



**DALGETY BAY SAILING CLUB  
RIB SAFETY BOAT  
RISK ASSESSMENT**

10 February 12

## **1 INTRODUCTION**

This safety protocol addresses the assessment of risks associated with use of RIB Safety Botas as part of any dinghy racing event.

Some risks are inherent to boating, sailing and racing, some are due to local factors and some are dynamic, for example, the weather, sea state and tidal currents. Consequently the risk assessment should be considered also dynamic and re-reviewed when conditions change.

## **2 References**

The following documents were used in the preparation of this protocol.

- RYA Risk Assessment for Organised Sailing Events
- Risk Assessments for Open Meetings recently organised by DBSC.

## **3 RISK ASSESSMENT PROCESS**

### **3.1 Definitions.**

|                  |  |
|------------------|--|
| Hazard:          | The potential for something to cause harm.   |
| Risk:            | The consequence of the hazard.   |
| Risk Factor:     | The product of the likelihood and the impact of the Risk being realised.   |
| Control Measure: | The method used to minimise the Risk Factor. The guiding principle should be to implement strategies that reduce risk factors to as low as reasonably practical. |

### 3.2 Process.

The first step is to list all perceived hazards associated with the safety boat cover and use and the sailing area. Then define the risks associated with each hazard. Using simple judgment, for each hazard assign the likelihood that the risks will occur and the impact they would have if they did occur using a scale of one to three. The Risk Factor then is the product of the values assigned for likelihood and impact as shown in the following table.

|            | IMPACT |   |   |
|------------|--------|---|---|
| LIKELIHOOD | 1      | 2 | 3 |
| 3          | 3      | 6 | 9 |
| 2          | 2      | 4 | 6 |
| 1          | 1      | 2 | 3 |

Risk Factors for each hazard will have values 1, 2, 3, 4, 6 or 9. Then use the following table to assess the importance of implementing the control measures.

| RISK FACTOR   | FURTHER ACTION REQUIRED  |
|---------------|--|
| <b>1 or 2</b> | Low risk factor, consider improvements                         |
| <b>3 or 4</b> | Medium risk factor, control measures should be implemented     |
| <b>6 or 9</b> | High risk factor, control measures <i>must</i> be implemented. |

Assign values for likelihood and impact according to the specifics of the event and establish the control measures accordingly.



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|                     |  |              |  |                   |  |
|---------------------|--|--------------|--|-------------------|--|
| <b>PREPARED BY:</b> |  | <b>DATE:</b> |  | <b>AGREED BY:</b> |  |
|---------------------|--|--------------|--|-------------------|--|

**RISK FACTOR LEGEND**

For each hazard, values of likelihood and impact are assigned: low = 1, medium = 2, high = 3. The product of likelihood and impact gives the risk factor, which may be interpreted as follows.

| <b>RISK FACTOR</b> | <b>CONTROL MEASURES / FURTHER ACTIONS IMPLEMENTED</b>   |
|--------------------|---|
| 1 or 2             | Low risk factor, improvements considered                |
| 3 or 4             | Medium risk factor, control measures implemented        |
| 6 or 9             | High risk factor, rigorous control measures implemented |

The Control Measures in the risk assessment reduce the risk factors to reasonable and acceptable levels.

Attached: tide tables for the event dates and when appropriate, the weather forecast.



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| HAZARD  | SAILING RISKS   | LIKELIHOOD | IMPACT | RISK FACTOR | CONTROL MEASURES   |
|---|---|------------|--------|-------------|--|
| Man Over Board                                    | Persons in water at risk of drowning or hypothermia.  | 1          | 2      | <b>3</b>    | Buoyancy aids worn at all times. Other Safety boat will attend quickly. Crews recovered via safety procedures round MOD drill for Power Boats Level 2. People recovered transferred to shore immediately.  |
| Injury as a result of collision or other accident | Cuts, sprains, bruising, breaks, blow to the head, rope burns.  | 1          | 2      | <b>4</b>    | First aid carried. Some trained with CPR capability. Code Red process, ref Safety Briefing. Injured crews recovered to DBSC jetty. Race Box or DBSC Office liaises with emergency services. Boat can be parked for later recovery.   |
| Gear failure and damage to boat                   | Disablement, sinking, or loss of maneuverability. Inability to return to shore. Injury, hypothermia, drowning/ death caused by immersion and submersion | 1          | 1      | <b>3</b>    | Safety boats vigilant and attend all incidents. Damaged boats towed ashore and crews taken on board. <ul style="list-style-type: none"> <li>• Compliance with manufactures' advice</li> <li>• Equipment Management purchasing/ storage/ use/ inspection (Buoyancy aid float check)/ maintenance/ cleaning/ retiring/ logging</li> <li>• Carry paddles</li> <li>• Carry radio</li> <li>• Test kill cord BEFORE use. ALWAYS wear on upper leg - NB wearing on wrist is insufficient</li> </ul> |
| Equipment Fit                                     | Injury, hypothermia, drowning/ death caused by immersion and submersion   |            |        |             | <ul style="list-style-type: none"> <li>• Clear briefings</li> <li>• Check buoyancy aid fit and adjustment</li> <li>• Driver <b>ALWAYS</b> to wear kill cord on upper leg – thigh <b>NB wearing on wrist is insufficient</b></li> </ul>   |
| Capsize with entrapment under hull.               | Potentially leading to drowning.  | 1          | 3      | <b>3</b>    | Safety boat crews wear wet suits and ready to enter water to assist clearing / righting the boat. Wire cutters and knife carried. Tactical positioning of safety boats and ratios minimises time to attend / assist. Safety boat drivers suitably qualified and briefed to attend all incidents quickly.   |
| Medical conditions                                | Fatigue, dehydration, hypothermia, other condition.   | 1          | 3      | <b>3</b>    | Safety boats vigilant and attend all incidents. Code RED process, ref Safety Briefing. Race Officer calls if necessary. Race management takes account of time on water in prevailing weather.  |
| Competitor incompetence                           | Need greater attention from safety boats. Potential to cause accidents  | 1          | 2      | <b>2</b>    | Vigilance by safety boats, - encourage retirement if in difficulty.  |



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| <b>HAZARD</b>  | <b>EVENT RISKS</b>   | <b>LIKELIHOOD</b> | <b>IMPACT</b> | <b>RISK FACTOR</b> | <b>CONTROL MEASURES</b>   |
|--|--|-------------------|---------------|--------------------|---|
| Deterioration of weather or sea conditions.                            | Safety boats may not be able to support all dinghies in difficulty.<br>Safety boat may not be operated in safe conditions        | 2                 | 2             | <b>4</b>           | For all weathers, close watch on weather forecasts and developing conditions. Race Officer shortens or abandons race. Strong wind process, ref Safety Briefing. Call coastguard if safety boats become overloaded.  |
| Communications lost due to distance, interference or equipment failure | Loss of control of event and safety on the water.  | 1                 | 1             | <b>2</b>           | All teams briefed on this risk assessment and control measures, and to follow them independently until comms re-established. Mobile phone contacts lists as back-up.  |
| Safety boat problems, crew unwell, breakdown etc.                      | Safety boat needs assistance and draws resources.<br>Unable to return or function.   | 2                 | 2             | <b>4</b>           | Problem reported to Race Control and / or Committee Vessel for recovery. Extra safety boat in case crew need to be landed.  |
| Unsuitable weather conditions before going afloat.                     | Many competitors may not be able to deal with the conditions. Safety boats may not be able to support all dinghies in difficulty | 1                 | 3             | <b>3</b>           | Safety Boat Driver has current weather forecast to assess going afloat. Helm has responsibility for going afloat. Full briefing to dinghies and safety boats. Race Officer may limit numbers going afloat or move racing into harbour where return is easier. |
| Fog  | Possibility of lost competitors.   | 1                 | 3             | <b>3</b>           | Race Officer to shorten or abandon race. Safety boats with local knowledge. Fog process included in Safety Briefing. This to be included in competitors briefing.   |
| Weather very hot or cold   | Dehydration, heat exhaustion, hypothermia.   | 1                 | 3             | <b>3</b>           | Briefing on proper clothing, food, water. Safety boats carry water. Race committee boat can offer shelter. Return to shore.   |



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|                                      |  |   |   |          |  |
|--------------------------------------|--|---|---|----------|--|
| Safety Boat personnel missing        | Prolonged missing situation could lead to risk of hypothermia or drowning.   | 1 | 3 | <b>3</b> | Search Plan implemented by safety boats and other race team boats. CG/RNLI called in early.  |
| Safety boat activity                 | Injury to RIB crew, or sailors in the water, damage to capsized dinghy or collision with other boats.  | 1 | 3 | <b>3</b> | All RIB drivers will be suitably qualified. Race Officer or Safety Officer to give safety briefing, ref Safety Briefing Handout. All safety team to be present.  |
| Major incident                       | Fatality or serious injury involving a call to emergency services  | 1 | 3 | <b>3</b> | Code Red process. Detailed in Safety Briefing.   |
| Thank Rock<br>Long Craig<br>Haystack | Shallow area adjacent to rocks. Sometimes extremely rough. Increased risks of capsize and damage.<br>Out of navigation and Safety Boats not obliged to attend. | 2 | 3 | <b>6</b> | Safety Boat drivers responsible for where they go. Briefing to stress dangers and highlight navigation marks. <ul style="list-style-type: none"> <li>• Use competent staff</li> <li>• Match activity/ operation with ability of group/ crew</li> <li>• Ensure familiarity with shallow areas</li> <li>• Drive at appropriate speed for the conditions</li> <li>• Use bow approach ALWAYS aware of propeller</li> </ul> |
| RIB loss of control on slipway       | Accidents or injuries to sailors or third parties while moving boats to/from slipway and launching or recovering.  | 2 | 2 | <b>4</b> | Safety Boat Drivers to be responsible for safe launch and recovery. Beach controlled by Beachmaster so slipway is kept clear and well organised. Public to be kept clear. Enough time for launching is allowed.  |
| RIBs running aground                 | Injuries and damage to boats   | 1 | 2 | <b>2</b> | Safety Briefing to include information on local hazards, tide heights and direction.   |



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**Conclusions**

The highest risks are sailors in the water and/or injured after capsizes or collisions and at risk of hypothermia or drowning.

Vigilance and prompt action by safety boats are the most important control measures.

**These control measures are well in hand and reduce our risks to an acceptable level.**

**Attached:**

Tide tables and weather forecast when appropriate.

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