Failing to keep a lookout proves costly

LIFEJACKETS → USELESS UNLESS WORN
Corroded wire causes crew fatality
A man fell to his death while performing lifeboat maintenance

Failing to keep a lookout proves costly
Two fishing vessels collided in open waters

Rafting injury highlights safety hazard
A company identified a hazard and took steps to reduce risk

Keeping a lookout means actively looking
A fast ferry collided with a launch and cut it in two

Men drown after large wave sinks catamaran
Two drown and three survive after an ordeal in the water

Man dies after salvaging boat at night
A man was trapped under his boat while trying to move it

Woman paralysed in thrill ride gone wrong
A passenger was seriously injured during a high-speed boat ride

Lifejackets – useless unless worn

Introduction

Guest editorial: No repeat accidents... ever!

News & updates: Tell us what you think
Introduction

“No repeat accidents... ever!” is the title of this issue’s guest editorial, which was written by Tim Burfoot from the Transport Accident Investigation Commission. This is the aspirational goal of the Commission and one that Maritime New Zealand (MNZ) thoroughly endorses.

LOOKOUT!’s subtitle “Lessons learnt by accident” is key to what this publication is all about. We hope that by highlighting others’ accidents and near misses, people will think about how they can avoid a similar thing happening to them.

From time to time, we even hear feedback from readers that they have made changes to their thinking or actions as the result of a story they read in LOOKOUT!

This issue’s safety feature focuses on lifejackets, which seems timely given the recent increase in high-profile boating accidents and near misses. While the outcome of any accident is by no means certain, if people suddenly end up in the water and they are wearing a lifejacket, they have a much higher chance of surviving.

The first story in this issue focuses on a cruise ship fatality, where two workers carrying out lifeboat maintenance ended up in the water when a fall wire failed. Neither man was wearing a lifejacket and only one of the two survived.

In the story “Men drown after large wave sinks catamaran” all five on board were wearing lifejackets when their boat capsized. The group all survived the first four hours in the cold water, but lost their distress beacon, VHF radio and flares when the boat sank and they were left with no means of calling for help.

Sadly two of the five died after a prolonged time in the water and the surviving three were eventually able to raise the alarm and be rescued. The skipper acknowledged that had they not been wearing lifejackets, it is likely that none of them would have survived.

 Failure to keep a lookout is the subject of this issue’s cover story, with two fishing vessels colliding in open waters after the skipper of one vessel failed to keep a proper lookout and the skipper of the other vessel was unable to take action in time to avoid a collision.

Fortunately no one was injured, but the skipper who was fishing without the required number of crew learned an expensive lesson.

We’re running our annual customer satisfaction survey and I encourage you to have your say about how we can improve our services to you. Details are on the back cover of this issue or on our website maritimenz.govt.nz.

Please pass this LOOKOUT! on to friends, family or crew and encourage them to sign up to receive print or email copies.

Keith Manch
Director of Maritime New Zealand

Kia ora and welcome to the September issue of LOOKOUT!
‘Yeah right’ I hear you saying, but before you write it off as nonsense, let me explain. This is an aspirational goal of the Transport Accident Investigation Commission (the Commission), rather than one we realistically think we can achieve. It is philosophy we use when analysing what contributed to an occurrence and how we can help prevent it happening again.

‘No-repeat-accidents’ is not something the Commission can achieve on its own. Preventing accidents is a partnership between everyone involved in maritime activities, whether you are a lone recreational kayaker out on the water for a bit of R & R, a commercial operator, an industry organisation, a regulator, or even an international maritime organisation, we all have a part to play.

Never waste a good accident

After a lifetime of recreational boating – 17 years in the merchant navy and five years managing Cook Strait ferry operations – and then 12 years investigating accidents with the Commission, I have seen enough to know that accidents and incidents happen more often than statistics show.

I have seen the same type of accidents happen for the same reasons, but involving different people – particularly frustrating. I also know that accidents and incidents can happen to anyone, regardless of how experienced or how good we think we are. And if you think mariners are different or special, for better or for worse, think again. The Commission investigates aviation and rail occurrences as well and we have seen the same mistakes repeated across all three modes. The lessons learnt by one industry are not always passed on to another, maybe because we all think we are a bit special. One of the Commission’s strengths is the ability to apply the lessons across the different modes of transport.

Did you ever wonder why it is a requirement to report all accidents and incidents? It is so that that they can be investigated, analysed and the maximum lessons be learnt and shared with the wider community and industry.

Many mariners at all levels (including myself), are involved in accidents, incidents and near misses of some kind. For the most part we survive with a feeling of relief that it only nearly happened, or a ‘thank god it wasn’t worse’. Others are not so lucky. You as an individual learn from your experiences and are less likely to repeat the same mistake. If it wasn’t too embarrassing, you might even share your experience with your colleagues. If your lesson could be passed on to many others, imagine how many accidents could be prevented.

The Commission is a standing commission of inquiry. Commissions normally preside over bigger events – catastrophes, major accidents and the like, but being a permanent commission gives us more flexibility to deal with emerging or actual safety issues without waiting for the major accident to happen.

We have permanent fully-trained investigators, support staff and three permanent part-time commissioners, who are the decision-makers when it comes to making findings and recommendations. However, the Commission only investigates a small proportion of the occurrences that happen out there. For it to detect an emerging or actual safety issue, the Commission relies on data, and this is where the partnership is important.

I have often had it put to me that the Commission should be resourced to investigate more accidents and incidents from a safety or ‘no blame’ perspective. While I have never been one to look a gift horse in the mouth, let us consider that for a moment. The Commission is part of a wider system. There are many players in the maritime industry that have a responsibility for investigating accidents and incidents. I mentioned some of them above.

You, the person involved in an occurrence, are the best investigator. More often than not you know what happened and you know why. You don’t need professional investigators to tell you that. Commercial operators are required by maritime law to investigate occurrences in their own operation. They should want to do that so that it doesn’t happen again, because accidents are expensive. They can cost lives and result in damage to marine craft and infrastructure, and to the environment.

If mariners were to feed all of those lessons in to MNZ, it would be able to regulate more effectively and be in a good position to share the lessons with the wider community. It will be able to detect emerging issues before they become a big problem. In an ideal world there would not be any need for the Commission to exist. But the world is not ideal and the Commission provides other functions as well. It helps meet New Zealand’s obligations under the International Maritime Organization conventions to provide independent accident investigations into serious casualties. The Commission also provides a ‘health check’ on the system for government and the general public.

Because the Commission is an independent Crown entity, it is able to provide an independent overview of the maritime system. When the Commission investigates an occurrence it looks at the wider systemic issues, because they are often found to have contributed to an accident. This could also mean the performance of the regulator.

MNZ controls ‘entry’ into the maritime system, which means that it might also on occasions ‘exit’ an individual or organisation from the system. Yes, like it or not there are rules and guidelines that should be adhered to. They are necessary for ensuring appropriate standards are maintained. They are there to keep the system safe – to keep us safe. The Commission will often test the appropriateness of these rules because bad, unworkable or out-dated rules have been known to contribute to accidents.

MNZ might decide to conduct its own ‘parallel’ investigation into an occurrence that the Commission is investigating. This is not a duplication of effort. The two investigations have a different purpose. MNZ might be
carrying out its statutory function of testing for compliance issues, whereas the Commission’s purpose is to investigate independently, to see if there are any implications for transport safety, rather than to ascribe blame.

These parallel investigations are managed through a memorandum of understanding between our respective organisations to ensure that the needs of each investigation are not compromised. So do not be surprised if you see MNZ investigators working alongside our own at an accident site. However, there are strict provisions in the Transport Accident Investigation Commission Act preventing disclosure of certain information gathered by the Commission. Without going into too much detail, an example is witness statements provided to the Commission. These are protected from disclosure so that people can talk to us freely and frankly without fear of reprisal.

Moving on up the line, accident reports are submitted by New Zealand to the International Maritime Organization so that the lessons can be included in the international database. Lessons from other countries’ accident reports can be drawn from that same database to be used to better the New Zealand maritime industry.

So the ‘partnership’ is important. It helps to keep us all safe. No matter what part you play in the maritime industry, sharing the Commission’s goal of ‘no repeat accidents… ever!’ can only be a good thing. The more that we share this goal, the closer we can all come to achieving it.

Tim Burfoot
Chief Investigator of Accidents
Transport Accident Investigation Commission

Investigators from the Commission and MNZ are air-lifted off Rena.

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Tim Burfoot
Chief Investigator of Accidents
Transport Accident Investigation Commission
Corroded wire causes crew fatality

A man drowned when a cable or fall wire supporting a lifeboat on a cruise ship failed, plunging him and another crewman into harbour waters.

The men were carrying out routine scheduled maintenance on one of the passenger vessel’s 14 lifeboats. They were standing on the cabin roof about 16 metres above water level, greasing the lifeboat’s support cables, called fall wires. When the forward fall wire failed and the boat fell, the men’s safety harnesses, clipped to a line strung between the lifeboat’s lifting hooks, also snapped. The lifeboat remained suspended by its rear fall wire, but the men were thrown into the harbour.

“One of the men in the water grabbed a grease bucket and used it to stay afloat until he was rescued.”

Conditions were poor, with a stiff southerly breeze and choppy waters. The alarm was raised and the ship’s rescue boat was quickly launched. One of the men in the water grabbed a grease bucket and used it to stay afloat until he was rescued. He was treated for bruising and mild hypothermia and was able to return to work later that day.

The other man, who could not swim, was seen above water briefly but then disappeared. Despite the port authority, Coastguard and emergency services joining the search, it was four hours before divers located the second man’s body on the seabed near where he had gone into the water.

On examination, the fall wire was found to be severely corroded at the point where it had failed and had lost structural strength. The final failure had come when the remaining cross-section fractured under tension. Technical analysis found this section of wire had little grease compared with elsewhere on the wire.

The design of the hydraulic davits (lifting arms) for the vessel’s lifeboats was found to be flawed. The part of the wire that failed passed across the guides on the end of the fixed arm and was difficult to access for maintenance. It was hard to apply a protective coating of grease to it, and to make sure the circumference was completely coated. As a result, this part of the fall wire had not been properly inspected or lubricated during its four years in use. Salt water was able to penetrate and corrode its internal strands.
The fall wire broke because its internal strands had corroded to the point where it was too weak to support the weight of the lifeboat. In marine environments, which involve harsh saltwater conditions, wire ropes need regular and thorough inspection for signs of corrosion. The full length and circumference of the wire must be lubricated.

The men's safety harnesses did not support them because the line they were attached to failed when the fall wire failed. Consider where best to secure safety harnesses so that an unforeseen failure elsewhere need not affect the points where they are secured.

The vessel had sound safety systems in place to prevent injuries or loss of life during maintenance procedures, but on this occasion they were not properly followed. No matter how carefully safety risks are identified and documented, accidents cannot be avoided unless crew follow the appropriate procedures.

The men had on heavy clothing and workboots, but were not wearing lifejackets or buoyancy aids. Their clothing would have quickly become waterlogged and their boots filled with water, weighing them down.

The design of the hydraulic davits (lifting arms) for the vessel’s lifeboats was flawed, with the wire break point shown.

Technical analysis of the wire failure point showed it to be severely corroded at the point where it had failed.

A vertical bracket showing wear marks from where the wire rubbed.

The lifeboat in a vertical position after failure of the fall wire in one of the ship’s 14 lifeboats.
The vessels collided at right angles, but no one was injured.

Failing to keep a lookout proves costly

Two vessels collided after they moved away from a group of fishing boats into more open waters and failed to keep a proper lookout.

About 30 vessels were trolling for tuna in an area about 27 nautical miles offshore. In trolling, a vessel pulls lures through the water on poles while travelling at speeds of around five knots. The poles extend up to 8 metres from the side of the vessel. Because tuna tend to congregate closely in schools, fishing vessels routinely work in close proximity to each other, with the associated risk that their poles might clash.

On this occasion, both vessels had been fishing in and around the main group of vessels throughout the day. Then, independently of each other, they ventured further afield beyond the group as the supply of fish dropped off.

The vessels collided at right angles. The skipper of one vessel says he noticed the other vessel about five minutes before the impact, but he assumed the two would pass safely and did not consider any evasive action was needed. At the time, he was in the wheelhouse/galley, which was located at the aft of the vessel. He continued cooking while the crew worked on deck.

The skipper of the other vessel was working alone, without the required two persons on board when working outside the 12 nautical mile limit. He was hauling in fish and not aware of another vessel’s approach.

In the crossing situation that developed, his was the give-way vessel, required to take early and decisive action to keep well clear of the other vessel.

As the stand-on vessel, the other vessel was required to take action to avoid a collision as soon as it became apparent that the give-way vessel was not taking appropriate action.
LOOKOUT!

Near misses are possible when vessels are operating in a high-density fishing area. Ensuring that an impact does not occur requires keeping an effective lookout at all times, and being prepared to take appropriate action to avoid it.

Even if you’re the stand-on vessel, if you’re involved in a crash you’re at fault as well. Both skippers failed to keep a proper lookout and avoid collision, and both could have been liable for heavy fines for dangerous activity in breach of maritime rules.

The give-way vessel was incorrectly manned, and the skipper admitted having fished alone on other occasions. He could not keep a proper lookout at all times, as required, because he was fishing on his own, 27 nautical miles out at sea and surrounded by other vessels. Had he had a crew member, they would have been able to keep a proper lookout and avoid the collision.

Because the vessel did not meet manning requirements, the insurer declined to pay the owner’s claim for repairs. The owner incurred substantial repair costs, and faced the risk of not being able to secure affordable insurance cover for his vessel in future.

Operating without the prescribed number of crew can also result in fines up to $100,000 for the operator, and up to $10,000 or 12 months’ imprisonment for the skipper. On this occasion, MNZ issued him with a formal warning.

The skipper who was fishing alone says he has learned a very costly lesson, and he won’t be doing it again. He says times have got tougher in the fishing industry and sometimes you make a decision to do what you can to survive, by not taking on staff – but the risk is just not worth it.

He admits he thought his vessel was large and stable enough to cope with fishing alone, with good radar and a good proximity alarm, but says he had probably lowered his guard because he was tired.

He says before the collision, he was “knocking on the door of being freehold”, but the $100,000 cost of repairs and five months away from fishing have meant “everything I gained from not having a crew has gone straight down the drain”.

Neither skipper complied with lookout requirements and neither was able to take action to avoid the collision. No one was injured, but the give-way vessel sustained substantial structural damage with a gaping hole in the bow. After rigging up three extra pumps to keep ahead of the water coming in, the vessel was escorted back to port.

A close-up of the damage to the bow.

The give-way vessel sustained substantial damage, with a gaping hole in the bow.
One recent weekend, we saw three high-profile scenarios in play with three different outcomes. In the first, five men wearing lifejackets were rescued by Navy and Coastguard from their sinking yacht when it hit rocks at Cape Colville, near Great Barrier Island. That night, two men reported missing from a dinghy in Wellington Harbour were not so fortunate. They were carrying, but not wearing lifejackets, and although only 75 metres off shore, only one of them survived when their dinghy sank and they had to attempt to swim to shore. They were unable to retrieve their stowed lifejackets from the dinghy.

In the third incident, a father and his four-year-old daughter were rescued by onlookers after their kayak capsized and was swept out to sea. Neither was wearing a lifejacket. If there hadn’t been witnesses close by to rescue them, the end result may well have been different.

What is clear is that, while the outcome of any accident is by no means certain, if people suddenly end up in the water and they are wearing a lifejacket, they have a much higher chance of surviving. If lifejackets are carried but not worn, people are often unable to retrieve them when trouble hits. And trouble often happens without warning. Don’t think “it won’t happen to me”. Lifejackets are lifesavers.

A legal requirement
You must carry a correctly sized, serviceable lifejacket (also known as a personal flotation device or PFD) for each person on board a pleasure boat in New Zealand. This is a legal requirement under maritime rules and regional council bylaws. The requirements apply to all boats, including tenders and larger craft.

Regional council bylaws
Check your local regional council bylaws for the requirements that apply in the waters in your part of New Zealand. Some bylaws go further than maritime rules, making the wearing of lifejackets compulsory for all on board small craft.

Skipper responsibility
Maritime rules provide that it is the skipper’s legal responsibility to ensure that lifejackets are worn in situations of heightened risk, such as when crossing a bar, in rough water and during an emergency. Lifejackets must be stowed so that they are immediately available in case of a sudden emergency or capsize. We recommend that people, especially non-swimmers and children, wear lifejackets at all times in boats under 6 metres.

Why wear a lifejacket?
Most drownings in boating accidents involve craft under 6 metres. All on board boats under 6 metres should wear a lifejacket, unless the skipper has assessed this is not necessary, due to the low risk at the time (but we recommend that non-swimmers and children wear lifejackets at all times).

Most accidents occur suddenly with no warning. There may be no time to grab a lifejacket unless it is close at hand, and it is extremely difficult or impossible to put on a lifejacket securely in the water.

Some lifejackets provide more than flotation. They allow a person in the water to keep still, thereby conserving energy, which will help to delay the onset of hypothermia. The body loses heat through water three times faster than out of the water. Closed foam-type PFDs also provide thermal protection on cold days and prevention from injury in collisions.

Crotch straps
Crotch straps are recommended for lifejackets when they may be used in situations other than very calm water. Even when tightly secured, lifejackets have a tendency to ride up on the wearer if there is any wave action. Crotch straps are mandatory for all children-sized lifejackets and in some yacht racing situations.

Lifejacket standards
Lifejackets must meet New Zealand Standard (NZS) 5823: 1999, or NZS 5823: 2001, or NZS 5823: 2005 – specification for buoyancy aids and marine safety harnesses and lines – or another national or international standard substantially complying with the New Zealand standards. These include US, Australian, European and ISO standards. If you’re looking at buying a new PFD or lifejacket, there’s now a vast array to choose from on the international market.

The right type of lifejacket
It is important to have the right type of lifejacket. Consider the type of boating you do, the distance from shore you intend to go, and the kind of conditions you are likely to encounter. Your lifejacket retailer should be able to help you choose the type most suited to your needs.

Inflatable lifejackets
These are becoming increasingly popular with boaties, as they are more comfortable than other lifejackets. As well as being very light to wear and less restrictive, they also have considerably more flotation than foam lifejackets, and exceed buoyancy requirements.

Inflatable lifejackets come in manual and automatic variations. Manual inflatables require the wearer to pull a tab to inflate the lifejacket, and automatic lifejackets inflate as soon as they are immersed in water. A ‘pouch’ style inflatable lifejacket is also available.

While inflatable lifejackets have many advantages, they do require regular servicing and users should check them frequently to ensure the gas canister is properly screwed in and not rusted and that the mechanism is serviceable.

Storage and maintenance
Store your lifejacket away from the sunlight. Ensure it is dry and clean and away from chemicals. Check your lifejacket before re-use and make sure that it is still the correct size (especially for children).

Inflatable lifejackets need to be checked and serviced regularly. On a boat, they must be stored so that they are immediately available in case of a sudden emergency or capsize.
TYPES OF LIFEJACKETS

MANY DIFFERENT TYPES OF LIFEJACKETS OR PFDs ARE AVAILABLE. IT IS ESSENTIAL THAT YOU CHOOSE THE CORRECT TYPE FOR YOUR BOATING ACTIVITIES. THE DIFFERENT TYPES ARE DESCRIBED IN THE NEW ZEALAND STANDARD NZS 5823: 2005.

Type 401 – open waters lifejacket

These are designed to keep the wearer vertical in the water, and to hold a person’s mouth and nose uppermost if they are unconscious. The two versions available are inflatable, or with semi-rigid foam flotation.

The inflatable 401 lifejackets must provide 150 newtons of buoyancy, and are fitted with either a water-activated inflation switch, or a manual pull cord to inflate. They can also be inflated using a mouthpiece.

This type of PFD normally relies on plastic clips and adjustable straps to secure it. These straps must be fastened securely and there is some tendency for this type of PFD to ride up on the wearer. A crotch strap is advised if the wearer may be using the PFD in rough water.

National and international standards* that substantially comply with type 401: ANSI/UL 1123 and 1177 type I PFD offshore life jacket; AS 4758 level 150; ISO 12402-3; EN 396.

Type 402 – inshore waters PFD

These provide at least 71 newtons of buoyancy and must have a buoyant collar to support the wearer’s head. They are quite comfortable to wear continuously while boating, and are the most common PFDs found on recreational craft. However, while they must not allow the wearer to tilt forward of vertical, they are not designed to keep an unconscious person’s head and face above water. This type of PFD must be marked “May not be suitable for all conditions”. The effectiveness of this PFD is considerably reduced in rough or breaking seas or surf. The PFD will give support in the water for an extended period.

National and international standards* that substantially comply with type 402: ANSI/UL 1123 and 1177 type II PFD near shore buoyant vest; AS 4758 level 100; AS 1512 PFD type I; ISO 12402-4; EN 395.

Type 403 – buoyancy vest

No collar is fitted to a buoyancy vest and it has a lower buoyancy rating than a lifejacket. It is designed for use in aquatic sports, such as dinghy sailing.

This particular type of PFD (adult size) must have at least 53 newtons of buoyancy. While wearing this type of PFD will not provide the same level of support or safety provided by other models, it is necessary for specialist type sports to have the most appropriate PFD for their purpose.

National and international standards* that substantially comply with type 403: ANSI/UL 1123 and 1177 type III PFD; AS 4758 level 50; AS 1499 PFD type 2; AS 2260 PFD type 3; ISO 12402-5; EN 393.
**Type 404 – buoyancy aid wetsuit**
A wetsuit with added buoyancy in specific areas. These are very expensive and suitable for some sporting activities.

**Type 405 – buoyancy garment**
This standard is the same as type 403, but is not required to have reflective tape or be brightly coloured. They are often used in specialist sporting events, but where lack of bright colours may compromise safety, a type 403 PFD should be used.

National and international standards* that substantially comply with type 405; ANSI/UL 1123 and 1177 type III PFD; AS 4758 level 50; AS 1499 PFD type 2; AS 2260 PFD type 3; ISO 12402-5; EN 393.

**Type 406 – specialist PFD**
These include the various specialist PFD designs that are used for rafting, jet boating or kayaking.

National and international standards* that substantially comply with type 406 for specialist activities:
- **kayaking**: ANSI/UL 1123 and 1177 type V PFD special use device / canoe / kayak vest; AS 4758 level 50 special purpose PFD; AS 1499 PFD type 2; AS 2260 PFD type 3; ISO 12402-6 special purpose; EN 393.
- **white-water rafting**: ANSI/UL 1123 and 1177 type V PFD special use device / commercial white water vest; AS 4758 level 100 special purpose PFD; AS 1512 PFD type 1; ISO 12402-6 special purpose level 100.
- **jet and power boat racing**: ANSI/UL 1123 and 1177 type II PFD near shore buoyant vest or type V special use device; AS 4758 level 100 special purpose PFD; AS 1512 PFD type 1; ISO 12402-4; ISO 12402-6 special purpose; EN 395.

*National and international standards
ANSI – American National Standards Institute
AS – Australian Standard
EN – European Standard
ISO – International Organization for Standardization
NZS – New Zealand Standard
UL – Underwriters Laboratories

Visit MNZ’s website for more info:
[maritimenz.govt.nz/lifejackets](http://maritimenz.govt.nz/lifejackets)

**KEY SAFETY MESSAGES**
- Check the marine weather forecast
- Take two forms of waterproof communication equipment
- Wear your lifejacket
- Avoid alcohol
A river rafting company identified an ongoing hazard that its operation posed to paddlers and took practicable steps to reduce the risk.

The company operates about three trips each day on the river, carrying up to 35 passengers in rafts that can accommodate a maximum of seven rafters seated in four rows. The guides it employs are all well acquainted with the river and the large waterfall that must be navigated during the rafting trips.

The risk became evident when a man suffered minor injuries as the raft he was travelling in went over falls. The man was in the second row of paddlers and, as the raft navigated the falls, his head went down and hit the helmet of the paddler in front of him, causing a small cut. The rafting guide treated the injury at the scene and the paddlers were able to continue with their trip. The company reviewed what had happened and proactively set out to prevent this type of incident happening again.

The rafting company successfully identified a safety hazard and revised its safety process to reduce the risk for its passengers.

The manager recognised that the incident was not the first time that a passenger had banged his or her head on the helmet of another person while going over the falls. He identified that on each occasion, the injured parties had kept their heads up as they went over the falls. This was despite having practised the ‘getting down’ position during the safety briefing before starting the trip.

After consulting other guides who knew the river well, the manager modified the company’s safety practice to reinforce the message to ‘get down’. The rafting guides now repeat the safety drill when the raft is at the top of the falls, just prior to going over.

Since making this change, there have been no further incidents of paddlers banging their heads.
Keeping a lookout means actively looking

A fast ferry with 56 passengers on board was involved in a collision with a recreational launch, cutting the launch in two.

The 33 metre fast ferry catamaran was on a scheduled night voyage, in light rain, moderate winds and half-metre seas. The skipper had been on duty for close to five hours, and had kept the radar on a three-quarters nautical mile range setting throughout his watch.

The skipper was joined on the bridge by another crew member. Both sat in helm chairs, and were not in the habit of regularly getting up from their positions to improve lookout over those areas that were obscured by the design of the vessel’s bridge.

Meanwhile, the 7.5 metre plywood launch was on the return journey from an afternoon’s fishing. Both crew on board had been drinking beer, and both claimed there was reasonable visibility, despite the conditions. The launch was not displaying the correct navigational lights, and the lenses were old and had turned opaque.

It is estimated from the tracks of both vessels that in good visibility they would have been able to see each other for about five minutes before the collision.

As it was, the skipper of the ferry received only a few seconds warning after a crew member spotted a dim green light close to the port bow. The skipper immediately placed the engines in neutral and turned hard to starboard, but the vessel had no time to respond and both vessels collided. The impact from the port bow of the ferry cut the launch in two just aft of the main cabin.

The rear section of the launch sank immediately and its crew managed to clamber onto the front section, which remained afloat.

The ferry turned around and rescued the launch’s two crew using the man-overboard cage. The skipper immediately returned the vessel to port, where it was established that both crew of the launch had breath-alcohol readings over the legal limit for driving a car.

The ferry suffered only minor paint damage.
LOOKOUT POINTS

- As a crossing situation existed, the launch, with the ferry on its starboard side, was the give-way vessel and was required to keep out of the way of the ferry. The launch had an obligation to take early and substantial action to keep well clear.

- Despite regularly monitoring the vessel’s radar screen, the skipper of the ferry did not detect the launch. A wooden vessel can be a poor target to acquire, and clutter from the choppy sea may also have prevented the launch from being sighted. It is standard practice to regularly adjust radar settings especially in changing conditions to ensure that no weak vessel target is being hidden.

- Skippers and lookouts should actively search for dangers. Even in these conditions, both skippers should have had ample time to avoid the collision.

- Where vessels are fitted with helm seats, skippers and watchkeepers should frequently get up out of their seats, so as to alter the watchkeeping viewpoint to have a clear view of areas that might otherwise be obscured.

- Having correct and properly functioning navigational lights is essential for all vessels navigating at night or in restricted visibility.

- The ferry’s lights were arranged in a single tricolour lantern on top of the house, which is in breach of the maritime rules. In addition, both side lenses were found to be opaque, probably due to many years of exposure to ultra-violet light. This would have significantly reduced their brightness, making it difficult for the bridge crew on the ferry to see the launch.

- Ensure you are displaying the correct lights by seeking advice from MNZ, your local Coastguard or boating club. As bulbs can blow and light lenses can be affected by the UV rays in sunlight, you should check your lights are operating correctly as part of your pre-voyage check and every time you use them.

- Both crew of the launch had breath-alcohol readings over the limit for driving a car. Alcohol and boating do not mix. Even moderate drinking can impair your situational awareness and ability to operate a boat safely.

- Timber boats can be difficult to detect by radar. Owners of timber vessels should consider fitting radar reflector units.

Both launch side lenses were opaque, probably due to many years of exposure to ultra-violet light. Here new lights (left and right) sit beside the light recovered from the launch (centre).

An active search for dangers involves getting up out of your chair, especially if areas are obscured by the design of the helm.

The ferry suffered only minor paint damage.
Two men drowned and three other people were lucky to survive after a large wave capsized a 7.5 metre recreational power catamaran in cold inshore waters.

The survivors said the wave appeared to come out of nowhere and was much bigger than other waves the vessel had encountered after the group set out on their fishing trip. The wave struck the twin-hulled former commercial vessel at an angle, rolling it over and filling the cabin with water. Four people in the cabin were thrown forward with the impact. All received cuts and bruises and two of them suffered head injuries.

In seconds, the cabin filled with water, but they managed to swim out and climb onto the upturned hull to join the fifth person, who’d been on deck when the wave hit. The group then tied a section of the anchor warp between the hulls to hang onto in case conditions deteriorated while they were waiting for help to arrive.

The skipper’s partner knew where they were going and to call the authorities if she had not heard from them before nightfall, but the capsise happened early on in the trip.

After about 30 minutes, the boat sank. The five linked together in the water and struck out for the shore of an island about 2 kilometres distant, holding on to each other’s lifejackets for support. The two strongest swimmers were positioned at opposite ends.

Strong currents pushed the group beyond the island, so they attempted to swim with the current and swell towards another island a few kilometres away. As they struggled towards the next likely landing place, two of the men lost consciousness (most likely due to hypothermia from their prolonged time in the cold water), and died.

With the tide about to turn and with daylight fading, the remaining man and two women had no choice but to let their companions’ bodies go and attempt to reach an anchored fishing boat they’d sighted in the distance.

Eventually, the trio reached the fishing boat, but were too exhausted to climb on board. The boat’s owners, camping onshore, heard their calls for help and then sighted the three people in the water.

The skipper of the boat rowed a dinghy out and towed them in to shore. He then returned to the fishing boat to use its VHF radio to call emergency services for help.

The police sent a rescue helicopter to pick up the survivors and take them to hospital. The skipper of the capsized boat was badly affected by hypothermia, having spent more than four hours in very cold water.
Despite this the survivors were released within hours of admission.

A large-scale search was launched to find the bodies of the two missing men, but this was hampered by the dark and by deteriorating weather conditions. Eventually the body of one man was found on a beach, and the other was retrieved from the sea nearby. The vessel was recovered and examined by MNZ. The examination revealed no defects to suggest the vessel was unseaworthy.

The recovered motors were extensively damaged.

In the skipper’s words

Six months ago I lost my son and my best friend in a boating accident when I was the skipper. I’ve been boating for 30 years, with some commercial sea time, got my boat masters and VHF tickets, and took being a skipper seriously.

Lifejackets were always worn and up to date with safety gear on board (with an EPIRB, cellphone and VHF radio in arms reach). I had a big, solid, well-serviced boat and was prepared for any emergency that could possibly happen, or so I thought.

In the blink of an eye we were upside down, in a submerged boat swimming for our lives. Don’t think ‘It won’t happen to me’ because it can happen to anyone. Prepare for ‘the worst’. Have your communication equipment on you at all times, get a lifejacket with pockets for an EPIRB (or PLB) and waterproof VHF radio, or get pockets sewn on your old one.

Your friends and family are relying on you as skipper to get them back home safely after a day on the water.

All I needed was one working form of communication – once in the water – and we would all still be here. After four hours of swimming for our lives I had to check my son’s and my mate’s bodies for signs of life, make the decision to leave them there, to carry on and maybe, if lucky, save myself and two more friends’ lives.

Not a day goes by without thinking about my son and mate and my wishing they were still here.

LOOKOUT POINTS

- Even if you have the right equipment, there may not be time to use it when something unexpected happens. The boat was carrying several means of communication, including a distress beacon (EPIRB), flares and radio, but once people were in the water, they had no way of calling for help and their cellphones wouldn’t work.

- The EPIRB was on the vessel’s console, but things happened so fast there was no time to grab it. The skipper tried to dive back into the cabin to retrieve it, without success.

- Take at least two types of emergency communication that will work when wet and carry them on your person, so you will be able to access them in an emergency, rather than somewhere else in the boat, even if you don’t consider there is a high level of risk. Many lifejackets have pockets or attachments that enable a VHF, distress beacon or cellphone to be carried in them.

- If not carried on your person, a floating grab bag within arm’s reach may be able to be more easily accessed than fixed or stowed gear.

- To prevent cellphones getting wet, put them in a sealed or ziplock plastic bag. A cellphone is only useful if there is coverage but can be useful as a backup means of emergency communication.

- Lifejackets should be worn, not stowed under seats or forward in the cabin. All of the crew were wearing lifejackets and all survived the first four hours in the water. The skipper acknowledged that had they not been wearing lifejackets, it is likely that none of them would have survived.

- Tell someone responsible about your plans. Be as specific as you can about your intended location, how many people are on board and when you intend to return. The more information you can provide, the better coordinated and faster a rescue effort can be. You must also have your own means of calling for help in case, as happened in this tragedy, an accident happens early in the trip.

- Waters in the area where the vessel capsized were known to be often rough and capable of producing large waves that can capsize smaller vessels. Although survivors and the rescuer described the conditions as moderate, locals expressed concern that the vessel had departed in the conditions prevailing at the time.

- Mariners should operate with caution in areas where large waves can be encountered and watch out for them. Skippers must be prepared to make a sudden manoeuvre to place their vessel in the correct position to survive large waves. In many vessels, this requires the bow to be positioned towards the oncoming wave.

- The power and unpredictability of the sea should not be underestimated, as the sea state can change within minutes. This can put you and your crew in danger and endanger the safety of those who come to your assistance. Always expect the unexpected and ensure that you have done all you can to prepare for emergency situations.

Read LOOKOUT! safety features “Survive in cold water” (Issue 12) and “Are you ready? Be prepared for any emergency” (Issue 17) for more information.
A man died when his jet boat flipped over on an unfamiliar stretch of river at night, trapping him underneath.

Early in the day, the man and his brother had travelled upriver in the 10 foot jet boat, following a route the man had taken on a number of occasions previously. Later, when they returned to their launching point, he decided to take another quick run in the opposite direction, to trial a different formulation of fuel. Work had recently been done on the boat and, while pleased with how it was performing, the man was concerned about smoke coming from the exhaust.

As they motored downriver, they turned into a channel where the water grew increasingly shallow and the boat eventually became firmly wedged on a bed of shingle. Daylight was running out, but the men were unable to shift the boat, and the owner didn’t think there was any way to properly secure it overnight. He feared rain in the headwaters could come down and wash it away. The men returned on foot to their van and carried back several metal poles, which they were able to wedge beneath the boat and gradually shift it back into the water. By this time it was dark. The owner decided to continue motoring downriver, as his GPS had shown the channel was likely to soon merge with a bigger arm of the river. His brother, agreeing to follow on foot until the river got deeper, suddenly heard three loud bangs, followed by silence. When he reached the boat it was upside down, with the driver trapped face-down beneath it. With difficulty, he released the man and dragged him ashore to administer CPR, but it was too late to save him. The brother then had to make his way back to the van on foot and break a window to access a cellphone and call for help.

A man died when his jet boat flipped at night, trapping him underneath.

**LOOKOUT! POINTS**

- When the accident happened, in an isolated part of the river and at night, there was no way to call for assistance. Any means of communication carried on the boat became inaccessible when it flipped over, and the surviving man had to walk some distance in darkness before he could raise the alarm.

  Had the men each carried a cellphone on their person, secured inside a ziplock plastic bag, help could have been sought much sooner.

- Although the men were in unfamiliar terrain and night was approaching, they continued trying to salvage the boat. Had they left it where it was and returned the next day in daylight, the driver would have been able to clearly see where he was going and avoid any obstacles in the vessel’s way.

When a boat has broken down or grounded in a remote location and night is falling, it can be dangerous to try to resolve the problem and complete the journey in darkness. Do what you can to make your boat secure and go home for the night.
A passenger was thrown into the air during a high-speed boat ride and suffered permanent spinal injuries.

The woman arrived to join the trip to a popular tourist landmark after the vessel had departed, but it returned to the booking office to collect her and two children accompanying her. The 11.5 metre catamaran, which carried 32 passengers, was advertised as travelling at speeds up to 100 km/hour.

The woman’s late arrival meant she missed the oral safety briefing. As a result, she did not know to fasten her seatbelt.

About half an hour after setting out, the vessel encountered waves estimated to be one-and-a-half metres high. The woman was lifted abruptly from her seat and as she came down, she struck the edge of her seat. She fractured four vertebrae and was knocked unconscious.

The trip was abandoned and the vessel returned to shore. The passenger was transferred by ambulance to hospital and then to a specialised spinal unit. She was paralysed from the waist down.

MNZ was not informed about the accident, as required, until several weeks afterwards when a friend of the injured woman alerted investigation staff.

When contacted, the vessel operator claimed to have notified MNZ but was unable to provide details or a copy of the letter he said he had sent.

The company was prosecuted on two charges under the Health and Safety in Employment Act (HSEA), for failing to take all practicable steps to ensure no action or inaction of any employee while at work harmed any other person, and for failing to notify MNZ of the occurrence of serious harm as soon as possible after it became known.

The company was convicted and fined $30,000 and ordered to pay $90,000 to the victim in reparations.
Tell us what you think – you could be a winner

We’ve expanded our annual customer satisfaction survey to find out more about what you want and how we can improve our services to you. If you subscribe to LOOKOUT! or its companion publication Safe Seas Clean Seas, you’ll have already received a customer satisfaction survey to fill out and return to us.

The survey is also available on our website and all completed eligible surveys will be entered into a draw to win one of five inflatable lifejackets. Visit maritimenz.govt.nz/survey or click on the link on the home page of the Mnz website to have your say.

Entries close on 31 October 2012 but you can still complete surveys after that date.

Visit us at: maritimenz.govt.nz/survey

Maritime fatalities 2012

From 1 January to 30 June 2012 there were 19 fatalities – 12 in the commercial sector and 7 in the recreational sector.

This compares with 3 commercial and 9 recreational fatalities for the same period in 2011.