

Seascope

Maritime Safety Queensland

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

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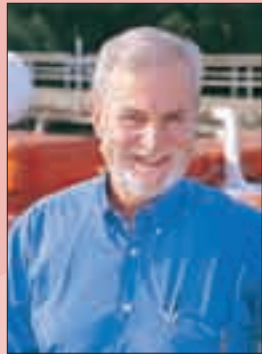
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Queensland Government
Maritime Safety Queensland

From the helm



Captain John Watkinson,
General Manager,
Maritime Safety
Queensland

2007 was a big year for Maritime Safety Queensland, with our focus clearly on the future and the challenges presented by the continuing growth in boating.

There are now over 216,000 registered recreational vessels, 6000 commercial vessels and over 13,500 trading vessel movements in Queensland ports each year.

At the predicted growth of 5% per annum, it is expected that Queensland will have 300,000 recreational and commercial vessels by the end of 2013 – in just six years time. At the same time it is expected that annual trade shipping movements will have increased to 19,000.

With this growth in mind, Maritime Safety Queensland dedicated much of its 2007 work program to conducting reviews and canvassing public and industry opinion about appropriate ways of dealing with the obvious flow-on affects associated with increased waterway usage.

Four major reviews were launched in 2007:

- Review of speed limits on the Gold Coast
- Release of the Recreational Boating Discussion Paper

- Commercial fishing safety pilot project
 - Release of the Boat Share Discussion Paper
- Findings from these reviews will guide the agency in developing policy and legislation to ensure the ongoing safety of all waterways users.

2008 will see Maritime Safety Queensland undertake further consultation with the maritime industry and the boating community, addressing specific proposals that have emerged from these reviews.

We will once again be looking to boaties and industry to get involved in consultation programs, and provide us with feedback on how best to implement changes to marine safety legislation.

Sadly 2007 also highlighted the dangers of boating with September being a horror month for marine incidents. Six people lost their lives and a further six people were seriously injured.

I urge everyone who takes to the water to be prepared, take care, keep a good lookout, obey the rules of the road at sea, and most importantly, act responsibly.

Boating should be a relaxing and enjoyable past time. Don't risk your life or those of your family and friends by being careless on the water. Let's all strive to make 2008 a fatality free year.

Safe boating.



Community consultation

Maritime Safety Queensland is committed to community engagement and consultation. Current projects under way include:

- **Marine Industry Survey – closing end January 2008**
- **Boat-share Information Paper – closing date 29 February 2008**



New Marine Information Bulletins

Marine Information Bulletins cover important information for the maritime industry, and are also available on the Maritime Safety Queensland website under 'Publications', or by contacting your local Maritime Safety Queensland office. The latest bulletin is:

- **Request for comment on the Issues Paper of the NSCV Part C Subsection 6B, Buoyancy and Stability After Flooding**
- **Request for comment on the Issues Paper – NSCV Part D, Crew Competencies**

Upcoming events - 2007/08

APRIL

24-27 **Tinnie and Tackle Show,**
RNA Showgrounds,
Brisbane

MAY

22-25 **Sanctuary Cove International Boat Show,**
Sanctuary Cove

27-29 **National Marine Safety Conference, Adelaide**

Contacting Maritime Safety Queensland

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Bundaberg _____ 07 - 4131 8500
Gladstone _____ 07 - 4973 1200
Port Alma _____ 07 - 4934 6929

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

Log-off please

Logging-on and leaving your trip plan details with rescue authorities is a great safety tool, but please remember, if you've logged-on, you need to log-off.

That's the message from Queensland Water Police to boaties who do the right thing and log-on with a local rescue authority when they head out to partially-smooth or open water.

Senior Constable Paul Hubbert of Queensland Water Police said when a person fails to log-off, they are reported as overdue. In due course, Water Police will initiate a search. He emphasised that while boaties 'will not get into trouble' for failing to log-off, it can lead to expensive and unnecessary searches.

"In summer or on a long weekend, it's quite common to have 10 or 12 overdue boaties," Senior Constable Hubbert said.

"We have, on occasions, started a search and rescue, because we have been unable to locate the boatie at home, in the car park, or anywhere else.

"Sometimes we'll find the boat and they'll be in genuine trouble, but often we have to send someone around to a house early in the morning, wake them up, and find they've been home for several hours."

When you log on, make sure you leave your home or a mobile phone number so volunteer rescue authorities or Water Police can check your whereabouts in case you do forget to log off.

If you are to be unexpectedly late in returning to the ramp or marina, advise the rescue group, Water Police or family so arrangements can be made for when you do arrive. The number of Police Headquarters is 3364 6464 (24 hours).



Maritime Safety Queensland officer Tony Dorante inspects a tinnie for seaworthiness.



Over 1000 boats inspected in Torres 'census'

By early 2008, the first boating safety census of its type will be completed in all 21 communities of the Torres Strait. At its conclusion, local Maritime Safety Queensland officers will have inspected well over 1500 boats for seaworthiness - almost every boat in the remote region.

The inspection scheme is part of the ongoing Torres Strait Marine Safety Program, which also includes a range of training and community-based initiatives, designed to improve marine safety in one of Australia's most treacherous and remote marine zones.

As the project leader, Frank Thomson, Maritime Safety Queensland's acting manager for the region, said a theme emerging from the census is the strength of materials used in hull construction, and their suitability for the area's conditions.

Besides inspecting boats, Maritime Safety Queensland officers have also taken the opportunity to discuss the importance of safety equipment and trip planning.

"A boat that survives well in Cairns, will not survive here," Mr Thomson said.

"The people here are travelling between islands all the time, and with tides, currents and weather, its 'rough-as-guts' here most

of the time. Boats with thin bottoms – for example tinnies made from 2mm metal – can develop stress fracture cracks."

Mr Thomson said that besides sea conditions, wear-and-tear from travelling being moored over coral or being left on the beach, also impacts the integrity of hulls. Boats with cheaply made fibreglass hulls can also be subject to cracking.

"All the boats we have inspected that are unseaworthy are out of the water until they get repaired. There's a boat repairer here that has about 40 dinghies in his yard – they'll be getting new bottoms using four or five millimetre plate," Mr Thomson said.

The census has revealed there are many more boats than anticipated throughout the islands of the Torres Strait, possibly up to one vessel for every three-four people (compared to Queensland overall where there is about one boat for every 20 people).

Data gathered from the census will be compiled, and analysed giving a detailed picture of vessel quality in the region, the extend that safety equipment is carried, and a better understanding of the ways the vessels are used, including travel behaviour and trip planning.

Stephen Bull (Vessel Traffic Services Operator and marine enthusiast)

Mr Maritime of Cairns

The latest in marine technology surrounds Stephen Bull at his work station.

As one of several Vessel Traffic Service (VTS) Operators for the Cairns region, Stephen's workplace buzzes with radar, satellite and multi-media technology.

Computer screens flicker, instantly identifying incoming ships by name, position and speed, while the radio crackles with the voices of captains and pilots.

Stephen, and his colleagues at the Cairns VTS centre, monitor and control the movement of ships in eight ports at the top end of Australia – from Karumba in the Gulf of Carpentaria, around Cape York, and south to Mourilyan.

The technology behind Queensland's VTS centres, such as Cairns, is cutting-edge, a necessity to maintain safety as the number of shipping movements within the state's ports increase.

But don't be fooled by the keyboard and computer screen. Stephen is more than a desk jockey and button-pusher.

A third-generation marine enthusiast, Stephen can spin many watery yarns – some funny, some interesting and some disturbing. He can perform staggering feats in rope work, owns a collection of maritime artefacts and dabbles in several maritime pursuits that are truly unique.

Following in his father's footsteps, Stephen worked as a marine mechanic for over 15 years. A legacy of his trade is a collection of 30 antique outboard motors, many fully restored, stowed at his home garage. A 1948 British Seagull is the oldest and a favourite. Outboards bearing the brand names British Anzani, Scott-McCulloch, Villiers, Victa and Archimedes Penta are also represented, each in working condition.

"My grandfather was in the merchant navy during World War I, sailing on the Russian arctic convoys, and dad was a marine mechanic. We had our own business in Cairns, and he taught me my trade," said Stephen.

"I've got a photo of my father when he was 20, surrounded in his workshop by all these outboards. It's a precious photo and it's what prompted me to start collecting and restoring the outboards."

Stephen displayed the collection at a recent open-to-the-public Marine Safety Day at the Cairns Maritime Operations base at Portsmith, attracting attention from old salts and young boaties alike.

Next to the antique outboards in Stephen's garage is a 14-foot (4.2 metres) Whilly sailing boat, another piece of marine history. While Stephen regularly visits the outer reefs off Cairns in his five

metre centre-console for a spot of fishing, the Whilly, provides relaxation.

"It's a very traditional type of boat and not something you see a lot of these days. The hull design goes back to the Viking days in the Shetland Islands, and it's got a fairly unusual sailing rig – a standing lug-sail. Its a double-ended dory, and rows as well as it sails.

"It was this boat that inspired me to get more serious about knots and rope work – turks-heads, whippings and lashings – in keeping with the type of boat. And I learnt quite a bit more about ropes from an old salt called Len Foxcroft when I worked on the Cairns wharf as head linesman (responsible for tying and untying ships on the wharf)."

Stephen followed his 15-year stint as a marine mechanic with nine years working for the Cairns Port Authority, trying his hand at almost everything. He also worked on the Torres Strait pilot launch transferring pilots to and from ships traversing through the Torres Strait region.

"At the Cairns Port Authority I was launch master, port officer, did general workshop duties, a bit of dredging, and assisted with hydrographic and land surveying – all sorts.

"When I was a port officer I looked after the berthing of ships, so I had a fairly big interaction with pilots and masters, making sure the vessels went in the right place along the wharves.

"For a time I was also in charge of pile moorings, and looked after the yachties.

"When I left, I became Mr Mum for seven years, with my wife Sandy going back to work as a teacher and me looking after the kids, Caitlin and Peter. It gave me a chance to return to my trade – as a marine mechanic – and work from home. I also took on the job of head linesman on a casual basis – which suited my new life style."

For someone with such a rich history of service around the local port, Stephen's next





Above: Stephen Bull's father, a marine mechanic, pictured as a young man with some of the outboards Stephen has now restored to working order.



Above: A full restored 1948 British Seagull is the pride of Stephen Bull's collection of antique and restored outboards.

career move to the VTS centre at Cairns – the hub of marine activity in the area – was a natural progression.

While not approaching the hectic pace of air traffic control centres, Stephen said that working in the VTS centre presents its own set of challenges.

“With eight ports to monitor we have a lot of different things happening in an area the size of Europe. Weipa is especially busy with commercial activity – they’ve got the bulk bauxite carriers coming and going.

“We’ve got 18 different radio channels with transmissions always coming in, and just keeping up with all the scheduling for the different ports can be quite a juggle.

“When putting together the ship schedules we liaise with pilots, agents, masters of ships and some of the port services. You need knowledge of tides and port procedures – there’s a lot to know and my experience on the waterfront definitely helps.”

Regardless of the pace of work, Stephen finds time for one more maritime hobby

– scrimshaw, the fine art of engraving the bones of marine mammals.

“Whale bones are hard to get, so I mostly use beef bone. But I’m always on the lookout for old whale or dugong bones.

“It’s a traditional marine craft, so I engrave sailing ships, dinghies, fish or whales. I stick to marine images because that’s my interest.”

Throughout his career Stephen has recorded various unusual events he encountered during the course of a work day. One day he may publish his salty tales featuring the many characters he met on the waterfront.

Regardless, Stephen Bull himself is certainly part of maritime history in Cairns.

Giving consultation sea-legs

Unlike their port-based cousins, many commercial fishermen in northern Queensland spend most of their lives at sea. Months can pass without returning to home base. This presents all kinds of challenges to Maritime Safety Queensland when trying to engage with the fishing industry.

So staff of Maritime Safety Queensland recently took consultation straight to the fishermen’s own ‘backyard’, testing sea legs in the process.

Important safety changes are looming for commercial vessels in Queensland. In a high risk occupation that has a 16-times higher fatality rate than the average job, Maritime Safety Queensland is taking its role seriously to minimise fishermen’s risk of exposure to injury or death.

With this in mind, Keith Brightman of the Standards and Safety Branch of Maritime Safety Queensland spent 10 days on commercial fishing boats travelling throughout the Torres Strait, catching up with skippers and their crew.

Keith said that this exercise proved very fruitful, and he gained a new understanding about this unique group of individuals.

“One of the most pleasing findings was that the majority of fishers are genuinely concerned about personal safety and are not too averse, cost considerations aside, to changes that improve their chances of survival at sea,” Keith said.

Keith said that he had many frank and open discussions with captains and crew. He came to understand the extent of

isolation experienced on board, and why many ‘traditional’ methods of communication used by government – meetings, emails, postal communication, websites and teleconferences – have limited or no application for many fishermen.

“Taking time to attend meetings is a luxury for most Queensland trawler operators, particularly at a time when profit margins are so lean,” he said.



The law and you

Readers' question:

Bilge Care

Question: I have recently purchased a boat charter business. Due to a leak in the gearbox's rear-main oil seal, oil often enters the boat's bilge. Having just purchased the business, my funds are somewhat limited, and fixing the oil seal is a longer-term goal, so I'm looking for other solutions.

Installing an on board separator system is very expensive, and there is no oil disposal facility in my home port.

Are you aware of any affordable solutions or systems that will stop the oil being discharged overboard? The last thing I need at the moment is a fine.

Answer: A 'catch-all' below the leak is a low-cost solution. This is a tray, lined with oil absorbent pads which catch the oil directly. Dispose of the absorbent pads ashore as required.

Also, clean your bilge as often as possible. Use absorbents to mop up excess oil or fuel, wash your bilge with biodegradable degreasers or detergents, and keep your oily rags in a metal rubbish bin with a lid to reduce the risk of spontaneous combustion.

Saving your pennies for an on-board separator system is worth considering, as it could save you money if you can gain access to an oil disposal facility. These systems that consist of a sump pump, an 'oil smart' switch, oil indicator and bilge filters, filter all oil from bilge water before it is discharged.

Typically, the bilge water is pumped from the bottom of the bilge through two filters in series, and then discharged. The oil smart switch permits the water layer only to be pumped to the filters. The oil layer remains in the bilge until it can be pumped into the slop tank.

An oil indicator visually indicates when the filters are due to be changed. These filters cost around two cents per gallon.

Some businesses have reported savings through installing such systems, not to mention avoiding a fine.

If oil does spill into the water, despite all precautions, use absorbents to mop it up and report the incident immediately to Maritime Safety Queensland. Do not use dispersants or other cleaning chemicals as these can increase the toxic effects of oil spills.



Release of Boat-share Information Paper

More people are now enjoying the thrill of boating in high end, luxury vessels thanks to the booming boat-share industry. Shared ownership significantly reduces the cost, but not the responsibility and skill required to navigate large, powerful boats through increasingly crowded waterways.

In response to safety concerns arising from the popularity of these schemes, Maritime Safety Queensland has released an information paper seeking public input on future policy direction.

"In the interest of marine safety, a clear and equitable boat share policy is needed to ensure that boat share scheme vessels are operated safely," Captain John Watkinson, General Manager of Maritime Safety Queensland, said.

"While similar in nature to bareboat or hire and drive operations, boat-share schemes have, to date, escaped the more stringent safety requirements applied to these market segments, because the vessels were in many instances incorrectly registered as recreational vessels.

"On the other hand, Queensland's bareboat and hire and drive industries are subject to commercial registration and operating requirements. This is due to the high level of usage and the relative inexperience of many of the customers of bareboat and hire and drive operations.

"Commercial vessels which provide a service to the public need to adhere to a higher standard of safety so the safety of those on board is not jeopardised," Captain Watkinson said.

The information paper is the first step toward Maritime Safety Queensland developing a consistent and equitable policy position on boat-share schemes. It is intended that this policy position will provide the necessary safety outcomes while encouraging continued strong growth in boating and efficiency for the industry.

It canvasses the application of the *Transport Operations (Marine Safety) Act 1994*; and *Transport Operations (Marine Safety) Regulation 2004 (Qld)* to boat-share schemes to identify how the existing legislation should be applied.

Topics addressed include the definition of a recreational ship and a commercial ship; the factors that determine if a ship utilised by a boat-share scheme is recreational or commercial; and regulatory requirements for recreational and commercial ships.

"This is an important issue for the maritime industry and one on which I would encourage anyone affected to have their say," Captain Watkinson said.

For further information, or to access the paper go to www.msq.gov.au.



Hitting a turtle is trouble

The master of a fishing trawler that collided with a boat from the Royal Australian Navy, being manned by a Queensland Police officer, was fined and convicted in a Brisbane court.

The incident happened when the Navy diving operation ship, *Turtle*, was anchored in Moreton Bay with a Code A flag displayed, signifying the presence of divers.

Meanwhile, the *Nessa Jane* was travelling in a northerly direction at about six knots with both stabiliser arms deployed horizontally.

No-one on *Turtle* noticed the approaching *Nessa Jane* until it was about 100 metres away. The Master of the *Nessa Jane* heard several blasts of the *Turtle's* horn and took last minute, but futile, evasive action.

Although no one was injured, the *Turtle* sustained damage to its wheelhouse, guard rails, deck and life raft. The coxswain on the *Turtle*, a Detective Sergeant with the Queensland Water Police, boarded the *Nessa Jane* and engaged the master in a conversation.

In court, the master of the *Nessa Jane* admitted that in hindsight, he was not maintaining an adequate watch, was convicted for breaching four Collision Regulation Rules, and was fined \$2000.



Pair prosecuted over marine pollution incident

The master and skipper of a 14m timber-hulled fishing trawler were prosecuted late last year after their boat sank causing marine pollution at Rosslyn Bay, Yeppoon.

Previous to the incident, the trawler “Kerry K” was in a long-term state of disrepair and was unseaworthy. The harbour master immediately commenced oil pollution containment procedures after the the submerged vessel began to leak diesel fuel into the harbour.

Maritime Safety Queensland continued mopping up leaking diesel for over two weeks until the vessel was salvaged. At least 2000 litres of oil leaked from the vessel, most of which escaped into the marine environment.

Both the skipper and the owner of the ship entered pleas of guilty to breaches of the *Transport Operations Marine Pollution Act*, and were fined \$12,500 and \$10,000 respectively.

General Manager Maritime Safety Queensland, Captain John Watkinson said the case should serve as a warning to owners and masters of unsafe vessels.

“Maritime Safety Queensland is determined to ensure that owners and operators understand and meet their responsibilities to maintain the seaworthiness of their vessels and protect the marine environment in which they operate,” said Captain Watkinson.

Double trouble for PWC owner

The owner of a runaway PWC which struck a swimmer at Moreton Island ran into double trouble when he provided false information on a marine incident report.

Sandgate Magistrate Court found the owner of the stand-up-style PWC guilty of operating a ship unsafely and aiding and abetting an unlicensed rider, fining him \$4000. The court also found that the owner falsely claimed to the shipping inspector that he was riding the PWC at the time of the incident.

The true rider of the PWC fell off the PWC before it careered out of control and struck a swimmer; he was fined for unsafe and unlicensed operation of a ship.

The incident happened after the owner had instructed the unlicensed rider on how to ride the PWC for about 20 minutes. Despite the tuition, the rider travelled for only two metres before falling off.

The PWC continued to travel at speed toward two four-year-old boys swimming on the shore, a technical fault causing the throttle to remain open.

An adult managed to grab the boys before they were hit by the PWC, but was struck on the legs. She was later transported to Redcliffe Hospital by the Coastguard, suffering severe bruising to both thighs.

The owner said he had falsified the marine incident report to ‘take full responsibility for the accident,’ but all he succeeded in doing was earning himself a bigger fine, and the unlicensed operator a further fine of \$1500.



Illustration purposes only.

Passengers and alcohol shouldn't mix

It's a statistical fact: many boaties in Queensland believe that there's no danger if passengers on board their boat drink alcohol in excess of the legal limit.

What does the typical Queensland boatie look like?

Something like this, according to data collected through the Recreational Boating Survey:

- Male 55+ living in south-east Queensland
- Has a recreational marine driver licence (or equivalent)
- Frequents rivers or estuaries in his 4-6 metre speedboat
- Takes one or two other people on a trip the lasts between 3-5 hours
- Always checks the weather before going out – using either the TV or internet – and checks tides (sometimes uses the Maritime Safety Queensland Tide Tables)
- Carries life jackets, V-sheet, flares, spare fuel on board and uses mobile phone for communication
- Tells family (for example wife) where he is going
- Disposes of onboard garbage in a bin on land
- If drinking alcohol while on the water, considers it unsafe for the skippers to exceed .05
- Understands General Safety Obligation and regularly maintains boat



Of over 2000 boaties throughout Queensland who took part in the 2006 Recreational Boating Survey, a troubling 28% indicated that, provided the skipper remains under .05, it is acceptable and safe for passengers to drink to excess.

Despite popular opinion, Queensland Water Police Senior Sergeant Warren Francis said there are ample reasons for passengers on boats to practice drinking restraint.

As someone who has attended many marine incidents, Senior Sergeant Francis, said that even though it is legal for passengers to be over the blood/alcohol limit applying to skippers, everyone should consider the extra dangers of on-water drunkenness.

“People frequently forget the third dimension,” he said. “If you have an incident on the road, the driver and passengers can sit on the side of the road and wait for the emergency services. When you are involved in a marine incident and the vessel is sunk, everyone goes into the water.

“Medical research shows that, if you have consumed alcohol, the body loses the ability to self regulate temperature and therefore cools down significantly faster. Hypothermia can set in more quickly.

“If a person is inhibited by the effects of alcohol, you have someone with a rapidly falling core body temperature, with limited or no ability to do anything about it.”

Results from the survey which was circulated to recreational boaties around the state, revealed that those in the 25-34 year old age group were more likely to drink while driving a recreational boat.

The survey posed 45 questions altogether, covering a broad range of subjects relating to boating safety – equipment and practices

– and marine pollution. Findings, such as those relating to boaties who frequent open waters, will assist in formulating future recreational vessel management and education initiatives.

Data from the survey suggested that boaties who frequent open waters were only slightly more likely to practice safe boating than those who use their boats in smooth or partially smooth waters. This is despite the increased risks of boating more than two nautical miles offshore.

For example, a small but significant 7% of all boaties said they did not check the weather forecast before making a trip in their boat, and those who frequent open waters were only fractionally more likely to check the weather forecast beforehand.

The carriage of EPIRBs, flares, V-sheets and spare fuel also raised concerns, as did the monitoring of the expiry dates on EPIRBs and flares.

The use of mobile phones as the principle source of communication while boating continues to climb. In the most recent survey 78% of boaties said they used mobile phones more often than any other means of communication, up from 67% in 2005 and 58% in 2003.

While mobile phones can be effective, they are not designed for on-water communication. Battery life, lack of coverage and their non-use by maritime safety authorities make them vastly inferior to other forms of communication such as VHF radio.

The information collected through the survey helps Maritime Safety Queensland target education messages and identify risk areas.

The full report of the 2006 Recreational Boating Survey is available on the Maritime Safety Queensland website.

Eyes: front and centre

A slight chop dimpled the blue water off Hamilton Island on a cloudy afternoon. People on a variety of water craft enjoyed the idyllic conditions as the daylight hours drew to a close.

A 10.5 metre Mustang-powered wake-boat sped across the waterway with a wake-boarder in tow. Both the observer and the driver looked back to see the skier fall off. The driver took immediate action, swinging the wake-boat around while keeping an eye on the fallen skier.

Several rowers in an outrigger canoe, quickly boarded their paddles as they realised their craft was in the path of the oncoming powerboat.

In panic, one of the rowers stood up in the canoe, waving a paddle in the air. Another started yelling, hoping to attract the attention of the boat's driver who was looking astern.

The warning failed to stop the collision. As a result of the impact, one of the rowers sustained a compound fracture to his leg. He required a prolonged stay in Mackay Base Hospital and several operations.

The driver of the wake-boat later admitted he had failed to keep a proper lookout and was convicted of unsafe operation of a ship causing grievous bodily harm.

Lessons

- Any boat undertaking waterskiing of any type (towing of person or persons) must have a capable observer who is 12 years or older. The observer should be instructed to watch the skier all times and communicate any happenings, such as the skier falling off, to the operator of the boat. The skier should use predetermined hand signals to communicate with the observer.
- If the observer is doing their job correctly, there should be no need for the operator of the boat to look behind. Typically boats engaged in skiing travel over 12 knots. The operator is responsible, in the first instance, to keep a proper lookout in front of the boat. Even at 12 knots, a boat travels about 30 metres in five seconds. In Queensland's crowded waterways, five seconds of inattention can lead to disaster.

Portable navigation system reaps vast benefits

Pilots navigating ships in Queensland's busiest ports are now using Portable Piloting Units (PPUs) – high-tech portable units that provide pilots with a separate source of navigation information, independent of the ship's equipment, and deliver vast savings to government and industry as a result.

The PPU typically takes about three minutes to set up once the pilot arrives on the ship's bridge. It consists of a sensor unit with twin aerials built into a waterproof case and connected by wi-fi to a rugged laptop computer. The laptop shows in real time the ship's outline and track superimposed over an electronic chart. By accessing highly accurate satellite positional data and using electronic navigation charts (ENC) accurate to within centimetres, the PPUs provide pilots with a valuable tool for navigating through narrow channels and berthing or unberthing close to infrastructure.

While pilots continue to navigate visually and with traditional charts, PPUs support and enhance the pilot's ability to manoeuvre a ship in close quarters, also improving safety.

The top level PPUs used in Queensland's busier ports also feature a 'predictor', which displays the ship's predicted position, for example in 30 second's time, given the ship's

current position, speed and the affect of tide and wind. This feature, coupled with bow and stern vectors, is invaluable when manoeuvring large ships in confined spaces.

Captain Chris Thompson, Director of Pilotage and Hydrographic Services, Maritime Safety Queensland, said the units gave pilots a choice of using both visual and instrument navigation in a similar vein to aircraft and they had already delivered a significant return on investment.

"At Weipa during the wet season, if a pilot was departing the port and approaching the main channel and a heavy rain squall occurred, the PPU would enable him to continue safely through the channel in spite of the resultant restricted visibility," Captain Thompson said.

"And at Hay Point, because of the accuracy of the system, pilots are able to load up to a slightly deeper draft and lessen under keel clearance. This can deliver great financial benefits to mining companies over the course of a year."

Captain Thompson said that the PPUs are one important component of Maritime Safety Queensland's larger E-Navigation project,

the other being the shore based monitoring capability. This project was initiated as a result of the recent redevelopment of Hay Point's shipping infrastructure, which included a new dredged departure channel. Fewer navigation aids were needed due to the use of the PPUs by MSQ's pilots, leading to a saving of around \$10 million.

"On top of the up front saving, we estimate that the E-Navigation project in its totality will bring an additional \$20 to \$25 million per annum into the Queensland economy from increased coal tonnage.

"This is a significant step forward considering the PPUs and support systems initially cost around \$800,000."

The PPU system roll-out, including training of the pilots in its use, started in early 2007. All Hay Point licensed pilots are now fully trained, and the system has been endorsed by the Mackay Regional Harbour Master. It is expected that other major ports throughout the state will soon follow.

Highly accurate Differential Global Positioning System (DGPS) reference stations situated in Weipa, Townsville, Hay Point and Gladstone, owned by Maritime Safety Queensland, transmit data to the PPUs. The state's hydrographic surveyors will be using the same DGPS stations to survey ports and to create the highly accurate electronic charts used by the PPUs.

This synchronisation between chart creation and the satellite signals used by the PPUs provides pilots with an extra layer of safety and confidence in their portable navigation system.

Using a feature called PastTrack, all navigation undertaken while using the top level PPUs can be recorded and viewed later as a training and evaluation tool, potentially improving pilot performance and safety.

Left: Mackay marine pilot, Philip Palmer, demonstrates the laptop component of a portable piloting unit. Above: The hybrid aerial system is typically placed on the ship's bridge, receiving and transmitting data and connected to the PC by Wi-Fi.



Hayden wants skippers to take the lead

Australian sporting icon, test cricketer Matthew Hayden, has again thrown his support behind the National Marine Safety Committee's latest boating education campaign – so that he can pass on to boaters the lessons he has learnt the 'hard way' about skipper responsibility.

The 2007/08 summer campaign "Lifejackets – Skippers Take the Lead", aims to motivate skippers to wear lifejackets and asks them to ensure their passengers to do the same.

"When you are the skipper of a boat, you've got people's lives in your hands," added Matthew.

"When you go out boating, and I have been in this same mindset, it's easy to think "oh, nothing is going to happen today, so the "x" factor gets removed."

"This campaign gives me the opportunity to demonstrate that not only do incidences happen, they happen really quickly and you have people's lives at stake," referring to the day a few years ago when his boat hit a wave, capsized and sank off North Stradbroke Island.

Matthew had gone out for a relaxing day of fishing with fellow cricketer Andrew Symonds and friend Trent Butler, when in a matter of minutes they found themselves in the water without lifejackets on.

"We were in a position where mistakes exponentially mounted and suddenly we were hit by waves, there was engine failure, we were sitting on the bar right on the crunch zone and we got smashed."

It took the trio an hour to swim to shore, battling currents, crashing waves and eventually, shock and exhaustion.

The public awareness campaign will run from December 2007 – February 2008 and features magazine advertising, radio advertising, television community service announcements and promotional material such as flyers and stickers for boat shows around the country.



The objectives of the campaign is backed up by marine-incident data and the NMSC-sponsored *Personal Flotation Devices Wear Rate Study 2007*.

The study recorded PFD wearing from at least 26 popular freshwater and saltwater boating locations in each state including Queensland, New South Wales, South Australia and Western Australia. Trained observers noted information on the site, weather and water conditions and the type and length of boat, boating activity, people on the boat and their PFD wear status.

One major finding in all four states was that passengers were more likely to be wearing a PFD if their skipper was wearing a PFD. When a skipper was wearing a PFD, the wear rate amongst passengers in each state ranged from 50% to 94%. In contrast, the wear rate amongst passengers of operators who were not wearing PFDs ranged from 4% to 11%.

Another major study showed that those who survive a boating incident are more than twice as likely to have been wearing a PFD compared to those who died.



According to NMSC's National Incident Database, 48 people died in boating incidents last year in Australia, and the main contributing factors were: the wind/sea state, error of judgement, alcohol or drugs and excessive speed. The major incident types were person overboard, capsizing, collision of vessels and swamping.

The NMSC's national campaign compliments Maritime Safety Queensland's upcoming "You're the Skipper, You're Responsible Campaign (see next page)."

For further details on the PFD awareness campaign or the Personal Flotation Devices Wear Rate Study 2007, go to www.nmsc.gov.au or www.safeboating.org.au.



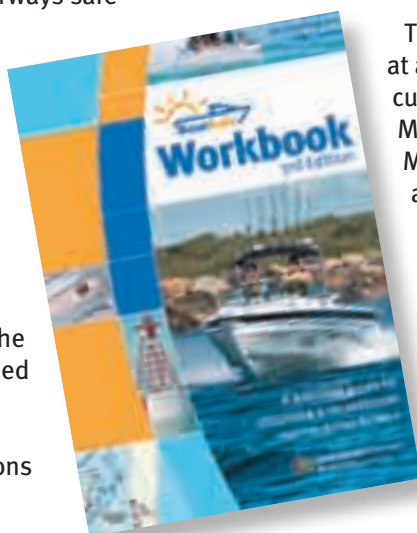
Cairns hosts Boating Safety Day

An open-to-the-public Boating Safety Day held in Cairns during November demonstrated the rich diversity of agencies and organisations involved in boating safety throughout Queensland.

Displays and demonstrations by a variety of agencies and departments showcased the services and organisations that, combined, seek to make Queensland's waterways safe and secure.

The Australian Navy patrol boat HMAS Childers was one of several boats open to the public, moored alongside the wharf at Maritime Safety Queensland's Portsmith Maritime Operations base.

Regular flare and fire-fighting demonstrations ran throughout the day, Marine Safety Officers manned an education trailer and fielded many questions, and a series of boating safety information sessions were held throughout the day.



3rd edition of workbook now available

The 3rd edition of the BoatSafe Workbook is bigger, brighter and available now.

The publication is a practical guide for anyone wanting to obtain a recreational marine driver licence, a personal watercraft licence, or update their boating knowledge.

With 20 extra pages in this edition, the Workbook includes revised and expanded information on navigating in shipping channels, the use of GPS for navigation, tidal movements and anchoring.

The workbook not only provides an excellent learning aid for people preparing to obtain their recreational marine driver's licence, but also offers experienced boaters with an excellent source of reference.

The Workbook is available at all Queensland Transport customer services centres, Maritime Safety Queensland Marine Operations Bases and some newsagents. It is also available for purchase on the Maritime Safety Queensland website (RRP \$10.30).

Some BoatSafe training providers may provide the Workbook as part of their BoatSafe course.

Collaborative relationship supports marine standards

National Marine Safety Committee (NMSC) and Standards Australia recently signed a Project Management Services Agreement that will aid in the development and review of Australian Standards for marine safety.

Made up of representatives of the Commonwealth, States and Northern Territory Marine Authorities, the NMSC was established in 1997 to guide the development and review of consistent marine safety standards, legislation and policies within Australia.

The agreement establishes a collaborative relationship between Standards Australia and the NMSC to enable both parties to better manage the development of Standards to support the marine industry across Australia.

Both organisations believe aspects of marine safety can be accelerated by NMSC providing direct support for the development of some of these Standards.

Under the agreement, Standards Australia will pilot the revision of AS1799.1-1992 Small Pleasure Boats Code - General Requirements for Power Boats, through a co-resourced arrangement allowing the Standard to be made available via free download from the NMSC website for a period of seven years from the date of publication.

For more information on NMSC or Standards Australia visit websites: www.nmsc.gov.au or www.standards.org.au

New slogan launched

Maritime Safety Queensland's future education campaigns will focus on the skipper's responsibility, with the new slogan "You're the skipper: You're responsible".

The slogan was developed and is currently being used by New South Wales Maritime in safety campaigns south of the border, and will capitalise on the high rate of boating traffic 'cross-over' between the two states.

The message being broadcast to all boating skippers as part of upcoming campaign will

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

highlight their responsibility for the safety of all passengers. Saving lives often depends on big and small decisions made by skippers in regard to their boat, its safety equipment and the way it is crewed and operated.

Look out for the new campaign throughout 2008.



Mr John Tucker, CEO, Standards Australia and Ms Maurene Horder, CEO, NMSC signed the agreement on 19 November 2007.