



DALGETY BAY SAILING CLUB DINGHY REGATTA ASSESSMENT

16 January 12

1 INTRODUCTION

This safety protocol addresses the assessment of risks associated with an open meeting dinghy racing event. How to make a quantitative risk assessment is described and for clarity an example is given for a typical event taking place off Dalgety Bay Sailing Club. This example template is not generic. Each event requires an event specific risk assessment.

The risks associated with a sailing event should be assessed well ahead of the event so that the risk factors that are seen to be serious may be addressed during the planning stages for the event. The risk assessment needs to be quantitative to facilitate giving the most serious risks the most attention.

Some risks are inherent to 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.

The following process separates risks into three parts, sailing, the event itself and the location of the sailing area.

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.

Ideally the Risk Assessment should be completed by at least two people, the Principal Race Officer and the Safety Officer. This should be first done some months before the event so that there is good time to implement the Control Measures.

The first step is to list all perceived hazards associated with the sailing, the event itself and the sailing area. Then define the risks associated with each hazard. Using simple judgement, 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
1 or 2	Low risk factor, consider improvements
3 or 4	Medium risk factor, control measures should be implemented
6 or 9	High risk factor, control measures <i>must</i> be implemented.

3.3 Implementation of this protocol

The following pages contain a typical risk assessment for an open meeting held in the Dalgety Bay racing area. This template is not a generic risk assessment. An event risk assessment must be made according to the variables of the event.

To create an event specific risk assessment, copy the following pages to a specific file, deleting the DBSC file name and replacing it with an event specific file name. Then use this file as a guide to complete the risk assessment. The hazards and risks should be made specific to the event, for example,

- type of dinghies racing,
- age range and competence of the competitors, youths, seniors etc,
- sailing area, etc.

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



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EVENT		EVENT DATES	
PRINCIPAL RACE OFFICER		EVENT SAFETY OFFICER	
NUMBER OF BOATS EXPECTED		NUMBER OF SUPPORT BOATS PLANNED	
NUMBER OF MOTHERSHIPS		SAILING AREA.	

PREPARED BY:		DATE:		AGREED BY:	
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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.

RISK FACTOR	CONTROL MEASURES / FURTHER ACTIONS IMPLEMENTED
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
Capsize and MOB	Persons in water at risk of drowning or hypothermia.	3	3	9	Buoyancy aids worn at all times. Safety boat will attend quickly. Crews recovered to safety. Safety boats carry thermal blankets for hypothermia cases.
Injury as a result of collision or other accident	Cuts, sprains, bruising, breaks, blows to head, rope burns.	2	3	6	Tactical positioning of safety boats at high risks parts of course. Safety boats vigilant and attend all incidents. 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.	2	2	4	Safety boats vigilant and attend all incidents. Damaged boats towed ashore and crews taken on board.
Collision between competitors	Injury, MOB. Damage to boats	2	2	4	RRS and Collision Regulations apply. Congestion minimised by course design and timing of starts.
Capsize with entrapment under hull.	Potentially leading to drowning.	1	3	3	Safety boat crews wear wet suits and ready to enter water to assist righting the boat. Wire cutters and knife carried. Tactical positioning of safety boats and ratios minimises time to attend. Safety boat drivers suitably qualified and briefed to attend all incidents quickly.
Medical conditions	Fatigue, dehydration, hypothermia, other condition.	1	3	3	Safety boats vigilant and attend all incidents. Code RED process, ref Safety Briefing. PRO or ESO calls CG if necessary. Race management takes account of time on water in prevailing weather.
Collision between competitors and other vessels incl spectator boats.	Injury, MOB. Damage to boats	1	2	2	RRS and Collision Regulations. Safety boats advising other vessels to keep clear and report problems to ESO and PRO. Race officer mindful of busy channels. Special care when towing.
Competitor incompetence	Need greater attention from safety boats. Potential to cause accidents	1	2	2	Unlikely in national event. RRS rule 4. Vigilance by safety boats, - encourage retirement if in difficulty.



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HAZARD	EVENT RISKS	LIKELIHOOD	IMPACT	RISK FACTOR	CONTROL MEASURES
Deterioration of weather or sea conditions.	Safety boats may not be able to support all dinghies in difficulty. Many capsizes.	2	2	4	For all weathers, close watch on weather forecasts and developing conditions. PRO shortens or abandons race. Strong wind process, ref Safety Briefing. Call coastguard if safety boats become overloaded.
Tide, strong current, wind over tide conditions.	Risks of groundings and capsizes	2	2	4	Towing by safety boats. Safety boats assist if any groundings or drifting into danger. CG/RNLI assistance if groundings in dangerous conditions.
Communications lost due to distance, interference or equipment failure	Loss of control of event and safety on the water.	2	2	4	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. Unable to return or function.	2	2	4	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	3	PRO has current weather forecast to assess going afloat. Dinghy helmsman has responsibility for going afloat. Full briefing to dinghies and safety boats. PRO may limit numbers going afloat or move racing into harbour where return is easier.
Fog	Possibility of lost competitors. Dinghies unable to find way back.	1	3	3	PRO to shorten or abandon race. Safety boats with local knowledge and GPS escort fleet home. Fog process, ref Safety Briefing. This to be included in competitors briefing.
Weather very hot or cold	Dehydration, heat exhaustion, hypothermia.	1	3	3	Briefing on proper clothing, food, water. Safety boats carry thermal blankets, water. Mothership and CB can offer shelter.



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Competitor, boat or race team personnel missing	Prolonged missing situation could lead to risk of hypothermia or drowning.	1	3	3	Beachmaster operates tally system and counts boats in and out. Competitors briefed to advise race team if retiring. Identify boat missing from trolley. 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	3	All RIB drivers will be suitably qualified. ESO 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	3	Code Red process. Detailed in Safety Briefing.
Becalmed	Fleet unable to sail home.	1	1	1	Towing by safety RIBs, Committee Boats and Mothership. Care when taking long tow into busy channels.



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HAZARD	LOCATION RISKS	LIKELIHOOD	IMPACT	RISK FACTOR	CONTROL MEASURES
Thank Rock Long Craig Haystack	Dinghies may attempt to sail across. Shallow area adjacent to rocks. Sometimes extremely rough. Increased risks of capsize and damage. Out of navigation and Safety Boats not obliged to attend.	2	3	6	Dinghy helms responsible for where they go. Briefing to stress dangers and highlight navigation marks.
Dinghy 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	4	Dinghy owners 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.
Dinghies or RIBs running aground	Injuries and damage to boats	1	2	2	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.

Sailors will be well briefed about the dangers of West Pole Sands, which is clearly out of the navigation and sailors should not go there.

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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