DISTRESS CALL as vessel sinks

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Welcome to the September issue of Lookout! with lessons to be learnt from maritime accidents and incidents.

In the guest editorial, Maritime New Zealand (MNZ) Manager International Shipping Kenny Crawford outlines the importance of international shipping to the New Zealand economy and how the industry is regulated. He looks at how and why we regulate, and the importance of international standards.

The first two stories in this issue involve fatalities on board foreign-flagged commercial vessels visiting New Zealand. In both cases simple, common safety measures were not in place, with deadly results. Legislation, regulation, inspections and education are key to ensuring that our national and international waters are safe, secure and clean for all.

Our Lookout! story “Plan to beat fatigue” includes the viewpoint of the skipper of a vessel rescued by Coastguard, and the lessons he learnt from his experience. Unfortunately, not all those involved in accidents survive, and our story “Three die on fishing trip” is a sobering read.

This issue’s safety feature focuses on fire on board vessels, looking at what you can do to prevent a fire and how to ensure you’re prepared. Knowing what to do can mean the difference between life and death, and between minor damage or a total loss. We also take a look back at some of the fire stories that have featured in Lookout! over the years, showing a range of types of fire on board vessels.

We’re increasing our online presence and have recently offered online consultation, which has had great uptake. We’re now in the process of developing online accident reporting, which we hope will make it easier for you to report accidents and for us to get a clearer picture of where we need to focus our resources.

Please pass this copy of Lookout! on to friends or family, or sign up for print or electronic copies by emailing publications@maritimenz.govt.nz. Back issues of Lookout! are available on our website in PDF format, and recent issues can be viewed as web pages.

Catherine Taylor
Director of Maritime New Zealand
New Zealand’s lifeline

International shipping is vital to New Zealand’s survival. Without ships delivering goods and taking our exports away, our economy simply could not function.

As a “water-locked” country, there are only two ways to transport goods to and from our shores – by air and by sea. Compared with sea freight, which has been around since ancient times, air freight is a relatively recent innovation. Its greatest benefits are for high-value, lightweight goods, such as electronic equipment imports and the export of cut flowers and fresh fish to Asian markets.

Shipping makes by far the biggest contribution to New Zealand’s international trade. Even today, 99 percent of our goods are transported by sea, and that figure is unlikely to change any time soon. The factors that determine whether a company will transport its goods by sea or by air – cost, environmental effects and speed – will stay the same.

Cruise control

International shipping also plays a big role in the cruising industry. In this case, the “cargo” is humans, who’re not usually trying to get from A to B in the quickest, most cost-effective way.

Recent years have seen a boom in cruising, worldwide as well as in New Zealand. It’s a trend that looks set to continue, with the major cruise companies anticipating the delivery of new luxury liners over the next few years.

Regulation

Nearly all of New Zealand’s imports (about 19 million tonnes) and exports (about 23 million tonnes) are carried by foreign-flagged vessels.

“Even today, 99 percent of our goods are transported by sea, and that figure is unlikely to change any time soon”
These vessels are subject to port state control (as described in the guest editorial for Lookout! issue 14), with the port state control officer inspecting vessels to ensure they comply with international standards.

Who sets these standards, and are they appropriate for vessels operating exclusively in New Zealand waters?

Setting the standards

Most standards are set by the International Maritime Organization (IMO), the United Nations agency responsible for measures to improve the safety and security of international shipping, and to prevent marine pollution from ships. New Zealand is a member of the IMO.

The member states implement into their own national law the conventions adopted by the IMO. Some of the most widely adopted of these are the SOLAS, MARPOL, STCW and Load Line conventions.

“It is important for us as a nation to be confident that vessels sailing our waters meet a particular standard, and for us to know that if they don’t, we can do something about it”

Because the New Zealand Government has ratified a number of the IMO’s conventions, we must meet certain obligations. For example, SOLAS Article 1(b) states: “The Contracting Governments undertake to promulgate all laws, decrees, orders and regulations and to take all other steps … to ensure that, from the point of view of safety of life at sea, a ship is fit for the service for which it is intended.”

If the IMO did not exist, each nation would be likely to develop its own regulations, and this would result in sets of national laws that were inconsistent and potentially in conflict with each other. Sound vessels would probably be registered with nations that had robust and appropriate laws, and the poorer vessels would probably opt for nations with lax administrative systems. For New Zealand, this could result in foreign vessels arriving at our shores with many different standards – some suitable for our safety, security and environmental requirements and others not.

It is important for us as a nation to be confident that vessels sailing our waters meet a particular standard, and for us to know that if they don’t, we can do something about it.

New Zealand-flagged vessels

Most New Zealand-flagged vessels are certified to travel internationally because they have met the IMO’s requirements through New Zealand’s maritime and marine protection rules. To keep their certification and be able to travel or trade internationally, they need to comply with the international standards.

But what about New Zealand-flagged vessels that are only engaged in domestic trade and have no intention of undertaking an international voyage? Do they need to comply with international standards?

There is a popular misconception that the SOLAS convention applies only to vessels sailing on international voyages, but this is not the case. The classes of ship the convention applies to are more precisely shown in each of its chapters.

Another misconception is that SOLAS applies only to vessels of more than 500 gross tons. However, the prescriptive requirements of Chapter V of SOLAS apply to all ships, regardless of their size, subject to certain conventions. The administering agency (in New Zealand, that’s Maritime New Zealand) can determine how the provisions of certain regulations will apply to certain categories of ship. This is implemented through Maritime Rule Part 45.

Why should New Zealand comply?

Should New Zealand withdraw from SOLAS to make life easier for our local industry? On the face of things, this may seem a viable proposition, but it could result in our maritime rules being inconsistent with international standards.

We should not expect foreign vessels with foreign crew to meet certain standards when they come into our waters, while accepting lower standards for our own vessels and crews. If anything, we should encourage our vessels and crews to operate to a higher standard than the minimum set down by international convention.

It’s complicated

Which vessels need to comply with IMO standards? Unfortunately, there is no easy answer to this question, as the thresholds for different conventions and requirements vary considerably.

Crew accommodation requirements provide a good example. These requirements (International Labour Organization conventions 92 and 133) may apply to vessels over 200 gross tons (depending on their area of operation), while part of Marpol Annex I applies to all tankers over 150 gross tons and all other vessels over 400 gross tons (irrespective of their area of operation). Load Line Convention generally applies to vessels over 24 metres, and the STCW requirements apply to all seafarers serving on board seagoing ships (except warships, naval auxiliaries, fishing vessels, pleasure yachts and wooden ships of primitive build). A seagoing ship is defined as any ship (irrespective of its size) other than those that navigate exclusively in inland waters or in waters within or closely adjacent to sheltered waters, or where port regulations apply.

Continuous improvement

New Zealand has dedicated teams that contribute to the forums for setting international standards and developing maritime and marine protection rules.

MNZ’s newly established International Shipping Team will support the development and implementation of maritime standards. Its role is to ensure the latest rules are implemented, that SOLAS vessels (both foreign and New Zealand flagged) are monitored, and to give feedback so that the latest international standards are appropriate to our industry.

We are often asked, “Can New Zealand afford to adopt the latest conventions and associated amendments?” In reality, the question should be: “Can we afford not to?”
A fishing vessel’s bosun fell 5.2 metres into the hold when his makeshift safety line snagged on a pallet of frozen fish.

The fishing vessel had returned to port for unloading after a successful voyage. The vessel typically returned with about 460 tonnes of frozen fish, which was headed, gutted and packed into cardboard boxes in the freezer hold during the return journey.

At port, the crew began unloading with the vessel’s derrick (crane). A wooden pallet was lowered into the freezer hold using net slings. Crewmembers in the hold loaded the pallet with stacks of the cardboard boxes, then lifted it onto the dock by derrick.

The bosun was directing the derrick, using hand signals and whistles. He stood at one corner of the hatch on the main deck and peered over the edge to monitor the progress of the crewmembers loading boxes in the freezer hold below.

There was a middle deck between the main deck and hold, with a hatch in line with the main deck hatch to allow the fish to be lifted straight through. The middle deck’s hatch cover was split into three sections, and before unloading started, the derrick had lifted these up and placed them behind the bosun on the main deck.

The bosun had rigged up a temporary safety line around the main deck hatch opening, using an orange rope to alert the crew that the hatch was uncovered. A permanent guard rope around vertical stanchions at all four corners of the hatch cover had been removed and not replaced after maintenance about four months before the accident.

As part of the rigging for the temporary rope, the bosun had threaded the safety rope through the handle of one of the three sections of hatch cover lying behind him.

The unloading proceeded without incident throughout the day, until just one load remained. As the final pallet of boxes was lifted out of the hold, one box slipped out of the net slings. The bosun called out to the remaining crewmember in the freezer hold to replace the box. As the crewmember did so, he realised the other crew had removed the temporary ladder he would need to use to get out of the hold.

In a split-second decision, he leapt onto the rising pallet. Seeing the crewmember appear with the load, the bosun signalled to the derrick driver to swing the pallet over to the side of the hatch on the main deck, so the crewmember could get off.

After the crewmember stepped clear, the bosun signalled the crane to continue to raise the pallet. As it lifted, the edge of the pallet caught on the safety rope. The rope tightened and dragged the hatch cover section the bosun was using as a makeshift corner stanchion. It slid into the bosun, pushing him down into the freezer hold, where he was knocked unconscious. The hatch cover section dangled precariously above him until the crew managed to pull it clear.

The bosun never regained consciousness and died in hospital eight days later.

“The rope tightened and dragged the hatch cover section the bosun was using as a makeshift corner stanchion”
“A permanent guard rope had been removed and not replaced after maintenance about four months before the accident”

Left: Looking down from the main deck, past the middle deck, into the lower deck, where the bosun fell.

Below: The bosun had tied a rope in a square around the open hatch, to alert crew that the hatch was uncovered.

A crewmember directing a crane where the accident occurred (doing the same activity as the victim). After the accident, the orange net and ropes were put in place to act as a barrier.

- Purpose-built stanchion sockets were fitted at each of the four corners of the hatch on the main deck. Safety ropes were then fitted at three heights around these stanchions, to stop anyone falling into the freezer hold.

These stanchion holders had been removed four months before the accident to allow maintenance on the main deck, and were not replaced.

After the accident, the vessel was impounded until this safety measure was restored, which the crew quickly achieved.

If the ropes and safety netting had been fitted, the bosun could not have fallen into the hold as he did.

- Loading had been carried out all day without incident, and the accident only occurred when the bosun directed the load be moved to the side of the hatch. Safety measures need to be put in place to counter not just obvious risks, but also those that are not so easily predicted.

- In leaping onto the pallet, the crewmember who was loading in the freezer hold put himself at real risk of falling. It would have been more prudent to call for the temporary ladder to be replaced than to hitch a ride on the load.
Enclosed space robs oxygen

It took just seconds inside a logging ship’s hold for a lack of oxygen to affect its chief officer.

The officer was only a few rungs down a vertical ladder attached to the side of the manhole leading into the hold when he began to lose consciousness and tumbled to the bottom. Seeing his stricken colleague fall, another crewmember clambered in straight after him. He, too, was quickly overcome by the lack of oxygen and fell on top of the chief officer.

By now, other crewmembers were at the scene, and a third crewmember only narrowly avoided being killed in his desperation to help. The ship’s bosun stopped him from heading into the hold.

After taking a few minutes to prepare, one of the crew entered the manhole wearing self-contained breathing apparatus. Some protruding logs prevented him from reaching the two men, and he had to climb back to the top of the hold and put on a smaller set of emergency breathing equipment.

Wearing this set, he reached the two men and tied a rope around the second man’s waist. With great effort and hauling from the crew at the top of the manhole, the man’s body was painstakingly dragged clear of the hold.

During the recovery effort, the rescuer’s face mask was breached and he began to feel weak and dizzy. Realising he was in trouble, the crew above him managed to reach down and haul him to safety before he fell. He later made a full recovery.

CPR was started on the second crewmember, but was unsuccessful. The chief officer’s body was retrieved about 45 minutes after he fell. Ambulance crew advised that CPR could not succeed, and it was not started.

The chief officer had entered the hold to check on moisture content, after a port fumigator advised that several of the ship’s holds were too wet. Water is known to react dangerously with fumigation gas.

A less experienced crew member, who was aware of the potential dangers of entering confined spaces, had tried to warn the chief officer not to enter the hold.

Learn more

- Safe Working in a Confined Space, Department of Labour.
Plan to beat fatigue

This year, two trawlers from the same fishing company grounded within a fortnight of each other.

The first grounded on a beach after trawling for five hours while everyone on board slept. The vessel’s watchkeeper had finished his shift and tried several times to wake his replacement. He’d headed back to the wheelhouse, intending to wake the skipper in a few minutes, but instead fell asleep.

The crew were woken by the grounding, and managed to free the vessel from the beach by heaving back on the extended trawl gear. The vessel suffered minor damage to its propeller and hull.

“He turned off the watchkeeping alarm to use the toilet, where he soon fell asleep”

The second vessel grounded on an island while returning from five days at sea. It was manned by three inexperienced crewmembers, and the skipper had felt he could snatch only short bursts of sleep.

As the vessel reached inner waters, the skipper again took over watch. He turned off the watchkeeping alarm to use the toilet, where he soon fell asleep.

After the grounding, the crew made a distress call, which another vessel in the area responded to. This vessel was able to tow the trawler free at high tide.

What the rescue vessel’s skipper said*

The skipper of the rescue vessel says he understood the predicament of the stricken trawler only too well. He had twice grounded vessels because of fatigue.

“It’s an awful feeling, even if it’s happening to someone else,” he says.

In the first incident, the skipper had run aground after working long hours, due to concerns over the skill and ability of new crewmembers. “It’d been a long trip, and I’d been getting about three hours’ sleep a night. I knew I was tired, but I didn’t think I’d fall asleep.”

In his second accident, the skipper was asleep for only about three minutes before the vessel ran aground. “I thought that was it – that I’d have to give up and find a new job, but putting measures in place is quite simple. You’ve just got to make sure you do it.”

The skipper now runs his own vessel, and while he says that has taken a lot of the pressure to perform off his shoulders, he still ensures a range of fatigue measures are followed on his vessel.

“I had a watchkeeping alarm, but it was a bit dicky so I replaced that. I’ve never gone only two-handed again. I always make sure there’s enough crew to do the job, and I’ve got really good trustworthy crew that I can trust as watchkeepers. I still take the watchkeeping alarm key to bed with me though,” he says.

“If the crew are on watchkeeping, they have to keep a proper lookout, monitor the radars properly, plot the latitude and longitude every hour, and use the radar, GPS, plotter and sounder.

“They don’t just rely on the computer screen, either. I get them to stand up, open the door and look outside for boats. I don’t expect them to show up for a trip tired or hungover.”

The company that owns the two grounded trawlers has now established a simple but effective fatigue management plan, which has been applied across all of its vessels. MNZ’s industry liaison staff can advise on developing these plans.

Maritime rules require that a proper lookout is maintained at all times.

For MNZ resources on fatigue management, email publications@maritimenz.govt.nz

*Special thanks go to the skipper of this rescue vessel for his willingness to share his experiences for the benefit of others.
A fire on board a vessel, especially at sea, is a mariner’s worst nightmare – there is little chance of the Fire Service turning up to put the fire out. There is no place to run but the sea, and it’s those on board who must act.

As a skipper, are you ready for a fire at sea?

» Commercial vessels
Commercial operators realise that serious fires at sea are best prevented by good ship husbandry, the correct maintenance of firefighting appliances, and regular fire drills. All crew should know their fire stations and be fully trained in the use of the vessel’s firefighting equipment. The equipment condition and stowage should be checked by a responsible person, and faults should be rectified or reported. Ventilator flaps, emergency fuel oil shut-off valves, fixed firefighting systems, and fire detection and alarm systems should also be checked.

If your vessel has an emergency fire pump, it should be tested at every fire drill. Ensure all those on board know how to start the pump and record all tests and drills in the vessel’s logbook.

If your vessel has firefighting suits, make sure they are correctly worn at every fire drill. This will allow the crew to get used to them and, in a real emergency, will be second nature. Ensure compressed air breathing apparatus (BA) sets are correctly maintained and cylinders fully charged.
Bad habits of crew, such as smoking when turned in and carelessly disposing of cigarette ends, do cause fires on vessels.

Clean up leaks or spills in the engine room. Oil, especially under pressure, that leaks onto a hot exhaust, electric motor or generator can ignite, causing fire to spread rapidly. Avoid overflows and spills when transferring oil or filling tanks. Waste oil and the oil rag should be sealed in a suitable container and be disposed of appropriately ashore. Empty drip trays regularly, and keep tank tops and bilges clean.

Recreational vessels

As a skipper, you should take the time to learn basic firefighting techniques and should fully understand what equipment should be carried and how it is used. Challenge your memory regularly, because it is easy to forget how to use emergency equipment.

Remember the FIRE TRIANGLE

Prevention is better than cure

Keeping your ship in order can help prevent fire.

1. Ensure all equipment, engines, wiring and cooking arrangements are suitable for the marine environment, and that they are properly installed and maintained.
2. Good housekeeping is fundamental. Stow all loose material or objects and dispose of any used cleaning cloths or used paper towels.
3. Avoid carrying flammable liquids (such as paint thinners) on board.
4. Keep your engine and bilges clean. Keep flammable surfaces away from hot exhaust lines. Make sure wiring is properly secured. Batteries need to be well secured and ventilated.
5. Cooking gas (LPG) bottles must be stowed in a sealed locker that drains overboard. Always turn the gas off at the bottle unless the cooker is in use. Many serious boat fires are caused by gas that has accumulated in the bilge. Gas not only burns, it can explode with enormous force.

Be prepared

- Fit a smoke detector. This is especially important in a boat you sleep on.
- Fit a gas detector. It will warn of gas or fuel fumes that accumulate in the bilge before you can smell them.
- Fit suitable fire extinguishers. You need at least two if your boat is longer than about 5 metres. The most suitable is dry powder because it can be used on all types of fire. Extinguishers need to be stowed where they are visible but protected from salt spray. Keep a fire blanket in the galley for cooking fires. A bucket of water works well on some fires because it both extinguishes and cools, but never use this on an oil or electrical fire. Extinguishers need to be regularly serviced.
- Fit suitable fuses on all circuits. Wiring fires produce highly toxic fumes and are a common cause of boat fires.
- Make sure all on board know where the extinguishers are and how they are used. A short safety briefing before every trip ensures everyone remembers the important safety procedures on your boat.

If the worst happens

Make sure everyone is on deck unless dealing with the fire. All should put on lifejackets, and a distress or urgency signal should be sent by radio or any other means. If you manage to control the fire, the message can then be cancelled.

Anyone fighting the fire with an extinguisher will need to be aware of the need to stay very low down, as heat rapidly builds up inside any enclosed cabin. It is more effective to point the extinguisher at the base of a fire. Position your boat so that the fire and smoke blow away from the vessel rather than over the top. This slows its spread and carries toxic fumes away from those on board.

If you use a lot of water, remember that it could cause a free surface effect (making the vessel less stable) and needs to be pumped out.
Be prepared –
fire at sea does happen

Some of the fire stories we’ve covered in Lookout! over the years...

Gas detectors can prevent explosions
ISSUE 2, PAGE 15
In 2005, an explosion destroyed a yacht and its skipper suffered burns to 25 percent of his body and underwent several skin graft operations for the want of a cheap gas detector. A detector with a remote sensor unit sounds an alarm when a leak is detected.

Fanning the flames
ISSUE 11, PAGE 10
In 2008, a fishing vessel’s fixed firefighting system failed to extinguish an engine room fire, so the crew donned breathing apparatus and opened the engine room door. Again, fresh oxygen reinvigorated the fire, which razed the vessel to the waterline.

Fire! But no fixed means to fight it!
ISSUE 2, PAGE 9
When a long-line tuna vessel’s engine room caught fire in 2004, the crew were forced to abandon ship and watch it burn. There was no fixed firefighting system on board and the skipper had thrown a discharging foam extinguisher into the engine room, hoping it would have some effect. When he opened the engine room door to check the fire’s progress he fanned the flames.

Unsecured, untidy and on fire
ISSUE 11, PAGE 6
In 2006, a fishing vessel’s unkempt engine room caught fire. The engine room was littered with plastic containers, aerosol cans and diesel-soaked rags. An open container of diesel sat next to the main engine. The crew were able to minimise the damage by shutting the engine room flaps and firing the fixed firefighting system. The system did not fully deploy, but the crew resisted re-entering the engine room until they were sure the fire was not increasing.
Many of the fires in New Zealand waters over the past few years could have been thwarted by well-equipped, well-trained mariners.

Fire barely contained
ISSUE 12, PAGE 10
In 2008, a launch set off with just a single 2.3 kilogram dry powder fire extinguisher on board. It had little effect on an engine fire that started that day. The fire may have been further fuelled by a sudden rush of oxygen when the crew opened the engine bay cover to inspect the fire’s progress.

Fire at sea
ISSUE 7, PAGE 16
In 2007, a man and his wife were sleeping while their wooden fishing vessel caught fire and sank at anchor in the dead of night. There were no smoke detectors on board and the couple were cut off by fire from the vessel’s lifejackets, distress beacon, VHF radio and cellphones. They could not reach the vessel’s liferaft or dinghy, and were lucky to survive.

Unseen fire below
ISSUE 15, PAGE 9
In another equipment fire in 2009, acrid black smoke began billowing from a fishing vessel’s engine room. A welder had been working without the safety precaution of a dedicated fire spotter, and without any portable fire extinguishers positioned nearby.

Rocket fires in wheelhouse
ISSUE 13, PAGE 7
In 2008, a rocket-propelled line thrower misfired in a fishing vessel’s wheelhouse. Two of the crew had been examining the line thrower after concerns that it wasn’t working properly, and had removed its safety seal. The line thrower had recently been replaced, but no training had been provided and neither man was familiar with the new model. One man suffered serious gas burns.

Abandon ship!
Fire down below
ISSUE 1, PAGE 14
In 2004, 311 passengers on board a ferry had to abandon ship after the engine room caught fire. Just two crewmembers were available to direct and calm the passengers, many of whom did not know how to put on their lifejackets. The ship’s pre-sail safety briefing was poor, and did not include a lifejacket demonstration.

Fire
ISSUE 10, PAGE 12
The heat a fire can develop on board should never be underestimated. Aluminium can melt and burn.

Fire drills pay off
ISSUE 15 PAGE 7
More positively, in 2009, the well-trained, well-equipped crew of a large passenger ferry with 83 people on board was able to thwart an engine fire. The crew responded quickly and effectively. They were regularly trained and drilled in emergency fire procedures. All vents and fuel lines were shut off and the skipper entered the engine room with a dry powder fire extinguisher only after carefully assessing that it was safe to do so. The vessel was also fitted with a fixed firefighting system, which could have been deployed if needed.

A full version of each Lookout! story can be found on our website, or you can order back issues by emailing publications@maritimenz.govt.nz
morning’s lake fishing ended in tragedy for three experienced recreational fishermen. The body of one man was recovered, but the other two remain missing, presumed drowned, after their 15 foot fibreglass-over-ply vessel was found abandoned on a shingle bar.

The men had set out for a morning’s fishing, intending to fish for trout near the mouth of one of the rivers that emptied into a glacial lake. When they did not return at the expected time, the alarm was raised, but despite a full-scale aerial, water and shore search, two of the men’s bodies were not recovered from the 8.5°C water.

The vessel was found semi-submerged in waist-deep water on a shingle bar. The engine was set to full throttle and the emergency stop switch had not been used. Damage to the vessel was consistent with it having collided with a solid object, and then continued on at speed until it grounded in a position about 2 miles (5 kilometres) from where the man’s body was found.

Injuries on the recovered man’s body suggested he had been violently thrown from one side of the boat to the other or struck by it as it passed over him. A post-mortem examination found that he had drowned, although it was also unlikely that he would have survived his injuries. It is likely that all three men were thrown from the vessel when it struck a concealed object such as a log at speed, bending the skeg on the outboard motor.

The accident occurred in changeable weather and it is possible the men were seeking a more sheltered position. As a result, investigators could not use drift patterns to determine exactly where the accident occurred or identify any risk from navigation hazards on the lake.

“It is likely that all three men were thrown from the vessel when it struck a concealed object”
LOOKOUT!

Maintaining a proper lookout at all times is essential, especially in areas where navigational hazards are not charted.

The recovered man was wearing a neoprene back support that offered some buoyancy, but he was not wearing a lifejacket.

The vessel carried three buoyancy vests and two sheltered-waters lifejackets. Rescuers found the two lifejackets and one of the buoyancy vests still stowed on the grounded vessel, and another buoyancy vest in the water about 200 metres away.

It is not known whether either of the two missing men was wearing the missing buoyancy vest. If the men had been wearing some sort of buoyancy aid, they would have increased their chances of survival and it is more likely that their bodies would have been found.

Unless wearing a lifejacket, the chance of surviving the initial shock of being thrown into water of 8.5°C is low. Wearing a lifejacket significantly increases the time a person can survive in cold water while waiting for rescue. A type 401 lifejacket is the only type that will right an unconscious wearer, so that their airways are clear of the water.

The men’s only forms of communication were cellphones, which were inoperable once wet. Cellphones have a place as a back-up way of calling for help, but should not be relied on as the only means of emergency communication. They must be kept and used in a sealed plastic bag, and worn constantly in a secure pocket of your clothing. Their effectiveness also depends on cellphone reception. In the area where this accident occurred, a 406MHz distress beacon (PLB or EPIRB) was the only reliable means of communicating distress.

The most reliable ways to call for help are VHF radios (in areas where there is coverage, such as the coast) and distress beacons (in all areas). In this instance, it is likely that all three men were thrown from the vessel, with no time to prepare. Only the equipment that is carried on your person can save you in such circumstances.

VHF radios should be either waterproof or kept in a sealed plastic bag, and distress beacons can be clipped to lifejackets.

Rescuers recorded the temperature of the lake as 8.5°C. In water of this temperature, if the men had survived the initial shock they would have become incapable of any actions to help themselves within an hour and would have probably drowned.

Wearing several layers, including a final waterproof layer, huddling together for warmth, and not trying to swim unless certain to make shore will increase survival times in cold water.

For more on cold water survival, go to: www.maritimenz.govt.nz/cold-water-survival

The vessel’s emergency stop switch was not used. Had the skipper clipped this lanyard to a zip or belt loop, the vessel’s engine would have stopped as soon as the skipper was thrown away from the helm.

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

Above: Recent impact damage on the keel is consistent with the vessel striking a solid object.
Photos: New Zealand Police

Left: The vessel was found at the mouth of the river. It had run aground and was sitting firmly on a shingle bar in waist-deep water.

Right: Items left in the vessel suggest that the occupants did not abandon the vessel in a planned way.
Distress call as vessel sinks

The skipper of a 5.4 metre plywood cabin boat just managed to relay a short distress call on his VHF radio before his vessel sank.

The skipper and a friend had set out that morning for a day’s fishing. Gale force winds were forecast for later in the day, and the skipper planned to head back once the winds reached 18 knots.

“That was our decision point, and at about 11.30 in the morning it got to 18 knots, so we turned around and started heading home,” the skipper later said.

“It’d got a bit choppy by then, so I had the nose fairly high. We came over the top of one wave and there was a crunch as we came down the other side. I don’t know what we hit. We didn’t see anything, but it might have been a log.

“I saw a bit of water coming in on the bottom, so turned on both bilge pumps and opened her up to make for shore,” he said.

Thirty seconds later the vessel was capsizing around him. “I just managed to get out a distress call and I was still holding on to the VHF radio when it disappeared under water and I just floated out of the wreckage. I had no idea how quickly it could go down.”
"We came over the top of one wave and there was a crunch as we came down the other side"

The skipper grabbed a couple of empty fuel tins for buoyancy and the other man snatched a couple of lifejackets.

The men were in the water for about two minutes before Coastguard arrived on scene. Fortunately, the crew had been nearby carrying out an exercise and were able to rescue the men and tow the vessel in to the beach.

"My mate was already feeling the effects of the cold," the skipper said. "We were about half a mile off the beach and if we’d had to swim for it, I don’t know if we could have made it."

Left: The capsized vessel was towed in to the beach by Coastguard.
Inset: The skipper just had time to relay a short distress call on his VHF radio before the vessel sank. He’d now recommend fixing it at the highest practical point.
A family of six was lucky to escape serious injury after their trimaran was struck head-on by a large launch.

The trimaran’s owner was sitting on the vessel’s port hull. His father-in-law was at the helm, and his mother-in-law, wife and two children were in the cabin. The trimaran was running under sail at about 7 knots on a clear, sunny day.

The owner first spotted the launch approaching on his port bow, but assumed it had the trimaran in sight and would pass either in front or behind.

The launch was approaching at about 13 knots (covering close to 7 metres per second).

Glancing back about 10 seconds later, the trimaran’s owner realised the launch had turned and was now bearing almost head-on. He called out to his father at the helm to bear away to starboard, and yelled to his wife and children to hold on.

Seconds later, the launch slammed into the trimaran’s port hull and into the forward part of the main cabin, just inches from where the family were sitting. The owner was thrown clear by the impact, and popped up about 20 metres behind the wreckage. His wife and children heard the warning to ‘brace’ just seconds before the launch slammed into the cabin, trapping them inside with water rushing in.

The launch skipper heard “an almighty bang”, and initially thought a length of rope had caught in the propeller. On seeing the wreckage, he reversed his vessel off the trimaran and those trapped inside were able to struggle free. The two elderly members of the family had also been thrown into the water, and were retrieved by the launch skipper and another vessel that arrived on scene.

The family suffered injuries ranging from minor cuts and bruises to moderate back injuries.
Always check a capsized boat

Two recreational vessels stood by just 40 metres from a capsized boat, without moving to investigate.

The skipper, who was not wearing a lifejacket, was struggling alongside in rough seas after his vessel capsized. As he flailed in the water, the two vessels, which appeared to be fishing, remained at anchor nearby.

A larger recreational vessel passed through the area, saw the capsized boat and headed towards it to investigate. The crew saw the man in the water just as he rolled over, face down. Using a boat hook and struggling against the rough seas and the awkward size of their vessel, the crew managed to drag the drowning man on board and begin a resuscitation attempt.

Unfortunately, they had chanced by too late and were unable to save him. The crew were certain those on board the two nearby vessels had seen the capsized boat, but they did not investigate or assist during the struggle to rescue the skipper. Had they weighed anchor and come over to investigate, the smaller and more manoeuvrable vessels would have been much better suited to a successful rescue.

When Coastguard arrived on the scene, the two vessels quickly disappeared.

It is not known what caused the man’s vessel to capsize.

Had the victim been wearing a lifejacket, he would almost certainly have been successfully rescued.

The skipper of the rescue vessel was appalled that the two smaller vessels had made no effort to assist. He felt that had the victim been reached one minute earlier, he could have been saved.

Aside from a moral obligation, under the Maritime Transport Act seafarers are legally obliged to assist one another. Masters or vessels are required to give assistance to any person found at sea who is in danger of being lost, in situations where they can do so without serious danger to the ship and persons on board.

Similar obligations apply in situations where mariners receive emergency distress signals and after a collision. Failure to give assistance can result in up to 12 months’ imprisonment and a fine of up to $100,000.
MNZ online

Report accidents and incidents online from early next year

Commercial operators and recreational boaters will be able to report accidents and incidents online, starting in 2011. Online reporting will be quicker, simpler and easier for you.

Our website will feature an online form you can complete and submit directly to MNZ. It will collect quality information that MNZ can use to get a clearer picture of where we need to focus our resources, generate robust statistics and prompt investigations.

We’ve tested online reporting with industry stakeholders from the jet boat, rafting, fishing and passenger sectors in Queenstown, Christchurch and Auckland and incorporated stakeholder suggestions into our form design.

Industry feedback so far has been positive, and it is widely agreed the new system will be a valuable alternative to the current paper-based reporting system. Further stakeholder testing will take place to ensure a broad range of feedback is gathered and all sectors have a chance to comment and guide the development process.

NEW SAFETY BULLETIN

Maintenance of switchboard safety systems

Electricity on ships is both essential for operational safety and dangerous. The systems on board that control and manage electrical power distribution need to be maintained at an appropriate level, and tested and surveyed.

MNZ has issued a safety bulletin to focus the attention of owners and operators of larger ships on the importance of this maintenance, and the assistance they may need from surveyors to ensure the correct level of safety is achieved.

Please see Safety Bulletin 23, August 2010: Maintenance of switchboard safety systems on the MNZ website for more information.

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News & updates

Maritime fatalities 2010

From 1 January to 30 June 2010 there were 10 fatalities – 2 in the commercial sector and 8 in the recreational sector.

This compares with 3 commercial and 12 recreational fatalities for the same period in 2009.

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