POOR LOOKOUT results in high speed collision
EIGHT INJURED AND ONE DEATH

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Welcome to issue #5 of Lookout! our quarterly safety newsletter where we examine the lessons to be learnt from accidents or incidents.

In most accidents there are a number of contributing factors, and this issue reinforces many of those essential messages that can’t be emphasised enough.

Health and safety is the responsibility of each and every one of us. Whether we are an employer or employee, or working on board a ship or on shore, we all have to be 100% aware around the clock of what’s going on in our working environment.

The importance of audible movement alarms on cranes, positioning ourselves in a safe place and wearing high visibility clothing are just some of the points brought out in the tragic story involving the gantry crane on page 6.

And no matter how familiar we are with a task, always following safe operating procedures is key – whether that’s maintaining good communication, especially where English is not the common language (page 8), recognising and responding to fatigue, which is a major contributor to many accidents or incidents at sea (page 16), or keeping a good lookout (pages 13 and 15).

I am sure you will find this issue informative and thought provoking. Please do pass it on to your colleagues and crew or contact any one of our offices if you’d like more copies.

The full accident reports are available on our website: www.maritimenz.govt.nz or by calling our toll free number 0508 22 5522.

Catherine Taylor
Director of Maritime New Zealand
Risk assessment as part of real safety management

Marine consultant Malcolm Lowle’s experience includes 42 years with Shell as well as lecturing all over the world. Here Malcolm takes a pragmatic look at the role of risk management and the identification of risk.

My experience of working for an oil major taught me that the most basic health, safety and environmental management system consists of three elements, each of which is totally dependent on the other:

- **business integration** in which safety is considered an equal part of the business equation and where visible commitment, top-down and bottom-up is a prerequisite
- **quality assurance** in which procedures are fully documented and improvements, once identified, are properly tracked and implemented within an agreed period of time
- **risk management** in which risks are accurately assessed and practical corrective measures imposed.

Add the premise of reducing risks to levels that are “as low as reasonably practical”, but not zero, and you have it. Like all good models it shows that if one element is removed, or too great an emphasis is placed on a particular component, the system collapses.

We live in an imperfect world full of potential dangers. If we accept that we can only ever control a small part of the overall operational scene around us, then there is an obvious need to assess risk in a thoroughly practical way because only then are we able to implement effective solutions.

The assessment of risk, possible outcomes and the likelihood of them happening should always be based on “what is most credible” and include all existing controls and defences.

Death, massive material loss or almost irreparable environmental damage, can be possible outcomes but if you include sound emergency response as a defence mechanism the severity of such outcomes can be reduced. It is, however, important to get it right in terms of prioritising day-to-day risks.

With regard to “day-to-day” management, several years ago a progressive New Zealand oil tanker operator introduced a remarkably successful local risk assessment tool known as “Take 5”. Aimed at getting the total involvement of “coal face” operators and notwithstanding any more formal risk assessments carried out as part of the work planning process, the system required individuals to:

1. **stop and look**
2. **think through the task**
3. **identify (or confirm) the risks**
4. **control and communicate**
5. **do the job safely**

“Take 5” has become an essential part of that company’s safety culture. An example of a failure to identify a particular risk is the **Herald of Free Enterprise** that took place off Zeebrugge in March 1987. At this time formal risk assessment was not widely practiced outside the oil industry, although operational risks should have been known and fully understood. Some 150 passengers and 38 crew members lost their lives.

The **Herald of Free Enterprise** was designed to operate between Dover and Calais where loading was carried out using two ramps simultaneously. At Zeebrugge there was only one ramp necessitating the loading of the lower deck first followed by the upper deck. This, coupled to local tidal conditions, meant the ferry had to be trimmed by the head.

Mr Justice Sheen noted in his report that “due to operational differences at Zeebrugge turn-round was different in that:

1. there were only two deck officers available
2. only one deck could be loaded at a time
3. it was frequently necessary to trim the ferry by the head
4. the bow doors could be closed at the berthing

Mr Sheen also noted that “because of these differences, with proper thought the duties of the deck officers at Zeebrugge would have to be organised differently from their duties at Calais. No such thought was given to the matter, with the result that immediately loading was complete, the Chief Officer felt under pressure to leave the car deck to go to his harbour station on the bridge”. In other words, he could not check the ferry was ready for sea.

The bosun, who should have closed the bow door, was not called and remained asleep in his cabin. A system of “negative reporting” assumed the bow doors to be closed and with no other visual indication (even though such a system had been previously suggested to head office) the vessel sailed. Being trimmed by the head and with the bow door open, water entered the car deck and the vessel quickly capsized.

Had proper risk assessments been carried out, it is likely that the inherent operational and design shortcomings at Zeebrugge would have been identified and remedied. **Herald of Free Enterprise** need not have been lost.

Malcolm Lowle
Marine Consultant
A fast speed ferry ploughed into a 9 m charter fishing vessel with eight people on board because of a failure to keep a proper lookout.

The skipper and seven passengers on board the charter vessel all suffered injuries. One passenger was hospitalised and later died from complications.

The fast speed ferry was transiting a busy channel with 337 passengers and eight crew on board. The master was alone on the bridge. He got up from his helm chair and looked over the crane fixed to the forward end of the vessel to check the channel was clear of other craft. He noted 20 vessels on one side, and a few on the other, but reassured the channel was clear, he returned to his seat.

Minutes later the master looked up to see the charter vessel at close quarters, and fine on his starboard bow. Before he could alter course or reduce speed, the two vessels collided. The ferry was travelling at about 23 knots at the time. Prior to impact, the charter vessel had been proceeding along the channel, stopping to examine possible fishing spots along the way. The skipper had just altered course after one such inspection when his cell phone rang. As he took the call, the skipper monitored the GPS and depth sounder.

One of the passengers called out to check that the skipper was aware the passenger ferry was bearing down on them. The skipper looked behind, but did not see the ferry, which may have been blocked by one of the passengers. The skipper continued his course.

With collision imminent, one of the passengers screamed at him. Turning again, the skipper saw the ferry bearing down on the vessel's port transom. He turned to port just before the vessels collided.

The ferry made fast to the charter vessel and rendered first-aid to its passengers. The charter vessel was extensively damaged. Its hull was breached on the port side and the force of the impact had shunted the wheelhouse to starboard. Most of the windows were shattered. The ferry only sustained paint damage to the starboard hull.

The skipper looked behind but did not see the ferry.
A cargo ship’s boatswain died of massive injuries after becoming trapped in a 15 cm gap between a moving gantry crane and the coaming of a cargo hatch.

The boatswain and three other crew had been using the gantry crane to lift pontoon covers from the vessel’s after most hatch, and shift them for storage to a forward hatch.

The boatswain had been hooking the gantry crane onto each pontoon cover to allow them to be removed one by one. When he had hooked the last cover onto the crane, the boatswain climbed down onto the main deck, between the coaming and the inboard side of the gantry crane. Shortly afterwards, the gantry crane started travelling forward and the boatswain became trapped.

There were no eye witnesses to the accident, but closed circuit television footage later showed there had been 32 seconds in which the boatswain could have moved clear before the crane reached him. It is not known why he did not, or whether his foot or clothing had already become trapped in the small gap. He may not have been aware the crane was moving toward him. The crane driver was unaware of the boatswain’s presence.

The boatswain’s body was not discovered for almost an hour.

1. The crane’s emergency stop wire did not extend around the inboard side. From the boatswain’s position, it would have been impossible for him to activate the emergency stop mechanism.

2. The boatswain may not have realised the crane was moving toward him. Although audible movement alarms were fitted to two of the crane’s legs, the leg thought to have struck the boatswain was not alarmed.

3. Documented and formal procedures prohibiting crew from being positioned between gantry cranes and limited inboard spaces during periods when cranes are likely to move would have greatly diminished the potential hazard.

4. It is thought that the crane driver may have been operating “blind” in that there was no dedicated person on deck to provide either hand or radio signals indicating when it was safe to start each lift. Wherever possible, clearance should be given to crane drivers visually and via radio before a gantry crane is moved.

5. The boatswain was wearing dark blue coveralls. All crew members should wear high visibility clothing when engaged in cargo operations.

6. The boatswain should not have positioned himself between the coaming and the gantry crane for any more time than absolutely necessary to clear the area. It is possible that familiarity with what was perceived by crew as a routine practice lead the boatswain to ignore the dangers associated with the gantry crane.
Multi-tasking causes mistake

A deckhand seriously injured his leg after trying to do too much by himself.

An 18 m fishing vessel left port to retrieve gill nets set the day before. The skipper and two deckhands picked up the first net without any problems and then started to recover the second.

After the mesh of the second net had been wound onto the net roller, they recovered the last of two lines and anchors that had been used to secure the net to the sea bed. When the last anchor was brought on board, one of the deckhands untied the line that had been attached to it and took the anchor aft to stow it.

In the meantime, the other deckhand, who was standing on a hatch cover immediately in front of the net roller, started to wind the anchor line onto the net roller. He pulled downwards on an overhead line that extended horizontally, in a fore and aft direction, between a steel stanchion at the bow and the winch control handle on the starboard side of the net roller.

The action of pulling on the line moved the control handle forward, and this turned the drum of the net roller. While pulling on the overhead line, the deckhand used his other hand to feed the anchor line onto the net roller.

When he came to the bridle in the line, the deckhand tied the end to the anchor line using a slipknot. But as the line continued to wind onto the net roller, his leg became caught in the bight and he lost his balance. Instead of releasing the overhead line to stop the net roller, he instinctively held on in an attempt to regain his balance.

As the net roller continued to turn, he was dragged over the guide bar and then beneath the net roller – only then did he let go of the overhead line. The skipper and the other deckhand heard cries for help. They immediately rushed forward and found the deckhand lying on the deck under the net roller. His left leg was caught in the net and his right leg was fractured. They immediately administered first aid and called ashore for medical assistance. The deckhand was transferred to hospital and treated for a broken tibia.

1. The overhead line had been rigged by the vessel’s owner to enable the net to be wound onto the net roller by one crew member. This left the other crew member free to do other tasks. The risk of one of the crew instinctively holding onto or grabbing the overhead line in order to keep their balance had not been identified, and therefore no preventative steps had been taken to eliminate, isolate or minimise this risk.

2. One of the first rules of seamanship is “never stand in the eye of the bight”. Crew must always be aware of the hazards of standing in the bight of a rope. As occurred here, a bight can tighten quickly and trap.

3. The deck of any fishing vessel, particularly during fishing operations, can be hazardous. Crew must remain aware of everything going on around them. However, this deckhand was required to undertake several tasks at the same time. One deckhand should have operated the net roller, while the other guided the net and anchor ropes onto the drum.
The accident happened after the pilot and the ship’s master had given the order for the vessel to be singled up prior to departure.

While the ship’s crew were recovering the mooring lines which had been cast off during singling up, the master advised the pilot that the ship was ready for the next stage of unmooring. The pilot then relayed instructions to the shore for the remaining mooring lines to be let go.

As soon as the last mooring lines had been let go from the shore, the master, without informing the pilot, began to manoeuvre the vessel from the quayside. The pilot told the master to stop the manoeuvre, as he was concerned about the mooring lines becoming fouled in the vessel’s propulsion units.

After speaking in Russian to the on-board mooring parties, the master told the pilot there were “no problems”, and continued to move the vessel from its berth.

Based on this, the pilot assumed all was going to plan and gave no further advice.

A shore linesman then advised the pilot that the forward mooring lines were still trailing in the water, which was relayed to the master. After speaking in Russian with the forward mooring
1. Language and cultural differences can cause accidents! When working on board vessels where the common language is NOT English, great care must be taken by pilots and masters to ensure that the bridge team fully understand all requirements.

2. Safe seamanship means not operating the main engine or bow thruster until all mooring ropes have been SIGHTED and REPORTED clear of the water.

3. Mooring operations are hazardous – never ever stand in the bight of a rope or wire.

"AFTER SPEAKING IN RUSSIAN TO THE ON-BOARD MOORING PARTIES, THE MASTER TOLD THE PILOT THERE WERE ‘NO PROBLEMS’"
Electrical fault smashes gantry

Faulty circuitry caused a cargo ship’s gantry head to override both speed control limits and the safety cut out.

The gantry was in normal operation when it suddenly sped up and collided against the underside of its housing with enough force to part another wire and jam the head into the housing. The cable feeder on top of the head was crushed, and there was damage to the power cable itself.

Surveyors were called, and all of the switches were found to be in the correct position for operation. Initially, the gantry’s speed limiting relay system was suspected and during later testing, the gantry again malfunctioned.

Crew saw the gantry accelerate towards the limits, pass through them and slam once again into the housing with enough force to part another wire. During this event, the operator tried to shift the “dead man’s handle” to the centre position, but this had no effect on slowing or stopping the hoist.

Overnight investigations by shore technicians found a faulty circuit board to be responsible, and this was identified and replaced.

THE GANTRY WAS IN NORMAL OPERATION WHEN IT SUDDENLY SPED UP

Lead light collision

The helmsman of a large catamaran with 90 passengers on board made a serious error of judgment while entering the channel leads.

He lost situational awareness and collided with a starboard channel pole while attempting to line the vessel up on the white sector channel lead light.

The helmsman entered the leads too close to the pole and so did not have room to line the vessel up properly. His vision was also blocked by a raised forward hatch cover.

With a slight current behind him and the additional weight of 90 passengers and crew on board, the vessel was slow to respond after the engines were put astern. She struck the pole between the bows, knocking it over.

The master was below deck at the time. He believed the helmsman was capable of entering the harbour safely due to his previous experience. The helmsman had skippered the vessel before and had entered the harbour at night while in command.

The plywood vessel was not damaged and was able to reach its mooring safely. Had one of the plywood hulls struck the pole, the situation could have been more serious.

The helmsman was on his third 14-hour day, and had not been sleeping well owing to personal reasons. He was censured and advised to ensure he did not work while fatigued.

The harbourmaster has issued a directive to mariners requiring vessels enter the lead lights well before they reach the channel poles.

1. Vessels relying on lead lights should ensure they enter the leads and establish themselves on a firm course within the white sector, well before any substantial course alterations are required. Had the helmsman established his course and position 200 m or more before the poles, this accident would probably not have happened.

2. Fatigue is a serious hazard that frequently causes significant accidents in the maritime sector. All mariners and their employees should appreciate the importance of recognising fatigue in the workplace and put in place documented procedures to ensure it does not compromise the safety of vessel, passengers and crew.

3. The helmsman held a Local Launch Masters (LLM) ticket. There is no requirement for an LLM holder to obtain a restricted radar qualification. LLM holders and their employers should consider obtaining this qualification if they are to operate large vessels during hours of darkness.

4. Masters of vessels should always remain on the bridge to personally satisfy themselves that a helmsman is capable of operating a vessel safely before leaving them in charge.
A child on a sea biscuit came within metres of being hit full on by a water taxi whose skipper had not seen the biscuit at all.

The water taxi skipper was alone and heading to pick up some passengers. He first noticed the recreational vessel that was towing the sea biscuit when the vessel was about 250 m ahead. As he was the overtaking vessel, the water taxi skipper decided to keep clear and pass just behind the recreational vessel.

At about 70 m from the recreational vessel, the water taxi skipper slowed to about 15 knots and manoeuvred with the intention of passing about 10 to 15 m astern. When the water taxi was about 25 m astern and just about to cross its wake, the skipper of the recreational vessel turned and saw it for the first time. In the same instant, the water taxi collided with the tow line of the sea biscuit. The child was thrown into the water and the sea biscuit was ripped apart by the water taxi’s propeller.

The child’s mother on board the recreational vessel saw the child go under the bow of the water taxi and surface some way astern a few seconds later.

Feeling the vessel lurch, the skipper of the water taxi realised he must have hit something and put the engine into neutral. Hearing screaming and seeing the child in the water, he immediately went to help.

The child was retrieved and taken to hospital. He suffered a bruised forehead, severe bruising to his ankles and possible concussion. Both he and his parents also suffered significant emotional trauma.

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

LOOKOUT! POINTS

1. Poor lookout on the part of both parties played a significant role in this accident. The skipper of the water taxi did not see the recreational vessel at all until it was about 250 m away, and even then did not see the brightly coloured sea biscuit towing the child. Similarly, the skipper of the recreational vessel was not aware of the water taxi until just before impact.

2. Both vessels were in contravention of local bylaws in that they were travelling in excess of 5 knots within 200 m of shore, and within 50 m of each other. The speed at which they were travelling made evasive action impossible.

3. When he altered his course behind the recreational vessel, the skipper of the water taxi should have sounded a single warning blast to indicate he was changing his course to starboard. This would also have alerted the skipper of the recreational vessel to the water taxi’s presence.
1. Locally, the sudden change in the river is well known. Signs had been erected on either side of the river warning of the danger, but these had succumbed to flooding and stock damage and would not have been visible to the kayakers.

2. Although the pair had carried out some research of the area, they had not spoken with the regional council, locals or other kayakers, who would have been able to highlight the danger.

3. The local regional authority has since re-installed robust signage, but there are almost certainly many such places along New Zealand’s rivers. The benefits of using local knowledge cannot be overestimated.

An experienced recreational kayaker died when the Grade One river he was negotiating suddenly turned into a 70 m white water rapid.

The man and a similarly experienced friend had chosen the river for a relaxing and peaceful journey. They had studied local road maps and a New Zealand atlas and had carried out a brief search of the internet. They had not found any reason to suspect the river would be too challenging for their skills.

About 2 km from where they had launched, the river, which varied from 3-6 m across, passed through a grassy area before veering left. Dense bush blocked the view around the corner. The kayaker pulled over to the side and called to his friend that he was concerned about the river ahead. They were both carried around the bend and into a turbulent 2 m hole. It was the start of a violent 70 m white water rapid across large outcrops of rocks, and with no opportunity to reach safety.

The kayaker who died was at one point seen by his friend being swept along on his back, supported only by his lifejacket and showing no signs of life. His body was later found in a pool below the rapid.

The other kayaker experienced a tumultuous trip down the river, often dragged for long periods fully under water and approaching unconsciousness. Luckily, he managed to cling fast to a rock in the middle of the river and painstakingly haul himself on top of it. Despite becoming increasingly cold, he managed with great difficulty to work his way across the river to safety. After a brief search on his own for his friend, the kayaker managed to raise the alarm. It was several days before his friend’s body was found.
A passenger ferry came within 6 minutes of grounding on rocks after the officer of the watch became distracted.

The second officer had control of the vessel. The vessel was being steered by autopilot and was making 15.8 knots. A cadet was in and out of the wheelhouse, cleaning and checking the magnetic compass and he soon engaged the second officer in a discussion about it. Distracted by this conversation, the second officer forgot to alter course at the next charted position to bring the vessel around on to the approach leads for entering the harbour.

The vessel continued to track in the wrong direction for a further 2 minutes before the second officer intuitively sensed something was wrong. He broke off his conversation and hurriedly dialled a corrective heading into the autopilot.

If the ferry had been left at the previous heading for a further 6 minutes, it would have grounded on rocks.

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

1. When the second officer became distracted, there was no one else on the bridge to raise the alarm. Had a dedicated lookout been on the bridge, it is likely that this incident would not have happened. A lookout can give the task their full attention, and not be performing any other duties at the same time.
Poor communication between a mate and master and poor position-fixing were important factors in the grounding of a deep sea factory trawler on a shoal.

The mate had accepted control of the vessel from the master with only the briefest of handovers. The master’s instructions centred on advice to “keep an eye on her ...”.

The trawler was drifting just outside of the harbour while waiting for the return of its zed boat, which was ferrying a welder back to port. The welder had remained on board while the trawler was manoeuvred out of the harbour as he had a short job to finish.

During the wait for the zed boat’s return, the mate monitored the vessel’s position via GPS. He noted a nearby area of shoal ground, and that the vessel was drifting toward it, but was unconcerned and took no other steps to pin point the vessel’s precise location or determine the set and rate of drift.

The mate later said he felt “comfortable” with how close the trawler was to the shoal ground despite this lack of information.

When the zed boat returned, the mate set the propeller pitch control lever to 30% ahead, which gave a corresponding speed of about 4-5 knots, and put the helm hard over to port. As the trawler started to make way through the water and begin to turn to port, the mate heard a bang and felt the vessel shudder. About 15 seconds later, there was a second shudder, which brought the master to the bridge.

The digital readout on the echo sounder showed the ground was shoaling rapidly, and the crew realised the vessel must have touched the bottom. Examination of the GPS snail trail showed the vessel had drifted over a charted shoal ground area.

After checking the vessel thoroughly for water ingress, and the surrounding water for any evidence of pollutant spillage, the master sent for a pilot and the vessel returned to its berth. A diving inspection showed only minor paint damage had been sustained.

1. This was the second time one of the company’s fishing trawlers had grounded, and although proper passage planning procedures had been documented by the company, they were not followed on this occasion.

2. The crew should have determined before they set off how long the vessel was likely to lie off port while the welder finished his work, and whether the vessel should anchor. If it was decided that the vessel could lay to, an optimal position should have been decided on that took account of navigational dangers, and the set and rate of tidal streams and current.

3. A proper watch handover from the master would have included a reminder to the mate to obtain and plot regular positions, drawing the mate’s attention to the rate and drift of the vessel, and a reminder to use the main engine to maintain the vessel’s position.

4. Monitoring a GPS track alone is not an adequate means of position fixing.
A passenger ferry with 676 people on board was forced to sound a number of warning blasts when a recreational launch crossed directly in front of its path.

The ferry was operating within a narrow channel and had the right of way both under the maritime rules and local bylaws. Even upon hearing the ferry’s warning blasts, the launch’s skipper did not manoeuvre his vessel out of the way, but instead altered course onto a heading that increased the launch’s angle of approach across the bow of the ferry.

Although the launch crossed the ferry’s path about 300 m ahead, the skipper then chose to track toward the ferry and pass down its starboard side at a distance of just 30 m.

When interviewed, the launch skipper said he had no recollection of the incident. The ferry master said the skipper may have passed so closely alongside in order to track between the ferry and a water taxi that was heading along the channel about 60 m off the starboard side of the ferry.

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

**LOOKOUT! POINTS**

1. The launch skipper lacked a proper understanding of maritime rules and bylaws to be able to navigate his launch safely and keep clear of other traffic. It would have been far safer not to attempt to cross in front of the ferry at all, but given that he chose to do so, the launch skipper had the ferry on his starboard side, and should therefore have immediately given way as required by Maritime Rule Part 22.15.

2. Every person on watch is required to keep a good lookout. The ferry master was fully aware of the position of the launch, however the launch skipper was clearly not appreciative of his near approach to the ferry and of the need to keep well clear.

3. Local bylaws required the launch’s skipper to ensure he did not impede the progress of vessels, such as the larger passenger ferry, which was over 500 gross tonnes, and to keep as near to the outer limit of the narrow channel that lies on its starboard side as is safe and practicable.

4. A large passenger ferry, operating in a narrow channel has very few options and time to be able to manoeuvre clear and

the skippers of all recreational craft and other vessels under 500 gross tonnes should have this in the forefront of their minds when navigating within harbour limits.

5. Once the launch skipper was alerted to the situation, he was required to take early and positive measures with due regard to the observance of good seamanship to ensure there would be no risk of collision. He should have moved sharply out of the way, rather than simply increasing his crossing angle across the ferry’s bow.

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4. A large passenger ferry, operating in a narrow channel has very few options and time to be able to manoeuvre clear and
The skipper of a coastal trawler had been awake for 51 hours, before having a one and a half hour nap. Soon after this short break, the trawler grounded.

The trawler was being navigated around islands and nearby reefs by autopilot. The skipper, who had skippered the vessel for 10 years, was using GPS as his sole navigation aid. He was not using GPS way points, but was following a cursor line for his intended course ahead. He did not have the radar operating nor any alarms activated on the GPS, echo sounder or autopilot.

The grounding occurred during the vessel’s journey back to port. The skipper and crew were primarily focused on processing and stowing the catch below before reaching port. The skipper was intermittently returning to the wheelhouse to check the vessel’s course.

About 10 minutes after one such check, the skipper and crew were suddenly thrown off their feet as the vessel grounded. The main engine stalled and the skipper hurried to the wheelhouse to make a Mayday call. Checking the engine room, he saw water coming in and instructed the crew to launch the ship’s dinghy.

The skipper and one crew member clambered on board, but as they did so,

1. The skipper cannot have made any effort to monitor the vessel’s navigation after his final check at the wheelhouse, or he would have realised the vessel was about to ground. This poor situational awareness is a typical symptom of the level of fatigue the skipper was likely to have been experiencing. The skipper was focused on the single task of getting the catch stowed before heading clear of the outlying island and back to port. Being able to focus only on one task is a typical symptom of fatigue. The skipper stated that he had always fished for long periods without going to sleep, and was used to it. This attitude displays a dangerous lack of awareness of the effects of fatigue on performance.

2. The skipper had no alarms set on his electronic navigation aids. Although he was not in the wheelhouse just prior to the grounding, it is good watchkeeping and seamanship to set alarms as a matter of course.

3. Setting up systems onboard to help manage fatigue is a fundamental part of a modern fishing vessel. It is the responsibility of the owner and skipper to put together a simple system to help recognise and respond to fatigue.

4. The skipper must involve all crew in this process. All persons onboard the vessel must take ownership of this issue and be able to ensure each other are okay.
Up until now there's been a lack of "off the shelf" fatigue management programmes for the operation of vessels found under Safe Ship Management (SSM). But that's all about to change. MNZ is developing a programme to improve fatigue management across the maritime industry, concentrating on the SSM sector.

Fatigue is a common experience for seafarers and contributes to their high death and injury rates compared to other workforces. Both SSM and watchkeeping rules require owners and skippers to take active steps to manage fatigue. MNZ’s new suite of fatigue resources will be launched later this year. The aim of the project is to:

- provide training to SSM companies and maritime safety inspectors to assist owners, skippers and crew to develop approved fatigue management plans within the SSM regime
- help and train vessel owners, skippers and crew to develop plans to manage fatigue in ways that are right for their vessel and operation
- create awareness and understanding by crew and their families of fatigue as a matter of personal safety.

If you would like to know more about the fatigue management programme, contact enquiries@maritimenz.govt.nz

AND THE RULES SAY ...

Loss of concentration, delayed reaction time and a willingness to take risks are all signs and symptoms of fatigue says the advice provided in Advisory Circular Part 31C Crewing & Watchkeeping – Fishing Vessels (October 2001).

Maritime Rules 31C.14 and 31C.15 cover fitness for duty and fatigue and specify that it is the owner and master of a fishing vessel's responsibility to ensure all crew are fit for duty when keeping watch.

The information from that Advisory Circular (which includes a table listing the effects of fatigue and associated signs and symptoms) are enclosed with this issue of Lookout! and can be downloaded from the website: http://www.maritimenz.govt.nz/rules/advisory_circulars.asp
Safety Bulletins

Maritime NZ 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 targeted to those sectors directly involved. They are also available to the wider maritime industry via our website. We welcome any comment you may have on the recommendations or content in general. The bulletins produced to date are listed below, with a brief description of the three latest issues.

Latest issues

Liferafts and their release mechanisms
May 2007 Issue 10

It is blowing 40 knots, raining, night-time; your vessel is sinking and you have to abandon ship. Your best chance of survival in the freezing sea is a liferaft. If your vessel capsizes, can the liferaft escape? This bulletin describes common problems, ie make sure the:

- hydrostatic release unit is connected correctly
- liferaft is not prevented from escaping by extra lashings or rigging on the vessel, or by a cover on the liferaft.

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

A seaman was killed in 2006 on a visiting foreign vessel during mooring operations while leaving a South Island port. His death was caused when a bight in a bow spring line, in which he was standing, suddenly tightened around his body and then pulled him through the mooring bitts.

A previous accident in the 1990s at a North Island port resulted in four seamen being killed when a mooring line snapped and recoiled back onto the foredeck of the ship. This was an example of a snap-back hazard.

This bulletin describes bight and snap-back hazards and advises how best to avoid them.

Manpower and responsibilities during mooring operations
April 2007 Issue 9

In 2006 a seaman was killed on a visiting foreign vessel during mooring operations. His death was caused by a mooring line bight as highlighted in Issue 8 (see following). The purpose of this bulletin is to focus on two other issues that also contributed to this accident:

- manpower during mooring operations
- duties of hazard watch and communications during mooring operations.

Past issues

February 2007 Issue 7
Freeing port covers on fishing vessels

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

November 2005 Issue 5
Low sulphur diesel fuel

October 2005 Issue 4
Ammonia leakage on fishing vessels

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

September 2005 Issue 2
Recommendations for ships carrying fumigated bulk cargoes

August 2005 Issue 1
Senhouse slips used in mooring systems

For more information you can:
- download the safety bulletins from the website: www.maritimenz.govt.nz
- email us at: enquiries@maritimenz.govt.nz

Feedback

Your feedback and ideas on Lookout! are very welcome.

If you’d like a particular topic covered in our next edition, then please contact the publications team by email: publications@maritimenz.govt.nz or phone 0508 22 55 22.

Maritime Fatalities 2007

From 1 January to 31 May 2007, there were eight fatalities – two in the commercial sector and six in the recreational sector.

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To receive these quarterly publications, or to change your address details or tell us about others who may want to receive them, email us at publications@maritimenz.govt.nz or phone 0508 22 55 22.

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