25	Unacceptable risk - immediate action required

If further action beyond existing control measures is necessary, enter a brief description based on categories listed in Step 6, and include the time scale for completion.

Step 9 Verification

The completed record is signed and dated by the assessor.

Step 10 Review

The nature of work changes over time, and risk assessments need review in order to ensure that control measures remain sufficient. Reviews should be annual, to inform the Annual Health and Safety Audit Report, or more frequently if the circumstances of the activity change earlier.

Step 11 Monitoring

Monitoring is a continuous process which pays particular attention to changing circumstances such as the arrival of new equipment or introduction of new activities. All teaching and support staff are required to monitor changes on a daily basis and to report hazards to the headteacher. Any hazards which are not identified as they arise should be noted during the termly health and safety audit carried out by the headteacher, health and safety representative and caretaker.

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Worked example

(School name) Risk Assessment Record

RISK: Sailing activities at (name) Centre

Description of activity	Significant hazards	Severity of adverse effects	Proba -bility	Risk rating	People at risk
Collecting/returning equipment, launching, rigging/de-rigging	(a) Falls, general accidents	3	3	**9**	Pupils & adults
	(b) Blow from falling equipment	5	3	**15**	Pupils & adults
	(c) Failure of equipment	5	3	**15**	Pupils & adults
Sailing	(d) Collision with other craft	5	2	**10**	Pupils & adults
	(e) Blow from swinging boom	5	3	**15**	Pupils & adults
	(f) Falling in/drowning	5	2	**10**	Pupils & adults
	(g) Weil's disease	5	2	**10**	Pupils & adults
	(h) Hypothermia	5	2	**10**	Pupils & adults

Existing control measures covering all significant hazards

School measures:

- Duty of care/adequate supervision
- LEA/National guidelines adopted
- Compliance with School Health & Safety Policy
- Compliance with Sailing Centre regulations
- Carrying of change of clothing

Sailing Centre measures:

- Staff qualifications appropriate and up-to-date
- Centre inspection certificate up-to-date
- Clear written regulations for participants
- Clear briefings, demonstrations and verbal instructions by Activity Leaders
- Strict attention to compliance with instructions
- Assignment of tasks according to ability
- Working in mutually supportive pairs and teams as appropriate
- Avoidance of crowding
- Buoyancy control devices
- Attention to balance/swinging boom in boat
- Safety boats
- First aid kits
- Hot water at base for washing, hand-washing and showering

Revised risk ratings, taking account of existing control measures

(a) 3 x 1 = **5** (b) 5 x 1 = **5** (c) 5 x 1 = **5** (d) 5 x 1 = **5** (e) 5 x 1 = **5** (f) 5 x 1 = **5** (g) 5 x 1 = **5** (h) 5 x 1 = **5**

Further action and timescale(s)

Risk ratings fall within range 3 - 5; low priority - further risk reduction not feasible or cost-effective.

Assessed by ..... Signature ..... Date

Reviewed by ..... Signature ..... Date

Note: The term “duty of care” is used in the previous example to denote the responsibility all staff have for ensuring the safety of themselves and others in the workplace. These are statutory duties required by the Health and Safety at Work Act 1974, ie:

- taking reasonable care for your own health and that of others who may be affected by what you do or do not do
- co-operation with your employer on health and safety issues
- not interfering with or misusing anything provided for your health, safety and welfare.

Risk assessment action planning

The following action plan can be used for managing the introduction of risk assessments.

What?	Who?	By when?	Comments
Preliminary study of risk assessment			
Allocate responsibilities for carrying out and reviewing assessments			
Inform all staff and governing body of risk assessment process, timescale and future location of risk assessment records			
Health and safety/risk assessment training, as appropriate			
Identify full range of risks related to specific activities/situations			
Prioritisation - group list of risks according to urgency			
Carry out assessment, referring to worked example			
Record assessment using worked example file provided on disc and print out paper copies			
Inform all relevant persons (Governing Body, staff, pupils) of any additional control measures in place			

Note: Adding your modified version of the action plan sheet to your current School Development Plan will provide evidence of planning for health and safety.

Specialist advice and training

In some circumstances it will not be possible to carry out a risk assessment without seeking specialist advice. In the case of risks associated with curriculum areas, the appropriate LEA subject adviser can be approached. If in doubt about the best source of specialist advice, the local authority Health and Safety Officer can advise, and also provide information on health and safety training courses which include risk assessment.

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