



## **Standard Operating Procedures for 'Lani II - FORSTER Rescue 10'**

1. Risk Assessment
2. Leaving Berth
3. Returning to Berth
4. Operating on the Lake
5. Man Overboard
6. Re-fuelling
7. Towing
8. Fire Onboard
9. Anchoring
10. Scattering Ashes



These operating procedures have been written only for the Forster / Tuncurry rescue vessel 'Lani II'.

Each may be subject to alteration. It's anticipated they will be regularly reviewed and updated if required. They are the preferred procedures, and should be followed by Skippers and Crew unless unusual circumstances dictate departure from them. They are designed to make sure the Unit achieves and maintains the highest standards and most importantly ensure the safety of all personnel and preserve the Unit's assets.

This document is divided into chapters, each relates to a separate Standard Operating Procedure (SOP).

The numbering system used for paragraphs and steps (procedures) reflect the SOP (Chapter) in which they can be found.

As indicated these SOPs will be reviewed and updated regularly. All amendments and updates will be recorded on the following update page.

Crew Resource Management is the practice whereby all skills, competencies and knowledge of the crew are utilised to benefit the rescue team.

If Skippers or Crew hold personal copies of this document or Chapters they should check them periodically and, if necessary, update them by replacing pages in accordance with the following schedule.

Dennis Travers  
Unit Commander  
September 2010

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# Standard Operating Procedure # 1 for 'Lani II - Forster Rescue 10'

## Risk Assessment

15/09/2010

### **1.0 Purpose:**

To identify and understand the risks and hazards associated with marine operations, to analyze the risks and hazards, and develop procedures and practices that will allow us to operate safely.

### **1.1 Scope:**

Risk assessment and resultant management technique is to be used each time our operation is faced with performing a unique, non routine task that is not covered by a written SOP or Operations Directive.

### **1.2 Safety/Hazards**

Standard PPE to be worn by all crew members.

### **1.3 Terminology**

### **1.4 Codes for personnel involved In this SOP**

Marine Rescue Crew	<b>MRC</b>
Skipper	<b>Skipper</b>
Radio Operator	<b>R/O</b>
Trainee (person being trained on a specific aspect of operations)	<b>Trainee</b>

## **1.5 Special precautions**

When conducting a risk assessment it is important that all aspects of the operation being assessed are addressed and documented on the Risk Assessment work sheet. Addressing all aspects will ensure the analysis will produce results by which sound operational decisions may be made.

## **1.6 Overview:**

Risks are inherent in many of the Unit's activities. While risks cannot be eliminated completely, risk can be minimized and consequence mitigated by systematic risk assessment and management techniques.

Risk Analysis is a function of the probability of an incident occurring measured against the severity of its consequence(s).

Risk = Probability x Consequences

## **1.7 When to conduct a Risk Assessment**

1.7.1	When faced with a task that you or your crew has not before experienced.	All
1.7.2	When faced with a non routine task for which there is no approved Standard Operating Procedure or Directive.	All
1.7.3	When faced with a task which in your opinion, or that of your crew, could lead to an unplanned event occurring.	All
	<b><i>Eg: Pulling a large yacht off a sandbar</i></b>	

## **1.8. Beginning the Risk Assessment**

1.8.1	Call a Crew Resource Management meeting.	Skipper
1.8.2	Discuss the task, identify and list 'What could go wrong'?	
1.8.3	Discuss and list the probability of this going wrong.	All
1.8.4	Discuss and list the consequence if that did go wrong'?	All
1.8.5	Apply each 'probability/consequence' to the Risk Matrix	All

1.8.6	Where the 'probability/consequence' falls in the <b>Green</b> section of the Risk Matrix, develop your plan and continue with the task.	Skipper
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### **1.9 Risk and/or consequence mitigation**

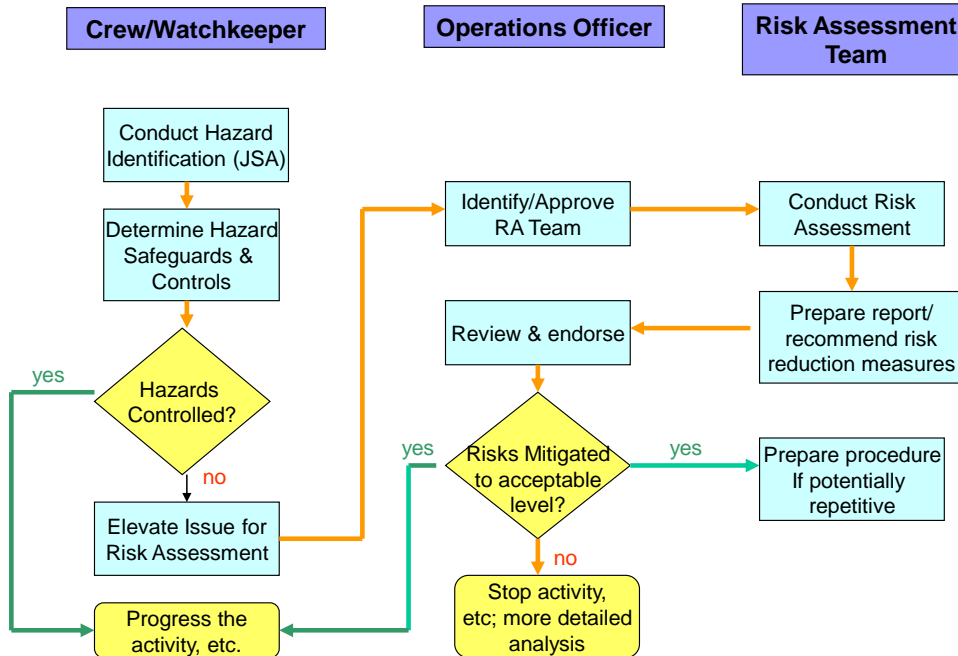
1.9.1	Where the 'probability/consequence' falls in the <b>Yellow</b> section of the Risk Matrix, proceed to identify any means which will reduce the risk and/or mitigate the consequence.	All
1.9.2	Assuming these mitigation measures have been put in place, again apply your resultant 'probability/consequence' to the risk Matrix.	Skipper
1.9.3	If the 'probability/consequence' now falls in the Green section of the Matrix, develop your plan and continue with the task.	All
1.9.4	If the 'probability/consequence' remains in the <b>Yellow</b> section of the Matrix (after mitigation measures are in place) then consult with the Operations Officer prior to taking any further action.	Skipper
1.9.5	Where the 'probability/consequence' falls in the <b>Red</b> section of the Risk Matrix, Unit Commander is to be consulted before any further action is taken.	Operations Officer
1.9.6	In the case of 1.9.5 above, the Unit Commander will convene a detailed Risk Assessment, attended by the Operations Officer, Boating Officer and vessel Skippers. <b>Under no circumstances shall an operation be attempted if it falls in the 'Red' section of the matrix.</b>	Unit Commander

### **1.10 Follow-up to Risk Assessment**

1.10.1	Following any task which involved a Risk Assessment, a detailed de-brief shall be conducted.	Skipper
1.10.2	Where there is potential for a repeat of the incident, a Standard Operating Procedure shall be developed and submitted for approval.	Operations Officer

## 1.11 Risk Assessment process

### Risk Assessment Process



## 1.12 Risk Assessment Matrix

### Risk Assessment Matrix

	A	B	C	D	E	<u>Probability</u>
1						A : Possibility of repeated incidents
2						B : Possibility of isolated incidents
3						C : Possibility of occurring some time
4						D : Not likely to occur
						E : Practically impossible

### Consequence

<u>OH&amp;S</u>	<u>Unit Image</u>	<u>Environmental Impact</u>	<u>Financial Impact</u>
1 Fatalities or serious injury to personnel	Very damaging	Major	> \$100,000
2 Serious injury to personnel	Serious	Marginally damaging	< \$100,000
3 Medical treatment to personnel	Embarrassment	Moderate	< \$5000
4 Minor impact	Minimal to none	No response needed	< \$1000

**Risk Assessment Work Sheet**

Date: \_\_\_\_\_ Prepared by: \_\_\_\_\_

Vessel Crew \_\_\_\_\_  
\_\_\_\_\_

Operational Task \_\_\_\_\_  
\_\_\_\_\_

Preliminary Assessment

**Risk**

What could go wrong 1? \_\_\_\_\_

What could go wrong 2? \_\_\_\_\_

What could go wrong 3? \_\_\_\_\_

**Probability**

What is the Probability of it going wrong? \_\_\_\_\_

**Consequence**

What would be the consequence of 1? \_\_\_\_\_

What would be the consequence of 2? \_\_\_\_\_

What would be the consequence of 3? \_\_\_\_\_



# **Standard Operating Procedure # 2 for 'Lani II' - Forster Rescue 10**

## **Leaving Berth**

15/09/2010

### **2.0 Purpose**

The purpose of this Standard Operating Procedure is to provide a standard approach to operations whenever Lifeboat Lani II is "Leaving the Berth", such that all crew are aware of their respective duties and no conflict in methodology will occur due to the changing of skippers and/or crew from one crew to another.

### **2.1 Scope**

This Standard Operating Procedure covers that period of time between the crew's arrival at the vessel, through to departure from Boat Harbour (outside the entrance).

### **2.2 Safety/Hazards**

The following standard Safety Equipment shall be worn by, or be available to all crew members;

- PFD1\*
- Sunscreen\*
- Unit hat or cap\*
- Sunglasses\*

(\* Hereafter referred to as Standard Personal Protective Equipment (PPE))

### **2.3 Definitions/Terminology**

Cape Hawke Harbour : From the bridge to the north eastern extremities of the breakwall.

Forster Boat Harbour : The marina in which the vessel is normally moored.

## **2.4 Codes for personnel involved In this SOP**

Marine Rescue Crew	<b>MRC</b>
Skipper	<b>Skipper</b>
Radio Operator	<b>R/O</b>

## **2.5 Special precautions**

Due to the potentially confused or rough conditions on the bar, all crew must maintain a minimum 3 point hold on the vessel while crossing the bar.

The skipper of the vessel must warn crewmembers to hold fast, prior to accelerating and decelerating the vessel.

## **2.6 Overview**

Each time the rescue vessel departs the mooring it provides an element of interest to other vessel operators and the public at large. Accordingly, the image of the Unit is on display and therefore it is of the highest importance that we are seen to act in a most professional and courteous manner at all times.

## **2.7 Pre departure inspection**

2.7.1	Inspect mooring lines for wear or deterioration	MRC
2.7.2	Inspect vessel hull for damage above the water line	MRC
2.7.3	Inspect the propellers and stern drive legs for damage or fouling	MRC
2.7.4	Inspect radio aerials	MRC

## **2.8 Pre departure checks**

2.8.1	Brief crew of the purpose of the task (rescue, training etc)	Skipper
2.8.2	Discuss Crew Resource Management	All
2.8.3	Assign individual duties to crew	Skipper
2.8.4	Check vessel log for fuel quantity, defects or items of note	Skipper
2.8.5	Turn on batteries and ignition and check gauges	Skipper
2.8.6	Confirm engine fluid levels are within operating limits	Skipper

2.8.7	Confirm all radio's are operational	R/O
2.8.8	Confirm navigation aids are operational	Skipper
2.8.9	Raise appropriate flags – during daylight	MRC
2.8.10	Confirm lifejackets are correctly worn by all crew	Skipper
2.8.11	Confirm all emergency equipment is accessible	Skipper
2.8.12	Start engines and confirm each is running normally Check all warning lights	Skipper
2.8.13	Switch on power to GPS/Sonar	Skipper
2.8.14	Single up all mooring lines on their cleats, ready for quick release	MRC
2.8.15	Identify and make visible the appropriate trails	Skipper

Trails on the GPS are as follows :

Boat Harbour to Rec Club Pacific Palms (Base trail for several others)

104 to Shalimar Ski Gardens Wallamba River

Wallingat Picnic Area

Coolongolook River Cedar Wharf (off Wallingat)

Boat Harbour to Coomba Park

Boat Harbour to Shallow Bay

Harbour, Steps, Coomba Park

Boat Harbour via Breckenridge Channel to Wallis Island

Boat Harbour to Forster Keys

Taree Street

NB The lake and the markers often change. The GPS trail is a guide, but does not replace care and good eyesight.

## **2.9 Communications**

2.9.1	Provide watch room with identification numbers of the crew	R/O
2.9.2	Obtain latest weather and tidal information	R/O
2.9.3	Obtain relevant position data of target (if relevant)	R/O
2.9.4	Obtain description of target and circumstances at present time	R/O
2.9.5	Provide all data to Skipper	R/O

## **2.10 Leaving the berth**

2.10.1	Call crew to <b>Harbour Stations</b>	Skipper
2.10.2	At night turn on navigation and flashing lights.	Skipper
2.10.3	Release stern lines – Stern lines will be released and placed on the wharf, followed by <b>stern lines clear</b>	Skipper/ MRC
2.10.4	Release spring lines – Vessel will move forward and spring lines will be hung on the mooring post nail closest to wharf, followed by <b>spring lines clear</b>	Skipper/ MRC

## **2.11 When underway**

2.11.1	With the helm centred, proceed from mooring at minimum safe operating speed.	Skipper
2.11.2	Advise watch room of departure and estimated time of arrival at the target area	R/O
2.11.3	Limit speed to the minimum practical speed (less than 8 knots) until clear of restricted area	Skipper
2.11.4	Dress ship (if appropriate)	Crew
2.11.5	Contact watch room every 30 minutes if possible and provide a situation report	R/O



## **Standard Operating Procedure # 3 for 'Lani II - Forster Rescue 10'**

### **Returning to Berth**

17/02/2011

#### **3.0 Purpose**

To provide a standard approach to Returning to Berth operations, so that all aboard are aware of their respective duties and there is no conflict in methodology through the changing of skippers and/or crew from one crew group to another

#### **3.1 Scope**

Covers that period between the vessel entering Boat Harbour and the crew departing Forster Boat H. arbour

#### **3.2 Safety/Hazards**

Standard PPE to be worn by all crew members.

#### **3.3 Terminology**

Cape Hawke Harbour : From the bridge to the north eastern extremities of the breakwalls.

Forster Boat Harbour : The boat harbour in which the rescue vessel is normally moored.

Dress Ship : Crewmen on fo'c'sle and after deck stand at ease facing outboard.

#### **3.4 Codes for personnel involved In this SOP**

Marine Rescue Crew	<b>MRC</b>
Skipper	<b>Skipper</b>
Radio Operator	<b>R/O</b>

### **3.5 Special precautions**

Due to the potentially confused or rough conditions at the entrance to Cape Hawke Harbour, all crew must maintain a minimum 3 point hold on the vessel while entering the harbour.

The skipper of the vessel will warn the crew to hold fast prior to accelerating or decelerating the vessel.

### **3.6 Overview**

Each time the rescue vessel enters Cape Hawke Harbour whether towing or training, it provides an element of public interest. This gives an opportunity for all to demonstrate courtesy and a high professional standard of seamanship to other vessel operators and the public at large.

### **3.7 On entering Cape Hawke Harbour**

3.7.1	Advise the crew of the intention to enter the harbour.	Skipper
3.7.2	Stow all deck and cabin gear. Advise crew to maintain a 3 point hold on the vessel.	All
3.7.3	Once in the harbour, reduce speed to less than 8 knots, then less than 4 knots	Skipper
3.7.4	If appropriate, dress ship	Skipper
3.7.5	Assess weather conditions as relates to its effect on berthing.	Skipper
3.7.6	Advise crew of special requirements, eg. Fenders etc.	Skipper

### **3.8 Entering the Marina**

3.8.1	Announce Harbour Stations. Crew place fenders and stand by mooring lines.	Skipper
3.8.2	Reduce speed to minimum practical operating speed	Skipper
3.8.3	Enter the marina at right angle to the entrance, giving consideration to wind and tide	Skipper
3.8.4	Approaching berth, manoeuvre the vessel at slow speed.	Skipper
3.8.5	Check mooring area for lines or debris in the water.	MRC

### **3.9 Berthing the vessel**

3.9.1	Approaching the berth, select a point at which to steer the vessel through 180 degrees so that the vessel's stern will be square on to the berth. This should be done by first centering the helm and then using the throttles only to manoeuvre the vessel. Select the inner motor, in reverse, as a power source and the outer to steer the vessel through the 180 degrees. As the vessel nears square on to the berth, back slowly into the berth and secure the mooring lines.	Skipper
3.9.2	Attach the spring lines first, announcing ' <b>Port (or Stbd) Spring line secure</b> '.	MRC
3.9.3	Crew to attach windward stern line, then the opposite stern line, announcing each time a line is secured.	MRC
3.9.4	Adjust all lines such that the vessel sits neatly in the mooring. Secure lines.	MRC
3.9.5	Remove and stow fenders	MRC

### **3.10 Securing the vessel**

3.10.1	Shut down engines and remove keys. Keys to be stowed in briefcase	Skipper
3.10.2	Lower flags and stow all gear	MRC
3.10.3	Check fuel quantity and advise skipper	MRC
3.10.4	Re-set then turn off GPS/Sounder. (leave zoomed in to 0.8)	Skipper
3.10.5	Notify the Base the vessel is now secured on the mooring and closing down. Switch off all radios	R/O
3.10.6	Write up the ships log, maintenance log and communications log	Skipper
3.10.7	Turn off battery switch	MRC
3.10.9	Debrief crew	Skipper
3.10.10	Hose down the vessel if necessary, wash anchor if it has	MRC

	been used	
3.10.11	Carry out a visual scan of the vessel, confirming all is secure	MRC
3.10.12	Close window and replace storm cover	MRC
3.10.13	On departure, lock the marina gate	Last out



# Standard Operating Procedure # 4 for 'Lani II - Forster Rescue 10'

## Operating on the lake

15/09/2010

### 4.0 Purpose

To ensure that time spent on the lake, when not carrying out a specific task (ie. SAR/Towing) is utilized for training of crew members in various aspects of vessel operation.

### 4.1 Scope:

This SOP covers that time when the vessel is proceeding to, or returning from a task, but is not actively carrying out a specific operating.

### 4.2 Safety/Hazards

Standard PPE to be worn by all crew members.

### 4.3 Terminology

### 4.4 Codes for personnel involved In this SOP

Marine Rescue Crew	<b>MRC</b>
Skipper	<b>Skipper</b>
Radio Operator	<b>R/O</b>
Trainee (person being trained on a specific aspect of operations)	<b>Trainee</b>

### 4.5 Special precautions

All crew are to be aware that training is taking place while in transit, therefore all must remain alert and be prepared to advise and support a crew under instruction, or one who is conducting an unfamiliar task.

#### **4.6 Overview:**

Time in transit provides an opportunity to expose crew to all aspects of vessel operation, and should be used to the extent practical. This includes but is not limited to operation of radio's, GPS, sounder, and helm. Simple navigation exercises such as bearing, distances and plotting should also be considered.

#### **4.7 Operation of radios**

4.7.1	Brief the trainee on the use of each radio onboard	R/O
4.7.2	Have trainee call the Base on the relevant frequency on each radio, and request a radio check.	R/O
4.7.3	Have trainee log in with the Base every 30 minutes and give a situation report	R/O
4.7.4	Brief the trainee on the 'Emergency' feature on the VHF radio and outline its use and situations where it may be used.	R/O

#### **4.8 Operation of GPS**

4.8.1	Explain the method for attaining full screen or split screen	Skipper
4.8.2	Explain MOB feature	Skipper
4.8.3	Explain the use of the cursor, and demonstrate placing the cursor on a predetermined target position	Skipper
4.8.4	Have trainee place a predetermined position on the chart using the cursor	Trainee
4.8.5	Explain the 'Go To Cursor' function to the trainee	Skipper
4.8.6	Explain the use of trails	Skipper

#### **4.9 Steering the vessel**

4.9.1	With the vessel stationary, give an operational overview of all equipment & instruments at the helm	Skipper
4.9.2	Introduce a visual scanning method to be used when steering e.g. horizon, compass, GPS, rpm, speed & temp gauges	Skipper
4.9.3	Explain throttle movement gear engagement & disengagement	Skipper

4.9.4	Check for traffic 360 <sup>0</sup> , announce powering up, then gradually apply power to the desired rpm, having selected a course & object to steer at on the horizon	Trainee
4.9.5	Scanning now is of prime importance with small corrections to heading. Do not overcorrect!	Trainee
4.9.6	Carry out course alterations to port and starboard. Practice taking wheel off prior to arriving at new course.  Always check seaway is clear before turning.	Trainee
4.9.7	If available before turning estimate the angle to turn	Trainee
4.9.8	Smooth turn of the wheel when turning & approaching desired heading smoothly centre the wheel	Trainee
4.9.9	Scanning is the secret to good helmsmanship. Think ahead of the vessel and always be aware of wind & tide	Trainee

#### **4.10 Simple navigation exercises**

4.10.1	Using the appropriate chart, point out to the trainee the nearest significant land marks	MRC
4.10.2	Explain the use of the compass and how to take a bearing on a given land mark. Estimate distance using rev counter and time	MRC
4.10.3	Trainee to take a compass bearing on at least 2 significant land marks	Trainee
4.10.4	Assist the trainee in plotting these points on the chart in order to obtain a minimum 2 point fix	Trainee
4.10.5	Trainee to check this position against present position as indicated by the GPS	Trainee



## Standard Operating Procedure # 5 for 'Lani II - Forster Rescue 10'

### Man Overboard

#### Or Recovering a Person From the Water

##### 5.0 Purpose:

15/09/2010

To provide a method by which to ensure the safe and efficient means of recovering a person from the water.

##### 5.1 Scope:

This covers the time from the sighting of a person in the water through to landing the person on the rescue vessel, checking his/her wellbeing, communicating the situation to the radio base, and landing the recovered person onshore. Also includes the post incident debrief.

##### 5.2 Safety/Hazards

Standard PPE to be worn by all crew members.

##### 5.3 Terminology

##### 5.4 Codes for personnel involved In this SOP

Skipper	<b>Skipper</b>
Marine Rescue	<b>MRC</b>
Radio Operator	<b>R/O</b>
Crew on the helm at time of MOB or sighting	<b>Helmsman</b>
Crew sighting the person in the water	<b>Observer</b>
Member of NSW Police Force	<b>Police Rep</b>

##### 5.5 Special precautions

Care must be taken to ensure the rescue vessel engines are in neutral or turned off, when the person is being brought to the rescue gate of the vessel.

## **5.6 Overview**

This procedure addresses three (3) scenarios involving the recovery of a person or persons from the water:

- Recovery of a man overboard from the rescue vessel.
- Recovery of a person from another source (another boat, swimmer, diver etc.)
- Recovery of a body. (No contact is to be made with a body without consultation with the NSW police).

## **5.7 Recovery of a Man Overboard from the rescue vessel**

5.7.1	Immediately a 'Man Overboard' is apparent, call 'Man Overboard' on (port/stbd) side of the vessel.	Observer
5.7.2	Press 'Man Overboard' or WPT WPT buttons on the GPS	Helmsman
5.7.3	Execute the appropriate turn	Helmsman
5.7.4	Maintain a visual watch on the MOB, indicating position by hand signal.	Observer / MRC
5.7.5	Appoint crewmen to man the rescue door and discuss plan of action	Skipper
5.7.6	Crewmen open the rescue door	MRC
5.7.7	Manoeuvre the rescue vessel with bow into the wind, so as to bring the MOB alongside the rescue door and "Heave to". Motors in neutral or off if possible.	Skipper
5.7.8	Recover the MOB onto the rescue vessel	MRC
5.7.9	Check the condition of the MOB. If medical assistance is required call the Radio Base and give details. Administer 1 <sup>st</sup> Aid to the MOB.	MRC
5.7.10	If medical assistance is required, cease all previous activity and return to harbour.	Skipper
5.7.11	If medical assistance is not required, return to previous activity.	Skipper
5.7.12	On return to harbour, conduct a full briefing on the incident	Ops Officer / Skipper

### **5.8 Recovery of a person or persons from another source**

5.8.1	Skipper to take the helm and record the position of the person in the water	Skipper
5.8.2	Notify the Radio Base that a person or persons have been located in the water	R/O
5.8.3	If more than one person in the water, manoeuvre first to the downwind person	Skipper
5.8.4	Appoint crew to man the rescue door and discuss plan of action	MRC
5.8.5	Crewmen attach tether lines to the vessel and open the rescue door	MRC
5.8.6	Manoeuvre the rescue vessel so as to bring the person in the water alongside the rescue door and "Heave to". Motors off if possible.	Skipper
5.8.7	Recover the person from the water onto the rescue vessel	MRC
5.8.8	Check the condition of the recovered person. If medical assistance is required call the Radio Base and give details. Administer 1 <sup>st</sup> aid.	MRC
5.8.9	Recover any additional persons from the water in accordance with steps 6.2 through 6.7 above	Skipper / MRC
5.8.10	Immediately return to base with the recovered person(s)	Skipper
5.8.11	Present the recovered persons to medical authorities prior to releasing them from the vessel	Skipper or MRC
5.8.12	Conduct a full debrief of the incident. Third party representatives to be notified and invited to attend	Ops Officer

### **5.9 Recovery of a body from the water**

5.9.1	On sighting a body in the water, immediately record the position	Helmsman
5.9.2	Manoeuvre the vessel as close to the body as possible in order to determine there is no sign of life	Skipper

5.9.3	Advise the Radio Base that a body has been located in position (.... ....). Pass this message on either DCN5 or by mobile phone. Avoid the use of 27 mhz and/or VHF radio if possible	R/O
5.9.4	Appoint lookouts to maintain a visual watch on the body.	Skipper
5.9.5	Manoeuvre the vessel so as to maintain visual contact with the body	Skipper
5.9.6	Await advice from the Radio Base prior to any further action	Skipper
5.9.7	If a member of the NSW police is on the vessel when the body is sighted, discuss the recovery plan	Skipper / Police Rep
5.9.8	Recover the body and place in the charge of the police	MRC
5.9.9	Return to shore and complete a debrief, attended by the Operations Officer and the police	Skipper / Ops Officer



# Standard Operating Procedure # 6 for 'Lani II - Forster Rescue 10'

## Re-fuelling

15/09/2010

### **6.0 Purpose:**

To provide a standard approach to re-fuelling the vessel in order to ensure safety of the vessel crew and the vessel, and to prevent any fuel spill into the vessel or the environment.

### **6.1 Scope:**

From the period immediately prior to mooring at the fuelling wharf, through to departure from the wharf.

### **6.2 Safety/Hazards**

Standard PPE to be worn by all crew members.

Fire extinguishers to be checked prior to re-fuelling.

### **6.3 Terminology**

### **6.4 Codes for personnel involved In this SOP**

Skipper	<b>Skipper</b>
Crew	<b>MRC</b>
Radio Operator	<b>R/O</b>

### **6.5 Special precautions**

Only those crew essential to the re-fuelling operation shall remain on the vessel while fuel is being transferred. Remaining crew are to relocate to the wharf and be available should an unplanned event occur.

Fire extinguishers shall be made readily accessible on the wharf, and a check made of any fire fighting equipment provided on the fuelling wharf.

## **6.6 Overview**

The vessel is fitted with 1 fuel tank with a capacity of 110 litres.

During any re-fuelling operation there is the potential for fuel spillage which could result in either fire or pollution. Accordingly, every attempt will be made to prevent spillage by closely monitoring fuel tank levels and fuel hose condition. Clean up rags are to be available to wipe up minor spillage.

Should a fuel spill in excess of one litre escape into the water during the refueling operation, the Skipper will immediately report this to the Operations Officer, outlining the amount spilled and the direction of travel (tide running in/out).

## **6.7 Securing at the Boatland Marine fuel wharf**

6.7.1	Bring the vessel alongside the fuel wharf, bow to the current	Skipper
6.7.2	Secure a bow line to the fuel wharf	MRC
6.7.3	Secure a stern line to the fuel wharf	MRC
6.7.4	Shut down engines	Skipper

## **6.8 Re-fuelling**

6.8.1	Turn off batteries	MRC
6.8.2	Make ready mop up rags, place fire extinguisher on wharf	MRC
6.8.3	Hoist re-fuelling flag (flag Bravo)	MRC
6.8.4	Remove non essential crewmen to the wharf.	Skipper
6.8.5	Remove fuel cap from fuel tank	MRC
6.8.6	Begin to deliver fuel into open tank	MRC
6.8.7	Cease fuelling when the tank sounds full	MRC
6.8.8	Replace the fuel cap on the open fuel tank	MRC
6.8.9	Return fuel hose to the wharf. Replace equipment on boat	MRC

### **6.9 On completion of re-fuelling**

6.9.1	Verify quantity of fuel delivered against invoice	MRC
6.9.2	Mark invoice with litres delivered and vessel name, then sign invoice	MRC
6.9.3	Replace fire extinguishers, lower flag 'Bravo' and secure after deck	MRC
6.9.4	Check fuel quantity onboard and record in logbook	MRC
6.9.5	Turn batteries on and start engines, radios and GPS	Skipper
6.9.6	Remove stern line	MRC
6.9.7	Remove bow line	MRC
6.9.8	Depart the fuel wharf	Skipper
6.9.9	Recover fenders	MRC
6.9.10	Deliver fuel invoice to Treasurer's office at the Base	Skipper



# Standard Operating Procedure # 7 for 'Lani II - Forster Rescue 10'

## Towing

15/09/2010

### **7.0 Purpose**

Towing disabled vessels is an integral part of Marine Rescue. The purpose of this Standard Operating Procedure (SOP) is to provide the rescue crew with a safe and systematic approach to securing the towline to the target vessel and affecting the tow to the designated drop off point.

### **7.1 Scope**

The scope of this SOP is from the time the rescue vessel first approaches the target vessel, through to the time the target vessel is delivered to the designated drop off point and the tow line is released.

### **7.2 Safety/Hazards**

Standard Personal Protective Equipment (PPE) to be worn. (see **SOP 2**)

Beware of extreme loads on towline

Keep hands away from rope on Samson post, and the space between rafted boats.

### **7.3 Definitions/Terminology**

<b>Pay Out</b>	To let out line to increase the length of the towline
<b>Shorten</b>	To take in or reduce the length of the towline
<b>Make Fast</b>	To secure the towline to the towing post
<b>Let Go</b>	To release the designated line

### **7.4 Codes for personnel involved In this SOP**

Lifeboat Skipper	<b>Skipper</b>
Marine Rescue Crew	<b>MRC</b>
Radio Operator	<b>R/O</b>

## **7.5 Special precautions**

During towing operations extreme loads on the towline and towing post are to be expected.

## **7.6 Overview**

While the basics of towing a vessel are constant, the size of the vessel being towed, the configuration of that vessel and the prevailing weather and sea conditions will determine the final actions. This is particularly so when bringing a vessel onto the drop off point, be it a mooring, a wharf, or releasing into the vicinity of a boat ramp or safe haven. The key to success in each such case lies in the application of Crew Resource Management where the final action plan is determined prior to commencing the relevant activity.

Communication with the target vessel will be on 27 Mhz channel 94, or VHF channel 77

## **7.7 Preparing the tow**

7.7.1	Radio: maintain calling frequency until vessel has been sighted and identified then change to a working frequency. Slow the rescue vessel and approach the target vessel dead slow	Skipper
7.7.2	Using the radio ask vessel's Skipper to "Confirm" that he accepts responsibility for the tow and any damage incurred	R/O
7.7.3	Advise crew prepare for tow	Skipper
7.7.6	Advise the Skipper when the tow gear is ready	MRC

## **7.8 Approaching and securing the target vessel**

7.8.1	Radio: Check for lines in the water or debris nearby. We will approach on your port side to pass the towing line to a person on the bow to retrieve and fasten to a strong point closest to the bow. Then "secure your vessel" and determine drop off point for target vessel, rescues don lifejackets, and lower and centre motor and trim the vessel aft, have anchor available if needed and maintain a listening watch	R/O
7.8.2	Manoeuvre rescue vessel around the target vessel to check for lines in the water and debris and assess sea conditions	Skipper

7.8.3	Manoeuvre rescue vessel into optimum position to pass heaving line to target vessel, MRC adjacent to targets bow area and “Heave to” ( Starboard side to target vessel)	Skipper
7.8.4	Pass towing line to target vessel	MRC
7.8.5	Advise target vessel to secure towline to a strong point closest to the bow	MRC
7.8.6	Pay out towline	MRC
7.8.7	Manoeuvre rescue vessel dead slow ahead and “Heave to”	Skipper
7.8.8	Advise rescue skipper when towline is secure on target vessel	MRC
7.8.9	When towline length established order “Make Fast”	Skipper
7.8.10	Secure tow line to towing post using 3,2 &1 hitch and announce “Made Fast”	MRC
7.8.11	Switch on towing light and red/blue flashing lights (always on at night)	Skipper
7.8.12	Hoist Flag D. (Keep clear of me, I am manoeuvring with difficulty)	MRC
7.8.13	Broadcast Security alert, warning vessels in the area to stay clear of vessel under tow	R/O

### **7.9 Commencing the tow**

7.9.1	Initially manoeuvre the rescue vessel off centre at an angle of 30 40 degrees ahead of the target vessel to avoid snubbing	Skipper
7.9.2	Once under way maintain sufficient speed to keep a taught tow line	Skipper
7.9.3	Advise the base the target vessel is now under tow	R/O
Note: It may be necessary to periodically adjust the length of the tow line in order to optimise the position of the towed vessel relative to swell and condition		

### **7.10 Action in the event of Man Overboard (either vessel) during tow**

7.10.1	Announce 'Man Overboard' followed by 'where' (Stbd side of relevant vessel)	Person observing the MOB
7.10.2	Press the Man Overboard or WPT WPT keys on the GPS	Skipper
7.10.2	Stop the rescue vessel and announce ' <b>drop the tow</b> '	Skipper
7.10.3	By radio advise target vessel to release the tow line	R/O
7.10.4	Maintain a visual watch on 'man overboard', indicating direction by pointing with extended arm.	MRC
7.10.5	Recover the tow line onboard	MRC
7.10.6	Proceed to recover the MOB on Port side of rescue vessel	Skipper
7.10.7	Recover MOB and check and report condition	MRC
7.10.8	Arrange 1 <sup>st</sup> Aid and further treatment as necessary	MRC
7.10.9	If tow is to be resumed, approach the target vessel and resume the tow in accordance with steps <b>7.8.6 through 7.8.10</b>	Skipper

### **7.11 Approaching the harbour entrance**

7.11.1	Assess conditions at the harbour entrance	Skipper
7.11.5	Secure the rescue vessel for entering harbour	MRC
7.11.6	Request Radio Base to broadcast <b>Securite</b> alert	R/O
Note: If conditions at the entrance are considered potentially unsafe, the skipper may elect to remain at sea until conditions improve		

### **7.12 Shortening the tow**

7.12.1	Advise crew to prepare to shorten the tow	Skipper
7.12.2	Manoeuvre the rescue vessel to provide slack in the tow line	Skipper
7.12.3	Reduce the hold on the towing post to one turn	MRC

7.12.4	Shorten the tow, maintaining a clear deck.	MRC
7.12.5	Call "Make Fast" when tow is reduced to required length	Skipper
7.12.6	Secure tow line on the towing post using 3, 2 & 1 hitch and announce "Made Fast"	MRC

### **7.13 Releasing the target vessel at the designated drop off point**

7.13.1	Discuss action plan to drop off the target vessel	Skipper/crew
7.13.2	Deploy fenders starboard side of rescue vessel , port side of target vessel	MRC
7.13.3	Manoeuvre the rescue vessel as necessary to bring the target vessel to the designated drop off point	Skipper
7.13.4	Advise target vessel to release the tow line	MRC
7.13.5	Recover the tow line	MRC
7.13.6	Recover fenders	MRC
7.13.7	Obtain details as necessary to complete <b>Rescue</b> report form	MRC
7.13.8	Advise the Watch room the tow is now complete	R/O

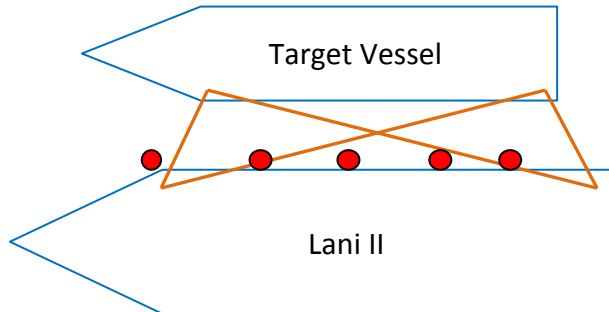
Note: If a large vessel is to be laid off on the pump out wharf it must first be towed into the southern end of the marina, turned around and then berthed starboard side at the pump out wharf.

**7.14 Rafting.** The following is provided for use in the event a vessel is to be rafted to the rescue vessel. Rafting will only take place inside the harbour.

7.14.1	Discuss and determine the action plan. Plan will include anchoring the target vessel prior to rafting	Skipper/Crew
7.14.2	By Radio : pass action plan and instructions to the target vessel	R/O
7.14.3	Prepare rafting ropes. Minimum of 4 ropes required	MRC
7.14.4	Deploy fenders as necessary	MRC
7.14.5	Come alongside the pre determined side of the target vessel	Skipper
7.14.6	Secure target vessel to rescue vessel with a bow to bow line and then a stern to stern line, passing the eye end of the line to the target vessel.	MRC
7.14.7	Deploy forward and aft spring lines	MRC
7.14.8	Adjust lines so as to warp the target vessel ahead of the rescue vessel by approx 1 to 2 metres	MRC
7.14.9	Adjust all lines so as to parallel each vessel fore and aft	MRC
7.14.10	Tighten and secure all lines	MRC
7.14.11	Proceed to designated drop off point	Skipper
Releasing the target vessel at the designated drop off point will be in accordance with action steps <b>7.13.1 to 7.13.8</b> above.		

# Rafting

To be read in conjunction with Towing SOP



Prior to rafting a vessel alongside the rescue vessel, the skipper will conduct a crew resource meeting to discuss the size of the vessel to be rafted, the number and position of lines and position of fenders.

Position of lines to be determined by location of cleats and bollards.



# Standard Operating Procedure # 8 for 'Lani II - Forster Rescue 10'

## Fire on Board

15/09/2010

### **8.0 Purpose:**

To provide the crew with an efficient and systematic approach to fighting a fire onboard the rescue vessel, using the onboard fire fighting equipment and passive mitigation systems.

### **8.1 Scope:**

From the first indication of fire through to the finalization of the post incident debrief.

### **8.2 Safety/Hazards**

Standard PPE to be worn by crew at all times (see **SOP 2**)

Ingestion of smoke and/or toxic fumes

Burns

Asphyxiation

### **8.3 Fire fighting terminology**

"Fire, Fire, fire", followed by location of the fire

Eg: "Fire, Fire, Fire, fire under the dash board"

### **8.4 Codes for personnel involved In this SOP**

Skipper	<b>Skipper</b>
Marine Rescue Crew	<b>MRC</b>
Radio Operator	<b>R/O</b>

## 8.5 Special precautions

The use of firefighting agents in confined spaces will displace air and therefore inhibit breathing. If a crew is required to enter a confined space (fo'c'sle compartment) when there is a fire onboard, there must be a back up crew in support in order to retrieve the first mentioned crew in case of distress or collapse.

## 8.6 Overview

The rescue vessel is equipped with 1 fire extinguisher:

**Dry Chemical :**      **Red with a white band**                      **All fires**

## 8.6 On the announcement Fire Fire Fire, Fire under the dash board

8.6.1	Turn off batteries	MRC
8.6.2	Use fire extinguisher immediately	MRC

Without propulsion, the vessel will swing to the wind which will tend to clear the smoke from the after deck. If the smoke remains constant or intensifies it must be assumed the fire is still burning.

8.6.5	Assign a crew to gather 1 <sup>st</sup> aid kit and EPIRB	Skipper
8.6.6	If the fire cannot be controlled, consider <b>Abandon Ship</b>	Skipper
8.6.7	Advise crew to gather grab bags and EPIRB	Skipper
8.6.9	Abandon Ship	All
8.6.10	Conduct a head count connect group with ropes	Skipper
8.6.11	Activate the EPIRB	Skipper
8.6.12	Swim clear of the burning vessel	All

In the event the fire is controlled and extinguished

8.6.13	Advise the Base the situation is under control	R/O
8.6.14	Assess the damage and determine the seaworthiness of the vessel	Skipper
8.6.15	If the vessel can be made operational, return to base.	Skipper
8.6.16	If the vessel is not operational, request assistance.	R/O

### **8.7 On the announcement Fire Fire Fire, under the deck or near the batteries**

8.7.1	Abandon Ship	All
8.7.2	Conduct a head count	Skipper
8.7.3	Tie group together and move away from boat	All
8.7.4	Use mobile phones or EPIRB	

### **8.8 On return to base**

8.8.1	After securing the vessel (or being landed by another vessel) a full debrief will be conducted. This will be attended by all crewmen and the Operations Officer	Operations Officer
8.8.2	Following the debrief, a full report on the incident will be compiled for submission to the Unit Commander	Operations Officer
8.8.3	A report of the incident will be submitted to NSW Maritime	Unit Commander



# Standard Operating Procedure # 9 for 'Lani II - Forster Rescue 10'

## Anchoring

15/09/2010

### **9.0 Purpose:**

This Standard Operating Procedure (SOP) outlines the action steps necessary to safely and efficiently anchor the rescue vessel, monitor the location of the anchor, and to recover and secure the anchor.

### **9.1 Scope:**

The scope of this SOP is from the time the skipper of the rescue vessel brings the vessel into the desired position for the placing the anchor, through to when the anchor is safely secured and stowed and the vessel is again underway.

### **9.2 Safety/Hazards**

Standard PPE is to be worn (see **SOP 2**).

Crewmen must exercise care when working in the vicinity of the anchor. Crewmen on the bow of the vessel must operate when possible from inside the bow rail and wear and securely attach a safety tether.

### **9.4 Codes for personnel involved In this SOP**

Marine Rescue Crew	<b>MRC</b>
Skipper	<b>Skipper</b>
Radio Officer	<b>R/O</b>

### **9.7 Preparing to anchor**

9.7.1	Manoeuvre the vessel to the required position, bow to the wind/swell	Skipper
9.7.2	Ascertain depth of water and amount of rope to be veered	Skipper
9.7.3	Lower anchor, indicate direction of rope	MRC
9.7.4	Establish a waypoint	Skipper

### **9.8 While at anchor**

9.8.1	Maintain contact with the watch room every 30 minutes	R/O
9.8.2	Check the position of the anchor at 30 minute intervals by referencing the position recorded in the GPS	Skipper
9.8.3	Monitor the wind and sea conditions, giving consideration to the length of the anchor rope	Skipper

### **9.9 Weighing anchor**

9.9.1	Advise crew to prepare to weigh anchor, point to rope	Skipper
9.9.2	Start engines and move towards anchor	Skipper
9.9.3	Weigh anchor	MRC
9.9.4	Tidy anchor, chain and rope (wash down on return to wharf)	MRC
9.9.5	Clear WPT position from the GPS	Skipper



# Standard Operating Procedure # 10 for 'Lani II - Forster Rescue 10'

## Scattering Ashes

15/09/2010

### **10.0 Purpose**

The purpose of this Standard Operating Procedure (SOP) is to provide a safe, compassionate and dignified service when scattering ashes from the rescue vessel.

### **10.1 Scope**

The scope of this SOP includes but is not limited to meeting the family of the deceased at the designated departure point and concludes when the family of the deceased are landed back onshore. Additionally, there may be need for a Pastoral visit prior to, and/or after the scattering of the ashes.

### **10.2 Safety/Hazards**

Standard PPE will be worn by crew and family members (**SOP 2**)

The crew of the rescue vessel will ensure the family members are correctly attired and aware of hazards associated with the motion of a vessel at sea.

### **10.3 Definitions/Terminology**

**Ashes Urn.** The Ashes Urn is normally a plastic container, rectangular in shape that contains the ashes of the deceased. There is a round seal at one end and it is this seal that is to be opened prior to departure

### **10.4 Codes for personnel involved In this SOP**

Skipper	<b>Skipper</b>
Chaplain	<b>Chaplain</b>
Radio Operator	<b>R/O</b>
Marine Rescue Crew	<b>MRC</b>
Family of the Deceased	<b>Family Member</b>

## **10.5 Special precautions**

This activity must not be carried out during adverse sea conditions. Family members will be required to remain seated if crossing the bar.

## **10.6 Overview**

The scattering of Ashes at sea is an activity which is conducted by the Unit as is deemed appropriate and must be approved by the Unit Commander. It involves family members of the deceased and a Chaplain. Numbers on the vessel during the activity are limited to the approved vessel capacity.

On arrival at the designated position the Skipper will bring the vessel into a comfortable riding position. The Chaplain will then conduct a service that will take approximately 10 minutes prior to the scattering of the ashes. During this time appropriate music will be played. If requested, or if considered appropriate, the Last Post and Rouse may be played.

## **10.7 Preparing for departure**

10.7.1	Greet the family at the designated departure point	Chaplain
10.7.2	Ascertain who will scatter the ashes and brief him/her accordingly	Chaplain
10.7.3	Break the seal on the Urn	Chaplain
10.7.4	Record the names of the family and advise the watch room	R/O
10.7.5	Plot the position of the location for scattering the ashes and enter in the GPS	Skipper
10.7.6	Issue family with appropriate PPE and brief in its use	MRC
10.7.7	Brief family on safety aspects of proceeding to sea	MRC
10.7.8	Seat family on the equipment boxes.	MRC

## **10.8 Departing the designated departure point**

10.8.1	Lower flags to half mast	MRC
10.8.2	Proceed in accordance with <b>SOP 2</b> and <b>SOP 4</b>	Skipper

### **10.9 On arrival at the designated location**

10.9.1	Remove caps	All
10.9.2	Assemble all personnel	Skipper
10.9.3	Conduct the Service	Chaplain
10.9.4	Prepare to scatter the ashes from the starboard side of the vessel. Safety harness to be worn.	Family Member
10.9.5	Bring the vessel in the optimum position relative to wind and sea conditions	Skipper
10.9.6	Commence playing the selected music	Chaplain
10.9.7	Scatter the ashes	Family Member
10.9.8	Play Last Post and The Rouse if appropriate	Chaplain/MRC
10.9.9	Raise flags to the truck and replace caps	MRC
The Skipper will then circle the area prior to proceeding back to harbour		