

Risk assessment for Dinghy Sailing Activities



Tudor Sailing Club, Eastern Road, Portsmouth, PO3 5LY

Date of risk assessment: July 2023

Approved by Executive Committee : August 2023

Review Due : April 2024

Summary of activity

Events covered by this risk assessment are all races and cruises published in the Tudor Sailing Calendar (available on tudorsailing.org.uk) excluding, any night races and Cadet races, which are risk assessed separately.

What are the hazards?	Who might be harmed and how?	What controls are already in place?	Do you need to do anything else to control this risk?	Action by who?	Action by when?	Date completed	Residual risk score (Likelihood x Severity = score)
Collision - Racing boat with another racer	Dinghy Sailors – <ul style="list-style-type: none"> Minor injuries Capsize Separation from boat Hypothermia Cold water shock 	Rules of racing covering avoiding of collisions Race Officer (RO) and Patrol Boat (PB) crew to be aware of any known novice/youth sailors. Novice/youth sailors encouraged to make themselves known to RO. Buoyancy aid or life jacket and appropriate clothing must be worn when on water PB support	No				1 x 2 = 2 Low
Collision – Racing boat with cruiser	Dinghy Sailors – <ul style="list-style-type: none"> Minor injuries Capsize Separation from boat Hypothermia Cold water shock 	“Rules of the Road” Role of Patrol Boat If scheduling dinghy and cruiser racing at the same time, allow at least 30 mins between start times – dinghies start second Buoyancy aid or life jacket and appropriate clothing must be worn when on water PB support	No				1 x 2 = 2 Low

Collision – Racing boat with commercial vessel	Dinghy Sailors – <ul style="list-style-type: none"> • Minor injuries • Major injuries • Capsize • Separation from boat • Hypothermia • Cold water shock • Drowning 	Warning from Patrol Boat when commercial vessels are seen approaching Delay start with approach of commercial vessel All racers advised that racing line must be sacrificed in favour of safety Buoyancy aid or life jacket and appropriate clothing must be worn when on water PB support	No				1 x 3 = 3 Moderate
Grounding due to poor navigation or poor decision making	<ul style="list-style-type: none"> • Minor Injuries • Separation from Boat • Exposure 	Participants to understand the navigation warnings in harbour RO/PB to identify novice/youth sailors and offer advice on lee shores and tidal times/behaviour Buoyancy aid or life jacket and appropriate clothing must be worn when on water PB training on lee shore recovery PB support	No				1 x 1 Low
Rig failure Booms/Ropes/Jammers failure leading to capsize	<ul style="list-style-type: none"> • Minor Injuries • Capsize • Separation from boat • Hypothermia • Cold water shock • Drowning 	Sailor to check rig before launch PB training about using abandoned boat techniques to bring crew to safety whilst still offering cover Buoyancy aid or life jacket and appropriate clothing must be worn when on water PB support	No				1 x 3 = 3 Moderate

<p>Capsize due to</p> <ul style="list-style-type: none"> • Crew capability • Changing conditions • Kit failure • Collisions 	<ul style="list-style-type: none"> • Minor Injuries • Separation from boat • Hypothermia • Cold water shock • Drowning 	<ul style="list-style-type: none"> • PB trained in boat and crew recovery • PB/RO awareness of position of all participants where practicable • Buoyancy Aid or life jacket and appropriate clothing must be worn when on water • RO – monitor weather forecast and cancel or shorten race if conditions deteriorate • PB monitor sea and weather conditions and advise RO to cancel or shorten race if conditions deteriorate 	No				<p>1 x 3 = 3</p> <p>Moderate</p> <p>High likelihood (almost certainty) of capsize happening, but low likelihood of resulting injury</p>
<p>Exhaustion due to:</p> <ul style="list-style-type: none"> • Repeated capsize • Length of race / cruise • Weather conditions 	<ul style="list-style-type: none"> • Minor Injuries • Major Injuries 	<ul style="list-style-type: none"> • Limits on race length • Observations by PB of the weakness of crew • Rapid extraction of exhausted crewmember 	No				<p>1 x 2 = 3</p> <p>Moderate</p>
<p>Entrapment</p>	<ul style="list-style-type: none"> • Minor Injuries • Major Injuries • Drowning 	<ul style="list-style-type: none"> • PB equipment to include knife • Recommendation for all crew to carry own knife • PB training re head counts on capsized craft 	No				<p>1 x 3 = 3</p> <p>Moderate</p>

Cold weather exposure due to: <ul style="list-style-type: none"> Immersion Stranding 	<ul style="list-style-type: none"> Hypothermia Death 	<ul style="list-style-type: none"> PB to expedite return of recovered sailors with appropriate blanket Set race length in recognition of general weather conditions Minimum clothing requirements for winter series PB training to identify the signs of hypothermia RO training on how to treat hypothermia 	No				1 x 3 = 3 Moderate
Injuries/illness - Pre-existing conditions	<ul style="list-style-type: none"> Major Injuries 	Notification by sailors of conditions to RO for awareness	No				1 x 3 = 3 Moderate
Operation of PB <ul style="list-style-type: none"> Causing collision Causing avoidance helming Unsafe close operation / propeller 	<ul style="list-style-type: none"> Minor Injuries Major Injuries 	<ul style="list-style-type: none"> PB training standards to be maintained Ensure PB helms and crews are current 	No				1 x 2 = 2 Low
Slips, trips & falls whilst rigging / launching / recovery	<ul style="list-style-type: none"> Minor Injuries 	<ul style="list-style-type: none"> Sailors to arrive with sufficient time to rig and launch Racers to assist each other, especially when launching Published list of first aid trained members First Aid kit available and accessible RO call emergency services if required 	No				2 x 1 = 2 Low

Fog / Visibility loss <ul style="list-style-type: none"> Increased likelihood of collision or exhaustion / exposure Disorientation 	<ul style="list-style-type: none"> Exhaustion Collision 	<ul style="list-style-type: none"> Requirement for sailors to carry whistle & compass, especially out of harbour RO Check weather forecast before commencing PB report back to RO with reports of changing conditions RO shorten course or cancel race if conditions deteriorate sufficiently 	No				1 x 2 Low
Becoming detached from fleet	<ul style="list-style-type: none"> Exposure 	<ul style="list-style-type: none"> PB required to check sails regularly Retirement monitoring by RO and PB 	No				
Fleet splitting, leading to lack of cover by patrol boat	<ul style="list-style-type: none"> Minor Injuries Separation from boat Hypothermia Cold water shock Drowning 	<ul style="list-style-type: none"> Multiple patrol boats to be used for long distance races north of Alpha Buoy, or out of harbour races/cruises. Multiple patrol boats to be used when larger numbers of competitors taking part. 					
Crew member(s) overboard	<ul style="list-style-type: none"> Drowning Exposure 	<ul style="list-style-type: none"> All racers to wear Buoyancy Aids and clothing appropriate to the conditions All racers advised to carry a whistle PB training to include MOB recovery techniques All sailors clear that their first obligation is the safety of themselves and other competitors over race positions 	No				1 x 3 Low

<p>Change in sea/weather conditions</p> <ul style="list-style-type: none"> Dinghies unable to make appropriate headway 	<ul style="list-style-type: none"> Capsize Exposure 	<ul style="list-style-type: none"> RO and sailors check weather forecast before start PB remains in communication with crews and RO about changing conditions RO shorten course or cancel race if conditions deteriorate sufficiently Use abandoned boat markers if necessary to prioritise crew and fleet safety 	No				<p>$1 \times 2 = 2$</p> <p>Low</p>
<p>Competence of crews</p> <ul style="list-style-type: none"> Capsize Exhaustion Rigging associated injuries 	<ul style="list-style-type: none"> Minor Injury Major Injury Capsize Entrapment Drowning 	<ul style="list-style-type: none"> Crews accept that they need to be able to judge their own competency. PB encourage struggling crew to retire Use abandoned boat markers if necessary to prioritise crew and fleet safety Crew and Helm to review competency in light of conditions before sailing 	No				<p>$1 \times 3 = 3$</p> <p>Moderate</p> <p>High likelihood (almost certainty) of capsize happening, but low likelihood of resulting serious injury</p>

You should review your risk assessment if you think it might no longer be valid (eg following an accident or if there are any significant changes to hazards, such as a steeper slipway, a different type of hoist, new activities etc)

Method

1. Introduction

Events covered by this Risk Assessment are all races and cruises published in the Tudor Sailing Calendar (available on tudorsailing.org.uk) excluding, any night races and Cadet races, which are risk assessed separately.

Dinghies racing are likely to include (but not be limited to) Laser, Vago, Enterprise, Wayfarer, Wanderer, Blaze, , RS Quba, RS Feva, RS Tera etc.

Club Patrol Boats will accompany the fleet. Most events will be covered by a single Patrol Boat but higher risk events such as those leaving the harbour, races where the fleet may split by going beyond Alpha buoy, where high volumes of competitors are expected, will be covered by multiple Patrol Boats. A club trained Race Officer will officiate races.

An nominated cruise leader will officiate cruises.

2. Starts

Races will be either club line start or committee boat starts with single starts encompassing all classes racing.

Club line starts are managed from the shoreside race box with briefing shoreside.

Committee boat starts are started normally in the vicinity of Russells Lake or further South, depending on the tides. Some races have a shoreside briefing and most will have courses set once the committee boat is in position. Cruises start from the slipway with a safety briefing prior to going afloat.

3. Racing Area

The racing area will be made available prior to launch.

4. Finishing Area

The finish is always the start line unless it is a pursuit race or the course is shortened in which case the new finish line will be communicated by the Race Officer and Patrol Boats.

5. Management and Race Control

The Race Officer is responsible for managing the race, making judgement calls on whether to shorten the race and is the shoreside contact to the emergency services should the Patrol Boats radio in that they are evacuating a competitor for medical attention.

6. Safety Control Measures

Standard and Event-Specific Control Measures for the event are defined in the Control Measures and are the primary means for the safe management of the race/cruise.

7. Risk Assessment

A quantitative assessment of event risks both before and after the measures and assets are implemented to reduce the defined risks. A final risk assessment is based on a judgement of the likely effect that the control measures will have in reducing the event risks.

Standard Control Measures for Club Dinghy Races

1. Planning

	Measures	General Comments
1.1	Use of Tidal Prediction Information	Time events to suit tidal range and streams. We will target to start most races around 30 – 60 minutes before high water unless the race exits the harbour in which case the start time will be approximately 90 minutes before low water. Occasional races will be scheduled outside of these time periods.
1.2	Planning of Starting Sequence	Where dinghy races take place on the same day as a cruiser race, the dinghy start time will be at least 30 minutes after the cruiser start time.
1.3	Race Management	The Race Officer is available in the Race Box for the hour prior to the race start and for the duration of the race. Novice racers are encouraged to discuss the course with the Race Officer or other experienced sailors taking part.
1.4	Advance Safety Briefing with Authorities.	For club races, no formal notification is necessary to the harbour authority
1.5	Shipping Movement Monitoring	<p>The Race Officer should advise racers of the likely departure and arrival time of the Kendalls dredger.</p> <p>Should this occur during a race, the Patrol Boat will ensure that racers are aware of the dredger.</p> <p>Standing order for racers is that the dredger has right of way and should be given a wide berth regardless of whether this negatively impacts a racers racing</p>

		line. The position of AI Avocet can be seen using the Marine Traffic app.
1.6	Weather monitoring.	Use forecasts to decide whether to proceed. Race Officers, in discussion with experienced sailors present, will decide whether to proceed with the race.
1.7	Clothing	Sailors are required to wear appropriate clothing. During the Frostbite and Icicle series, Drysuits or wetsuits are obligatory.
1.8	Manning	Race Officers will have been through the relevant club training programme.
1.9	Emergency /Contingency Procedures	Emergency telephone numbers are on the noticeboard in the Race Box.

2. Communications

2.1	Notice of Race.	Race series' are described in the Club Calendar. Notice of Regatta are given on the club website.
2.2	Sailing Instructions/Amendments.	All Tudor races are covered by Tudor Sailing Club Sailing Instructions which are available to all members on our website
2.3	Safety Briefing.	Formal safety briefings will not be held for each race. However the Race Officer and senior club members racing will endeavor to identify new or youth members and will offer individual safety briefings should they be requested.
2.4	Signals.	Race Signals as defined in the Sailing Instructions will be hoisted on the club flagpole or from the race gantry on the committee boat.
2.5	VHF Radio Announcements.	Race Officer and Patrol Boats will use channel 37 2) for VHF communication

2.6	Mobile Telephones and VHF	Communication with race management and coastguard will be by telephone using the contact list on the noticeboard in the race box
2.7	International Collisions Regulations	For right of way between racing and non-racing traffic, the ICR will apply.

3. Control Measures before start

3.1	Safety inspections.	All competitors are responsible for ensuring that their craft are fit for racing. Should the Patrol Boat crew or Race Officer have any concerns about the condition of a vessel, the Race Officer will have the right to refuse entry to the race.
3.2	Patrol boats	Any Patrol Boats will launch before dinghies start launching and will be the last to be recovered.
3.3	Postponement/suspension of Starts	In the event of commercial or other traffic movements, the race start can be postponed by a sound signal and flying the red and white pennant

4. Additional Control Measures after start and during race

5.

4.1	Abandonment.	Race Office has the right to abandon the race in the event of adverse weather or an event which consumes the Patrol Boat resource
4.2	Shortening course.	In the event of lack of wind, failing light, failing visibility or other factors
4.5	Monitoring of wind/sea conditions	The Patrol Boat crew will advise the Race Officer by VHF of any change in sea state/weather conditions at different parts of the course

Additional Control Measures at Finish

5.2	Retirement monitoring.	The Patrol Boats will contact the Race Officer by VHF to notify of any competitors who are retiring and returning to the slip
5.3	Harbour Patrol	At least one Patrol Boat will be at the back of the fleet as the tail enders complete the race to ensure that no competitors are left out on the course
5.4	Race Declaration	All racers will complete the signing on sheet. Race Officer will ensure all racers are returned to the slipway.

Standard Control Measures for Club Dinghy Cruises

1. Planning

	Measures	General Comments
1.1	Use of Tidal Prediction Information	The Cruise leader will time the start of the cruise to match the requirements of the destination
1.2	Cruise and Safety Briefing	30 minutes before going afloat, all participants are required to attend the cruise briefing which will include details of departure, assembly points, Go/NoGo points and any stopping points.
1.3	Advance Safety Briefing with Other Parties	If visiting other Sailing Clubs, the Cruise Leader will call ahead to ensure that there is space for the arriving fleet of dinghies and Patrol Boats
1.4	Shipping Movement Monitoring	<p>The Cruise Leader will advise racers of the likely departure and arrival time of the Kendalls dredger.</p> <p>Should this occur during the cruise, the Patrol Boat will ensure that participants are aware of the dredger.</p>
1.5	Weather monitoring.	Use forecasts to decide whether to proceed. Cruise Leader, in discussion with experienced sailors present, will decide whether to proceed with the cruise and what the conditions need to be when they reach Go/No Go points.
1.6	Clothing	Participants are required to wear suitable clothing and are advised in the safety briefing to be prepared for changes in the weather

1.7	Manning	Cruise Leaders will be experienced sailors who have participated in each cruise in the past
1.8	Emergency /Contingency Procedures	As well as VHF, Cruise Leaders will also carry a fully charged mobile phone in a waterproof case.

2. Communications

2.1	Notice of Cruise.	Race cruises are listed in the club calendar and are advertised through internal emails in advance of the date, detailing the type of participant who is welcome.
2.3	Safety Briefing.	30 minutes before going afloat, all participants are required to attend the cruise briefing which will include details of departure, assembly points, Go/NoGo points and any stopping points.
2.5	Safety equipment.	Cruise participants are invited to carry a VHF radio and a mobile phone for emergency use. For cruises leaving the harbour, each vessel is required to carry a compass and whistle
2.6	VHF Radio Announcements.	Cruise Leader, Patrol Boats and any cruise participants with a radio will use channel 37a (m1) for VHF communication
2.9	International Collisions Regulations	For right of way, ICR will apply.

3. Control Measures before start

3.1	Safety inspections.	All participants are responsible for ensuring that their craft are fit for the cruise. Should the Patrol Boat crew or Cruise Leader have any concerns about the condition of a vessel, the Cruise Leader will have the right to refuse entry to the race.
3.2	Patrol boats	Any Patrol Boats will launch before dinghies start launching and will be the last to be recovered.

4. Additional Control Measures after start and during cruise

4.1	Abandonment.	In the event of lack of wind or other factors, Cruise Leader will advise return to Tudor or other refuge. Participants to continually assess own ability to manage conditions.
4.2	Shortening route.	In the event of lack of wind or other factors, Cruise Leader will advise return to Tudor or other refuge. Participants to continually assess own ability to manage conditions.
4.4	Escort vessels	Generally, no patrol boat will be used. Participants should be aware of and support fellow sailors.
4.5	Monitoring of wind/sea conditions	By communication with Cruise Leader

5. Additional Control Measures at Finish

5.2

Retirement monitoring.

Cruise Leader will ensure that all participating boats have returned to Tudor Slipway.

Dinghy Sailing – Safety Rules and Guidelines (for the attention of any member dinghy sailing at Tudor)

6. General

- 6.1 The organisers shall not be liable for any loss, damage, death or personal injury howsoever caused to the owner/competitor or crew, as a result of their taking part in the race, races or cruise. Moreover, every owner/competitor warrants the suitability of his/her boat for the race or races. Helms are responsible for both their personal safety and that of their crew; they are the sole judges of whether their experience is sufficient for the prevailing conditions.
- 6.2 Rule 4 of the Racing Rules of Sailing states: “The responsibility for a boat’s decision to participate in a race or to continue racing is hers alone.” This applies to Dinghy Cruises also.
- 6.3 Sailing is by its nature an unpredictable sport and therefore involves an element of risk. By taking part in the event, each competitor/participant agrees and acknowledges that:
- a) They are aware of the inherent element of risk involved in the sport and accept responsibility for the exposure of themselves, their crew and their boat to such inherent risk whilst taking part in the event;
 - b) They are responsible for the safety of themselves, their crew, their boat and their other property whether afloat or ashore;
 - c) They accept responsibility for any injury, damage or loss to the extent caused by their own actions or omissions;
 - d) Their boat is in good order, equipped to sail in the event and they are fit to participate;
 - e) The provision of a race management team, patrol boats, umpires and other officials and volunteers by the organiser does not relieve them of their own responsibilities;
 - f) The provision of patrol boat cover is limited to such assistance, particularly in extreme weather conditions, as can be practically provided in the circumstances.
- 6.4 Personal flotation devices must always be worn by all persons on the boat.
- 6.5 A trapeze or hiking harness shall ideally have a device that can quickly release the sailor from the boat at any time while in use.
- 6.6 Helping Those in Danger - A boat or competitor shall give all possible help to any person or vessel in danger.
- 6.7 Each participating boat shall be insured with valid third-party liability insurance with a minimum cover of £2,000,000 per event or the equivalent.

7. Organised Races

- 7.1 A compass must be carried by all boats competing in races where all or part of the course is outside of Langstone harbour.
- 7.2 Wet or dry suits must be worn by all participants during races between 1st November and 31st March inclusive.
- 7.3 Boats, helm and crew participating in races designated as Night Races must wear illumination.

8. Organised Cruises

- 8.1 A boat that retires from a cruise shall notify the cruise leader as soon as possible.
- 8.2 A compass must be carried by all boats participating in cruises where all or part of the course is outside of Langstone harbour.

9. Night time sailing

- 9.1 Boats, helm and crew participating in races designated as Night Races must wear illumination.

Guidance for completing TSC Risk Assessments

Use this guidance to help you complete the Risk Assessment template

Summary of activity

List the activity being reviewed. Detail what's involved and how the task is carried out.

HAZARD

Look only for hazards which you could reasonably expect to result in significant harm under the conditions in our club. Use the following examples as a guide:

- Drowning - from capsizing or falling overboard
- Cold - from immersion or exposure
- Injuries - from booms, winches, ropes
- Slipping/tripping on slipways or pontoons
- Work at height (up masts)
- Overhead cables
- Chemicals used in workshops or for cleaning
- Dispersal of dinghy or windsurfing fleets
- Stranding
- Fire, afloat and ashore
- Winches and winch - wires on slipways
- Vehicles
- Contaminated water (blue/green algae and Weils disease)
- Underwater obstructions

WHO MIGHT BE HARMED?

There is no need to list individuals by name - just think about groups of people doing similar work or who may be affected, for example:

- Members
- Guests of members
- Students
- Workshop staff
- Cleaners

- Instructors

Pay particular attention to the potentially more vulnerable:

- Children
- Absolute beginners
- People with disabilities
- Inexperienced staff
- Visitors

List groups of people who are especially at risk from the significant hazards which you have identified:

- FOR EXAMPLE Inexperienced visitors (inc children) may not be aware of the hazards from booms, craft stability, immersion
- FOR EXAMPLE We may not be able to provide people with disabilities the help to get on/off boats or out of the water if they fall in
- FOR EXAMPLE Children also need to be safeguarded

WHAT CONTROLS ARE ALREADY IN PLACE - IS THE RISK ADEQUATELY CONTROLLED?

Have you already taken precautions against the risks from the hazards you listed?

For example, have you provided:

- Adequate information, instruction or training?
- Adequate systems or procedures?

Do the precautions:

- Meet the standards set by a legal requirement?
- Comply with a recognised industry standard?
- Represent good practice?
- Reduce risk as far as reasonably practicable?

If so, then the risks are adequately controlled, but you need to indicate the precautions you have in place. You may refer to procedures, manuals, policies etc. giving this information.

DO YOU NEED TO DO ANYTHING FURTHER TO CONTROL THE RISK?

What more could you reasonably do for those risks which you found were not adequately controlled?

You will need to give priority to those risks which affect large numbers of people and/or could result in serious harm. Apply the principles below when taking further action, if possible in the following order:

- Remove the risk completely (but not the hazards inherent in sailing)
- Try a less risky option
- Prevent access to the hazard (e.g. by guarding)
- Organise work to reduce exposure to the hazard
- Issue personal protective equipment
- Provide welfare facilities (e.g. washing facilities and first aid)

List the risks which are not adequately controlled and the action you will take where it is reasonably practicable to do more. You are entitled to take cost into account, unless the risk is high.

Additional control

- FOR EXAMPLE All visitors to be accompanied on vessels and briefed on risk controls by an experienced TSC skipper
- FOR EXAMPLE lifejackets to be provided by TSC to all visitors before they go on the water

ACTION BY WHO?

Who needs to put in place the additional controls? Make sure they know they have been given the action and have the skills and influence to implement it.

ACTION BY WHEN?

Make sure you agree a date to implement the additional controls with whoever has been allocated the action. Try and complete the action quickly where additional controls can be achieved.

RESIDUAL RISK SCORE

		Severity/Consequence		
		Slightly harmful (1)	Harmful (2)	Extremely harmful (3)
Likelihood	Highly unlikely (1)	Trivial risk (Score 1)	Tolerable risk (Score 2)	Moderate risk (Score 3)
	Unlikely (2)	Tolerable risk (Score 2)	Moderate risk (Score 4)	Substantial risk (Score 6)
	Likely (3)	Moderate risk (Score 3)	Substantial risk (Score 6)	Intolerable risk (Score 9)

