

LESSONS LEARNT
BY ACCIDENT

LOOKOUT!

JUNE 2008 ISSUE NINE

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LOOKOUT!

▶ Welcome to the latest issue of Maritime New Zealand's quarterly *Lookout!* publication featuring the lessons to be learnt from maritime accidents or incidents.

MNZ continues to work towards improving safety across the commercial and recreational sectors with the implementation of the Safe Ship Management development project; the recent launch of the *2007 Review of the New Zealand Pleasure Boat Safety Strategy* and its recommendations for recreational boating safety over the next 5 years; and our continued commitment to the FishSAFE programme.

No matter how experienced you are, maritime safety requires constant vigilance. For example, you will see that near misses and/or actual collisions continue to feature all too regularly in the *Lookout!* contents.

Other stories include a stevedore who made a bad choice when climbing out of the hold (page 4), an experienced yachtie whose complacency resulted in a grounding (page 13) and the skipper who underestimated conditions and collided with a breakwater (page 10).

Recent analysis of statistics by MNZ show that once an individual is in the water, lack of safety equipment and emergency planning is a major contributor to the individual's death. These two issues are common to all fatalities.

However, in this issue of *Lookout!* the news is not all bad. While the "unexpected" will continue to lead to accidents, the story about **Groupama III** rescue on page 11 shows how being well equipped, especially with communications equipment, resulted in a "textbook" rescue and on page 16, a ferry fire was rapidly extinguished because crew were well trained in emergencies.

Do pass on this issue to your colleagues and crew or contact any one of our offices if you'd like more copies. If you're interested in more detailed accident reports or safety information, check out our website: www.maritimenz.govt.nz

Catherine Taylor
Director of Maritime New Zealand





What lies beneath?

1



An experienced stevedore fell about 5 m into a void space within a ship's hold, fracturing his pelvis, an arm and a leg.

The stevedore was working at night in light drizzle on a multi-purpose container vessel. He was working with another colleague to stow timber in the hatch square of number three lower hold, on top of previously loaded timber¹.

The pair used a ladder on the port side of the hatch to reach a tween deck. The ladder continued to the bottom of the after bulkhead on the port side of the lower hold. The void space between this bulkhead, and the timber in the hatch square was about 5 m².

2



On the starboard side of the tween deck there was another ladder, which also led down to the lower hold³. However, unlike the ladder on the port side, this ladder was in the hatch square and the stevedores were able to easily step across from the ladder onto the top of the timber⁴. This area of the hold was well lit.

The stevedores continued loading timber and after about 3 hours, the foreman called "smoko". One stevedore stayed to remove cargo hooks from the last load.

LOOKOUT!POINTS

1. The stevedore entered a poorly lit space, which he could not determine was safe. His employer had advised stevedores to use the correct access to holds and cargo spaces and never to move into areas where lighting was poor.

2. The stevedore was wearing full safety equipment, including a hard hat, although this was not properly secured. Fortunately, the stevedore had tied his hoodie over the hard hat, and this kept it in place.



The second stevedore decided to climb out of the hold, via the ladder, on the port side forgetting there was a void space of about 5 m between the after end of the stow of timber and the ladder. There was no lighting in this area of the hold and the ladder would have been difficult to see.

His colleague glanced up just in time to see the stevedore suddenly fall down into the void space.

The stevedore was lifted out of the void space, still conscious, with the assistance of the fire service, and taken to hospital by ambulance.

He had no recollection of the accident and could not explain why he had opted to take a different route out of the hatch.

“ HIS COLLEAGUE
GLANCED UP JUST
IN TIME TO SEE THE
STEVEDORE SUDDENLY
FALL DOWN INTO THE
VOID SPACE. ”



Finger lost to stingray

A fisherman was bitten by a 40 kg electric stingray while sorting a fishing trawler's catch out of a slurry bin.

The fisherman had reached into the bin to pull the fish out by the usual method of gripping on to its teeth, to avoid getting an electric shock or having the fish whip its tail and barb back over his arm.

However, the fish was a very large specimen, and as the fisherman pulled on the fish, its teeth penetrated the double layer of gloves he was wearing and punctured his left index finger.

The wound grew increasingly painful over the following few hours until the skipper decided the fisherman needed emergency medical care. The trawler headed to a shore-based doctor, and after initial treatment it was decided to air-lift the fisherman to hospital.

During follow-up treatment, the finger was amputated.



THE FISH WAS UNUSUALLY LARGE.

“ THE WOUND GREW INCREASINGLY PAINFUL ”

LOOKOUT!POINTS

1. Bites from this species of fish have caused several cases of serious infection and amputation in the past. Take particular care when handling fish such as stingray.

2. This fish was unusually large and the vessel's gaffs were probably too light to handle a fish of this size. The vessel has since made larger gaffs available.

3. The fisherman did not expect that the fish's teeth would puncture both

his protective plastic gloves and the cotton liner gloves he was wearing. It was recommended that the quality and thickness of protective gloves provided be critically examined with a view to upgrading them to a level that would provide suitable protection.

Two empty wheelhouses

There was no one in either wheelhouse when two fishing vessels collided at night.

Circumstances meant the watchkeepers of both vessels had been called away from their primary role of keeping a lookout, even though both were qualified deckhands, fully aware of their responsibilities.

The deckhand on the first vessel had been keeping watch for about an hour, with the radar operating on the 3 mile range, when the bilge alarm sounded. He couldn't start the bilge pump from the wheelhouse, and rather than wake another crewmember, he decided to head to the engine room himself.

Before he left, he switched off the bridge watchkeeping alarm in case it woke the skipper while he was away. He checked the radar and visually swept the horizon for other vessels before leaving. After turning on the bilge pump, the deckhand noticed the vessel's black water tank was full and returned to the engine room to pump it out.

The deckhand on the second vessel had been on watch for just over an hour. The radar was set to the 24-mile range. The watchkeeping alarm was switched off as the deckhand was alternating between the wheelhouse and the fish deck, and he did not want the alarm to disturb the skipper's rest period.



THE WHEELHOUSE SHOULD NOT BE LEFT UNATTENDED. PHOTO: PROFESSIONAL SKIPPER MAGAZINE

The crew working on the deck finished sorting the catch and were ready to tip the catch into the fish hold. They asked the deckhand to raise the truck deck, which he did using winch controls at the after end of the wheelhouse. He then scanned the radar and visually swept the horizon before heading back to the deck to instruct the crew.

After about 5 minutes, the deckhand glanced up to port to see the other vessel just as the two collided. Both vessels' port side stabiliser arms were damaged, but the hulls did not make contact.

The impact sent both skippers running to the wheelhouses, where they made radio contact with each other and confirmed each was safe. Both vessels returned to port for repairs.



View the full report online at:
www.maritimenz.govt.nz

LOOKOUT!POINTS

1. Poor watchkeeping standards has again caused a collision at sea. The deckhand on the first vessel had been away from the wheelhouse for about 20 minutes, while the second deckhand had been away for about 5 minutes. Both failed to observe the collision prevention rules, and the basic principles of a navigational watch set out in the Advisory Circulars to Maritime Rules Part 31. In particular, the wheelhouse should not be left unattended, and a watchkeeper should not accept other tasks that might conflict with the responsibility of keeping a lookout.

2. The radar was ineffectively used on both vessels. The first vessel had the radar set to the 3 mile range. When the deckhand left the wheelhouse, the other vessel would have been between 3 and 3.75 miles distant. At no time did the deckhand increase the range to scan further ahead. The second vessel's radar was set to the 24 mile range. The vessels were about 0.75 miles apart when the deckhand left the wheelhouse. The echo return from the other vessel would have been close to the centre of the screen, small and easy to miss. It may also have been masked by sea clutter.

At no time during his watch had the deckhand decreased the radar range to scan for other vessels.

3. A system of checking the bilge at changes of watch would have allowed it to be pumped out, while a continuous bridge watch was maintained.

4. Watchkeeping alarms are fitted to help prevent accidents such as this, and should never be switched off.

Capsize during bar crossing

An injured skipper who could not swim spent 40 minutes being supported in 2 m swells by his crew after a botched bar crossing. None of the three people on board the runabout, which capsized during the bar crossing, was wearing a lifejacket.

The three men were returning to port after retrieving craypots. It was low water, and conditions were rough with an onshore wind. As they started to cross the bar, the boat overturned, trapping the skipper and one of the crew underneath the hull. The third man managed to clamber on top.

As the two trapped men struggled clear of the upturned hull, the skipper became entangled in the anchor warp. It had broken free of its locker and had wrapped several turns around his torso and one leg before fully deploying. Because it was still tied off to the runabout, the skipper was being wrenched by the taught warp.

After a massive effort, the two crew managed to free the skipper, and working together they were able to support him in the surf until help arrived.

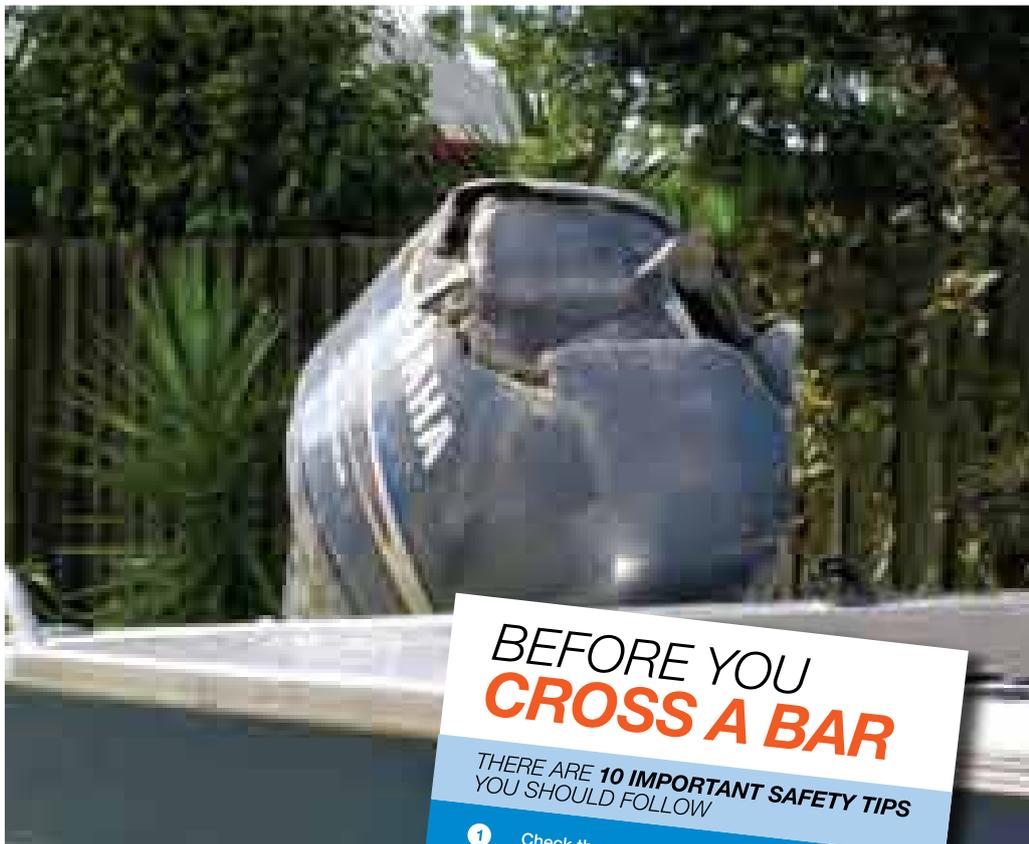
None of the three men had cellphones on them, so the alarm was raised only by the chance passing of another vessel that had seen what had happened.

The skipper was airlifted to hospital and the gear from the runabout, including its four personal floatation devices, was washed ashore.

DVD available

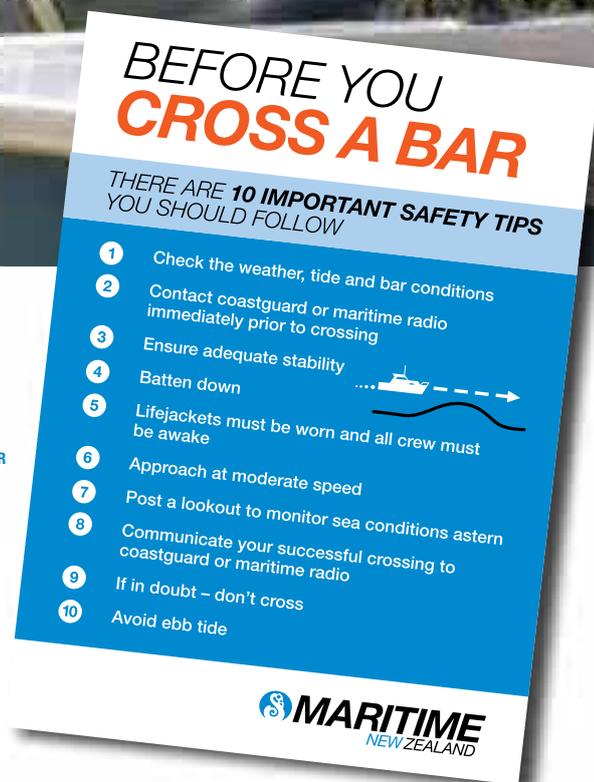
The New Zealand Seafood Industry Council have a safety training DVD available called "Crossing the Bar & It Happens ...".

Email: sito@seafood.co.nz



THE RUNABOUT CAPSIZED DURING THE BAR CROSSING.

THESE SAFETY TIPS ARE AVAILABLE AS A HANDY STICKER FROM MARITIME NEW ZEALAND. IF YOU'D LIKE A FREE STICKER, EMAIL: PUBLICATIONS@MARITIMENZ.GOV.TZ



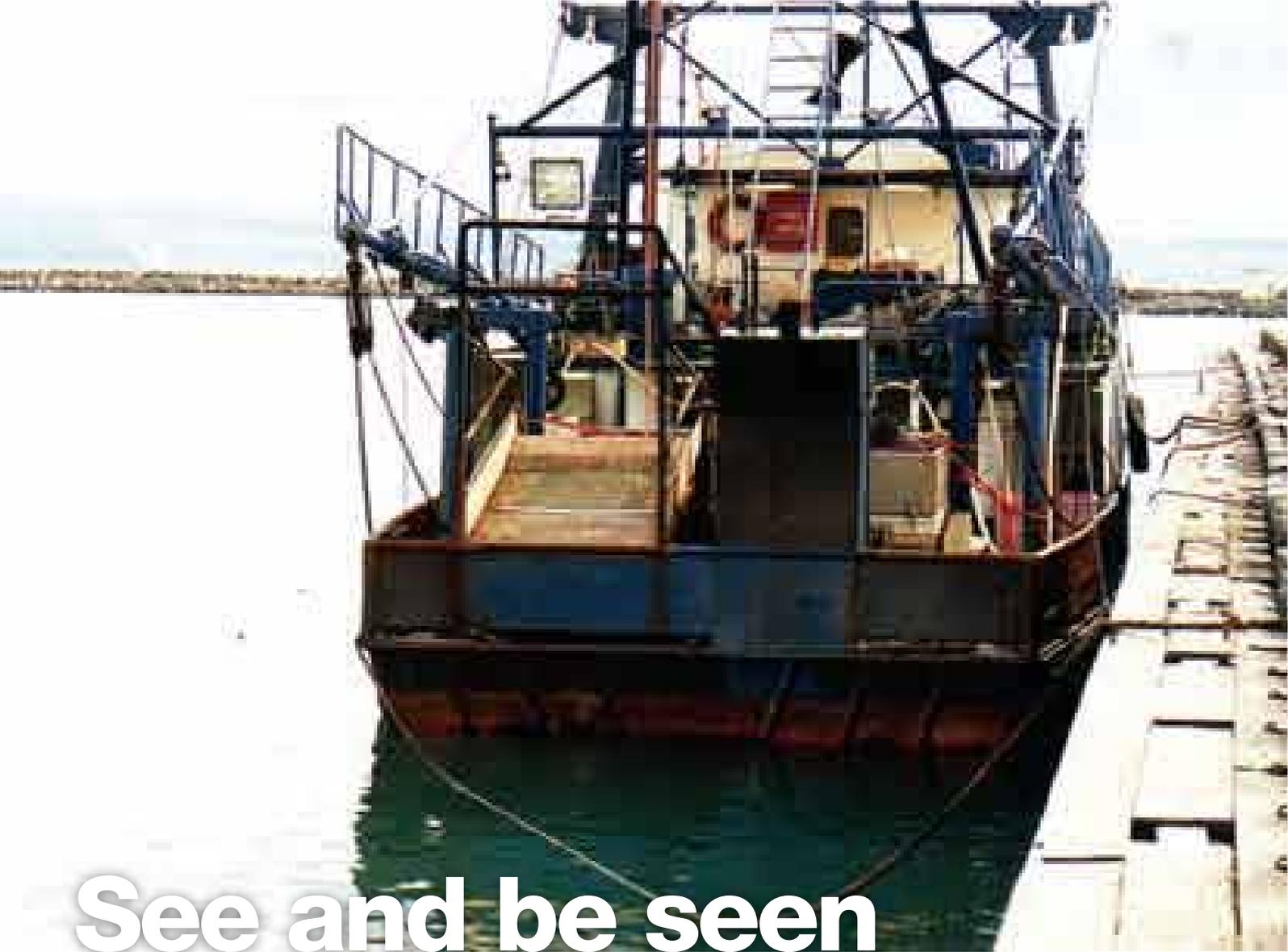
LOOKOUT!POINTS

1. Legal requirements in New Zealand for all persons on a boat crossing a bar are to wear a lifejacket, and at all other times of increased risk.

2. At sea, carry at least two reliable forms of communications that will work even when wet, eg handheld waterproof VHF

radio, flares, EPIRB or cellphone in a sealed plastic bag (on your person so they can be accessed quickly in the event of an emergency).

3. There are 10 important safety tips to follow before crossing a bar – see above.



See and be seen



▲ THE CONTAINER VESSEL – NOT AWARE OF THE SMALLER VESSEL.
▲▲ THE FISHING VESSEL – TOOK LATE AVOIDING ACTION.

A fishing vessel's skipper, trawling off the eastern coast of New Zealand, narrowly avoided a collision with a 200 m long container vessel.

The fishing vessel was trawling about 30 miles off the coast on a course of 257° (T) at a speed of about 2½ knots. It was dark with a light south west wind and visibility was reported to be moderate with fog. The vessel was displaying the correct navigational lights for a trawler making way through the water. The aft deck was lit to assist the crew when processing fish.

The radar, using relative motion display, was operating on the 12-mile range. The skipper first noted the echo of the approaching container vessel when it was about 8 miles distant, bearing broad on the port bow and heading in the direction of the fishing vessel.

The container vessel continued to close, without having taken any action to keep clear, until it was about

1. Both internationally and in New Zealand, near misses and collisions between fishing vessels and larger commercial vessels continue to increase.

2. It is well known that a poorly managed bridge, particularly where there is a lack of experienced and well trained crew, can lead to an accident. Here, the OOW and quartermaster were qualified and appropriately trained. Both were well rested and fatigue is not thought to

have contributed to their failure to see the fishing vessel. However, the quality of the management of the bridge, including the state of alertness and degree of complacency of the chief officer and quartermaster, may have been affected.

3. Use of VHF radio alone to attract the attention of another vessel is not recommended, particularly where its identity is not known because of darkness or the presence of other traffic.

The fishing vessel was equipped with a powerful searchlight and, Maritime Rules Part 22.36 *Signals to Attract Attention*, permits such a light to be directed towards an area of danger where, for example, it is felt that insufficient action is being taken to keep clear. Additionally whistle and horn signals consisting of at least five short and rapid blasts, supplemented by a similar light signal, could have been used as a warning.

“ WHEN THE TWO VESSELS WERE ABOUT 300 M APART, THE SKIPPER “THREW” THE WHEEL HARD TO PORT IN A LATE ATTEMPT TO KEEP CLEAR. ”

2 to 3 miles distant. By now, the skipper of the trawler had become concerned and tried unsuccessfully to make radio contact via VHF channel 16. As the container vessel continued to close, the skipper repeated the call several times but without success.

When the two vessels were about 300 m apart, the skipper “threw” the wheel hard to port in a late attempt to keep clear. The bow of the trawler responded quickly and the container vessel passed down the trawler’s starboard side at about 100 m distant.

After the near miss, the trawler’s skipper continued unsuccessfully to try to raise the container vessel via the VHF.

The container vessel was steering a course of 037° (T) at a speed of about 20 knots. The chief officer, who was the officer of the watch (OOW), was contacted sometime after the near miss but could not remember passing close to any other vessel.

He said two ARPA radars were operating on the 6 and 12 mile ranges. The guard alarm had not been activated and targets were only acquired manually after they were observed. A quartermaster, who was keeping a visual lookout, also made no reports of the near approach of any vessel.

LOOKOUT!POINTS

4. Fishermen should remember that although they can often see a larger vessel, they may not always be equally visible. Give way vessels cannot always be relied upon to take the appropriate avoidance action, and a stand on vessel must be ready to respond in sufficient time to keep well clear and not, as here, where the late avoiding action of the fishing vessel only narrowly avoided a serious collision.



IMPORTANT CHANGE for SSM VESSELS:
Currently required to carry a 121 MHz/243 MHz EPIRB?
Then you must upgrade to a 406 MHz EPIRB by
1 July 2008.

The satellite system that supports the old 121.5 MHz and 243 MHz analogue distress beacons is in the process of being replaced. Already it is significantly degraded and it will cease operation altogether from 1 February 2009.

If you have a 121.5/243 MHz distress beacon, which may also be called an EPIRB (Emergency Position Indicating Radio Beacon), PLB (Personal Locator Beacon) or ELT (Emergency Locator Transmitter), you need to switch to a 406 MHz distress beacon now.

Maritime New Zealand Rules – commercial vessels

For all commercial vessels, it will be compulsory to carry registered 406 MHz EPIRBs from **1 July 2008**.

If you’re unsure if this applies to you, contact your nearest Maritime New Zealand advisor or check out the relevant rules at: www.maritimenz.govt.nz/publications/rules/EPIRBAmendment.pdf.

If you do not know what kind of EPIRB you have already, take the time to have a look at it now. Somewhere on its body it will be marked with an operating frequency. If it doesn’t say 406 MHz, it will more than likely need to be replaced. If in doubt, take it to an EPIRB supplier for verification.

Remember – you must register your new beacon – it is a free service

The registration database includes phone numbers, next of kin contacts, information on the type of vessel and other vital information that enables the right response to the emergency to be provided. This information allows Rescue Coordination Centre New Zealand (RCCNZ) to make a call to the registered beacon owner to see if he/she is in genuine distress or just has a beacon transmitting by accident. If it has been accidentally activated, turn it off and phone 0508 4RCCNZ (472 269).

Once your beacon is registered, you will need to keep your details up to date or if the beacon changes ownership.

Registration is FREE!

To register your beacon:
go to the website: www.beacons.org.nz or
all the RCCNZ on **0800 406 111** or **0508 406 111**.

Underestimated conditions

A 19 m wooden fishing vessel broached in a following sea during a bar crossing at Greymouth Harbour. It collided with the southern breakwater at the entrance to the port.

At the time, there was a northerly wind at 20-25 knots, a 1.5 m northerly swell and a southerly set of 1-2 knots across the river entrance. The river was running at about 3 knots.

The port had activated a quick-flashing blue light on the southern breakwater to warn that the bar was considered too dangerous to cross. When the light is activated skippers must get advice on the conditions from a responsible, qualified person on the shore before deciding whether it is safe to cross.

The skipper received two phone calls from friends ashore who told him the conditions on the bar were “starting to slop up a bit”. As he approached the bar, the skipper assessed that he had crossed in far worse conditions in the past.

He approached to the north of the leading light line (see the diagram) to compensate for the set across the river entrance. However, as he approached the bar, he realised he had over-compensated and would run aground at the shoreward end of the northern breakwater if he did not change his heading.

The skipper made two alterations to his heading to try and align the vessel with the leading lights line, but the combination of the run from the river and the following swell caused the bow to suddenly slew heavily to starboard and the vessel to broach.

The skipper immediately put the main engine astern but was unable to stop the vessel colliding with the southern breakwater. The vessel sustained moderate damage to its bow.



THE FISHING VESSEL SUSTAINED DAMAGE TO THE BOW WHILE ENTERING THE HARBOUR.



THE CHART EXTRACT OF THE ENTRANCE TO GREYMOUTH INDICATES THE APPROXIMATE TRACK OF THE VESSEL.

LOOKOUT!POINTS

1. The skipper overcompensated for the prevailing set and did not adjust his course in time to line up with the leading lights line. The combined dynamic forces of the wind, swell, set and run of the river proved too much for the vessel to counter.

2. The actual conditions at the bar were worse than either the skipper or his friends ashore had estimated. In marginal conditions, or when the quick flashing blue light is activated, the strength and direction of the set and sea conditions must be fully ascertained before entry, with the assistance of a responsible, qualified person ashore.

3. The *Port of Greymouth Information Guide for Vessels Using the Port 2008* states that the qualified person ashore must have knowledge of the current entrance conditions before giving advice on whether or not it is safe to cross the bar. It is the responsibility of a vessel's master to ensure that such advice is obtained before attempting port entry and to be certain of the competency of the qualified person.

“Textbook” rescue of crew of 10

The speedy rescue of the crew of the French trimaran *Groupama III* off the Otago coast in February highlighted the value of carrying a range of essential survival equipment including a 406 MHz EPIRB and satellite communications.

The *Groupama III* had been taking part in the Jules Verne Round the World Yacht Race when it overturned about 80 nautical miles (145 km) east of Dunedin, sparking a large search and rescue effort involving search and rescue agencies in both France and New Zealand.

Rescue Coordination Centre New Zealand (RCCNZ) Group Manager Nigel Clifford said the fact the crew had been extremely well-equipped with a 406 MHz emergency position indicating radio beacon (EPIRB) and satellite communications had greatly assisted in the rescue response.

“The rescue of the 10 crew from the *Groupama III* was one of the largest operations ever conducted by RCCNZ, but in terms of time taken it was probably one of the quickest, with the first of the crew winched to safety just on 2 hours after RCCNZ received word that they were in trouble.

“Rescuers in both New Zealand and France were greatly assisted by the fact that the crew were very well prepared and were carrying a range of essential survival equipment, including a 406 MHz EPIRB and satellite communications so they could advise authorities of their problem straight away,” Nigel said.

RCCNZ swung into action after search and rescue agencies in France called to report they had picked up a signal from the vessel’s French-registered 406 MHz EPIRB. Thanks to the beacon’s registration being up-to-date, they were also able to make contact with the crew via satellite phone and confirm the extent of their emergency. The vessel was outside the range of VHF radio, although waterproof hand-held radios are required on all coastal and ocean racing yachts.

Three helicopters were involved in the rescue, winching the uninjured crew to safety from the ocean beside their overturned vessel. A fourth helicopter and fixed wing aircraft also assisted, with an Air Force Orion placed on standby.

Nigel said the rescue was an example of both international and local inter-agency co-operation, with RCCNZ’s equivalent in France quickly alerting them to the emergency so they could launch a response. This was followed by the excellent efforts of local pilots and others to successfully recover the crew.

The *Groupama III* was later successfully salvaged and the crew returned to France.



▲ THE CREW WAS VERY WELL PREPARED CARRYING A RANGE OF ESSENTIAL SURVIVAL EQUIPMENT.
▲▲ THE *GROUPAMA III* WAS TAKING PART IN THE JULES VERNE ROUND THE WORLD YACHT RACE WHEN IT OVERTURNED.
(PHOTOS: LION FOUNDATION RESCUE)

Beacon information

- For more information about emergency beacons, go to: www.beacons.org.nz
- Beacon owners should also ensure their beacon is registered with RCCNZ and that the details are up to date. This can be done **free of charge** by calling 0800 406 111 or 0508 406 111.

Radio information

- Marine radios need to have a callsign so that every call can be identified.
- Callsigns and radio operator qualifications are available from Coastguard Education. Phone 0800 40 80 90.

LOOKOUT!POINTS

1. Carrying at least two forms of reliable communications that will work even when wet, eg hand-held waterproof VHF radio, flares, EPIRB or cellphone in a sealed plastic bag is essential in the event of an emergency. In this case, a satellite phone was carried. This was invaluable because RCCNZ was able to discuss what assistance was needed, which is not possible if only an EPIRB is carried.

2. A 406 MHz EPIRB signal is able to be detected by satellite within minutes, even if it’s half a world away, and this gives rescuers an accurate position very quickly, which greatly speeds up any emergency response.

3. Up-to-date EPIRB ownership and registration details means that rescue agencies know straight away who is in trouble and are able to make contact with them.

4. From **1 February 2009**, only 406 MHz beacons will be detected by satellite (all 121.5 MHz distress beacons will be obsolete). Note: for commercial vessels, it will be compulsory to carry registered 406 MHz EPIRBs from 1 July 2008.



Collision while below

A 40-foot sloop was spun violently to port when it collided with a 7,307-tonne container vessel.

The sole yachtsman had gone below to make himself a snack. The yacht was in moderate seas inside harbour limits and handling the 30-knot conditions well on auto-pilot with only the genoa set.

Visibility was good, and the skipper checked the horizon before going below. He was confident there were no other vessels in the vicinity, apart from one ship that was heading away from him.

After about 25 minutes, the yacht was spotted by an approaching container vessel, whose crew sounded five short blasts, followed by several more. When the yacht maintained her course and speed, the container vessel altered course and stopped the engines, however, the collision could not be avoided.

The yacht collided at an acute angle and the bow section suffered extensive damage. Fortunately the yacht's rig did not carry away and the hull was not compromised. The uninjured skipper was able to bring the yacht back into port for repairs.

“ KEEPING A PROPER LOOKOUT AT ALL TIMES IS A FUNDAMENTAL MARITIME RULE AND LEGAL REQUIREMENT. ”



THE BOW SECTION OF THE YACHT SUFFERED EXTENSIVE DAMAGE.



THE CONTAINER VESSEL.

LOOKOUT!POINTS

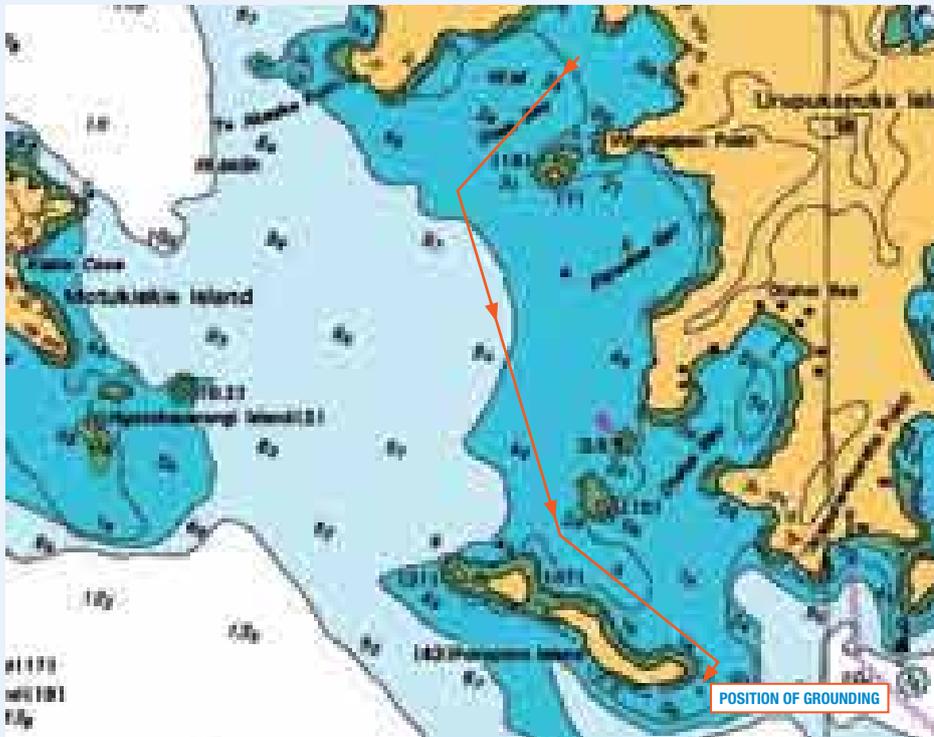
1. The yacht's skipper did not hear the ship's signals. Keeping a proper lookout at all times is a fundamental maritime rule, and a legal requirement.

2. Using auto-pilot within harbour limits should be done with extreme caution, given that a reasonable amount of traffic can be expected.

3. The visible range from the helm of a small, low-level vessel is much less than that from a larger vessel, with a higher bridge. Ships traveling often in excess of 20 knots can come over the horizon very quickly from the perspective of a small vessel, and pose a serious threat if a proper lookout is not being maintained.

4. Inside harbour limits vessels over 500 tonnes have right of way over all vessels, including those under sail.

Yacht strikes charted rock



VESSEL TRACK AND POSITION OF GROUNDING



THE YACHT GROUND ON A CHARTED ROCK

A 9 m yacht's lifting keel and hull was extensively damaged after it grounded on a charted rock in the Bay of Islands.

The yacht was being skippered by a blue water sailor with over 30 years' experience of keel boats.

The skipper and three crew had weighed anchor and steered the yacht under mainsail through a gap lying to the north of Poroporo Island.

The yacht passed over a shallow bank, where depths beneath the keel were as low as 0.9 m. As the depth increased to about 2.5 m, the crew unfurled the jib and the yacht started to bear away.

A few minutes later, and making about 5 knots, the yacht stopped abruptly, grounding on an isolated rock not far from Poroporo Island.

The skipper started the motor and reversed the yacht off the rock. Water was entering the hull through the lifting keel casing at about bunk height, and

the skipper decided to beach on the lee shore of a nearby island.

The crew used buckets to bail out the water, but as the keel was lifted in preparation for beaching, water came flooding in and the yacht settled on the bottom.

The volunteer Coastguard was called, and was able to pump out the water and tow the yacht to Opuia, where it was lifted ashore for inspection and repair.

1. The yacht was bareboat chartered to a skipper who had over 30 years' experience of keel boat sailing and who had conducted several blue water passages.

2. The skipper admitted to the owner that he had not been paying attention and had "cut the corner" at the eastern end of the island. The yacht was equipped with charts which showed the position of the rock.

3. The skipper had become complacent about the vessel's navigation including checking the chart for dangers and keeping a close eye on the yacht's position.

4. It is very easy to relax in good weather in sheltered water. Even experienced skippers can make mistakes through complacency and this is the time that inadvertent groundings, collisions and accidents can easily occur. Aside from

property damage such as in this case, injuries and in some cases fatalities, have resulted when least expected. All mariners need to be reminded of the need for constant vigilance.

LOOKOUT!POINTS



River ensnares kayaker

Tree debris across a popular kayaking river ensnared one of a party of four.

The kayak was pinned against a log in a bow down position. The force of the water meant the kayaker could not break free, and he drowned at the scene.

The party of four kayakers had spent the day navigating the river in sections, stopping frequently to regroup and plan their approach to the coming section. The group stopped about 300 m ahead of the accident location to discuss progress and agreed that they would keep together and be on the lookout for any obstacles.

As the group rounded a bend in a narrow gorge, the lead two kayakers saw two logs lying in the river about 5 m ahead. They gave the obstacle signal to the remaining two kayakers and managed to negotiate a line between the logs.

The third kayaker also passed safely and stopped in an eddy just below the

tree trunks, but out of view. He then saw a throw bag line wash past him and quickly relaunched into the river to relay his concerns to the lead two kayakers, who were about 200 m down river.

One of the team set off to hike to an area of cellphone coverage to call for help, while the remaining two attempted to reach the accident site using lines. When this proved impossible, the pair returned to collect their kayaks and hiked back to the top of the gorge and headed again down that section of the river.

As they passed the accident scene, they could see the fourth kayak wedged bow down and trapped by the tree trunks. One kayaker was able to stop just below and clamber back up to the scene, but could not see the missing kayaker's body.

The team managed to raise the alarm and rescuers were able to reach the trapped kayak by raft. The kayaker's body was found pinned against the tree

trunks below the surface. He would not have been able to escape against the force of the water. The body was extracted with difficulty before darkness.



▲ THE KAYAK WAS PINNED AGAINST A LOG.
▲▲ THE ACCIDENT SCENE.



View the full report online at:
www.maritimenz.govt.nz

LOOKOUT!POINTS

1. River kayaking carries inherent risks, however, this team was properly equipped and was operating well together.

2. Local knowledge is invaluable when river kayaking. The New Zealand Recreational Canoeing Association's website

contains bulletins advising kayakers of the likely hazards that are present on many of New Zealand's rivers.

Go to: www.rivers.org.nz



Leaking gas bottle explodes

Four children were sleeping on board a motorised catamaran when a gas leak caused a major explosion. The children and two adults on board all suffered serious burns.

With the vessel at anchor, the skipper woke first early in the morning and turned on the califont-activated hot water tap and gas cooker. Immediately, there was a severe explosion that effectively destroyed the vessel. Sections of the cabin were blasted from the hull and both of the skipper's ankles were broken.

One of the adults and two children were trapped in a forward berth and had to escape by kicking in a door that had jammed. A fire broke out in the bow section of the vessel and the skipper's jacket caught fire.

The skipper managed to extinguish both fires and call for help via cellphone. The crew realised the spare gas bottle was also venting gas, and threw it overboard.



A GAS LEAK CAUSED A MAJOR EXPLOSION ON THE CATAMARAN

Vessels from nearby bays arrived to assist, and the crew was flown to hospital by rescue helicopter.

Gas accident investigators commissioned by the Ministry of Economic Development found that one of the vessel's two LPG bottles, stored in a gas locker on the forward deck, had been leaking from its valve. It was likely that the valve had not been sealed properly after it was refilled at a local gas station the day before.

As LPG expands in volume up to 270 times when at ambient pressure, the leak would have rapidly filled and partially pressurised the gas locker, which had only one small vent. Unable to escape out of the vent, the gas would have been pressure driven down the duct pipe to the cabin where ignition occurred. LPG can ignite at concentrations as low as 70 to 1.

In effect, the cabin was a sitting bomb, waiting for an ignition source.



View the full report online at:
www.maritimenz.govt.nz

“ LPG EXPANDS IN VOLUME UP TO 270 TIMES WHEN AT AMBIENT PRESSURE ”

LOOKOUT!POINTS

1. All gas systems should comply with Yachting New Zealand Safety Regulations SR Appendix 7 Gas Appliances Installation, with reference to New Zealand Standard 5428:1996.

2. Gas lockers should be vented to outside the hull, and all ducting and lines should be vapour tight. Venting apertures should be not less than 12.5 mm in diameter.

3. Connections and joints in lines should be checked on a regular basis by brushing with soapy water. Bubbles may indicate a leak.

4. Ensure adequate external ventilation of appliances.

5. Gas bottles should be checked for corrosion and rust, stored upright, serviced every 10 years and switched off when not in use.

6. Gas vapour detection systems are highly recommended for all vessels with gas installations.



Crew thwarts ferry fire



A LEAKING PUMP CONNECTED TO THE SHIP'S OIL HEATING SYSTEM CAUSED THE FIRE.

A fire on board a roll-on, roll-off ferry, loaded with passengers, was thwarted by the quick actions of the crew.

The ferry was being readied to leave port when the fire detection system reported smoke in the engine room. The officers on the bridge and in the engine control room were alerted by the alarms and responded immediately.

The engineer headed to the engine room to assess the problem and saw flames licking around a pump connected to the ship's oil heating system.

The system heats oil to about 170°C and then circulates it around the vessel using two pumps. A seal on one of the pumps had failed and oil was leaking, feeding the flame.

Realising the potential danger, the engineer first informed the bridge and then shut down the leaking pump. He and other crewmembers then put out the fire using the engine room's portable extinguishers. Once the flames were extinguished, the team managed to close the pump's valves, and stop the leak.

Meanwhile, the bridge team had put the ship's emergency plan into operation. The ship's alarms summoned the crew to their emergency stations, but due to the quick actions of the engineer and his team, the fire had been extinguished by the time they arrived.

The engine room's fire extinguishers were replaced and, following a check by a Maritime New Zealand safety inspector, the vessel continued its voyage – just a few minutes later than scheduled.

LOOKOUT!POINTS

1. The engineer was very familiar with the vessel's systems and was able to quickly assess the fire and take the right steps to prevent it escalating.

2. The crew knew where the extinguishers in the engine room were located and how to use them. Training and familiarity with the vessel cannot be underestimated.

“Search called off for missing crew...”

Don't add to the stats ... plan for emergencies

- ▶ do radio skeds
- ▶ practise safety drills
- ▶ maintain safety equipment
- ▶ plan for weather

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 **MARITIME**
NEW ZEALAND

Safety Bulletins

Maritime New Zealand publishes safety bulletins as a means of communicating and encouraging dialogue on a variety of safety issues and the proposals relating to these. The bulletins are published as and when required, and are circulated to those sectors directly involved. We welcome any comment you may have on the recommendations or content in general. The bulletins produced to date are listed below.

Past issues

HamiltonJet steering nozzle pivot check
December 2007 Issue 15

Crane controls & communications
September 2007 Issue 14

Shore-based pre-slung cargo slings
September 2007 Issue 13

Lifting slings, loose gear and dunnage
June 2007 Issue 12

Cargo vessel cranes – Examination and renewal
June 2007 Issue 11

Liferafts and their release mechanisms
May 2007 Issue 10

Manpower and responsibilities during mooring operations
April 2007 Issue 9

Mooring line hazards: Bights and snap-backs
April 2007 Issue 8

Freeing port covers on fishing vessels
February 2007 Issue 7

Safe operation of Mitsubishi heavy industries hydraulic deck cranes
May 2006 Issue 6

Low sulphur diesel fuel
November 2005 Issue 5

Ammonia leakage on fishing vessels
October 2005 Issue 4

Bulletin for operators of road vehicles and floating barges
October 2005 Issue 3

Recommendations for ships carrying fumigated bulk cargoes
September 2005 Issue 2

Senhouse slips used in mooring systems
August 2005 Issue 1

For more information you can:

- download the safety bulletins from the website: www.maritimenz.govt.nz
- email us at: enquiries@maritimenz.govt.nz



Update your accident forms!

The fax number on all the Maritime New Zealand RCCNZ accident reporting forms recently changed to: **(04) 577 8038**. If you have printed out copies of any of these forms, please go to our website (either the Search & Rescue section or the Publications section) and print out the updated forms: www.maritimenz.govt.nz

And just a reminder ... as soon as practicable after an accident, incident or serious harm injury you should phone the RCCNZ (they are available 24/7) to let them know what happened:

- ▶ freephone: **0508 22 24 33**
- ▶ or contact the Maritime NZ Communications Centre on VHF Channel 16.

From 1 January
to 15 May 2008

03

MARITIME FATALITIES 2008

From 1 January to 15 May 2008, there were **3** fatalities all in the **recreational sector**.

Feedback

Your feedback and ideas on *Lookout!* are very welcome.

If you'd like a particular topic covered in our next issue, contact us by email: publications@maritimenz.govt.nz or phone **0508 22 55 22**.



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