

Blackwell Sailing's *Sailing – Benefits and Risk Assessment Plus
Operating Procedures* document

SAILING - BENEFITS AND RISK ASSESSMENT PLUS OPERATING PROCEDURES

250219

ACTIVITIES :

Sailing from Blackwell Sailing base at Cockshott Wood, Bowness on Windermere LA23 3HE and/or other RYA recognised sites (e.g. Killington Reservoir, Ullswater).

To ensure the charity's objects are adhered to the focus for every sailing session is to be on the sailing members and the focus for our sailing members, both the newcomers and well established, is to be on the activity - sailing. It is expected that sailing members are encouraged to be as independent as possible when it comes to the use of the changing area and the nggmg boats They will also be encouraged to develop their sailing skills.

BENEFITS

The benefits of water based activities include confidence building, learning to work as a team, seeing nature from a different perspective, building health and fitness and learning about the weather - particularly the wind. Specific **skills** can also be learned leading to a Certificate of Achievement at the end of the season. Regular participants will be given the opportunity to participate in the RYA Sailability Logbook Scheme.

HAZARDS

1. Cold water
2. Extreme and unexpected
3. Actions of other lake users
4. Polluted water
5. Aggressive wildlife
6. Unexpected behaviour

RISKS

1. Accidental capsize or avoidable actions
2. Hypothermia in cold conditions and heat stroke/sunburn in hot
3. Physical injury
4. Drowning
5. It is inevitable that during participation minor injuries may occur.
These may include: Abrasions, blisters, bruises, rash OR infections.

STEPS TO BE TAKEN TO REDUCE RISK

Session Preparation

1. All activities to be sanctioned by a designated senior person.
2. Activities to be led by a qualified and experienced RYA Senior Sailing Instructor who has local knowledge, assisted by an RYA Instructor or Assistant Instructor in charge of each Whammel boat.
3. Emergency equipment as per the check list to be carried and a detailed local weather forecast to be sourced. Mobile phone reception and where the nearest emergency phone is must be known for the area where the activity takes place.

4. RYA Instructor ratios to be adhered to. A maximum of 6 people in each Whammel boat, 2 in each Access boat and 4 in RS Venture.
5. Safety boat to be operated by a qualified operator: RYA Safety Boat Certificate, or another volunteer under his/her instruction. Under normal circumstances the safety boat is not to be used for giving group members a ride.
6. Dogs are not to be allowed in the safety boat or the sailing boats unless there are exceptional circumstances.
7. Volunteers are DBS checked, made aware of all policies and procedures through their participation in Blackwell Sailing endorsed training sessions and are kept updated with any changes.
8. Suitable personal buoyancy to be worn by all participants whilst sailing and on the jetty. Protective equipment and clothing worn (provided by Blackwell Sailing).
9. Accompanying staff to have had access to individual care plans and risk assessments which identify behaviour, ability, medical conditions, moving/handling issues and water confidence.
10. Good communication links with group/agency involved: Medical Declaration forms completed, information on individuals provided or kept to hand. Staff/ volunteer/ Sailing Member ratios considered carefully.
11. Discussions to take place amongst staff, volunteers group members and the sailing instructor re. the suitability of the activities for the individuals. Staff, volunteer and group member ratios and configurations to be considered carefully.
12. Participants to be accompanied at all time when on the Blackwell site.
13. Sailing members and carers/staff to be water confident.
14. Groups to be supervised by school or disability agency staff who will be participating.
15. Fresh water or anti-bacteria handwash to be taken when algae warnings issued.
16. Wheelchair access assessed for individual wheelchair users and suitability of equipment (winch and harness) to be discussed with carer, support worker and/or doctor/physiotherapist where necessary. Wheelchair accessible toilets and shower available to all sailing members and volunteers.

Preventive and Protective Measures Required

All rigging to be secure with no sharp fittings exposed. Boats must be properly covered and moored securely to the jetty when not in use.

End of season checks to all equipment to be made and a work schedule produced for maintenance work to be completed during the winter period. Periodic services and tests to be carried as per the manufacturers specifications during this time.

Early season refresher training to be presented for volunteers and a questionnaire to identify personal training needs for the season.

A start of season inspection of the sailing base to be carried out by the principal instructor and any significant hazards to be attended to.

Blackwell Sailing's *Safety Boat – Benefits and Risk Assessment Plus
Operating Procedures* document

SAFETY BOAT- BENEFITS AND RISK ASSESSMENT PLUS OPERATING PROCEDURES 110319

Activities

RYA Power Boat and Safety Boat Courses to be run at Blackwell Sailing's site, **Cockshott Wood, Bowness on Windermere LA23 3HE.**
Supporting group sailing sessions.

Benefits

The benefits of this activity include confidence building, learning to work as a team and learning to cope with difficulties and emergencies. Blackwell Sailing aims to train volunteers to become competent safety boat operators and is authorized to issue RYA Powerboat Level 2 and RYA Safety Boat certificates.

Hazards

1. Cold water
2. Extreme and unexpected weather. Courses may be run during the winter months
3. Actions of other lake users
4. Polluted water
5. Hazards associated with going at higher speeds and with attempting to rescue other boats people

Risks

1. Avoidable actions or falling in whilst attempting rescues
2. Hypothermia in cold conditions and heat stroke/sunburn in hot
3. Physical injury
4. Drowning
5. Minor injuries: Abrasions bruises and blisters

Those Persons Affected

Participants - to be entered in the on site register for each session or course run.

Group leader

Power boat and safety boat endorsement courses to be run by Mel Vause (Chief Instructor) or other RYA Powerboat Instructors approved by David Hall, Principal Instructor. Regular sailing sessions supported by the safety boat to be supervised by an RYA Senior Sailing Instructor.

CONTROL MEASURES AND SESSION PREPARATION

1. Good communication between the instructor and participants before and during the course. To properly brief all students about in-house rules and local hazards: speed restrictions, rocks & shallows, ferry, hired boats and steamers etc.
2. Instructor or Principal to obtain Lake District National Park Authority written exemption to operate at speed on RYA Level 2 courses.
3. Medical declaration forms available and completed for each participant. Problems that might arise due to disability/medical conditions discussed in advance.
4. Personal buoyancy to be worn by all. 45/S0N suitable for most, a lifejacket and drysuit recommended for those with epilepsy, diabetes or a heart condition. Adequate clothing worn appropriate for weather conditions.
5. RYA Instructor/student ratio to be observed for courses - 1:3 for power boat level 2 course and 1:6 for safety boat course.
6. All participants to be water confident.
7. Students to be warned, if necessary, about Blue Green Algae and Instructor to check with the Lake Warden for safety advice.
8. When the safety boat is supporting a sailing session the RYA Senior Sailing Instructor must ensure the operator of the safety boat is aware of the ability, and any special needs of the participants.
9. Hot drinks will be provided, when appropriate, before or after going afloat.
10. Equipment to be kept and returned to the safety boat equipment board in the round house where it is clearly and obviously clipped to the board.
11. Re-fuelling always done on shore or on the jetty to avoid spills. Spare cans of fuel kept in lockable, fireproof fuel bin. Heavy equipment/ fuel cans to be transported on sack truck. Intake valve to be closed when carrying.
12. Ongoing checking/maintenance of the boats to be done. Any faults to be reported and entered into the maintenance book (in meeting room).
13. No dogs are to be allowed on the safety boat.

POWERBOAT CHECK LIST

Instructor to ensure that the boat is in safe, good working order (particularly if the boat is not ours) and that the following equipment is on board as a minimum requirement:

1. Spare fuel (ie more than enough for the session.)
2. Spare "kill" cord
3. Paddles
4. Tow/throw rope
5. Basic 1st Aid kit
6. Fire extinguisher

Other equipment is available and should be used when the instructor feels it is needed:

1. Boat hook
2. Life Buoy
3. Extra warps for towing alongside
4. Anchors
5. Pump (RIB type boat)

Blackwell Sailing Operating Procedures

BLACKWELL SAILING OPERATING PROCEDURES

12/3/08

STAFFING AND PREPARATION

Qualified RYA Senior Sailing Instructor in charge, to carry mobile phone and to brief volunteer Assistant Instructors: To be aware of local hazards: rocks, ferry, steamers and hired boats.

All instructors and the safety boat operator to carry knife & whistle.

RYA Instructor ratios to be adhered to (1:4) when RYA course, no more than 1:9 at other times, with experienced helpers.

Maximum 6 people in each Whammel boat, 4 in Beaufort.

Weather forecast available.

Re-fuelling of safety boat to be done on jetty/shore to avoid spills.

Sailing area defined – not to extend beyond Rawlinson Nab or Miller Ground Bay unless a risk assessment submitted to the principle.

Safety boat operational before sailing begins and on the water at all times.

SAILING BOATS

All rigging secure with no fittings likely to catch on clothing or crew

Sails raise and lower with smooth ability to reef

All boats to be properly moored to jetties.

SAFETY BOAT

Driven by appropriately qualified person

The following equipment is a **minimum**

1. Spare fuel (ie more than enough)
2. Spare “kill cord”
3. Paddles
4. Tow rope(s)
5. Basic First Aid Kit
6. Fire extinguisher
7. Bailer

All loose equipment, engine and fuel tanks(s) to be firmly attached.

PEOPLE (Clients, Volunteers and Staff)

Health and fitness details declared to instructor in charge

All participants to be “Water Confident” and entered in register

Adequately clothed – spare clothes available

Waterproof clothing available for all

Personal buoyancy aids worn by all – 50N suitable for most.

Orange 100N lifejacket for those suffering from additional disabilities – epilepsy, diabetes or heart condition.

RYA inspections of Blackwell Sailing - Inspectors' comments

Inspection Date	Assessor	Items requiring attention/ comments	Grade
18 June 2014	1 (ST)	Well run centre. No further actions required	-
3 June 2015	2 (IS)	<p>2.2 Put a whiteboard in workshop area to note down any maintenance issues</p> <p>1.14 Add system for customer complaints</p> <p>2.4.7.6 Move chemicals from workbenches and store in metal cupboard in workshop</p> <p>Bring powerboat LII certificates issued and if needed ask for password and keep safe</p>	<p>Action to be rectified before next inspection</p> <p>Action to be rectified before next inspection</p> <p>End of week</p> <p>Action to be rectified before next inspection</p>
6 May 2016	3 (AJ)	<p>Everything in high standard of order. Previous points addressed. Great set up!</p> <p>Centre is considering using powerboat from other centre for powerboat courses-reminder to get 'contract' – add boat to inspection form; if situation arises</p>	-
5 May 2017	4 (GD)	No action required	-
6 June 2018	2 (IS)	<p>Tidy up system for recording and checking staff qualifications</p> <p>Review system for recoding accidents easier retrieval of information</p> <p>Well run centre with good on water activity</p>	<p>Action to be rectified before next inspection</p> <p>Action to be rectified before next inspection</p>

Excerpts from the RYA Safety Boat Handbook



SINGLE-HANDED DINGHY



Position the safety boat alongside the upturned hull, if possible facing in the same direction. Bring the crew into the safety boat and apply pressure on the daggerboard pulling it towards the safety boat.



Placing a foot on the dinghy's gunwale may help break the suction effect of the upturned hull.

Once the hull is at 90°, continue as normal.

Sometimes the daggerboard may drop down through the hull, leaving nothing to right the dinghy with. If free it can often be re-inserted directly into the case from above. Ensure it goes right through the full height of the case before levering, or the case may be damaged by the end of the board as you lever it.

Top Tip



If the board is missing use a paddle inserted into the dagger board slot, do not apply too much pressure as the paddle may snap.



DOUBLE-HANDED DINGHY



Ask the crew to find and hold a jib sheet (if possible the down-wind one). Safety boat crew prepares a towline, as above. Safety boat approaches the middle of the dinghy bow-in and upwind. The towline is attached over the hull, behind the daggerboard and onto the further jib sheet.



The safety boat reverses away upwind and takes the strain on the towline. Keeping the towline at 90° to the dinghy, the safety boat continues reversing, applying tension to the line.



This will start righting the dinghy.



Once the rig reaches the surface there are several options, but the simplest is often to continue reversing bringing the boat upright.

Once the dinghy is righted, the towline is recovered by motoring gently back to the hull, keeping a little tension on the line to stabilise the boat.

N.B. As the dinghy passes through 90° with its mast parallel to the water, the crew may climb over the gunwale to balance the righted boat, though this is often difficult to do.

Top tip

The centreboard sometimes drops into the case completely. Going under the boat to lower (raise) the centreboard can be uncomfortable. Centreboards on training dinghies can often be 'fished' out of the case with a loop of string such as your knife lanyard.

HIGH PERFORMANCE BOATS

There are four principle methods.

Method 1 Extra leverage on centre board



With the safety boat alongside the inverted dinghy, get both helm and crew to stand on the near gunwale, holding onto the centreboard. Dinghy crew and safety boat crew lean back on the centreboard as normal. Be careful not to snap the board. Once the dinghy starts to right, its crew should be able to continue without assistance. Safety boat stands off to check all is well.

Method 2 Tow the boat up



This is similar to the technique described in Method 1 for two-person dinghies. Position the safety boat bow-in towards the daggerboard, preferably on the upwind side of the dinghy hull. (Continued on page 26)

Dinghy sailing is a very safe sport, but on rare occasions sailors have been tangled under an inverting boat. Many modern boats are self-draining resulting in there being little or no air gap underneath when the craft inverts. In waves, there will be virtually no air gap under any dinghy. Incidents of this type can be alarming or worse so safety boat crews should be alert to this possibility.

PREVENTING INVERSIONS

If appropriate during dinghy training sessions, boats can be prevented from inverting by tying an air bag to the top of the mainsail.



A 30L float on a short lanyard prevents most inversions, and lets some water on the sail to prevent the boat flipping up before the crew are ready.



Most dinghies will invert following a windward capsize, in wind over tide, or if simply left for a while on their side. During training the safety boat can provide a useful service in preventing inversions by holding the mast tip or supporting the forestay.

DINGHY INVERTED, SUSPECTED MISSING CREW MEMBER

If one of the crew is known to be trapped under the dinghy, call for help as soon as possible via VHF with a Mayday call, or via the base station ashore.



1. The best strategy is usually to right the boat. Ask the remaining sailor for information on the missing crew member's last location.



2. Drive the safety boat immediately to the centreboard. One of the safety boat crew then boards the inverted hull by the centreboard. Caution, this will reduce the air gap under the hull.

Warning

Always beware of the prop – engine off or neutral whenever possible.



3. Using the combined weight of the safety boat crew and the remaining sailor, apply sideways pressure to the centreboard to initiate righting.



4. Take the safety boat to the bow of the dinghy where the driver can hold the emerging forestay to assist with righting. As the rig reaches the surface, the safety boat can stabilise the dinghy using the forestay.



5. The safety boat crew can now see into the dinghy and the missing person should be on the surface.

SOLO DRIVER IN SAFETY BOAT

- You may be alone driving the safety boat, or rescuing a single-hander. These situations require slightly different approaches, and a problem-solving approach is required:
- If possible, get the crew to help by pulling on the centreboard.
- Start righting the boat by levering on the centreboard, transferring to the forestay as the rig reaches the surface.
- As a last resort the driver may transfer their full weight to the centreboard, retaining a hold on the painter of the safety boat.



A driver who has fallen into the water during this type of rescue should be able to re-board using the anti-ventilation plates as a step, though this can be very difficult in heavy wet gear.

SINGLE HANDERS

Picos, Lasers and even trapeze single-handers are relatively light, safety boat crews may therefore be able to lift the bow onto the gunwale/sponson of the safety boat, creating an air gap underneath.



RS Venture Connect Owner's Manual

English

Introduction

Congratulations on the purchase of your new RS sailing dinghy and thank you for choosing an RS product. We are confident that you will have many hours of great sailing and racing in this truly excellent design. The RS fleet are exciting boats to sail and offer fantastic performance. This manual has been compiled to help you operate your craft with safety and pleasure.

This manual will not instruct you in boating safety or seamanship. If this is your first boat, or if you are changing to a type of craft that you are not familiar with, for your own safety and comfort, please ensure that you have adequate experience before assuming command of the craft. If you are unsure, your RS Dealer or your National sailing federation – for example, the Royal Yachting Association – will be able to advise you of a local sailing school or a competent instructor.

Please keep this manual in a secure place and hand it over to the new owner if you sell the boat.

Please take note of the following warnings;

- ⚠ Do not exceed the maximum number of persons (crew limit) stated on the CE plaque and in the Principal Dimensions.
- ⚠ Always ensure you sail with the minimum number of crew needed to recover the boat after a capsize.
- ⚠ Do not exceed the maximum recommended engine size stated in the Principal Dimensions.
- ⚠ Ensure all hatches and bungs are fully closed before going afloat.
- ⚠ Stability will be reduced when towing/being towed whilst afloat.
- ⚠ The puncturing of air tanks is a serious stability hazard.
- ⚠ Breaking waves are a serious stability hazard.
- ⚠ If transporting your boat on your car roof ensure that you do not exceed the maximum roof rack load.
- ⚠ If transporting your boat by road trailer ensure you do not exceed the permitted axle weight of the trailer.
- ⚠ Always rig your boat as per the rigging manual which can be downloaded from www.RSsailing.com.

MAIB Safety Bulletin 2/2019

SB2/2019

June 2019

**Extracts from
The United Kingdom
Merchant Shipping
(Accident Reporting and
Investigation) Regulations
2012**

Regulation 5:

“The sole objective of a safety investigation into an accident under these Regulations shall be the prevention of future accidents through the ascertainment of its causes and circumstances. It shall not be the purpose of such an investigation to determine liability nor, except so far as is necessary to achieve its objective, to apportion blame.”

Regulation 16(1):

“The Chief Inspector may at any time make recommendations as to how future accidents may be prevented.”

Press Enquiries:

01932 440015

Out of hours:

020 7944 4292

Public Enquiries:

0300 330 3000

NOTE

This bulletin is not written with litigation in mind and, pursuant to Regulation 14(14) of the Merchant Shipping (Accident Reporting and Investigation) Regulations 2012, shall be inadmissible in any judicial proceedings whose purpose, or one of whose purposes is to attribute or apportion liability or blame.

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Fatality resulting from the inversion of a craft with a retractable keel following a capsizing

June 2019



MAIB SAFETY BULLETIN 2/2019

This document, containing safety lessons, has been produced for marine safety purposes only, on the basis of information available to date.

The Merchant Shipping (Accident Reporting and Investigation) Regulations 2012 provide for the Chief Inspector of Marine Accidents to make recommendations at any time during the course of an investigation if, in his opinion, it is necessary or desirable to do so.



Andrew Moll
Chief Inspector of Marine Accidents

NOTE

This bulletin is not written with litigation in mind and, pursuant to Regulation 14(14) of the Merchant Shipping (Accident Reporting and Investigation) Regulations 2012, shall not be admissible in any judicial proceedings whose purpose, or one of whose purposes, is to apportion liability or blame.

This bulletin is also available on our website: www.gov.uk/maib

Press Enquiries: 01932 440015; Out of hours: 020 7944 4292

Public Enquiries: 0300 330 3000

BACKGROUND

The MAIB is undertaking a preliminary assessment of the circumstances that led to the capsizing of an RS Venture Connect sailing boat on Windermere, resulting in the death of a disabled crewman. The boat was manufactured by RS Sailing and was being operated by Blackwell Sailing as part of its RYA Sailability activity. Sailability is the RYA's national programme promoting and supporting people with disabilities to try sailing and to take part regularly.

At the time of the accident, there were two crew on board the boat, an assistant instructor and an experienced crewman who had limited mobility.

The subject of this safety bulletin is the securing of retractable keels and retractable weighted centreboards while the sailing boats are in use.

INITIAL FINDINGS

The sailing boat in use was an RS Venture Connect, a self-righting keelboat version of the RS Venture, built in 2016. It was fitted with a 125kg lead bulb vertical retractable keel that afforded additional stability and could be raised to facilitate recovery from the water and transportation.

The post-accident inspection of the boat, together with photographic evidence from the day, has identified that the restraining device for the keel, a Velcro™ strap, designed to secure the keel in the lowered position, was not in place (**Figure 1**).

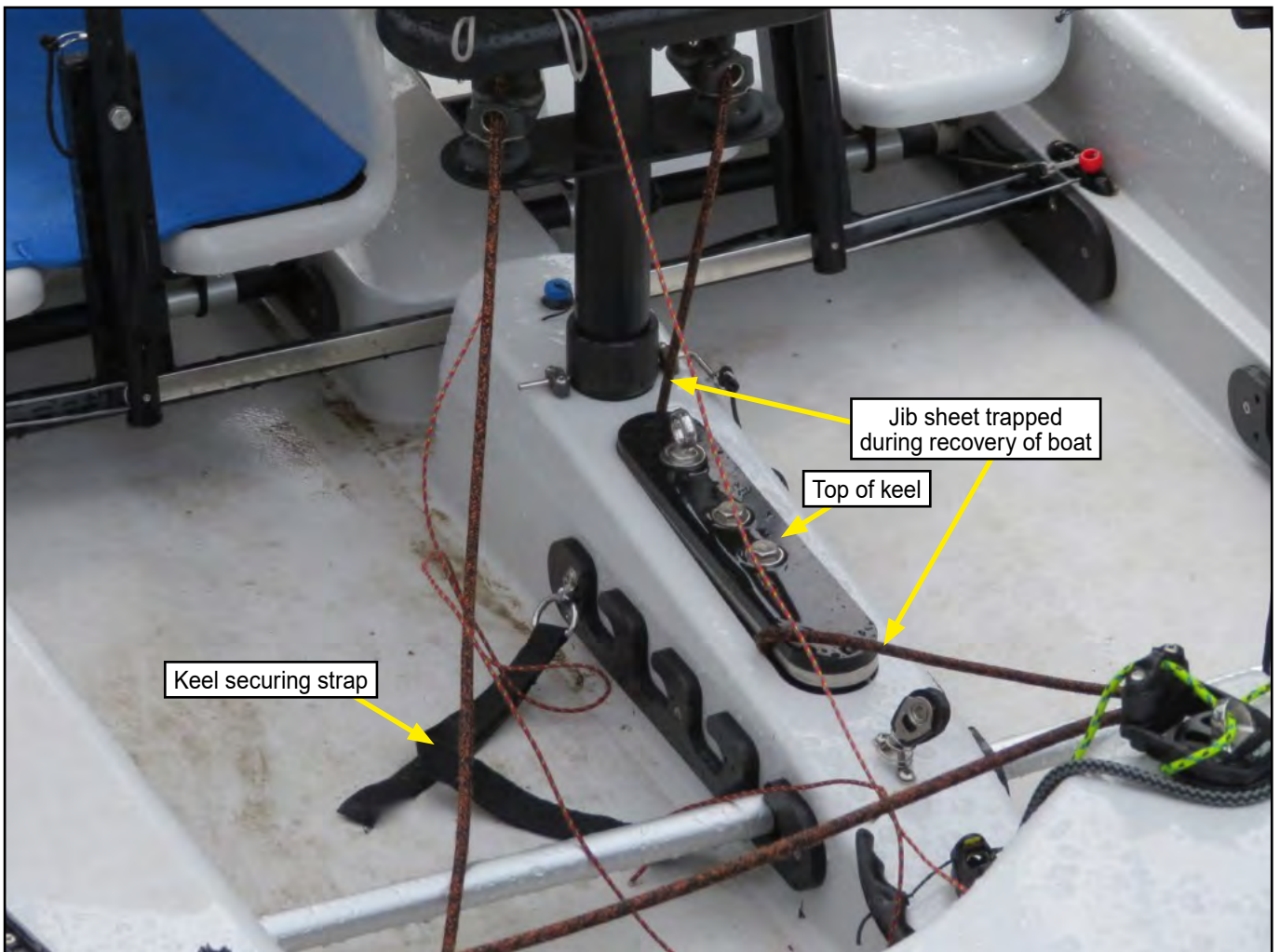


Figure 1: Showing top of the keel with the restraint not in place

In the windy conditions on the day, the boat was knocked down and heeled to such an extent that the keel slipped in its housing, retracting entirely. **Figure 2** shows the boat fully inverted with the lead bulb keel fully deployed, with an inset showing the boat inverted and the keel retracted. During the capsize the assistant instructor was able to swim clear but the disabled crewman became trapped under the inverted hull. The safety boat crew saw the accident and attended the scene quickly, but had difficulty righting the boat and so were unable to reach the crewman in sufficient time to effect a successful rescue.

The importance of securing the retractable keel was highlighted in the manufacturer's rigging guide for the boat (**Figure 3**). However, this accident demonstrates that some users may not be aware of how critical this is.



Figure 2: Inverted boat with a fully deployed keel bulb (Inset: the keel bulb hard up against the inverted hull)

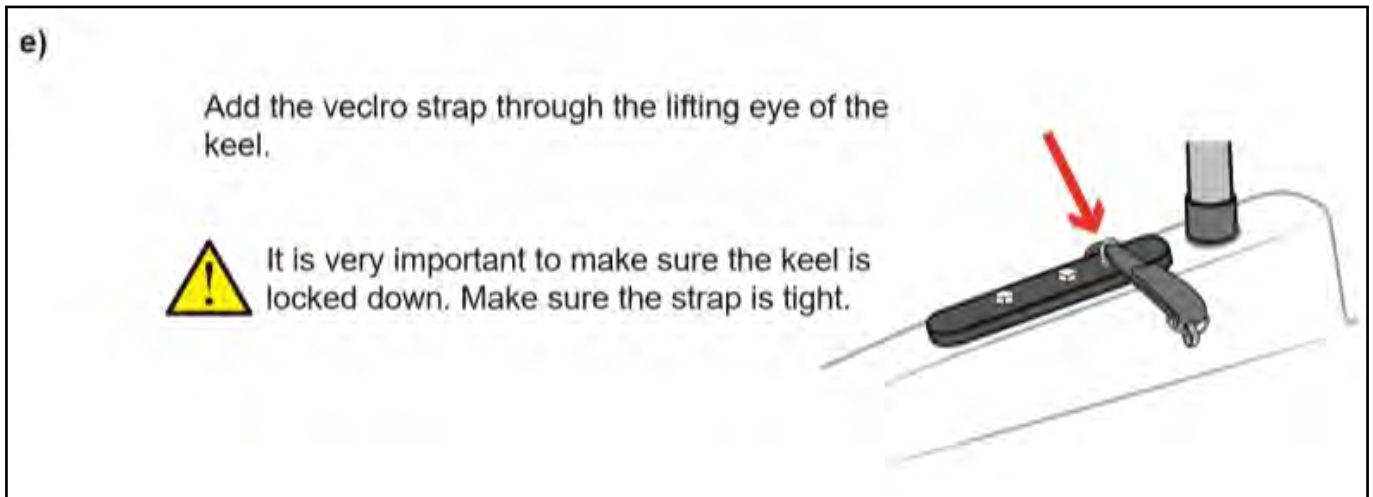


Figure 3: Extract from the manufacturer's rigging guide

ACTION TAKEN

RS Sailing has contacted all registered owners of RS Venture Connect boats, reiterating the instructions regarding the importance of ensuring the keel securing strap is correctly fitted prior to use.

SAFETY LESSON

To prevent a similar accident, owners and operators of boats with either a retractable keel or retractable weighted centreboard, regardless of make or model, are recommended to ensure that:

- Prior to use, checks should be made to ensure the manufacturer's instructions regarding the securing of the keel or weighted centreboard have been followed.
- Their procedures and drills for recovering a capsized boat include the scenario where the keel or centreboard has retracted from its 'lowered' position.

Issued June 2019

RYA Advice and Guidance Note on Safety on the water for all Sailability venues

Safety on the water

Version control

Scope	All Sailability venues
Version	1
Document Name	Safety
Author	██████████
Authorisation	██████████
Authorisation Date	February 2020
Review Date	February 2021

Contents

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Introduction

This document offers guidance around safety practice either where RYA affiliated clubs and / or Recognised Training Centres are part of the RYA Sailability programme, or where disabled people and those with long term health conditions are taking part in activity.

It aims to inform staff and volunteers responsible for delivering training or providing support around safety on the water during Sailability related activities. It follows work to appraise the collective knowledge and practice around recovering people and boats that has been gathered from previous testing and observations as well as learning and recommendations from previous incidents.

The Sailability programme has delivery principles:



"I feel welcome
and have fun"



"I feel safe and can
raise my concerns"



"I am able to take part"

The guidance in this document supports getting it from a safety perspective and ensuring person can take an active part in the activity.

The guidance supplements existing RYA safety related courses and RYA Training Guidance. It reflects the issues that may need to be considered given a range of complex and diverse personal needs that some sailors have.

Key messages

- ✓ You need a systematic approach to safety
- ✓ Familiarise yourselves with the knowledge, competencies and techniques covered in the RYA Safety boat course
- ✓ Plan for the worst, and test the procedures you have in place
- ✓ Boats and equipment should be well-maintained and regularly checked
- ✓ Familiarise yourself with the boats and equipment you are using
- ✓ Record and reflect on accidents, incidents and near misses
- ✓ Discuss sailors' individual needs with them
- ✓ If you have sailors who may have restricted ability to help themselves if they end up in the water, carefully consider the level of safety cover you need in the immediate vicinity, mast head buoyancy, reducing sail area, and when the conditions may limit activity

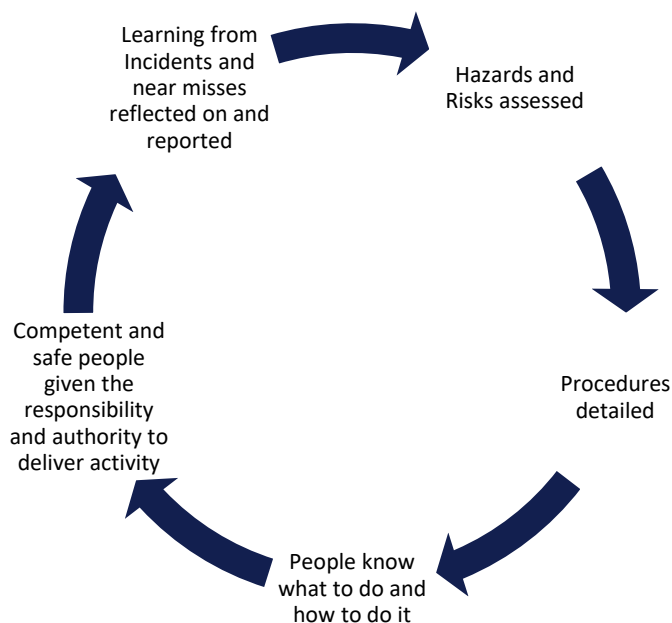
An approach to safety

The guidance contained in this document is offered in the context of an approach to safety that is based on:

1. Risks are assessed¹
2. Procedures are detailed
3. People are trained so they know what to do and how to do it

¹ RYA guidance notes on risk assessment

4. Competent people² are given responsibility and authority to deliver activity
5. Incidents and near misses are reflected on and reported³



RYA Resources

The RYA Safety boat course, the Safety Boat Handbook (G16) and accompanying resources outline a range of knowledge, competencies and a techniques for ensuring people are safe and the towing and recovery of different types of craft. The content is relevant, fit for purpose and applicable to the craft commonly used by disabled people across the Sailability programme. It is regularly reviewed in light of learning from experience and a range of incidents.

Procedures, Preparation and Regular Checks

It is important to have procedures in place for a variety of emergency situations and have people who know the procedures, have tested them and are ready for action. We never set out thinking things will go wrong, but experience shows they can, and although rare there can be serious consequences. Understanding cause and effect is important in assessing risks, but often in the most serious incidents it is not one factor, but a number of factors that contribute often in unexpected ways. Plan for the worst, and test the procedures you put in place.

The preparation of boats and equipment is key to being to apply the right techniques and procedures. Preparation should include (but is not limited to) the identification and regular checking of:

1. Towing points and towing lines (on sailing and safety boats)
2. Recovery / righting lines
3. Any device(s) for securing lifting keels and ballasted centreboards

² For Recognised Training Centres, as defined in the Recognition Guidance Notes; For affiliated clubs where a person's suitability has been given due consideration by an appropriate officer or groups within the club – see "[Race, Training and Event Management – the legal aspects](#)"

³ RYA accident and incident reporting - <https://www.rya.org.uk/knowledge-advice/safety-mangement/Pages/reporting.aspx>

4. Bungs
5. Knives for cutting through ropes and rigging
6. Pumps, bailers and buckets to remove large amounts of water from flooded boats
7. Equipment and techniques to get people out of the water (and out of boats once back on pontoon) who may not be in a position to help themselves.

An essential equipment checklist should be in place for all vessels used, and is a valuable tool to ensure preparation and regular checks take place. Recognised Training Centres have checklists for vessels they must comply with:

<https://www.rya.org.uk/training-support/Pages/dinghy-keelboat-multihull.aspx>

https://www.rya.org.uk/training-support/Documents/Training_checklist_DKM.pdf

<https://www.rya.org.uk/training-support/Pages/powerboat-courses.aspx>

https://www.rya.org.uk/training-support/Documents/Training_checklist_power.pdf

Those involved in safety provision should have a good knowledge of the vessels being sailed, how they are rigged, and how they can be easily de-powered.

Communication

Good communication is at the heart of making good decisions and managing activities smoothly. It ensures:

- Information is shared with those who need to know
- Activity on the land and on the water is co-ordinated
- The right people do the right things in an emergency
- Sailors are reassured, listened to and made to feel safe and welcome

Reporting incidents and near misses

- Vital for learning
- Flow chart
- Reporting link

We learn the most as a community. Most of the time that comes about by celebrating our successes; from sharing the procedures we put in place, the assessments and judgements we make and collating learning from the testing and drills we carry out. Sometimes we get to learn from near misses and sadly but thankfully rarely we learn from those times when things do go wrong.

Sharing of information is the start point for imparting knowledge, influencing behaviour and controlling risk. Reporting incidents and near misses is a vital component. Being open and honest about what happens when things go wrong, helps us all to improve the culture of safety and good practice.

The RYA has [detailed](#) a number of triggers for reporting and recording accidents and incidents and there is an online form to use to make reporting straight forward.

Report an accident or incident

Or contact [REDACTED] – sailability@rya.org.uk, [REDACTED], [REDACTED]

People

Providers of activity have a clear duty of care to keep those involved in the activity safe. People of all ages, with a wide range of impairments go sailing. The equipment to keep disabled people safe, and the techniques you use to recover them from a boat or from the water may vary as a result. So it is important to consider:

- The person
- The situation
- The staff / volunteers supporting the activity

Leading to:

- A decision or series of decisions

The Person

The person going sailing knows themselves, what they can and can't do, how they function and react. The club or centre and its staff and volunteers know about sailing. A guided conversation between both parties will provide all the information needed to make good decisions about safety. The guided conversation is a series of prompts to be used as needed. Not all will be relevant all the time, so you may filter them depending on who you are talking to and what is important to them. Please do add to the list as needed.

The person, the sailor, is at the heart of the conversation and every effort should be made to include them however difficult communication may prove to be. If needs be, and if the person is in agreement with it, you may choose to have a conversation with others who know the person well.

It is possible to recreate some of the questions on a form to be completed in advance of any activity, and such forms can and do serve a useful purpose, but it is hard to capture the richness of a person's life on a form. Perhaps view forms as a way of raising flags that need exploring as part of a fuller conversation.

The situation

Any assessment has to take into account where you are boating, the type of activity you are engaged in and the conditions on the day. Consider:

- The sailing area and the conditions on the day
- The nature of the activity and the boats / equipment being used
- The organisations' scope of responsibility, liability and any constraints e.g. insurance

Staff / Volunteers

While one person may make the decision whether the activity goes ahead and what resources are needed to ensure any activity is safe, there will be a number of staff and / or volunteers involved in helping with the delivery of the activity. Consider:

- The competence and experience of the staff and volunteers supporting the activity
- The questions they have and the training they need

- Who needs to know about the conversation with the sailor and decisions made – it's a balance between discussing needs in a private environment, and sharing information on a 'need to know basis'

Decision

The guided conversation and the assessment made as a result leads to a decision that both sailor and competent person are comfortable with on whether to sail or not, and the equipment and resources needed to deliver a safe activity.

The Guided Conversation

The prompts are written from a sailor's perspective; in other words, ask me:

- How I communicate, engage, plan and learn?
 - What do I use to help me communicate, make choices and learn? Whether I need key information in certain formats, delivered in a specific way or whether I need a communication professional to interpret? What is important to me, what is helpful? What is unhelpful?
 - How I engage with others, develop relationships? What is important to me, what is helpful? Unhelpful?
 - How you know I am listening and engaging? How you know if I need a break?
 - About anything that may impact on my ability to communicate on the water – you may need to tell me about the environment and possible scenarios so I can give you the information you need
 - What is important to help me plan the day, know what is happening next
 - Whether anything impacts on how I perceive risk
- About my experience, wishes, aspirations, and choices. Listen to me – I may need to discuss my needs in a safe / private environment and reassure me – I don't want to stand out so want to know I will be welcomed and the activity is going to be suitable. If need be, and if I am OK with it, talk to those close to me as well.
- About the function I do I and don't I have? You probably don't need to know the detail of any conditions I have - it's more about the impact on my day to day life. For example you don't really need to know I have retinosa pigmentosa but it might help to know I have a really narrow field of vision, where you need to stand so I can see you and the fact that if there is lots of glare I find it hard to use the vision I do have. Issues to consider around function include:
 - my trunk – the control and balance I have, and how symmetrical I am;
 - how buoyant I am in the water; my centre of gravity
 - my hands, feet and limbs - have I got them, can I control them, can I feel them?;
 - whether I can regulate my core temperature; my ability to breath easily and maintain my heart rate; my ability to remain conscious and 'present' at all times?
 - My touch sensation – how do I feel or experience pain, or judge extremes of temperature – is feedback delayed in anyway?
- Sensory impairments and how I process sensory information
 - What I can see and hear, what is important to me, and about anything that may impact on my ability to see and hear on the water
 - About my balance and spatial awareness
- How my function and sensory impairments may affect my participation in boating? Talk to me about, and come up with a plan for:
 - Getting familiar with the boat and all the controls
 - Getting in and out of boats; being recovered from the water; my mobility once in a boat; any equipment I may need to use to be safe in

the water; control the steering / sails, or to maintain my posture or grip on any part of the boat?

- How to prevent me becoming stressed and anxious, how you will know if I am becoming anxious and how you can help?
- How does the situation / environment impact on my function – extremes of temperature, dehydration, and energy levels, noise, water?
- Do I take any medication I may need access to while sailing, including emergency medication? You might need to tell me how long we are going afloat for.

Issues

This section outlines a series of common situations and issues that arise, with reflections and learning that should inform your practice on the ground and the procedures you put in place. In many situations, several of these situations or issues may be in play and impact on each other.

Personal flotation

A start point is that:

- Buoyancy aids are preferred if there is a risk of capsize or inversion – lifejackets are not recommended. Buoyancy aids work well for conscious people and for those with enough mobility to actively participate in their self-righting
- Lifejackets should be used where it is not anticipated the vessel will capsize or invert
- All flotation devices should be well maintained, serviced and be ready for use

Lifejackets and buoyancy aids have different [levels of buoyancy](#) and for self-inflating lifejackets, different mechanisms to trigger auto-inflation.

A number of factors, listed in the table below should be considered as a choice is made about personal flotation and the different performance levels of the devices.

The person	The environment
Swimming ability	The vessel - its stability and righting ability
The ability to actively participate in self-righting once in the water	The conditions
How they are likely to fall into the water and whether this will affect the performance of personal flotation device, particularly trigger mechanisms	The sailing area
The buoyancy of the person – as a general rule people with more buoyant legs may require a larger volume flotation device. Buoyancy in legs might be affected by muscle wastage, bone density	
The size and shape of the person – for example a small and thin person with a wide lifejacket may find self-righting capacity is impaired	
The clothing the person is wearing can have a significant impact on buoyancy. Dry suits, and anything that enhances buoyancy around the legs can have a negative impact on an individual's ability to right themselves, or a lifejackets self-righting capacity	

It may be that a careful risk assessment leads to a decision to use a life-jacket for people with limited mobility who may not be able to actively participate in self-righting once in the water. If so, it is important to consider:

1. ensuring there is safety cover in the immediate vicinity
2. reducing sail area and mast head flotation
3. the area of operation
4. the thresholds for stopping activity

Whatever device is chosen by the sailor or a competent person allocating equipment the following are important points to remember:

1. Always take into account the characteristics of the specific device, have it tested against their body type; and ensure all concerned are aware of the device's limitations.
2. The experience of falling into the water can be quite challenging. So the value of familiarisation of entering the water and experiencing how the chosen flotation device performs cannot be overstated.
3. The factors related to the person are likely to have more of an impact on the performance of flotation devices than the characteristics of the device itself. Specifically if using a lifejacket which is designed to self-right, self-righting can never be guaranteed due to a wide range of variables, often those associated with the person.
4. Fixed life-jackets rather than auto / manual inflate may be less effective at self-righting – the inflatable life-jackets may provide some momentum as one chamber inflates ahead of the other.

Strapping, harnesses and other equipment

A sailor using a wheelchair should not be strapped to their chair while on a pontoon, slipway or other location where there is a risk of the chair falling into the water.

Any strapping or equipment designed for fixing sailors to boats to maintain posture or improve control of sails / steering, or for any other reason should be very carefully risk assessed and procedures put in place because of the increased risk of entrapment.

If it is deemed that a sailor should be secured to a vessel for any reason the method of securing should be a quick release type, and those responsible for safety should be familiar with the mechanism. Buckles that require positive release using two fingers are not appropriate.

Self-righting boats

Self-righting means different things to different vessels. An all-weather lifeboat can recover from a full 180 degree inversion. On a vessel with a fixed keel, self-righting may well mean that the vessel can recover from beyond the point where the mast is horizontal in the water. Some vessels with a centre plate are considered self-righting with no crew on board, with the centre plate down, and the mast at no more than 90 degrees.

Users of any vessel should familiarise themselves with its stability and righting characteristics. Reference to manufacturer's manuals and guidance is important to understand any vessels limitations and then ensure sailing within those limits.

Experience shows self-righting boats can and do get 'knocked down' or capsize, increasing the risk of entrapment. There are known examples where through a variety of factors they have subsequently inverted. If you are faced with such a situation, the important thing is knowing what to do and how to do it.

Procedures and drills for recovering a 'self-righting' boat should include scenarios where a) the boat has inverted with the keel in the lowered position and b) where the keel or centreboard has retracted from its 'lowered' position.

Where sailors may have restricted mobility or ability to help themselves if they ended up in the water or where they are secured to the vessel in any way, it may be appropriate to consider:

- mast head buoyancy
- reducing sail area
- the level of safety cover to ensure supervision in the immediate vicinity
- when the conditions may limit operation (see manufacturers recommendations)

If you are righting boats with a ballasted lifting keel, like the RS Venture, then while the standard techniques work you do need to consider the power you need to right the boat. The preference is to right a knocked down or inverted boat in reverse, with the engine away from anyone who may be in the water, but to ensure you have enough power you could consider using a longer tow rope and recover by driving forwards.

The self-righting characteristics of any boat are compromised if a lifting keel or weighted centreboard are not in the down position, as is the ability to right from an inverted position. Any mechanism for securing the plate or keel in the down position should be checked to ensure it is operating as intended and all sailors and volunteers should be briefed on the importance of its use.

Actively trimming sails, rather than cleating them off enables them to be released quickly if needed.

Adaptations to boats, including servos and switches

Any modifications that deviate from the original design specification may alter the stability characteristics of that vessel and so it is important to check any modifications with the original manufacturer.

Any adaptations should take into account the need for the crew to have access to the full range of tiller movement and sail controls.

Servos and switch operated controls for steering and sail trimming should have an override in place that is easy to access and quick to use, and that releases the steering / and or sails quickly. Those responsible for safety should be familiar with its operation. These are complex systems so supervision is needed by someone who can solve problems as they arise on the water.

As with other adaptations, modifications as a result of servos / switches should be checked with the original manufacturer, unless using manufacturer supplied equipment. The systems should be designed to operate safely in a dynamic, wet environment.

If servos and switch operated controls are to be used, a careful risk assessment should be in place, with consideration given to:

1. the stability characteristics of the vessel used
2. the level of safety cover needed
3. reducing sail area and mast head flotation
4. the area of operation
5. the thresholds for stopping activity (see manufacturers recommendations)

Recovering Boats

Where participants remain in the boat and may have limited mobility, the Herringbone tow might be preferable to in-line tows as the tow ropes are clear from sailors in the boat. If they are empty, a stern first tow of Hansa's is particularly effective.



In making decisions about how you would recover the entire fleet, or deal with multiple issues on the water, you will need take into account how many people you can transfer easily to safety boats and how many people will need to stay in their boat.

Recovering People

Slings such as the Hypo hoist or Jacobs Cradle are an effective means of recovering people from the water if they are unable to help themselves for any reason. Other techniques in the Safety Book (G16) remain fit for purpose, including deflating a sponson of a RIB.

Powerboats with a drop bows provide the opportunity to recover people from the water, but it is important to have considered the risks, put procedures in place for how you would do this and have tested the procedures.

There are situations where a sailor may need to get ashore quickly. Standard procedures usually involve abandoning the sailing vessel and returning to shore with the sailor in a safety boat. For people with limited mobility, who may need equipment to get them in and out of the boat, it may be preferable to leave them in their boat and tow them ashore. It is important to communicate with the shore team so that the right people and equipment are in place on your arrival.

Seating and posture

Seating and posture are important for both personal safety and the ability to take an active part in sailing.

The aim is to build a secure posture from the base up thereby ensuring comfort and enabling movement and generation of force to control steering / sails and self. Use the guided conversation to inform your decisions and take advice if needed. Take into account:

- the person's experience and competence,
- skin care (pressure, friction, moisture)
- stability of airways, joints, and bones
- any pain and how it is managed

If in doubt stop the activity, review and change posture early and check that you have got posture right for the person.