

Going on long voyages in small boats has always been a hazardous business, but most sailors know that being able to trust your boat, keeping a good weather watch, and sailing in company are good ways to keep yourself safe.

Tawe Nunnugah is a 'raid', an expedition of small boats travelling in company, to provide safety for the fleet. It is organised by the Living Boat Trust and takes place in the ten days leading up to the Australian Wooden Boat Festival in Hobart

The raid has always started at Cockle Creek and ended with the Parade of Sail at the commencement of the festival, but the route through the D'Entrecasteaux Channel and into the Derwent River varies. Nights are spent camping ashore, and the sites are chosen to provide safe anchorage, a haul out for smaller boats, and enough space to set up the travelling kitchen and dining room. Providing a shore support crew saves small boats having to carry luggage and provisions in the boat.

The main safety factor for the raid is the group of larger boats and senior skippers with extensive knowledge of the waters. A 'hen and chickens' strategy is used, where a larger boat with an experienced skipper will keep a watchful eye over several of the smaller boats. These larger 'buddy boats' then communicate to the 'mothership', and the mothership skipper relays all important information.

As well as the buddy boat system there are a number of small fast safety boats with the dedicated task of watching and assisting.

The first day of the raid is a day trip inside the relatively calm waters of Recherche Bay. On the journey to the French Gardens and back the senior skippers are able to become familiar with their fleet and recognise hulls and sail patterns. Radio schedules are practised, gear lists checked, and safety drills done. The capabilities of the boats and skippers are assessed.

No boat will undertake the first leg to Southport unless the boat is sound, the skipper is ready, and the 'Admiral' gives the nod.

Each day of the raid starts with a skippers meeting where important details regarding weather and conditions, and the plan for the day, are discussed. All skippers must attend.

This document explains how the Tawe Nunnugah raid operates to maximise safety and reduce the risks. It is updated for each raid and you are invited to provide feedback by writing to the President of the Living Boat Trust at pres@lbt.org.au or PO Box 79, Franklin, Tasmania 7113

Boat Preparation

All boats participating in the raid are expected to be in seaworthy condition and meet all the requirements described by MAST for the size of boat and the waters to be crossed.

There is a check list on the LBT web site.

Boats will be inspected at Cockle Creek before starting the raid.

All raid boats will fly the orange Tawe Nunnugah burgee.

Personal Preparation

All participants will be asked to sign a form acknowledging any health conditions that may have an impact on their health & fitness during the raid.

There are a number of people travelling with the group with appropriate qualifications to undertake first aid and all care is taken, but each person is ultimately responsible for their own health and safety.

There is a suggestion list for personal gear to bring on the raid on the web site.

Route Planning & Chart Knowledge

The planned route map and daily schedule are available on the web site.

The Admiral may decide to vary the route and plan, usually because of weather but for other reasons as well. Alternative camp sites with anchorages appropriate to different conditions have been reconnoitred by the raid planners.

Laminated copies of charts A4 will be provided to all skippers.

Weather Watch

The Admiral and senior skippers will have a discussion of weather forecasts and conditions each morning and evening. The decisions on route and the day plan will be made at the skippers meeting each morning.

Skippers Meetings

The time for this will be determined each evening but it will typically be at breakfast time around 7am. All skippers must attend.

Manifests

A person (the Beach Officer) will be given the responsibility of checking off of all boats and crew from the beach each morning and relaying the numbers to the mothership. The skipper of the mothership will relay information to the buddy boats. These numbers are also relayed to Coast Guard.

When the fleet is travelling in areas where there is potential for interaction with commercial mariners the skipper of the mothership will make contact with those operators (see notes below on Commercial Operators).

Radio Schedules

All boats will carry VHF radios and the channel for communication will be decided each day at the skippers meeting.

A list of scheduled communication times will be made for each buddy boat.

Small boats are not required to make regular radio scheds. The buddy boats will keep all their 'chickens' within visual range and communicate with them only when necessary.

Interaction with commercial operators

Aquaculture businesses, tourism operators and the Bruny Island ferry have been made aware of the raid. A number of protocols have been agreed between operational people in these businesses and the raid planners.

For example, Huon Aquaculture are supplying a number of UHF radios hard coded for their exclusive communications channel, so that the mothership and safety fleet can communicate directly with work boats.

Living Boat Trust - Tawe Nunnugah 2015
Risk Management Plan

Potential Risks: (The undesired events where an accident, injury or loss could occur)

1. Crews lack experience and or stamina
2. Crew failure to take instructions
3. Individual injury/accident
4. Logistic failings, disorganisation
5. Vessels are unsuitable for the purpose or found to be unseaworthy
6. Weather becomes dangerous. Fleet gets scattered in dangerous conditions one or more vessels capsize or sink.

Sources of Risk	Potential Hazards <i>(For each inherent risk list the factors which could contribute)</i>	Risk Management Strategies <i>(To reduce, transfer, avoid or contain)</i>
1. People		
Attributes people bring to an activity skills, attitudes, physical fitness, health, age, fears, numbers, etc.	Crews lack experience or stamina. Have difficulty boarding the mother ship, or become fatigued after rowing for long distances.	<p>The larger vessel will then forward their positions to the mother ship. This should reduce the overall time of the scheduled which can be awkward when sailing a small boat. With the presence of the buddy around the smaller vessels safety will be enhanced, help will be readily available if an incident occurs.</p> <p>Buddy Boats:</p> <p>1 Theona, 26' timber sloop, Skipper Peter Laidlaw</p> <p>2. Vardo 40' timber sloop, Skipper Peter Heading</p> <p>3. Tuna Gentleman's Cruiser, Skipper Andrew Nicholls</p> <p>Support/ Safety Boats:</p> <p>1 Tuesday: 18' Half Cabin Cruiser, timber. Skipper: Glynn Shevels</p> <p>2 Stella Iris. Skipper: Nick Mooney</p> <p>3 Noord :Plate Boat. Skipper: Endra O'May</p> <p>4. Sandy. Speed Boat, Skipper Phil Durbin.</p>

		<p>A route has been chosen and time allowed so that demands on energy will be modest. The maximum daily distance is 20 miles, but this is in the most sheltered water with many convenient anchorages where rest may be taken. Passages in more open water are shorter, from 10 to 12 miles, and can be covered in half a day in good conditions. Details of previous experience in small boats are formally requested from each participant, small boat skippers have declared confidence in their ability to manage their vessels and crews successfully.</p> <p>Headsmen are fit, experienced and approved by MAST under the Training Licence held by the Living Boat Trust Inc. They can row well so can take an oar while others steer. A ketch rig and centre board case and rudder have been installed on "Swiftsure" enhancing her ability to sail thus resting the crew.</p> <p>Training sessions have been conducted in the period leading up to start of expedition. All individuals are encouraged to maximise personal fitness before the expedition starts.</p>
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<p>2. Crew Failure to take Instructions</p>	<p>Failure to take instructions could lead to safety issues within individual boats, other boats on the expedition could have safety compromised. Ultimately peoples lives could be endangered.</p>	<p>Skippers and crews are being made aware via email of the essentially co-operative and potentially dangerous nature of the exercise. They have signed a declaration that they will obey instructions given at safety and weather briefings at the beginning or end of each day and any instructions from the Sailing Master or Event Organiser that may be delivered, during the day. Continued Failure of a skipper or crewman to obey instructions may lead to their or his exclusion from the expedition. All crews have been informed we may have to postpone a passage because of bad weather, and stay where we are till it improves. We may have to decide on alternative destinations if we can't reach the ones we plan for. The voyage may therefore take longer than this plan indicates. This possibility should be understood as a condition of participation.</p>
<p>4. Logistic Failings, disorganisation</p>	<p>Safety systems could be compromised</p>	<p>Logistic systems for Tawe Nunnugah 5 have been upgraded in a Safety systems could be compromised number of areas. All transport of TN gear and client gear will now be undertaken on shore. A logistic team of 3 people and three support vehicles will now travel between various stopovers. The mother ships only focus will be the safety of the fleet. The Logistic team is included as an on shore part of the safety team. One member will act as a Safety Officer on shore will be contact-able at all times and will be responsible for recording fleet departures and arrival. A safety and information tent will be set up at all stopovers all skippers will have to report to Safety Officer on arrival. Morning Skippers briefing will be held in tent. The logistic team will carry maps which will have marked and coded all the vehicular access points on route so they will be able attend the nearest vehicular access point to where an incident occurs. The extra safety boats and the "boat buddy" system</p>

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Risk Management Plan

		as described previously will further protect against logistical failings. Prior to event all safety personal and the logistics team will be issued written job descriptions and meetings held to ensure all personnel are familiar with all safety and logistical plans.
5. Vessels are unsuitable for the purpose or found to be unseaworthy	Vessel could be lost . Personal injury or death could result for crew.	Skippers are informed through the registration process that all vessels will be inspected prior to the event. Any vessel deemed unseaworthy by the Sailing Master or event organiser will be unable take part in the Raid. Skippers are advised if unsure to contact event management well prior to the event so an inspection can be made and restitution works completed prior to seaworthy inspection.
6. Weather becomes dangerous. Fleet gets scattered in dangerous conditions. One or more vessels capsize or sink.	Vessels could be lost . Personal injury or death could result for crew. Safety systems could compromised. Logistical systems could break down.	This plan depends on the weather. The itinerary is weather dependent. For example, we may have to postpone a passage because of bad weather, and stay where we are till it improves. We may have to decide on alternative destinations if we can't reach the ones we plan for. The voyage may therefore take longer than this plan indicates. This possibility should be understood as a condition of participation. Daily Skippers briefings will take place each morning. Latest weather will be presented and decisions made on suitability of weather for next leg.
7. Individual injury/ accident		The expedition has Bryan Walpole – retired chief of emergency medicine Royal Hobart Hospital. Doug Fuglsang – registered nurse – remote areas. Ros Barnett – First aid Officer. In the event of injury or accident the mother ship will be informed immediately and she will then act as radio director as well as liaising with local Medical services. Plans have been enacted for a replacement skipper to take over the health professional's vessel while he

		<p>attends injury or accident.</p> <p>If an evacuation is deemed necessary the mother ship will inform buddy/Safety boats who will then inform their "flock".</p> <p>Fast Safety boat will be ferry for doctor patients to nearest vehicular access point on land. Safety boat skippers will have maps of all vehicular access points on route and will be aware of these.</p> <p>The nearest buddy boat will assume Safety Boat role while Fast Safety Boat is acting as a ferry. All local health and ambulance services have been contacted and been provided with an itinerary of the journey.</p>
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A. Safety Plan Participants:

- 1. Sailing Master ('Admiral')**
- 2. Mother Ship Skipper**
- 3. Safety Officer.**
- 4. Safety Boats Skippers**
- 5. Buddy Boat Skippers**
- 6. Participant Skippers**
- 7. On Shore Logistics Crew**
- 8. Cooks**

B. Safety Plan Overview:

The final responsibility for the safety of a vessel and its crew lies with the skipper of the vessel.

The purpose of this Safety Plan is to provide skippers of vessels participating in Tawe Nunnugah with as much information as possible. The Safety Plan attempts to anticipate the risks inherent in the journey and create contingency plans to address those risks, thereby mitigating the risks.

On joining Tawe Nunnugah each skipper will be given an induction and safety briefing. They will be given a safety pack containing laminated charts covering the voyage, Harbour Plans of ports of call, and a Living Boat Trust burgee that must be flown to identify the boat as a member of the expedition.

All boats are required to have, as a minimum, a hand held marine radio.

The first day of Tawe Nunnugah will be sailed within Recherche Bay with a journey to the French Garden. Safety and radio procedures including the Towing Procedure will be practiced before heading off on the first leg the next day.

Information will be conveyed to skippers in two ways.

A briefing will be held at 7 am each morning in the Safety and Information Tent conducted by the Sailing Master. Attendance of all skippers will be compulsory. Information on the weather and planned route will be conveyed.

On the arrival at the next port each skipper will report to the Safety Officer to inform him of the safe arrival of his vessel and crew. The Safety Officer can at this time advise the skipper of any additional information.

The second method of conveying information to the skippers will be on the water via a VHF Radio Sched, which will commence at 1300 hours each day. In 2009 the radio scheds were

introduced to Tawe Nunnugah 2. The experience of this has led to some changes to the sched process. It was found that skippering a small open boat and participating in a radio sched was more difficult than first perceived. Waiting while all vessels reported to the mother ship made the process unwieldy and difficult. The introduction of the buddy boat vessels was designed to streamline this process as well as adding a further layer of safety to the safety plan. Each buddy vessel will be assigned four or five vessels which will become its "flock" to watch over. The Radio sched will operate in prearranged order. Each buddy vessel will contact its flock which it is anticipated will be in visual sight, he will first convey any information needed to be passed on to skippers, he will then obtain the condition of each vessel which he will then relay to the mother ship at the end of the sched along with his flocks GPS position. It is hoped this will streamline the process so that skippers can concentrate on sailing their vessels with minimal interruption from the Radio Sched, it is hoped this will improve safety while still passing on information as well as obtaining the condition of each vessel.

C. Towing Procedure :

The Towing procedure is a Safety Mechanism if in the event of unforeseen weather deterioration occurs while the fleet is en route. It will be the responsibility of the Sailing Master or Event Organiser to decide that conditions have deteriorated to the point where the fleet should cease sailing and the Towing Procedure should be enacted.

Towing Procedure

1. The Sailing Master or Event Organiser will inform the skipper of the Mothership of his decision, the Mother ship skipper will then become the radio director for the enactment of Towing Procedure.
2. Mother Ship Skipper will initially inform Safety Boat Skippers and Boat Buddy skippers that the towing procedure as been enacted.
3. Boat Buddy skippers will then inform their "flock" that the Towing Procedure has been enacted and that all vessels should drop sails and hove to and prepare towing line. Boat Buddies will then proceed to collect vessels in tow in the preordained order.
4. The Mother Ship and the Safety Boat will be the last vessels to enact their Towing Procedure. This will make them still available to assist the rest of the fleet to enact the Towing Procedure and assist with any vessels that have been capsized or swept away. After all Buddy Boats have hooked up. Vessels to be towed by the Mother Ship will be the larger more seaworthy vessels ie Whale boats or larger boats. Only when all other vessels are safely under tow will the Mother Ship complete her towing hook up.
5. Safety Boat 1 will remain outside the tow so it will be able to assist any vessels that get into trouble during the Towing Procedure.
6. The Sailing Master or Event Organiser will be responsible for decision to cease the Towing Procedure if the conditions ease.
7. If the Towing Procedure is cancelled then the unhooking procedure will be Mother Ship unhooks first. As Radio Director he will order the Buddy Boats in

their preordained order. It should be noted here that unhooking procedure has the potential to be hazardous procedure and should be done in an ordered manner.

8. When all vessels are safely unhooked will the Mother Ship announce that the Towing Procedure has been stood down.

D: On Shore Logistics Team

The On Shore Logistics Team of from three to eight people includes a dedicated Safety Officer who will record the daily manifest (a record of the boats and crews at time of departure) and maintain a radio and mobile phone listening watch during the day, and until all boats and crew are accounted for at the end of the day.

An 'office' marquee will be set up at each camp to provide a single information point.

The logistic team will carry maps which will have marked all the vehicular access points to the expedition planned sailing route so they will be able attend the nearest vehicular access point to where an incident occurs.

A First Aid Kit will travel with the Logistics Team. At least one qualified first aider will be with the team at any time.

Briefings on safe lifting and loading will be given to people responsible for the tasks of loading the vehicles and erecting marquees and other physical tasks.

Kitchen operations will be conducted as per the health and hygiene guidelines provided to Event Managers by the Huon Valley Council. A wash up station will be set up adjacent to the mobile kitchen. All perishable foodstuffs will be stored as per food safety standard guidelines in a refrigerated trailer.

The food provided to expeditioners will be of a high standard and provide sufficient calories for high levels of energy required for rowing and sailing. Snacks will be available wherever possible for energy boosts between meals, and fresh water will always be available for replenishing water bottles.

E. Safety Gear Within Boats.

All boats must meet the MAST requirements for safe operations. A list is available on the MAST web site, and a link is provided from the Living Boat Trust web site.

www.mast.tas.gov.au/recreational/boating/

1. Participant Boats :

Participant boats will need bucket, bailer and sponge, and marine radio. The anchor and rope should be kept in a bag and tied into the boat. A tow rope should also be secured with this bag.

Buoyancy for the boat must be sufficient; either inflated bags or built in, so that she will float when flooded.

It should be possible to be able to reduce sail (reef) under way, and sailing boats should carry at least one set of oars or paddles, a hand bearing compass and a waterproof flashlight.

Each crew member should have a PDF Type 1 life jacket as a minimum. Wet weather gear and a waterproof bag for personal gear and a packed lunch are advisable. Each person should carry adequate water for each days sailing.

2. Safety Boats, Boat Buddies and Mother Ship.

Anchor, rope and chain, Bailer/Bilge pump, Personal flotation device, Fire extinguisher, auxiliary propulsion, Flares, Heaving line, Throw lines, Lifebuoy, EPIRB "4", Water, Marine Radio, First aid kit, Towing bridle.

RISK MANAGEMENT FORM

Name of organisation: The Living Boat Trust Inc

Type of activity: Small open boat camping expedition.

Commencement date and time of activity: 28th January – 6th February 2015

Location Recherche Bay, D'Entrecasteaux Channel, Derwent River estuary

28 th January/29 th January 2015	Recherche Bay
30 th January/31 st January 2015	Southport: Jetty House
1 st February 2015	Mickey's Beach, Bruny Island
2 nd February 2015	Alonnah, Bruny Island
3 rd February 2015	Simpsons Point
4 th February 2015	Quarantine Bay
5 th February 2015	Howden
6 th February 2015	Watermans Dock, Sullivans Cove, Hobart:

Total number of people on activity: approx. 90

Total number of boats on activity: approx. 30

Necessary staff skills: Sailing, Coastal Navigation, boat building and repair, cooking, First Aid, Radio operation. Elements of shipboard safety

Aims of activity: A cultural adventure, education through experience, promotion of small boat cruising, enjoyment, safe delivery of small vessels to the Australian Wooden Boat Festival.

Experience of participants: Varied, from 50 years plus including sailing and cruising in a wide range of vessels to introductory dinghy sailing only. All skippers declare themselves competent to conduct their vessels and secure the welfare and safety of their crew members.

Medical conditions of participants

Summary of significant medical conditions from Medical Information Forms: Generally very fit people for their age. All were asked to report medical conditions of concern. Several are in their sixties, two in their seventies but fit. Most are aged 40-60.

Emergency contact details:

000 Police, Ambulance, Fire Service

Other contact details withheld on public document