

# Seascape

Maritime Safety Queensland

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Volume 5 Issue 2

**YOU'RE THE SKIPPER  
YOU'RE RESPONSIBLE!**

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- Identifying approved life jackets
- Storm damage to Airlie Beach



**Queensland Government**  
Maritime Safety Queensland



**Captain John Watkinson, General Manager, Maritime Safety Queensland**

The Christmas boating season was unusually quiet due to the abnormal run of bad weather which led up to Christmas and carried on through to February 2008.

This kept many boat owners off the water except for the more hardy PWC riders and dedicated fishermen. While inclement weather was experienced throughout the state, the Whitsunday and Mackay regions featured in the news almost daily when torrential rain and severe winds hammered the area as a result of a monsoonal low depression locating itself almost over Mackay.

The town of Airlie Beach experienced cyclonic winds which caused devastation to the local fleet of moored and anchored vessels adjacent to the waterfront and Airlie Beach Marina. Initially some 60 craft broke their moorings or dragged anchor ending up on the rock walls and beaches between the Sailing Club and Cannonvale Beach. Others have sunk and have yet to be accounted for. Fortunately no lives were lost and lessons can be learnt from this incident.

This sort of mass grounding highlights the need for boat owners to ensure their vessels are secure especially on buoy moorings or at anchor. In crowded mooring areas it is unfortunate that if one boat breaks loose or drags, it can collide with other boats often causing them also to break loose or drag.

2008 will prove a busy and interesting time for Maritime Safety Queensland. Boating registrations continue to climb with Queensland now leading the nation in registered boats. This in turn creates challenges for regulatory authorities and

enforcement organisations as new issues arise and the congestion on our waterways increases.

The Gold Coast speed limit review conducted in the latter part of 2007 has finalised recommendations after an extensive consultation phase with local industry and boat owners. Implementation of the recommendations will be phased in from July 2008.

I would like to take this opportunity to thank the Gold Coast's marine industry and in particular Marine Queensland, whose input and constructive feedback throughout the review process was invaluable. This was a great example of how government and industry working cooperatively together can deliver practical and safe outcomes for all.

As mentioned in the last issue of *Seascope*, the findings of the Recreational Boating Discussion Paper and the Commercial Marine Industry Survey both launched in September 2007 will be released this year and published in *Seascope*.

It's timely to remind boat owners who by now should be aware that on 1 February 2009 the existing 121.5MHz Emergency Position Indicating Radio Beacon (EPIRB) will cease to be monitored and must be replaced with a digital 406MHz EPIRB before that date. It is hoped skippers are heeding this advice and are switching over to 406 well in advance of the February shut off date. Remember to avoid the last minute rush and don't risk being caught without a functional EPIRB.

As boating grows in popularity the responsibility of the skipper to take charge and act responsibly when out on the water is paramount to safe boating and keeping accidents to a minimum. Remember you are not only responsible for your own safety, but that of your friends, family and other waterways users. Remember 'You're the Skipper – You're Responsible'.

Safe boating

Captain John Watkinson  
General Manager

## Pilots and tug masters retrieve runaway carrier

Maritime Safety Queensland Pilotage Services, Mackay have been commended for their handling of an unprecedented shipping emergency at the Port of Hay Point in February.

Strong northerly winds snapped mooring lines on the 200 metre bulk cargo carrier, *MV Devprayag* about 4am on 12 February blowing it off the northern Dalrymple Bay Coal Terminal Berth (DBCT).

At dawn marine pilots Bryce Bathe and Graham Ring were landed on board the ship by helicopter where they assessed the situation and determined that four tugs would be needed to recover the vessel which had suffered some hull damage.

The removal of the ship took six challenging hours of close quarters pilot manoeuvring in winds of 35 knots and gusting to 45 with flood tide across the opening that led to safe water.

The pilots highly commend the assistance from the tugs Belyando, Broadsound, Kungurri, Koliyo and their respective masters.

A letter from BMA General Manager Port, Russell Grech to Maritime Safety Queensland's Manager Pilotage Services Graham Ring summed up the widespread respect earned by the participants.

"I would like to take this opportunity to commend you for your efforts regarding the incident involving the *MV Devprayag*," said Mr Grech.

"The incident was serious and placed our coal terminal at significant risk. Your skill and experience greatly contributed to the successful relocation of the *MV Devprayag* without injury to personnel or damage to BMA property."

"Hay Point Services highly regards the expertise you exhibited and again praises you for your efforts," he concluded.

His sentiments were echoed by Maritime Safety Queensland's General Manager, Captain John Watkinson.

"The calm professionalism of the pilots and tug masters in a perilous situation undoubtedly carried the day," said Captain Watkinson.

Our cover this month shows a near-disastrous attempt to cross the Maroochy Bar. See more photos page 9.

# Marine Studies meets industry needs

There was a time when the 'Three R's' ruled in schools, when reading, writing and arithmetic were the staples that laid the foundation for lifelong learning.

Today, students are spoilt for choice. With broad options for tertiary education, they can elect to study subjects that interest them, or enter the workforce straight from high school.

Marine Studies is an example of a modern syllabus that offers such diverse subjects as aquaculture, ecology, oceanography and marine safety and conservation. The first accredited Marine Studies syllabus was developed in 2003 by a group of enthusiastic teachers in consultation with Education Queensland and marine industry bodies.

More than 400 of these passionate educators from primary, secondary and tertiary level are members of the Marine Teachers' Association of Queensland, a non-profit organisation that coordinates activities and resources to support the teaching of marine education in Queensland schools.

The association has ten branches from the Gold Coast to the Papua New Guinea border.

More than 30,000 Queensland primary students and 8,000 secondary students studied marine studies subjects in 2006. The popularity is not surprising considering the subject's correlation with issues such as climate change and sustainable development that are increasingly on the national agenda.

For this reason, Marine Studies is also a good option for students when considering future employment.

The course promotes a strong sense of responsible and safe boating among students. Students that are of age come out of the course with a recreational marine driver licence and some basic navigational skills, preparing them for possible future careers in the maritime industry.

The current syllabus includes subjects such as the Reef Guardians Project which engages students of all ages to work together for the sustainability of the Great Barrier Reef.

Marine and Aquatic Practices combines vocational and life skills and is designed for students aiming to get a job after leaving high school. Marine Studies also caters for



students who want to undertake tertiary studies in the field.

Simone Baker, a marine studies teacher at Holy Spirit College, says creating a career path in marine studies is something that the teachers' association continually works towards. "Parents ask us where this will lead, and people tend to think narrowly: 'marine biologist'. But there are other avenues," she says.

"Skills shortages are prevalent in every sector – there are always jobs available in the sectors associated with the marine environment and sector industries."

The variety offered through marine studies opens doors for students to proceed to further leisure, vocational or academic studies associated with the marine environment, including tourism, fisheries and boating. An interest in the sea inspired by a start in marine studies could result in a person becoming the captain of a cruise liner some day.

A member of MTAQ for the past nine years, Ms Baker says coming together as an association gives members the power to develop successful training models.

"Working in with Maritime Safety Queensland, the Department of Primary Industries, Quarantine, Tourism and Recreation, and other organisations is a great networking tool for building bridges



between schools, communities and the environment."

Despite being Queensland-based, the organisation's annual conference attracts like-minded teachers from New South Wales, Victoria and New Zealand.

This year's event will be held on Stradbroke Island in the final week of the September school holidays, with discussions central to the theme of climate change.

Central to the organisation's focus is meeting the challenges of industry in preparing their students for the workforce.

Human interaction with the sea involves the wider community, sparking genuine interest about topics of local, national and international significance.

The importance of marine studies to the community ensures its broad appeal. Living in an island nation, the study of the sea and how people interact with it is relevant to all Australians, and all of us must share the responsibility of managing our relatively unspoilt marine environment wisely.



## Bill Ewing, former Marine Superintendent, talks about his memories of the marine operation of Queensland Cement and Lime Co.



**F**or twenty years Bill Ewing was at the helm of the marine operation of the Queensland Cement and Lime Company (QCL). As the marine superintendent, it was his job to oversee the ships which carried coral from the dredger in Moreton Bay up the Brisbane River to the Darra cement factory.

Despite living in Australia since 1960, Bill Ewing still has a broad Scottish accent. He is wiry and tanned, having spent most of his life on or around the sea. In his home he is surrounded by piles of photographs and boat plans, model yachts, and ships' instruments including a rare astro theodolite, a sextant, an astrolabe, a barometer and a large telescope which looks out to Moreton Bay.

Bill's passion for boats started in his early youth when he sailed his yacht, *Thistle*, on the River Clyde and off the west coast of Scotland.

His early working years were spent as a draftsman and ship builder in a Glasgow shipyard, Denny Dumbarton. At the invitation of Evans Deakin, Bill travelled to Australia, initially to help with the building of the multi-function passenger ship *MV Kangaroo*.

After more than six years with Evans Deakin, Bill accepted a position at QCL as Marine Superintendent.

"Now this job of running ships was vastly different from building them. It was a whole new ballgame, and when I arrived in the company there were no dredging programs.

There was nothing to tell you where the ships were or what they were doing. They could do anything they liked and knock off when they liked. My first task was to produce an operating schedule showing dredging times for each vessel, which some of the skippers rejected at first and some accepted," Bill said.

"But at least now we knew where the ships were and we could calculate the number of loads of coral they were carrying."

The dredging operation produced about 30,000 tons of coral a week or about one and a quarter millions tons annually. This coral, dredged up in Moreton Bay by the dredger appropriately named the *Coral*, was loaded onto two ships, the *Darra* and the *Cementco*, which then transported it up the Brisbane River to the cement factory at Darra on the incoming tide. There the coral and additives were kiln-fired into clinker and crushed to make cement.

QCL started operating in the mid-1920s. The cement factory was built at the end of the railway line at Darra, as close as possible to deposits of lime which provided the essential main ingredient for cement manufacture, calcium carbonate. After it was suggested that coral could provide a viable alternative, the company transferred its attention to Moreton Bay and the marine operation was born.

The coral dredged in the bay was taken from a reef of old coral, up to 25 feet deep.

"The reef wasn't pristine, white, with fish swimming around it. It was dead coral, and covered up with mud," Bill said.

"At that time Queensland Cement was the cheapest in Australia, or very close to it.



*Cementco* on the Brisbane River. QCL produced all the cement for the city buildings at the time.

Even with the cost of running the ships, it was still cheap."

Because the building industry was going ahead so rapidly in the late 1970s and early 1980s, QCL could barely produce enough cement for the industry's needs.

The dredger, *Coral*, stationed off Mud Island, was originally a wartime Landing Ship Tank (LST) with large bow doors to enable the military tanks to roll on and off. Built in 1944/45, coincidentally by Denny Dumbarton, it was converted into a suction coral dredger by removing the bow doors and adding a huge 80-ton hinged ladder with pipes, massive coral cutters, and two 36 inch Warman pumps driven by two 1,000hp engines.

"These pumps were the largest pumps in the southern hemisphere at the time, and when they were really pumping, they produced a tremendous volume. In fact we could load something like 1,000 tons of solids an hour.

"The *Coral* was open at the bow. There were no bulkheads, nothing between the open sea and the engine room for example, but being in calm water it didn't matter all that much," Bill said.

After QCL ceased operation, *Coral* was sold to a company in India but they ran into trouble in the open sea by towing the ship bow first.

"She actually sunk off Smoky Cape, near Coffs Harbour in about 300 feet of water. So she's lost. Very sad. They should have towed it stern first", Bill said.

Every year the three ships, *Coral*, *Darra* and *Cementco* were completely overhauled at the Cairncross drydock in five weeks.



Dredged coral being loaded onto the *Darra*.



*Cementco* in her heyday, mid-1970s.

“It was really frantic to get the three ships done in that time. At any time I would get calls on my radio. It was really a seven day operation,” Bill said.

“And the money was always tight. The overhaul cost more than one million dollars. At that time, in the early 1970s, that was a lot of money.”

At least eighty-five people were employed in QCL’s marine operation. All trades and unions were represented: skippers, engineers, crew, cooks, stewards, winch drivers, boiler makers and ironworkers. And each profession was represented by its respective union.

Originally named *Crusader*, the coral carrier *Cementco* was a flat-bottomed wartime vessel also designed to carry tanks. Local companies Evans Deakin and Evans Anderson and Phelan were jointly employed to refurbish the ship. Hopper doors were added to the tank top, the shell plating was cut open, and the existing double bottom structure was completely renewed to enable the coral to drop into the river at the factory. Fully loaded, *Cementco* could carry 2,000 tons of coral. Later, the stern was extended to allow every crew member a single berth.

When Holderbank took over QCL in the mid-1980s, they also bought an ANL ship to carry the clinker from Gladstone, the new factory location. *Cementco* was no longer needed. For some months she lay alongside Mary Street wharf and was offered for sale. Eventually the decision was made to sink her. The name was changed back to *Crusader II* to avoid confusion with the new *Cementco*. Bill obtained permission to sink her at

Flinders Reef instead of the proposed site at Tangalooma among the other wrecks.

“It’s such a pitiful sight to see these once proud ships now rusting away. I was quite determined she was going to have a decent burial,” Bill said.

“We took her out to Flinders Reef and sank her, without knowing too much about sinking ships. When she was going down, she actually rolled over and went down upside down. It was a tremendous sight to see and hear the air rushing out the hull as the water came in. Nothing you could do to stop it, it was going down regardless.”

The *Cementco* (aka *Crusader II*) is now a favoured diving spot.

“Being upside down, all the open spaces are accessible through the hatches and the fish in their hundreds have taken over the whole place,” Bill said.

The *Darra*, the only ship still operating, was sold and now carries cargo on the Brisbane River.

Bill has a wealth of memories. He remembers the dance hall on Bishop Island, the artificial island created when the channel was dredged to give access to the port of Brisbane. He remembers *Cementco* being trapped in the 1974 floods, and having to fasten wires from the boat to the pylons of Story Bridge to save her from being washed downriver. He remembers when *Coral* ran aground on Mud Island and everybody, even the cooks, turned out to help free her. He remembers a different Brisbane, a seaport before the upmarket coffee shops, and a time when the Mary Street AUSN berth was full of tug boats.



The annual overhaul at Cairncross drydock.

He tells about the time the landmark cement factory at Darra was demolished.

“I went up to see the chimneys coming down. They blew a hole in the bottom and the chimneys came down...very sad. It’s an era that will never be repeated. QCL was a way of life.”

These days Bill has time to pursue his passion, sailing.

“I acquired *Typhoon*, a yacht, built to the international 30 square metre rules and I’ve had that boat now for 27 years. It’s been thoroughly enjoyable and interesting.”

As you leave his house, Bill points out that the door to the garage is a door he salvaged from the *Cementco*. And fixed to the door there is a small plaque from his cabin on the *Coral* which reads ‘Superintendent’.



*Cementco* being towed out to Flinders Reef to be sunk.



*Cementco* listed before she turned turtle and sank.

### Statistics highlight need for safe boating

The National Marine Safety Committee (NMSC) is asking boaters to 'put safety first', as preliminary national data has revealed that 47 people died in Australian waters in 2007.

The National Incident Database showed that in 2007, 64% of fatalities occurred in clear weather.

In the past three years, 134 people have perished in marine incidents. The most common types of fatal incidents during 2005 – 2007 were a person falling overboard, vessel capsize, and collision of vessels/swamping. Coroner's records show that the vast majority of fatalities occur from drowning or hypothermia.

These statistics reinforce the NMSC's 'Life jackets – Skippers Take the Lead' summer boating campaign, featuring cricketer Matthew Hayden who motivates skippers to wear personal flotation devices (PFDS) and asks them to ensure their passengers do the same.

NMSC is asking skippers of recreational boats to remember to:

- Inform people ashore of the time they expect to arrive at their destination and return home
- Check the sea conditions and weather information and adjust their plans accordingly
- Check the functioning of the boat before going out on the water
- Ensure the boat is not overloaded
- Check that PFDs of a suitable type and size are available for each person on board
- Encourage people on board wear PFDs
- Identify special needs of people on board, such as those unable to swim
- Ensure that safety equipment is appropriate for the conditions
- Inform all on board about the course of action in case of an emergency

For further details go to [www.nmsc.gov.au](http://www.nmsc.gov.au)

## General Safety Obligations

The *Transport Operations (Marine Safety) Act 1994* (sections 41–44) describes three aspects to the obligations of ship owners and masters:

1. The vessel must be seaworthy
2. You must operate the vessel safely, within your vessel's registration limits
3. You must carry at least your vessel's regulation safety equipment.

These three key elements are integral to safe boating and are known as general safety obligations.

Failure to meet any of these obligations can result in significant penalties. If someone is injured or killed as a result of a failure to discharge any one of these obligations, you could land in jail.

Because the obligations vary depending on the vessel and where and how it is being operated, they are not prescriptive. This means that it is up to owners, masters, pilots and crew members to be responsible for ensuring their safety based on particular operating circumstances,

It is no different to operating your car. If you are operating on the beach then you use a four wheel drive, you have a driver who is

experienced in these conditions, you reduce your tyre pressure, you carry a tow rope and other gear in case you get bogged. It is the same for your vessel. Where, when and how you are operating your vessel should determine what equipment you carry, what type of vessel you use and the level of skill and experience required by the crew.

The level of planning and checking required generally increases with the number of people on board, the size, length and complexity of the ship and the distance offshore involved in the voyage.

It is your responsibility to ensure you and your ship are appropriately prepared to meet the ordinary perils that you might encounter. For example, if you intend to cross a coastal bar, make sure you are familiar with the safety requirements first (see page 8 for some guidelines). If you cross the bar without first checking whether it is safe to do so, you could be operating your vessel unsafely, and be committing an offence under the Act.

To learn more about your general safety obligations, go to the Maritime Safety Queensland website and follow the legislation links to [www.legislation.qld.gov.au/LEGISLTN/CURRENT/T/TranstOpMSA94.pdf](http://www.legislation.qld.gov.au/LEGISLTN/CURRENT/T/TranstOpMSA94.pdf)

## Play it safe and upgrade to 406

Maritime Safety Queensland is reminding boat owners to upgrade to a 406MHz emergency position-indicating radio beacon (EPIRB) before the 121.5MHz satellite signal becomes obsolete.

Expired EPIRBs should be replaced with 406MHz models well before 1 February 2009. There is concern that some boat owners will delay spending the money on a new 406MHz EPIRB until the last minute causing demand to outstrip supply in the last weeks leading up to the switch off date.

Boat owners who can't secure a new 406MHz beacon may be tempted to head to sea without a working beacon putting themselves and crew at risk.

Compulsory registration of the 406MHz

beacon with the Australian Maritime Safety Authority provides search and rescue coordinators with information about your boat and contact details.

Old 121.5 EPIRBs need to be disposed of correctly to avoid causing false alarms. National retailer Battery World will accept expired EPIRBs and provide a disposal service free of charge.

Information about responsible disposal of unwanted beacons can be found on the Australian Maritime Safety Authority (AMSA) website at <http://beacons.amsa.gov.au/>

For a list of compulsory and recommended safety equipment visit Maritime Safety Queensland's website [www.msq.qld.gov.au](http://www.msq.qld.gov.au)

# Identifying approved life jackets

To be compliant with the Australian Standard, life jackets, also known as personal flotation devices (PFDs):

- Must display the standard the jacket meets (see list at right)
- Must show a legible expiry date.

Inflatable PFDs are exempt but must be replaced before the expiry date. Inflatable PFDs that do not display an expiry date are acceptable provided that the owner or master of the ship can produce documentary evidence that the manufacturer's servicing program has been followed.

People whose larger size means they cannot wear a PFD must carry with them on board a type 1, type 2 or type 3 PFD manufactured by a JAS-ANZ accredited compliance certification body. The PFD must be certified suitable for the person's body mass and be made to the same specifications required by the Australian Standard. The person must be able to show a copy of the certificate declaring the PFD's compliance to a shipping inspector if requested.

Inflatable life jackets and inflatable PFDs relying solely on oral inflation, that is an inflatable jacket with no gas cylinder or a discharged gas cylinder, are not compliant.

Children under 12 must be wearing an appropriately fitted life jacket in an open boat under 4.8 metres when boat is underway.

All passengers must be wearing an appropriately fitted life jacket when crossing designated coastal bars in an open boat under 4.8 metres.

Check the condition of your PFD to ensure:

- Parts which are visible when the wearer is submerged (from the armholes up) have high colour visibility
- It is in good working order, and elements such as stitching and colour have not deteriorated with age
- Webbing tapes and cords are at least 2.5cm wide when wet and designed to resist roping and rolling when in use
- Stitching on the jacket is lock stitch (and not starting to unravel)
- Fittings are free from burrs and sharp edges. Press studs are not a compliant method for fastening a buoyancy aid.

## Acceptable Standards in Queensland

All jackets must display one of the following accepted Standards.

<b>PFD Type 1</b>
<ul style="list-style-type: none"> <li>• AS 1512—1996—PFD—Type 1</li> <li>• AMSA Marine Orders Part 25 – Chapter III of SOLAS, including the LSA Code</li> <li>• ISO 12402-1 – Life jacket for seagoing ships</li> <li>• USL code, Section 10, Appendix R</li> <li>• EN399—1993 Life jackets—275N</li> <li>• EN396—1993 Life jackets—150N</li> <li>• NZ Standards NZ5823:2005 Type 401.</li> </ul>
<b>PFD Type 2</b>
AS 1499—1996—PFD Type 2
<b>PFD Type 3</b>
AS 2260—1996—PFD Type 3
<b>Coastal Life jackets</b>
<ul style="list-style-type: none"> <li>• USL code, Section 10, Appendix R</li> <li>• AMSA Marine Orders Part 25 – Chapter III of SOLAS, including the LSA Code</li> <li>• ISO 12402-1 – Life jacket for seagoing ships</li> <li>• EN 399 275 N – Life jacket</li> <li>• EN 396 150 N – Life jacket</li> <li>• The NSCV 7A Safety Equipment, Annex G Requirements for coastal life jackets</li> </ul>



Type 1



Type 2



Type 3



**It's not a life saver if you're not wearing it.**

You can ensure your PFD is compliant with the standards by choosing a jacket bearing one of these three symbols.

## Wunma inquiry recommendations

In March 2007 a Board of Inquiry was announced into the marine incident that occurred in the Gulf of Carpentaria involving the vessel *Wunma*.

At the conclusion of its inquiry, the Board presented the Honourable John Mickel, MP, Minister for Transport, Trade and Industrial Relations, with a comprehensive report into the circumstances surrounding the incident including the Board's findings.

The Board made recommendations to the owner of the ship, the operator of the ship and Maritime Safety Queensland to ensure the safe operation of the ship *Wunma* and that similar marine incidents do not occur.

Maritime Safety Queensland has since established a project to examine and monitor the implementation of the recommendations of the *Wunma* board of inquiry and make regular reports on their progress.

A summary of recommendations and implementation progress is now available.

For further information please email Project Manager, John Kavanagh at [john.r.kavanagh@msq.qld.gov.au](mailto:john.r.kavanagh@msq.qld.gov.au)

## National standard legislation for commercial vessels

The National Marine Safety Committee has announced the upcoming implementation of parts of the National Standard for Commercial Vessels (NSCV) into legislation.

The NSCV is a technical standard for the design, construction and operation of domestic commercial vessels. From October 2008, completed NSCV standards for design and construction will formally replace existing Uniform Shipping Laws Code.

The NSCV is a major move towards a common national safety standard for the regulation of commercial vessels. The standards applying to new vessels can be found on the NMSC website: [www.nmsc.gov.au](http://www.nmsc.gov.au)

# Bar crossing safety guidelines

Every year, boats are damaged or destroyed, and people have been killed or injured attempting to cross a bar.

First ensure your boat is suitable for offshore boating or bar crossings. Make sure your boat has watertight integrity, correct trim, and that the engines are drawing fuel from a full tank. Engine failure or any malfunction in the middle of a crossing can be disastrous.

Before you head offshore:

- Check steering
- Check bilge pumps
- Secure hatches
- Check that drains are clear
- Check decks, securing all lines and moveable items
- Check and test engines, steering and controls
- Check the battery
- Check your marine radio
- Check that all required safety equipment is on board and ready for an emergency (see the Guide to Recreational Boating or the Maritime Safety Queensland website for full safety equipment requirements)
- Use your marine radio to log on and off with a volunteer marine rescue group
- Check the state of the tide (best one hour before high; worst on mid-ebb)
- Observe water patterns and sets to establish when calmer periods occur
- Look for a position marker or lead so the entrance can be located on the return trip.

If crossing a designated bar in an open boat less than 4.8 metres, everybody on board must be wearing a life jacket. Fines apply for non-compliance. It is recommended that PFDs be worn in open boats of any size when crossing a bar.

If you are crossing a bar for the first time, obtain information from local marine rescue authorities (Volunteer Marine Rescue or Coastguard), marina operators or the local Maritime Safety Queensland office. Ask about landmarks, the best channel and potential hazards. Consider crossing the bar with an experienced local before you attempt your own crossing.

Check the expected weather conditions for your departure and time of return. Do not attempt a bar crossing in heavy wind. Tell someone of your trip plan – where you are going, how many people will be on board and when you expect to return.

Observe the bar's wave patterns, for example, the number of waves in a typical set. Give yourself sufficient time to assess where waves break the least.

Wearing polarised sunglasses can help you judge the deepest water and the best route, as can watching other boats that make successful crossings.

Many bases for volunteer rescue authorities (Volunteer Marine Rescue, Coastguard) are located near coastal bars, monitor marine radio frequencies and provide information on 27MHz and VHF channels. These base stations provide valuable information about weather and bar conditions.

## Going out

The skill of crossing a bar is in knowing the best water by judging the wave pattern, crossing at the calmest point and manoeuvring the boat around breaking waves. Look for the deepest water or channel.

Watch the sets of swells before choosing the best time to go. Once committed, keep going – attempting to turn around in front of an incoming wave can be dangerous. Do not hit the waves at high speed; take them as close to head on as possible. Some bars have waves breaking across the whole entrance and finding a way through may be difficult. Be prepared to take a wave head on and take water over the bow if you find yourself in a position where there is no alternative.

The speed of the boat should match the energy of each incoming wave by maintaining a speed that is sufficient to lift the bow over the wave. This will reduce the likelihood of the wave breaking over the bow and into the boat. As a general guide:

- Look for lulls and select a line of least wave activity

- Where possible, cross on an incoming tide when the wave is running with the tide
- Keep your boat generally bow-on as the waves approach and do not let the boat turn sideways to a breaking wave
- Head up into the waves and bear away quickly on their backs
- Accelerate where possible, but avoid getting airborne
- Head for saddles which occur between peaking waves about to break
- Navigate quickly clear of the bar
- Take note of leads and marks to locate the entrance for your return trip.

## Coming in

When coming in, high speed boats (at least capable of 18 knots) should travel at the same speed as the waves. The aim is to travel in on the back of a wave, staying ahead of the waves breaking behind the boat. Again, watch for patterns and deeper areas.

- When approaching from the sea, increase power to maintain speed within the set of the waves.
- Position the boat on the back of the wave – do not surf down the face of the wave.
- Adjust the boat's speed to match the speed of the waves but do not attempt to overtake the waves.

Displacement boats may have to come in very slowly to avoid surfing and broaching-to (getting caught side-on to a wave).

In extreme conditions, you may have to make the very difficult but vital decision not to come in at all. It may well be safer to stand off in deeper water until conditions improve or to seek alternative shelter.

## General advice

Never underestimate a coastal bar. Even small waves can capsize or swamp and sink a boat. If you are unsure or inexperienced, why go out and risk lives? Wait until conditions provide a safe crossing that you can handle.

Remember, you're the skipper, you're responsible.

# Potential disaster at Maroochy Bar



## Lessons

- Try to go through an unbroken 'saddle' section of waves.
- Don't hit a wave at high speed. Once airborne you have no control.

Speedboat attempting to cross Maroochy Bar in January. Luckily no-one was hurt in this incident.

# Flat Top Island Lighthouse

After a long and distinguished career spanning 127 years the Flat Top Island Lighthouse has finally been extinguished and decommissioned from service.

Following extensive public, industry and internal consultation, the lighthouse was removed from service as a working light-station and the structure and associated land reserve transferred to the Environmental Protection Agency/Parks & Wildlife Service for historical, cultural and heritage purposes and inclusion in the National Park.

Flat Top Island is located about 6.5 km east of Mackay and is within the region's port limits.

The lighthouse is of historical significance and was listed on the Register of the National Estate in May 1991.

The lighthouse is a timber-framed metal clad structure that stands approximately ten metres high. When it was a working light-station, it displayed a red and white navigational sectored light with a nominal range of seven to ten nautical miles respectively.

Prior to commencing construction of the lighthouse in 1874 a navigational warning light was established on the Island in the mid 1860's. This light source was a set of oil burners that was manually hauled up a mast by the local light keeper. The first light-keeper was a gentleman by the name of Mr Parrott who mysteriously disappeared from the Island and was replaced by Mr W E Robertson in 1868.

The new lighthouse was a manned signal station that occupied 13 acres of land and was attended by a permanent light-keeper who was responsible for the continual operation of the light. The light source, installed in 1879, was an open flamed fourth order navigational lantern. The light marked the position of the port and the approaches to the Pioneer River and provided sectored clearing marks to help ships avoid the shoal ground at Shoalwater Point and the reef off Hay Point.



The Island's light-keeper became an integral part of the rescue operations in the aftermath of the 1918 cyclone. With no means of communication, and with many lives lost due to the mass destruction of the town, the locals used a modified car headlight to transmit Morse-code messages to the signal station which in turn signaled a vessel off Mackay to radio Brisbane to organise a relief effort for the town.

The original navigational light and associated equipment was relocated and replaced with an acetylene gas signal lantern when the operation of the lighthouse was converted from manned to automatic by the Commonwealth Government in 1924.

Prior to the relocation of the port operations from the Pioneer River to the new artificial harbour at Mackay in 1933, the lighthouse marked the Flat Top anchorage where cargo was transferred from the larger sailing ships to barges for transport to the Pioneer River wharves.

The control of the lighthouse and responsibility for the operation and maintenance of the facility was transferred from the Commonwealth to the State Government in 1986. The then Department of Harbours and Marine converted the lighthouse from a gas powered installation to the new generation solar powered/battery operated marine signal lantern assembly that remained until it was decommissioned.

## Challenging Teamwork

On 22 January an oil spill response team assembled from Maritime Safety Queensland's Mackay, Gladstone and Brisbane regions successfully removed over 7,000 litres of oil, paint and other pollutants from a derelict ship moored near Airlie Beach, Central Queensland. Pollutants onboard the *Ossa*, a 1960s built long-line fishing boat, posed a serious risk to the local marine environment.

The operation was planned and coordinated by Senior Maritime Operations Officer Ash Titmarsh from Mackay. Other MSQ personnel involved included Andy Russell, and Graeme McNeilly from Mackay, Tim Grinter from Urangan and Mark Alen and Verity Wroe from Brisbane.

The operation, which presented the team with a number of interesting challenges, was undertaken just weeks before some of the worst weather the region has seen in years set in (see page 11). This was an extremely good result for Maritime Safety Queensland and helped to protect the Whitsunday's region from the damaging effects of pollution.



## Baler completes refit

Maritime Safety Queensland's Marco oil recovery vessel *Baler* completed its half-life refit at Mooloolaba on Queensland's Sunshine Coast in December.

Based in Townsville the *Baler* has helped clean up oil spills in Queensland and Great Barrier Reef waters since 1997.

The refit will ensure the vessel is able to respond to oil spills until at least 2017.



# Airlie Beach storm devastation

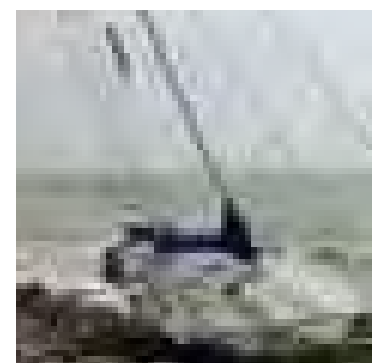
More than fifty boats sank or were partially destroyed in the devastating storm of February 12 which affected Mackay, Bowen, Giru and Yeppoon. Airlie Beach suffered the worst storm damage.

The storm, with winds up to 90km/h raged for about twenty-four hours, badly damaging yachts and other vessels including a \$4.5 million 42ft Bertram just four days old.

The charter yacht *Romance* was forced into rocks at Hook Island by galeforce winds. Over thirty passengers on board were lifted to safety by helicopter.

The 40,000 tonne Indian coal freighter, *Devprayag*, had to be towed to safety after it broke its moorings at the Dalrymple Bay Coal Terminal, narrowly avoiding major collision damage at Hay Point (see article page 2).

In another dramatic incident, two police officers helped to rescue a family of six from the yacht they were living on when it took on water, broke up and sank in heavy seas.



Brian Goldsmith with his two children after their rescue.

## News in brief

Photo courtesy Daily Mercury



### EPIRB saves four

Thanks to their 406 EPIRB, two men and two children were rescued from Flat Top Island near Mackay on 21 January, after their boat was swamped.

Around 7.20pm the Mackay Police Communications Centre received notification from AUSSAR of a marine beacon alert approximately 10 nautical miles south of the Mackay Marina.

Police coordinated the search and dispatched a Volunteer Marine Rescue (VMR) vessel and the Central Queensland Rescue Helicopter.

The helicopter located the four around 8.20pm, waving their life jackets from the rocks at the northern end of Flat Top Island.

The VMR vessel rescued them from the island about an hour later.

The men aged 37 and 31, and the children, an 11-year-old boy and a 9-year-old girl, all from Mackay, told officers that their 14ft tinnie was swamped by a wave around 5.30pm forcing them to swim approximately 500 metres to the island.

They received only minor injuries including lacerations and cuts.



### International recognition for MSQ

The Abu Dhabi Department of Transport has identified Maritime Safety Queensland (MSQ) as a leader in maritime administration in Australia and a preferred overseas government agency to partner with in an institutional cooperation agreement on maritime administration.

Queensland Transport, Rail, Ports and Freight Division, MSQ and the Abu Dhabi Department of Transport, with assistance from officers from Trade Queensland, have developed a technical arrangement for the exchange of maritime administration information, knowledge and expertise with respect to maritime regulatory oversight and port management.

This agreement is a significant testament to Queensland's international reputation as a leading maritime administrator and regulatory authority.



### Brisbane ChemEx

A leaking container of acid was the scenario for a chemical spill response exercise at the port of Brisbane in December. Response experts from the Queensland Fire and Rescue Service and advisors from Maritime Safety Queensland and the Port of Brisbane Corporation participated in the exercise designed to build teamwork and rehearse procedures for responding to spills of noxious and hazardous substances within the port.

### Moonlight Flight

When the bulk coal carrier *Grain Harvester* ran aground at the entrance to Gladstone harbour on 18 December most people were either at home or on their way home from work. As the extent of the incident became apparent, Maritime Safety Queensland's State Marine Pollution Controller, Captain John Watkinson, deployed a team from Brisbane to assist with anti-pollution operations in Gladstone. At the same time members of the National Response Team from around the country were activated or placed on standby. As luck would have it the *Grain Harvester* was successfully refloated using local tugs in the early hours of the following morning before most people even knew that the incident had occurred. Nevertheless the operation was a good test of both Queensland and National response arrangements.

### Upcoming events – 2008

#### APRIL

- 17 Marine Industry Forum, Mackay
- 24-27 Tinnie and Tackle Show, RNA Showgrounds, Brisbane

#### MAY

- 22-25 Sanctuary Cove International Boat Show, Sanctuary Cove
- 26-29 National Marine Safety Conference, Adelaide

#### JUNE

- 19 Marine Industry Forum, Karumba

### Exercises

Maritime Safety Queensland will be running first-strike response exercises in:

- Gladstone 21 May
- Townsville 4 June

## Contacting Maritime Safety Queensland

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Hervey Bay \_\_\_\_\_ 07 4194 9600  
Bundaberg \_\_\_\_\_ 07 4131 8500  
Gladstone \_\_\_\_\_ 07 4973 1200  
Port Alma \_\_\_\_\_ 07 4934 6929

Mackay \_\_\_\_\_ 07 4944 3700  
Whitsundays \_\_\_\_\_ 07 4946 2200  
Townsville \_\_\_\_\_ 07 4726 3400  
Cairns \_\_\_\_\_ 07 4052 7400  
Weipa \_\_\_\_\_ 07 4069 7165  
Karumba \_\_\_\_\_ 07 4745 9281  
Thursday Island \_\_\_\_\_ 07 4069 1351