



Australian Government
Australian Maritime Safety Authority

WORKING BOATS

December 2018



Driving positive change

Determined. Focused. Resourceful.

Search and rescue
2018 search and rescue
recipients awarded in Darwin

Day in the life
Marine firefighter
Stephen Bourke

All in a day's dive
Safeguarding stock and
fishers for the future



Australian Government

Australian Maritime Safety Authority

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Front cover image

Attendees at WISA in Adelaide
Image source: David Carter



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Message
from the CEO

Message from the CEO

As some industries wind down in the lead up to Christmas, many working boats face their busiest time of year.

The fishing fleet is busy bringing fresh seafood to holiday tables and export markets; the tourist fleet around the country is flat out helping locals and international visitors enjoy the Australian summer; and of course, passenger vessels have their share of work Christmas parties to host—and clean up after.

Busy times bring crew safety culture into sharp focus. With workload pressure, crew need to fall back on good habits and tested safety management systems. The end of a particularly busy period is a chance to sit down with fellow crew to review systems and lessons learned.

Safety lessons from one corner of our industry often apply across regions and sectors. This edition of *Working Boats* takes you to diverse corners of the industry, from lobster fishing off Western Australia to marine firefighting in Melbourne. I hope the lessons from these lived experiences help you reassess your own safety management. Often lessons from a completely different industry sector help you see your risks with fresh eyes.

Another industry sector facing their busiest time of year is marine search and rescue. As boaties take to the water for the summer, more people always get into trouble. Volunteers and professionals crewing rescue vessels give up valued time with family and friends to keep us safe on the water during the holidays. I acknowledge their vital efforts working alongside the AMSA search and rescue staff on duty this holiday season.

Whether you're working on the water or just enjoying some time with family and friends, I wish you a safe and happy break and look forward to working with you in 2019.

Mick Kinley

Chief Executive Officer



7 Profile

#womendrivingchange

WISA raising awareness of issues impacting the commercial fishing industry.



Search and rescue awards

Winners of the 2018 search and rescue awards for outstanding courage, endurance and selflessness in saving the lives of others.



A day in the life

Marine firefighter Stephen Bourke of the Melbourne Metropolitan Fire Brigade shares his experience of responding to emergencies.



All in a day's dive

Craig Fox, Chairman of WADA talks about how they are safeguarding the stock and its fishers for the future.



Trouble on Euston Reef

On 12 August 2018 AMSA responded to two EPIRB activations near Euston Reef, north-east of Cairns, Queensland.

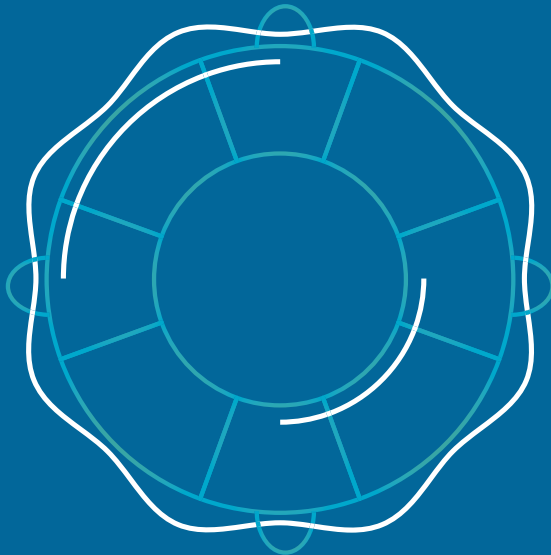
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Australian Government
Australian Maritime Safety Authority

Report your incident directly to AMSA improve safety for everyone



Types of incidents to report within 72 hours

- death or serious injury of a person
- loss of a person overboard
- an incident that could impact the safety of a vessel, those on board or nearby
- loss of a vessel
- grounding, sinking, flooding or capsizing of a vessel
- significant damage to, or fouling of a vessel (ie fire or entanglement in ghost nets)
- collisions and close-quarters situations
- structural failure of a vessel

There are two ways you can report an incident:

- complete incident report form 19 online
- download and send the completed form 19 to reports@amsa.gov.au



Call AMSA CONNECT **1800 627 484**



Visit amsa.gov.au/incident-reporting
for more information



'Tis the season

Christmas in Australia means seafood—and lots of it. But it's not only the Australian community who love and appreciate our seafood.

With Christmas just around the corner, spare a thought for our commercial fishing industry busily supplying retailers like the Sydney Fish Market, which sells more than 120 tonnes of prawns and 70,000 dozen oysters during the market's 36-hour marathon trading period.

The quantities of seafood thrown on barbies over the festive season in Australia pales in comparison to the international demand—particularly in East- and Southeast Asia.

Australia exports around \$1.4 billion of seafood each year¹, with tuna, rock lobster, abalone and prawns dominating Australian fisheries exports—a combination of wild-catch and aquaculture fisheries³.

With Australia's seafood exports only making up a small part of global seafood production, our selling point is safe, sustainable and high-quality products.

While the overall demand for seafood is increasing, production volumes in wild-catch fisheries have remained steady over the past five years and are not predicted to increase considerably.

Australia has the third-largest fishing zone in the world⁴, covering an area larger than the Australian mainland and many fish stocks are managed through a quota system to ensure sustainable levels are maintained.

Fishers usually plan their operations around peak periods. Domestically the demand is high around Christmas, New Year and Easter holiday seasons. Internationally, the market peaks around Chinese holidays like Chinese New Year and National Day Holiday—weeklong festivities that drive a rise in demand and prices for Australian seafood. Western Australian rock lobster fisher Sam Konkurat talks about how he operates more leading up to these holidays on page 3.

The aquaculture industry has grown to be one of the most valuable seafood sectors in Australia, with over 40 species commercially produced.

In 2015–16, aquaculture products accounted for 43 per cent of gross value of Australian fishery and aquaculture production (GVP), with pearls, Tasmanian farmed salmon and tuna the biggest contributors².

Aquaculture operations—particularly those that operate in, or discharge into, public waters—are required to comply

with stringent environmental controls monitored on an ongoing basis by state agencies.

Strict food health standards also apply to both aquaculture and wild-catch products. These environmental and food-safety standards ensure fish grown in Australian waters are safe to eat and the impact on the environment is controlled.

The internationally recognised quality and standards of Australian seafood and the increasing demand from Asia means the future looks bright for Australian aquaculture.

Whether farmed or wild caught, Australians are lucky to be able to rely on the high quality of our seafood. Both our farmed and wild-caught seafood gives us year-round access to staple species, while our wild-catch fisheries offer world-leading abalone and rock lobster, and seasonal access to many of the unique species found across Australia's five climate zones.

As you select seafood for the festive season this year, pause to consider the rich variety of premium seafood brought to you by Australian fishers.

1 Australian Bureau of Agricultural and Resource Economics and Sciences. 2017. Australian fisheries and aquaculture statistics 2016. Online 5 Nov 2018 at http://data.daff.gov.au/data/warehouse/9aam/afstad9aamd003/2016/AustFishAquacStats_2016_v1.0.0.pdf

2 Australian Government Department of Agriculture. 2015. Australia's Seafood Trade. Online 15 Nov 2018 at www.agriculture.gov.au/SiteCollectionDocuments/fisheries/aus-seafood-trade.pdf

3 Australian Trade Commission. 2015. Aquaculture and fisheries. Online 15 Nov 2018 at www.austrade.gov.au/%2FArticleDocuments%2F2814%2FAquaculture-and-fisheries-Industry-Capability-Report.pdf.aspx&usg=AOvVaw1oHuKLPzRx-tEpyA9GRJi

4 Australian Bureau of Agricultural and Resource Economics and Sciences. 2016. Fisheries and aquaculture production on the rise. Online 5 Nov 2018 at www.agriculture.gov.au/abares/news/media-releases/2016/fisheries-aquaculture-production-rise



Clockwise: Dropping the pots; western rock lobster. Images supplied by Western Rock Lobster Council; Sam Koncurat; The crew: Sam's brother Albert (left) and son Nedo Koncurat (right). Images supplied by Sam Koncurat

Safety and *sustainability*

Sam Koncurat talks about life, safety and sustainable fishing for western rock lobsters.

The western rock lobster industry is one of Australia's most productive wild-catch fisheries.

Sam says this industry has always been strong, but a lot has changed in the past 37 years.

'I've worked in the fishing industry a long time; before the quota system was in place we would work many more days a year in all conditions.'

'Under the old system, the seasons would go for 228 days and we would fish about 190 of those, but under the quota system we fish no more than 35 days a year and we're done and dusted.'

'We'd come back to port and sell the produce to local processors and the general public—taking whatever the price was on the day.'

The quota system means we now choose to work when prices are higher, which is good for us and good for the sustainability of the stocks', he said.

'We now sell directly to a processor, who sends much of it to export markets in Asia, as well as some to the local Australian market. Freshness is everything, so it goes straight into tanks to be sent out the next day,' he said.

This year Sam and his crew—his son and younger brother—had 22 tonnes of lobster to catch, most of which they fished leading up to major holidays such as Christmas, Chinese New Year and other festivities.

'We own 16 tonnes of our own quota and we lease in another six tonnes. This year we've only got one tonne left and we'll look at catching that in

January just before the start of the new quota and Chinese New Year.'

'In early May, China celebrates its national holiday and generally that period coincides with great catchability for lobster which makes it quite easy—the pots are full.'

'Around that time of year our target is around 600–700 kilograms in a day. We will do this every second day, or daily, depending on the market price.'

Keeping up with demand and working long hours during these times means fatigue can be a risk—although it is still a lot safer than before the quota system when we did this day in and day out.

'In the old days we worked seven days a week, roughly 10–12 hours a day and

'I think it's great that people across our industry are paying attention to fatigue.'

— Sam Konkurat



it was just go, go, go—there was no fatigue management.

'Nowadays we might commit to going out every day for up to two weeks, but everyone knows the drill—we get out there, make it happen and then come home safe.'

'We take turns to rest—so most mornings on the way to the fishing ground one of the crew will be in the bunks asleep and the other will be keeping me company.'

'And if I do a single day's fish and return to Fremantle, I'll rest before we reach shore,' he said.

'When we reach shore, we unload, pack up the boat, jump in the car, and drive the two hours back to Fremantle, drop

the crew off around 6 or 7 pm and we're done for another couple of days.'

Sam said he's aware that some larger operators run a three- or four-man deck and rotate their crew and skippers, allowing the vessel to work around the clock while the skippers and crew are getting their down time.

'I think it's great that people across our industry are paying attention to fatigue.'

Distribution of western rock lobster off the coast of Western Australia.
Source: Department of Primary Industries and Regional Development.



Rock lobsters moult when they shed their red casing and emerge with a softer white- and pink-hued shell that eventually returns to the typical red colour. When moulting, rock lobsters migrate out into deeper water and fishers follow them, throwing their pots close to deep reefs.

Getting your certificate of competency

How to get certified to work on domestic commercial vessels in Australia.

There are many paths to becoming a seafarer and it can be a confusing process when you're just starting out, or when you need to update your skills to get a different job.

The Australian Maritime Safety Authority (AMSA) has been working with maritime industries to improve the process and to make our information easier to understand.

The basic document you need to work on a domestic commercial vessel is known as a certificate of competency.

We issue a 'certificate of competency' after you have completed the relevant course of study and satisfied any sea service and medical requirements.

The first step is to get a valid qualification for the work you intend to do. Courses of study to obtain qualifications are offered by Registered Training Organisations (RTOs) around the country. These schools, colleges, universities and institutions are accredited to offer courses. Courses vary in length and are delivered both online and face-to-face, depending on the course.

You can find the list of qualifications and RTOs under Qualifications and Training on our website. To show that you are medically fit to work at sea, you will need to obtain an eyesight test certificate and complete either a medical declaration or certificate of

medical fitness before applying for your certificate of competency.

For all qualifications—except for General Purpose Hand (Near Coastal)—you will also need to provide evidence of sea service. Sea service is your record of time and duties undertaken while working on board a vessel. This can be submitted in the form of a log or task book, a letter from the vessel operator or a completed form provided by AMSA.

Once you have completed your course of study you will need to apply for a certificate of competency using the application form, available from amsa.gov.au/coc

Know what to do when your trawler gets hooked-up Your life may depend on it



Your response in the first 20 seconds counts

1. Reduce power
2. All crew on deck and close all hatches
3. Alert other vessels in the area
4. Have lifesaving equipment in float-free position

For your free copy of the brochure and sticker contact your local AMSA representative or email communication@amsa.gov.au



Find the full step-by-step guide at amsa.gov.au/hook-up



There are 27,000 domestic commercial vessels in Australia.



There are 66,000 domestic seafarers in Australia.

For high-complexity certificates you will also need to sit and pass an oral exam at an AMSA office.

The type of certificate of competency you need will depend on the type of work you do on the vessel. The certificates are broken up into low and high complexity reflecting the experience, skills and knowledge required to undertake these duties on the water.

To find out more about what certificate you need and the requirements for each certificate of competency visit amsa.gov.au/domestic-qualifications.

Low-complexity certificates

- General Purpose Hand Near Coastal
- Coxswain Grade 2 Near Coastal
- Coxswain Grade 1 Near Coastal
- Master <24m Near Coastal
- Master Inland Waters
- Marine Engine Driver Grade 2 Near Coastal
- Marine Engine Driver Grade 3 Near Coastal

High-complexity certificates

- Master <80m Near Coastal
- Mate <80m Near Coastal
- Master <35m Near Coastal
- Marine Engine Driver Grade 1 Near Coastal
- Engineer Class 3 Near Coastal

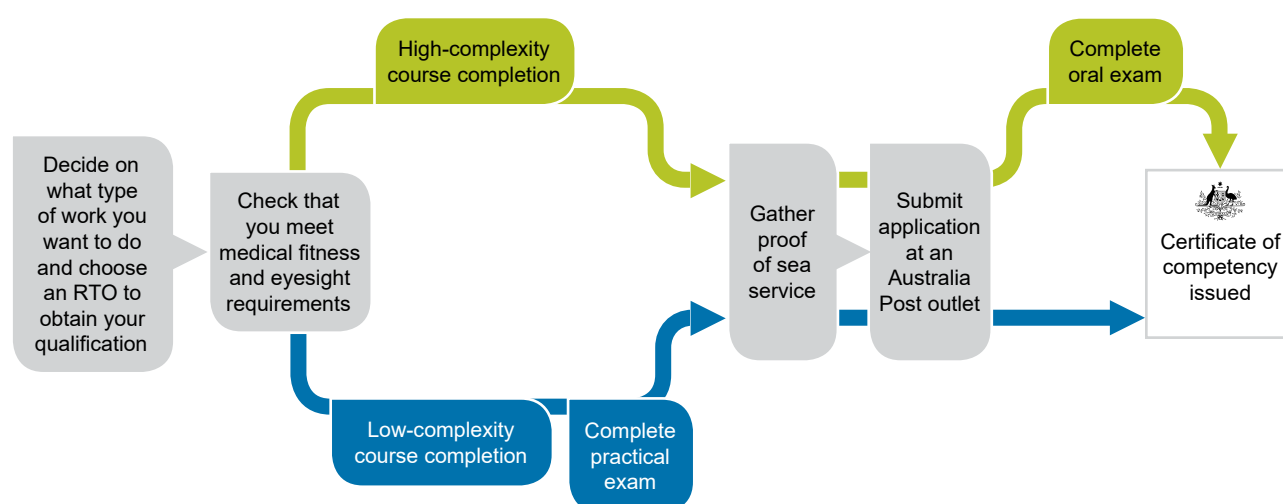
Maritime skill shortages

A recent study undertaken by Australian Industry Standards reported a huge 75 per cent of employers had experienced a skills shortage in their business and had rated difficulty in obtaining qualifications near the top of the list of reasons.

The data suggests the shortage is primarily for domestic commercial vessel occupations, such as:

1. Marine Engine Drivers
2. Small vessel (<35m) Masters
3. Deckhands
4. Managers
5. Educators

(Source: Maritime Industry 2018 Key Findings Discussion Paper)



amsaconnect@amsa.gov.au



1800 627 484



amsa.gov.au/qualifications-training



Read the Australian Industry Standards' *Maritime Industry 2018 Key Findings Discussion Paper* available at australianindustrystandards.org.au



Women in Seafood Australasia

The determined, focused and resourceful Women in Seafood Australasia (WISA) are raising awareness of the issues impacting the commercial industry and driving positive change for fishers.

#womendrivingchange

ATOMIC SCIENCES CENTRE
&
SARDI



In their twenty-first year this impressive group recently gathered in Adelaide at the Stronger Seafood Communities workshop to share knowledge, strategies, and resources with a focus on the mental health and wellbeing of fishers and environmental issues.

Maritime anthropologist Tanya King's research into the wellbeing of fishing communities highlighted that the psychological stress of fishers is twice that of the national average.

Many fishers feel the way they are seen by the community has taken a turn for the worse, with some fishers receiving verbal abuse from people in their community who see them as having a negative impact on the ocean and its resources.

These negative perceptions of the seafood industry have contributed to deep distress and isolation for many fishers and their communities—and this is where things are starting to change.

WISA Victoria Director Barbara Konstas said that Tanya's research has finally given authority to what people in the seafood industry have been with living for years, laying the groundwork for WISA's new campaign—Project Regard.

'Project Regard gives a united voice to ambassadors from the seafood industry around Australia who are speaking up about mental health to raise awareness among the wider public,' Barbara said.

'Fishers from all jurisdictions are coming together to make a national effort towards the health and wellbeing of the seafood industry and suicide-prevention program.'

But for now perhaps the most important benefit of this is that individual fishers, who have felt so isolated in their struggles for so long, are finding they are not alone.

'Even in the last year there's been a hope and resilience built up because we have come out and shared our stories,' Barbara said.

The workshop also focused on raising awareness of WISA's initiatives to address environmental concerns.

While WISA can do little about the impact of global warming and associated weather events on the oceans' resources, their focus is on being socially responsible for the marine debris left by fishers and others.

Many clean-up initiatives exist around Australia, involving local councils, fishers and community groups.

South Australia's Bluefin Tuna Industry is cleaning up

Research and Liaison Officer for the Australian Southern Bluefin Tuna Industry Association (ASBTIA) Claire Webber, spoke about one such initiative in Port Lincoln, South Australia.

'If you can't eliminate the source of the litter you need to go out and pick up after yourself.'

Claire said that getting the ASBTIA program up and running wasn't easy.



From left: Attendees at the Stronger Seafood Communities workshop in Adelaide; Ladies from the Irish Women in Fisheries Network (from left) Trudy McIntyre; Monica Buckley; Siobhan Faulkner; Catherine Barrett of the Bord lascaigh Mhara; and Claire Webber of the Australian Southern Bluefin Tuna Industry Association. Images supplied by David Carter; Video still from Project Regard campaign.



Environmental initiatives

We all play a part in looking after our environment, from the individual right through to governments. Here are just a few initiatives making a change for the positive.

- Net works is a UK-based organisation that collects nets globally to recycle into carpet. net-works.com
- New Zealand has recently banned the use of plastic microbeads. [mfe.govt.nz > waste > waste-strategy-and-legislation > plastic-microbeads-ban](http://mfe.govt.nz/waste/waste-strategy-and-legislation/plastic-microbeads-ban)
- Tasmania has legislated for no plastics to be used in aquaculture
- The Food and Agriculture Organization of the United Nations (FAO) have driven an agreement on international guidelines to mark fishing gear
- Tangaroa Blue Foundation has launched the Australian Marine Debris Initiative App to provide a platform for citizen scientists and AMDI partners to contribute data from their clean-up activities to the AMDI Database. Tangaroablue.org

'The initial discussions were hard; explaining that something needed to be done. But now everyone's on board, and we are finding it easier to have these discussions—do it enough and for enough years and it becomes second nature to them.'

'The litter in our oceans is not just their problem, or Australia's problem. Apart from the litter on the coast there's the plastic sitting on the bottom and migrating across the surface of our oceans. This is everyone's problem,' Claire said.

And WISA is not alone in their concerns for the seas that they depend on for their livelihood. Siobhan Faulkner, founding member of the Irish equivalent of WISA talked to us about what they are doing in Ireland to ensure there is a future in fishing for coming generations.

Fishing litter from Ireland's seas

The Irish Women in Fisheries Network work with Bord lascaigh Mhara (Ireland's seafood development agency) to reduce the amount of ghost netting

and litter, through the 'Fishing for Litter' and 'Bring it In' initiatives.

'The amount of litter in the sea that comes from the fishing industry is minute; most of the litter comes from us on land,' she said.

'But if we don't change our ways, by 2050 there will be more plastic in our sea than fish in our oceans.'

'Fish can't tell the difference between plastic and food, so if they ingest plastic it gets into our food chain and that affects our business.'

Siobhan explained that a huge 94 per cent of the plastics in our oceans lay on the bottom.

'That's where the 'Fishing for Litter' initiative makes a real difference, she said.

'We trawl on the bottom; we pick up the plastic and bring it ashore. We

also gather ghost nets to dispose of responsibly.'

In the last two-and-a-half years 190 tonnes of marine litter has been brought ashore to the 11 ports involved in the initiative.

Siobhan went on to explain the 'Bring it In' initiative is also about the fishers bringing home and recycling their own waste.

'It's all about talking with people on board to find out the best ways for them to achieve this and educating people,' she said.

These initiatives drive a positive story about fishers being involved in looking after the environment.

'We have used our voice and our organisation to let people see that fishers do care and that we look after our environment,' Siobhan said.



wisc.org.au



Project Regard <https://youtu.be/e-QQx3qGck>

In training: Staff of Australia Bay Seafoods writing answers to modules. Image supplied by Steve Eayrs

SeSAFE training: Effective and flexible

The SeSAFE Learning Management System is a series of targeted safety modules that skippers and their crew can do quickly and easily in a way that suits them.

Commercial fishing vessels are workplaces and subject to the same work health and safety standards as every other workplace. But the mobile and often remote nature of these workplaces means that safety practices are well and truly in the hands of the skipper and crew.

An unacceptable rate of fatalities in the fishing industry is the driving force behind widespread efforts to make safety a priority on board these vessels.

The Fisheries Research and Development Corporation (FRDC), the Australian fishing industry, and other partners have developed a learning management system. A set of safety modules—the SeSAFE system—delivers essential workplace health and safety training to fishers and aquaculture workers prior to working on the water, or alongside at-sea training.

The growing number of modules cover emergency procedures, personal safety, risk assessment, as well as modules specific to particular fisheries,

like safe handling of trawl nets or lobster pots.

Private consultant and Project Lead of SeSAFE, Steve Eayrs, said that although the modules were designed to be done individually online, Australia Bay Seafoods has successfully used the modules in a group setting to provide safety training across their fleet.

Fleet manager of Australia Bay Seafoods, Mike O'Brien, saw the SeSAFE modules as an effective way to provide consistent safety training to all personnel on the company's vessels, including his Indonesian staff.

'It's an ideal way to make sure the staff are equally trained and have the opportunity to understand where they might need to change their on-board safety practices. The modules have been made especially for the fishing and aquaculture sectors so all the information is relevant.'

Since its launch in March, SeSAFE has been taken up by whole fisheries.

The Western Rock Lobster Council is one such fishery. Chief Executive

Officer Matt Taylor confirmed they would be using the SeSAFE modules to provide safety training to lobster fishers, commencing later this year.

'The western rock lobster industry has a reputation for world-class leadership, which is now being applied through a new online learning management system that will make our industry even safer,' he said.

'The council will email fishers an invitation to access the modules online, then monitor their progress, retain a record of their results, and develop a database of who has completed training or needs refresher training,' he explained.

SeSAFE is funded by the FRDC, the fishing industry and AMSA, with administration services being provided by the Western Australian Fishing Industry Council (WAFIC).



sesafe.com.au



Hunterlink mental-health services

When Hunterlink set out to become an Employee Assistance Provider (EAP) for the maritime industry they knew they needed to think outside the box. Their custom-built mental-health program for seafarers, port workers and their family members not only provides 24/7 support, but also focuses on building lasting benefits.

CEO of Hunterlink, Gavin Kelso, knows the maritime industry is unlike any other and that it comes with a unique set of challenges.

'Long periods away from home and family, social isolation, job demands and sometimes cultural isolation are just some of the challenges these people face,' he said.

'These factors can lead to stress, depression, anxiety, financial pressure, anger-management issues and drug-and-alcohol use.'

'We would be naïve to think we could provide suitable services without first tailoring our entire EAP model around the anomalies the maritime industry brings with it,' he said.

Hunterlink prides itself on tailoring EAP programs to suit individual operations rather than relying on a one-size-fits-all approach. But Gavin says that in each case, Hunterlink advocates for early intervention and the breakdown of stigmas around mental health, to let people know it's ok to not be ok.

'Creating a safe, non-judgemental workplace means that seafarers, port workers and their families can get the help they need without fear of repercussion, stigma or isolation,' he said.

We encourage companies to provide a positive workplace by helping them understand what their employees need for their mental health and wellbeing.

To spread this message, Hunterlink uses social media and conducts outreach activities including wellbeing workshops and toolbox talks.

'Sometimes seafarers and port workers start up support groups because they believe in Hunterlink's mission and want to use their own personal experience or knowledge to help

others—this is very encouraging,' Gavin said.

'They become that familiar face to reach out to before getting the courage to call Hunterlink.'

While Gavin's skilled team of counsellors continue to provide 24/7 assistance to those that need it, his focus is on promoting the right culture and developing programs that ensure employee wellbeing is not only a priority, but a fundamental part of their employment.

'We encourage companies to provide a positive workplace by helping them understand what their employees need for their mental health and wellbeing, and providing the tools to support it,' he said.



hunterlink.org.au



@hunterlinkEAP

Heroes recognised at NATSAR awards

2018 NATSAR award recipients: (L-R) Josh Peach, Joel Howell, Damian Bidgood, Alan Jackson, Han-Wei Lee, Zeb Critchlow, Andrew Self and Brad Groves.

Every year the National Search and Rescue (NATSAR) Council presents awards for outstanding courage, endurance and selflessness in saving the lives of others.

In September, NATSAR Chair and AMSA General Manager of Standards, Brad Groves reflected on the heroic efforts of nominees and award winners of both professional and citizen rescuers for 2018.

'These brave individuals came to the rescue of strangers without hesitation. They are a source of courage and inspiration, jumping into action when the need arose to save the lives of others.'

There were four award categories:

- Professional Search and Rescue Award
- Professional Commendation Award
- Non-professional Search and Rescue Award
- Non-professional Commendation Award.

Professional Search and Rescue Award—Elliot River, Queensland boat rescue

Recipient: Detective Sergeant Andrew Self of the Queensland Police Service

'Detective Sergeant Self displayed exceptional courage during the rescue of two men aged 72 and 29 at Elliott River in September 2017, when their vessel ran aground at the rocky entrance to the river mouth,' Mr Groves said.

Detective Sergeant Self accepted coordination of the rescue and set out to reach the stricken vessel with the aid of the local Volunteer Marine Rescue surface-response vessel.

However, when they arrived at the scene, it was apparent the Volunteer Marine Rescue vessel was too large to get close enough to assist the stricken

vessel. A smaller rescue boat was sourced from the State Emergency Service. Several failed attempts were made to approach the stricken vessel.

With little time to spare, Sergeant Self—who was on board the State Emergency Services vessel—swam 50 metres to the vessel under rough conditions and in complete darkness. He guided both men to the rescue boat.

However, the 72-year-old man was unable to pull himself from the water even when assisted, so Sergeant Self stayed in the water to protect the man as the SES vessel dragged them to a more sheltered beach where they were able to get on board safely.

Both of the rescued men were treated for minor injuries, shock and hypothermia. Detective Sergeant Self suffered a sprained wrist but was otherwise uninjured. ▶



'These brave individuals came to the rescue of strangers without hesitation. They are a source of courage and inspiration, jumping into action when the need arose to save the lives of others.' — NATSAR Chair and AMSA General Manager Brad Groves.

Image supplied by Ola Löfqvist

**Professional Commendation Award—
Midnight Hole Cave, Mystery Creek
Tasmania rescue**

Recipients:

- Sergeant Damian Bidgood, Senior Constable Josh Peach, Senior Constable Ingrid Pajak (Tasmania Police),
- Anna Ekdahl, Han-Wei Lee (Ambulance Tasmania)
- Alan Jackson, Stefan Eberhard, Michael Packer, Serena Benjamin, Andreas Klocker, Ric Tunney, Janine McKinnon, Gabriel Kinzler, Amy Robertson, Darren Holloway, Ola Löfquist, Loretta Bell (Southern Tasmanian Caverneers)

'This award acknowledges the determination and skill of a rescue crew who executed a complex 12-hour rescue in one of Tasmania's deep caves to bring an injured 47-year-old French national back to safety,' Mr Groves said.

The stranded woman had fallen into the Midnight Hole Cave at Mystery Creek, breaking a femur. The challenge for the rescue team was immense:

Caving term: Pitch *noun*

A 'pitch' is a vertical section of cave passage, usually negotiated with the aid of rope or ladder. The Midnight Hole Cave contains a system of six vertical passages.

the Midnight Hole Cave is a six-pitch vertical system almost 200 metres deep. It is located on the side of a steep hill—a 50 minute walk from the nearest road.

Sergeant Damian Bidgood said that in his experience it was the biggest and most difficult vertical rescue in recent years.

'We were working in dark, wet and cold conditions,' he said.

'The passageways were narrow and confined, sometimes with barely enough space to get the stretcher through. Taking the rescue stretcher down into the cave, helping paramedics to secure the woman in it and working with the team to set up the rigging that got her out safely was an experience I will never forget.'

A ground party at the top of the cave then carried the woman approximately 800 metres down a steep, slippery hill, where a rescue helicopter performed a night stretcher-wincing operation to transfer the woman to the nearest hospital.

The cave rescue was an excellent example of how inter-agency training resulted in emergency services and volunteers all working well together in performing a rescue in challenging conditions.

Non-professional Search and Rescue Award—Marion Bay, Tasmania boat rescue

Recipient: Zeb Critchlow

Mr Critchlow risked his own life to save two men in Tasmania's Marion Bay in June 2018.

He and his fellow surfer Luke Bugg launched their jet ski that morning from the Boomer Bay boat ramp. On arrival in Marion Bay they heard calls for help from surfers already in the water—alerting them to an unfolding emergency.

Two men nearby were clinging to an



Successful inter-agency operation: Midnight Hole Cave, Mystery Creek Tasmania rescue of a 47-year-old French national. Image supplied by Ola Löfquist



Vessel ran aground: Elliot River, Queensland boat rescue of two men aged 29 and 72. Image supplied by Andrew Self

'If it were not for Mr Critchlow's actions there would likely have been greater loss of life.'

overturned vessel in five-foot surf. Both men had lifejackets on, but one jacket had not inflated and the man was unable to swim.

Mr Critchlow used the rescue sled on the back of the jet ski to retrieve the man and drop him to a nearby boat outside the surf line. Mr Critchlow returned to fetch the second man and towed him to safety.

When Mr Critchlow heard there may have been a third person trapped under the vessel he and another friend returned to the upturned boat. He dived under the upturned boat numerous times to locate the third person, becoming trapped a couple of times and tangled in fishing line under the upturned vessel.

After many attempts without locating the person, Mr Critchlow and his friend scouted the area for 45 minutes. Nobody was sighted. A later conversation with the rescue helicopter

crew revealed that unfortunately a third person had been on the vessel and had passed away.

'If it were not for Mr Critchlow's actions there would likely have been greater loss of life,' Mr Groves said.

Non-professional Commendation— Southport Seaway, Queensland jet ski rescue

Recipient: Joel Howell

'Mr Howell demonstrated compassion and selflessness in preventing his friend from drowning on 5 November 2017,' Mr Groves said.

The two men had been jet skiing approximately 500 metres north of the Southport Seaway off South Stradbroke Island, when they were

flung from the craft and sucked out to sea in a strong rip.

Although the pair were both wearing lifejackets, Mr Howell's friend was dragged underwater and swallowed large amounts of seawater. He struggled to stay afloat. He was disorientated, weak, dizzy and nauseous, and had difficulty breathing.

Mr Howell kept his friend afloat as they struggled to swim across the rip until a Westpac Rescue Helicopter spotted the two men in the water and winched Mr Howell's friend to safety.

Mr Howell managed to swim back to the jet ski and was escorted back to shore, assisted by a member of Surf Life Saving Queensland.



For more information about NATSAR visit natsar.amsa.gov.au/award.asp



A DAY *in the* LIFE *of a marine firefighter*

Stephen Bourke's childhood dream came true, but it certainly took time. Here, Stephen talks to us about life as a marine firefighter with the Melbourne Metropolitan Fire Brigade.

Few people would abandon the safety of their office job to risk life and limb working as a marine firefighter for the Melbourne Fire Brigade. But at age 38 Stephen Bourke sat the entrance exam with 5000 others and rolled the dice.

'I got one of only 30 positions available in the recruit program,' he said.

'I had a midlife crisis and made a change of occupation. I had been an insurance company worker with a desk job. I administered work-cover claims.

'That was 15 years ago. Now, I work at the Port of Melbourne fire station. I'm a qualified deck hand and marine firefighter.'

Stephen had wanted to work in emergency services since he was a boy and has always had an affinity with the water.

He lives at Bonbeach, in Melbourne's south east, and is an active member of the Gunnamatta Surf Life Saving Club patrolling some of Victoria's most dangerous waves.

What kinds of vessels do you work with?

'We have two large vessels and six smaller ones.'

'Fireboat one is *Abyss*—a 10.5-metre catamaran that draws up seawater and sprays it from a water cannon that moves 4500 litres per minute. It's a four-person crewed vessel.'

'Fireboat two is *Prometheus*—a 12-metre vessel that can travel at speeds over 32 knots.

'We also have fire trucks.'

What are your typical duties?

'Each day is a bit of a raffle. We respond to floods, fires and explosions on vessels,' he said.

'We also respond to pollution that flows into the port and we go out with booms and soakers, working closely with the Environmental Protection Agency to manage pollution. We also respond to inaccessible fires that cannot be fought from land due to cliffs. In these cases we come around the seaward side to put it out.'



Marine firefighters: Stephen Bourke (left) stands in front of Fireboat one with fellow firefighters.

To me, being able to help other people when they are in need is paramount. — Stephen Bourke.

Stephen added that every fire fighter is also a trained emergency medical responder.

'If you call triple zero and report a Code Zero—where the victim is not responding and not breathing—a fire truck will get dispatched at the same time as the ambulance. We often get to the scene and start cardiopulmonary resuscitation (CPR). A priority objective is to get to heart attack patients as quickly as possible.'

How do you get messages from vessels needing help?

'We get them via triple zero. Each of the vessels has a radio onboard—the emergency channel is 16 on the radio. We can also be asked to assist by the Harbour Master,' he said.

'When people have heart attacks on boats, we anchor their vessel and give medical help quickly.'

Stephen said sometimes they are asked to help a vessel that has lost steering and is drifting.

'When this happens we anchor them before another agency comes to do a salvage tow. It's really about preventing injury and loss of life,' he said.

How do you fight fires on the water?

'If a vessel is on fire we take the occupants off their vessel and onto ours to make them safe,' he said.

'We also anchor the vessel—a floating moving boat fire is a lot harder to deal with than a stationary one.'

He said that if the boat is a lost cause they at least work to stop the fire jumping to other boats—especially if it's at a marina and putting other vessels at risk.

'We can tell people to move their boats away from the area to assist us.'

'Once we extinguish the fire, the vessel may sink. In that case, we will put containment booms around it'

How does a typical workday begin for you?

We muster at the station at 8 am to make sure we have the right crews on hand.

'A crew then hops on a fire truck and goes down to the pier to do mandatory checks,' he said.

'We make sure that the vessels are ready for immediate use, start engines and check that the fitted equipment is serviceable and secure—all of that takes about an hour to do.'

We then do specific drills, including the man overboard, fire and flood-on-board drills,' he said.

'We do the things we need to do to ensure operational readiness.'

Are you glad you changed jobs?

'Absolutely, I've always wanted to work in the emergency-services sector—ever since I was a child,' he said.

'To me, being able to help other people when they are in need is paramount'

There is a diverse range of roles available to firefighters, with great opportunities for specialisation and career progression, including marine response.



Find out more about becoming a career firefighter in Victoria by visiting firefighter.vic.gov.au

All in a day's *dive*

Western Victoria is home to one of the last sustainable wild-catch abalone fisheries in the world. Craig Fox, Chairman of the Western Abalone Divers Association (WADA) talks about how they are safeguarding the stock and its fishers for the future.

A marine virus struck the abalone stock in Victoria's Western region in 2006 and caused abalone numbers to plummet, effectively closing the fishery. But with advanced data collection, collaboration, and responsible practices the fishery is now rebuilding steadily.


This viral outbreak was a wakeup call, which prompted government fisheries' managers and local abalone divers to work more collaboratively and to make use of modern technology.

'We use satellite-tracking technology—which is installed on all our vessels—to map the abalone's location, size and condition, as well as the length of time spent harvesting in each area,' he said.

'The data is then sent to an independent scientist for analysis and informs research that guides quotas in future years.'

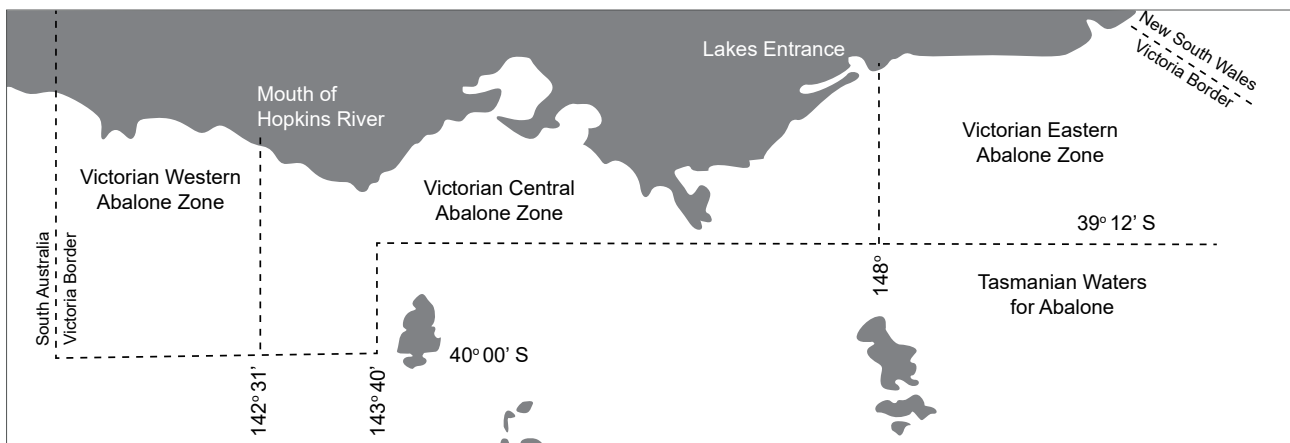
According to Craig, the western Victorian abalone fishery is different to many others such as cray or trawl operations, because you can actually see the future stock growing—and he's encouraged by what he sees.

'The biomass in spots is better than it's ever been—now we are back to harvesting 70 tonnes each year in the western Victorian zone,' he said. ▶



*"The biomass in
spots is better than
it's ever been."*

— Craig Fox



The Western zone: runs from the Hopkins River outside of Port Fairy in Victoria to the South Australian border. Image taken from the Victorian Department of Primary Industries Fisheries Victoria Management Report Series No. 83, Feb 2012.

► Craig says he's seen the zone rebuilding, particularly over the past four years and that is thanks to the joint efforts of local fishers and the Victorian Fisheries Authority collecting data using a broad range of methods and then using this for fine-scale management of the resource.

'Our fishery is now one of the most data-rich fisheries in the world,' he said.

Keeping people safe

Craig and the other divers know that workplace health and safety is just as important as stock levels when it comes to their livelihood, which is why they invest in their everyday diving- and boating- safety practices.

WADA licence owners place a high priority on the safety of the divers, and funds and coordinates safety training for divers and crew.

'This year we engaged a company that specialises in remote trauma care,' he said. 'With their help we put together a trauma first aid pack for all the divers to have on their boats, so if you were to get hit by a propeller or a get bitten by a shark, our deckhands can provide advanced first aid in that crucial first 10 minutes to maximise chances of survival until emergency services arrive.'

'We also did a training day on how to use the trauma kit and we wrote a safety management plan with step-

'The technology we use to gather data about the abalone also helps protect our safety,'

by-step instructions on how to handle [different scenarios],' he said.

Craig said every abalone operator and diver knows that decompression sickness is their greatest safety risk. With this in mind, WADA also arrange training on how divers and crews can manage decompression sickness.

'Spending too much time in deeper water and not having enough time in the shallows to decompress to remove the nitrogen in our blood is our biggest concern,' he said.

'Professional diver training refreshes our knowledge on safe diving practices and trains our deckhands on what symptoms of decompression sickness to look out for.'

Working with the safety equipment manufacturer Stormy Seas, WADA also got the divers and crew fitted out with top-of-the-range lifejackets with tailored

pockets to fit a personal locator beacon (PLB).

'We watched an AMSA video of a couple of blokes—experienced fisherman from New South Wales—whose boat unfortunately overturned but they each had a PLB, and it saved their lives, it got us thinking about it too,' he said.

'We do some big runs to get to dive sites, and although we normally work in fair weather, things can change quickly when the wind comes up or something like that—you can't be too prepared.'

It's no accident that the future is looking promising for the divers and crew of the western Victoria abalone fishery. Making use of modern technology in their day-to-day practices and management, developing partnerships with government and investing in safety is paying dividends as the fishery continues to grow stronger and smarter.

Did you know?

- Abalone are a family of reef-dwelling snails.
- When the divers remove the abalone from their water homes, a lot of care is needed because abalone will bleed to death if cut.
- Abalone blood is blue.

LED lighting found to interfere with VHF-FM radio and AIS reception

The U.S. Coast Guard has sounded the alarm over the potential for light-emitting diode (LED) lighting on vessels to compromise reception on VHF frequencies used for radiotelephone, Digital Selective Calling (DSC) and Automatic Identification System (AIS).



The distance at which the LED lighting starts to have an impact and whether the issue is limited to certain makes of lighting or navigation equipment, is unknown.

The U.S. Coast Guard has asked the U.S. marine industry to provide more detail of known incidents.

Due to their energy-saving capability and longer service life, LED lights are commonly used for navigation lighting, searchlights and floodlights, as well as interior and exterior lighting—including those used for visual effect.

The U.S. Coast Guard said that in one case, radio-frequency interference caused by LED lighting created a hazard that led to a serious safety incident.

'The maritime rescue coordination centre in a United States port was unable to contact a ship that was involved in a traffic-separation-scheme incident by VHF radio. That ship also experienced very poor AIS reception.

'Other ships have also experienced degradation of their VHF receivers (including AIS), caused by their LED navigation lights. LED lighting installed near VHF antennas has also been found to reduce reception.'

Strong radio interference from LED sources may not be immediately apparent to marine radio users, but there is a way to test for LED interference.

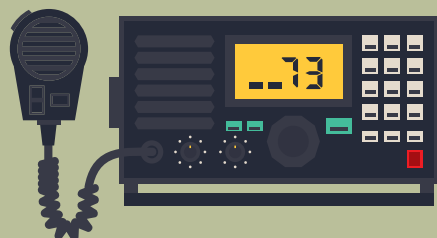
If you have experienced LED-lighting interference on your vessel please report it to AMSA

Has this happened on your boat? Help us learn more, so we can address the issue.

Tell us:

- make and model of LED lighting
- radios effected
- distance from lighting to antennas and radios effected; and
- any other information that may help us to understand the nature of the problem.

Send an email: reports@amsa.gov.au



1. Turn off your LED light

2. Tune your VHF radio to a quiet channel, such as Channel 73

How to test for LED interference

3. Adjust your VHF radio's squelch control until the radio outputs audio noise

4. Re-adjust the squelch control until the audio noise is quiet—just slightly above the noise threshold

5. Turn your LED light back on

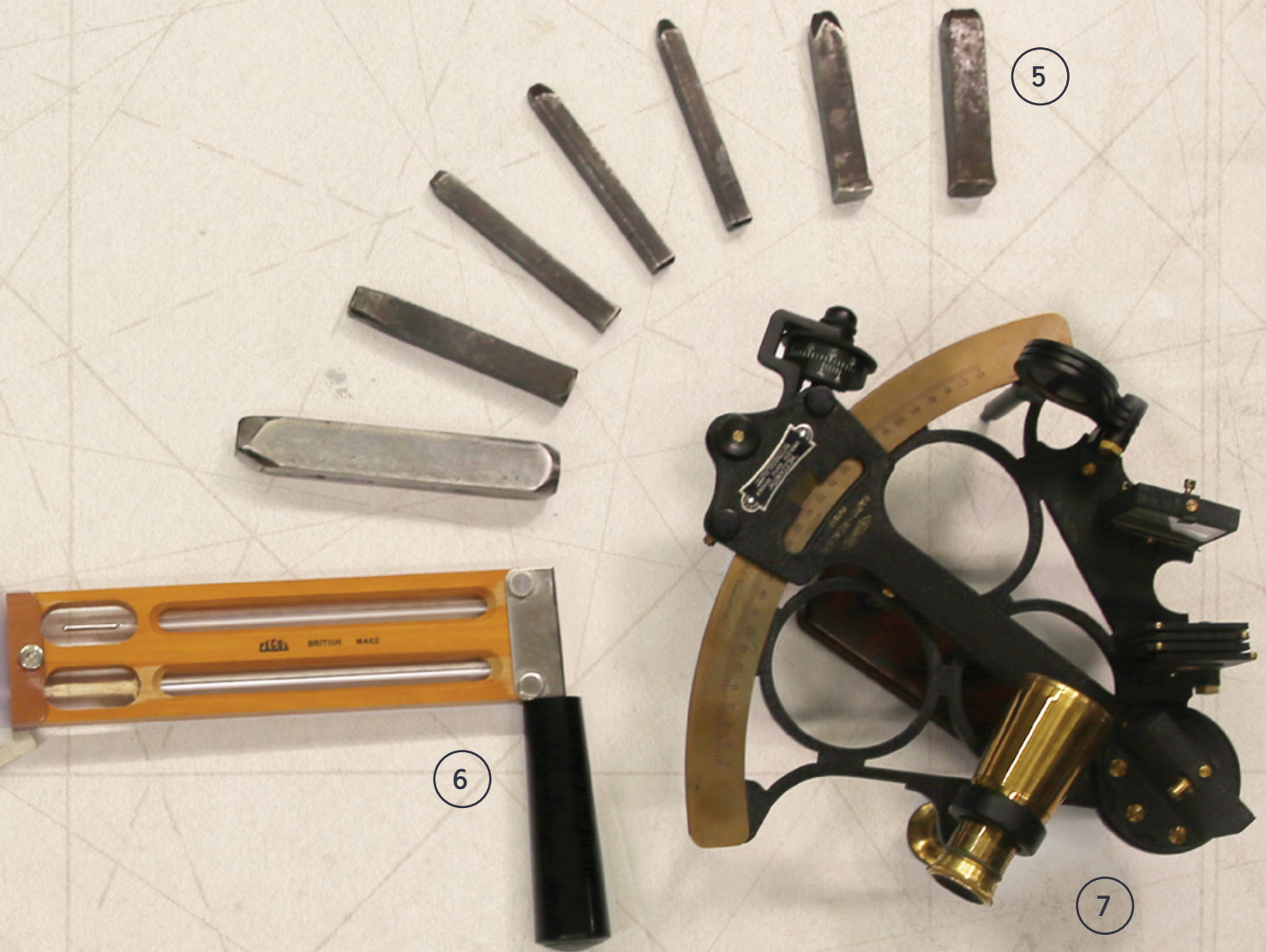
6. If the radio starts crackling when you turn on the LED lights, it is likely that the LED lights are affecting both your on board VHF marine radio and AIS reception.

From the vault

At AMSA, we have a vast collection of historical maritime artefacts that have accumulated over the years from different sources around Australia. Here are just a few, curated by Lyndon O'Grady.



1. Specific Gravity Hydrometer (c.1933)
—used by surveyors to measure the density of water a ship is floating in to determine whether the ship is overloaded.
2. General minutes and office notices from 1932, issued by principal officers and surveyors and to inspectors of ships (Mercantile Marine Department, Board of Trade, March 1933)
3. Instructions to surveyors in 1934 regarding wireless telegraphy (Issued by the Board of Trade, 1934)
4. Selection of stamps used by examiners and marine surveyors for documentation regarding vessel surveys, inspections and examinations.
5. These metal stamps were used by lighthouse mechanics to stamp identification marks onto items of machinery or other items of high value. Classification society surveyors also used similar stamps to identify equipment and materials that had undergone survey and testing.
6. Whirling psychrometer—used by ships surveyors to measure the temperature and humidity of the air.
7. Sextant (c.1960s)—an instrument used to measure the angle between any two visible objects, primarily a celestial object and the horizon, which is known as the object's altitude. Making this measurement is known as sighting, shooting or taking sight of the object and is an essential part of navigation.



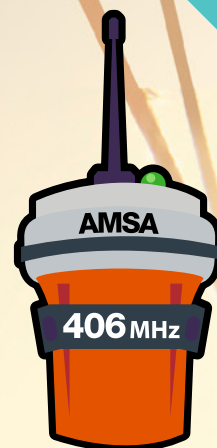


Australian Government
Australian Maritime Safety Authority

Prepare your beacon before heading out on the water

Register your beacon with AMSA

Having a registered beacon can provide search and rescue authorities with important information to respond effectively in an emergency. In some cases, it's the law.



To update your registration details or for more information on beacons, please visit amsa.gov.au/beacons or phone 1800 627 484



Bless this fleet

Sally R May—former Head of Maritime History at the Western Australian Museum—walks us through the significance of blessings of fishing fleets in Australia.

Feste della Madonna dei Martiri: Santa Maria Di Porto Salvo this page (and overleaf) images supplied by Sydney Fish Market

In many ways the blessing of fishing fleets throughout Australia has become a barometer of the economic and social wellbeing of local fishing industries—in good years the celebrations are grand and in poor years or in times of disunity, the celebrations are less grand.

The story goes that the tradition of blessing fleets dates back to 1187 when a ship of triumphant Sicilian crusaders found a beautiful statue and carried it with them on their ship.

Later overcome by a raging storm, they were blown to safety near the Italian fishing village of Molfetta (in the south-east-Italian region of Puglia). They believed the statue had guided them to safety.

As a tribute to the statue they built a sanctuary for it and celebrated with a religious event to ask for continued protection and this is where the origin of fleet blessings began.

The event—Feste della Madonna dei Martiri (Martyrs)—has since spread throughout Italy and the world.

One of the earliest Australian blessings of a fishing fleet was held in 1935 at Queenscliff, Victoria, and officiated by the vicar of St George's Anglican church. The fleet of some 54 boats anchored bow to stern in a square during the ceremony that lasted an hour and was attended by over 8000 people. The practice probably lapsed during the second world war.

Blessings of fishing fleets throughout Australia arose out of the post World War II affluence of the country's fishing communities who wanted to publicly celebrate the rise in the economic and social fortunes of their fishers and their fishing industries.

Previously itinerant fishers now bought homes and brought their families to live with them in Australia. To celebrate and demonstrate their new status and belonging, a blessing was inaugurated in Fremantle which continues to this day in October every year.

While not Australia's first blessing of the fleet, the 1948 Fremantle event was the first in post-war Australia to initiate a blessing of its burgeoning fishing fleet and other significant fishing

ports around Australia followed suit. Two years later in 1950, an Italian Roman Catholic priest was brought from Italy for the blessing.

The present-day Fremantle blessing continues that tradition with a church service held in Saint Patrick's Roman Catholic Basilica. The Molfettese people carry the statue of the Madonna dei Martiri and the Sicilians carry the Madonna di Capo d'Orlando in a procession through Fremantle down to Fishing Boat Harbour where the fishing fleet is blessed. The statues are placed on boats that lead the fishing fleet out to sea and back into the harbour before the statues are returned to the church. Croatian and Portuguese fishers also participate in the ceremony and celebrations.

Over the years, Fremantle's Blessing of the Fleet has been a major tourist attraction bringing tens of thousands of people into the port city. This year's event on 28 October marked the 70th anniversary.





Sydney Fish Market Blessing of the Fleet

Another well-known Blessing of the Fleet is that of the Sydney Fish Market, held in September each year.

Courtesy of the Association Bagnara Calabria, the statue of the Madonna—the Santa Maria Di Porto Salvo (literally translated as Saint Mary of Safe Harbour)—is taken on a colourful procession around the site, returning to the wharf to bless the decorated local fishing fleet.



Recreational use of your domestic commercial vessel

Using your vessel for recreational purposes just got easier. Approval is no longer required for domestic commercial vessels to operate recreationally.

Under the marine safety recreational-use exemption, your domestic commercial vessel can be used for recreational purposes without complying with the usual crewing requirements and operational area limitations.

Known as Exemption 04—if you are operating under this exemption you are still required to meet certain safety conditions. You must:

- not use the vessel in connection with a commercial, governmental or research activity at the same time as it is used for recreational purposes
- comply with maximum load and passenger restrictions
- comply with local recreational vessel requirements, except those requiring the vessel to be registered as a recreational vessel or to meet Australian Builder's Plate requirements
- deal with the risks of operating recreationally in the safety management system (SMS)
- secure or isolate any powered equipment, lifting equipment or other machinery that could present a danger to passengers
- record any recreational use in the log book

Operating under Exemption 04 does not make your vessel a recreational

vessel. Domestic commercial vessel requirements other than crewing and operational area continue to apply, for example:

- any requirement to obtain a certificate of survey for the vessel and comply with the conditions—including any restrictions on load and maximum number of persons on board
- the general safety duties, including the duty to maintain and implement a SMS.

You cannot use Exemption 04 to take a domestic commercial vessel overseas or to relocate it for another commercial operation.



Find out more at amsa.gov.au/exemption4

Unique identifiers for human powered and small sail vessels

Since 1 September 2018, a number of options are available to owners and operators of human powered vessels* or sailing vessels^ that are less than 7.5 metres long.

Option 1 — Under Exemption 1, where a human powered vessel* or a sailing vessel^ that is less than 7.5 metres long is covered by a certificate of operation, the vessel is exempt from the requirement to have a unique identifier. This option requires the operator to make an application for a certificate of operation including information about all of the human powered and sailing vessels in their fleet.

This option may suit operators with a high number of vessels that are replaced frequently. It is also easier to obtain and renew a single certificate of operation once every five years, as opposed to applying for a unique identifier for every new vessel.

Option 2 — Under Exemption 3, where a human powered vessel* or sailing vessel^ less than 7.5 metres long has a unique identifier, the vessel is exempt from the requirement to be listed on a certificate of operation. This requires each vessel to have a unique identifier and a separate application for a unique identifier.

This option may suit operators who have only a small fleet of vessels or where the vessels are not replaced frequently. Please also refer to the conditions that apply under Exemption 3.

No matter which option you choose, the unique identifier does not need to be displayed on human powered vessels or sailing vessels that are less than 7.5 metres long.

*, ^ refer to the definitions described on amsa.gov.au — unique vessel identifiers.



amsa.gov.au/uvi

Deter thieves and secure your safety equipment

Deter opportunistic thieves from damaging or stealing your safety equipment.

Place this reflective marine-grade sticker on your vessel as a warning for any would-be thief.



**STOP
THIEF!**

**It's a criminal offence
to interfere with or
damage vessel safety
equipment.**

**Penalties apply,
including imprisonment
and significant fines that
may exceed \$40,000.**



Australian Government

Australian Maritime Safety Authority

Additional stickers are available by
emailing communication@amsa.gov.au



Chartering Australian waters

Establishing world-class safety on charter vessels

Charter operators are a diverse lot. The risks for these people are as varied as their areas of operation and types of businesses they run.

One thing they all have in common is passengers. For this reason, we scrutinise their safety management systems to ensure they include appropriate safety procedures before we issue a certificate of operation.

Transient passengers—and in some cases crew—choppy weather, dangerous animals and alcohol, are a serious mix of conditions to address in order to keep people, the vessel and the environment safe.

Common safety issues

Embarking and disembarking vessels

Passengers and crew must have safe access to the vessel. Operators must take all reasonable measures to protect people from injury as part of their general safety duties.

Headcounts

In situations where passengers get on and off there is a risk the vessel could

depart for the next destination without all of the passengers.

While boarding, operators should do a headcount and log the number and details of passengers. Once en route, do at least one more headcount to make sure everyone is on board, before departing any stops along the way and again when the vessel gets back to port.

Monitoring passengers

As well as the obligation to do headcounts, operators must also make sure they have enough crew to adequately monitor the number of passengers on-board.

Emergency briefings and inductions

Use the boarding stage to point out safety equipment such as lifejackets, muster points and explain the emergency procedures.

Stability

The operator and crew are responsible for ensuring and maintaining vessel stability.

The smallest modification can change a vessel's stability. If there is a stability book, operators should familiarise

themselves with the documented loading conditions. Stability calculations should take fuel, passengers and stores into account.

Drugs and alcohol

Drugs and alcohol can affect judgement, vision, coordination and reflexes and increase the chance or consequences of a marine incident.

Everyone on board must abide by relevant state or territory laws for alcohol and drugs on the water.

A vessel's safety management system should address drug and alcohol use, ensuring individual obligations are clear.

The operator and crew are responsible for enforcing drug and alcohol laws on board.

Prescription medication may also be a consideration for operators, crew and passengers. People unsure of its effects on their ability to function safely on a vessel should check with their doctor.

Environment

Charter operators are responsible for ensuring minimal impact on the natural

Australia's unique natural beauty provides a rich backdrop for charter-vessel operations. Whether touring, fishing, entertaining or simply providing a means to get from A to B, we all expect to travel safely and to protect and preserve our beautiful corner of the world.

Charter boat: Image source: iStock.com/cdwheatley

Whose responsibility is it?

Everyone on board a vessel—including passengers—has certain responsibilities under the national law to conduct themselves in line with the general safety duties. This includes upholding the safety policies and procedures in the operation's safety management system.

For more information on your general safety duties and what applies to you go to amsa.gov.au/general-safety-duties



Image source: iStock.com/DisobeyArt

environments—sorting and separating all types of waste for appropriate recycling or disposal.

If the charter operates in the vicinity of dangerous animals—such as crocodiles, sharks and jellyfish—these risks must be addressed in the safety management system.

Collision between vessels and marine fauna is a serious issue. Vessels moving at 15 knots or more do the most damage to marine life when they collide. Travel at safe speeds, be aware of local grounds and species and lookout for marine fauna.

Report your incidents

Incidents involving the safety of vessels, passengers or crew must be reported to AMSA. There is an easy-to-access form on our website. Information provided allows AMSA to develop more effective safety strategies and provide better advice for owners, operators and crew on how to keep everybody safe.

An incident is a good time to reassess risks and make sure measures are in place to prevent the incident recurring.



Safety management systems

For more information: amsa.gov.au/sms

Reporting an incident

To report an incident: amsa.gov.au/incident-reporting

Reporting a collision with marine fauna

Register collisions in state or territory waters: data.marinemammals.gov.au/report/shipstrike

Register Collisions in Commonwealth waters: environment.gov.au/marine/marine-species/cetaceans/notification-interactions



Notify the following state and territory wildlife authorities about injured marine fauna

RSPCA Qld: 1300 264 625

New South Wales Office of Environment and Heritage State Duty Officer: (02) 9895 6444

Victoria Whale and Dolphin Emergency Hotline: 1300 136 017

Tasmania Whale Hotline: 0427 942 537

South Australian 24 hour FISHWATCH hotline: 1800 065 522

Western Australian Wildcare Helpline: (08) 9474 9055

Northern Territory Marine Wildwatch: 1800 453 941

Safety management systems: *Next Gen*

Over the past 18 months, AMSA set out to talk to a range of commercial vessel operators. Their mission was to gain insights into the use of safety management systems and day-to-day safety practices.

Dr Michelle Grech who heads up the Vessel Operations team for AMSA said 'We wanted to understand the types of documented safety management systems (SMS) people were using, and whether these documents matched with the reality of their daily safety practices.'

AMSA put out the call to vessel operators around the country to ask for voluntary participation in this exercise and almost 500 people and their vessels took part.

Participants were invited by an AMSA regional liaison officer to discuss their safety management systems and safety practices, and for those operators who were in need of assistance, AMSA provided guidance on how to go about setting up an SMS and how to keep it relevant.

This kind of approach isn't anything new—our whole regulatory and compliance approach is first and foremost to educate and collaborate with industry before using any formal compliance tools.

Dr Grech said we wanted to understand first-hand how we can encourage and assist operators to continually evaluate their daily practices and to use this information to provide the support needed in making improvements to their SMS.

'We want people to get in the habit of periodically reviewing and updating their SMS and putting new improved practices in place,' she said.

'Regulation alone isn't enough to ensure people's safety. Safety should be an integral part of how the business is done—from complying with regulatory responsibilities to actually working safely all day every day.

'As the project progressed, we found there was in fact a difference between what was documented in their SMS and what was put into practice. We also found that many were unclear about how to put together an adequate safety system and of AMSA's information and education role.'

Dr Grech said that while the project had its limitations, it did provide some very useful information about the gaps and challenges faced by operators, crew and AMSA.

Despite this, the collaboration with industry provided great information that will enable us to create tailored resources and workshops for specific sectors, some of which is already available on our website and through workshops.

Thank you to everyone who volunteered their time to work with AMSA on this project.

A series of tailored SMS workshops will commence in early 2019, kicking off with the fishing sector.

Safety should be an integral part of how the business is done—from complying with regulatory responsibilities to actually working safely all day every day.

Workshops

To keep up with dates, locations and registration details for the coming SMS workshops go to amsa.gov.au/smsworkshops

Safety management systems

To learn about safety management systems and browse a range of resources, including examples of SMSs for different types of operation go to amsa.gov.au/sms



Help when needed: Nautilus Aviation VH-ZVO was the first to respond.

Trouble on *Euston Reef*

When AMSA responds to emergency-beacon activations, we don't always have much information to go on. Assuming the worst, we tap into whatever resources are available, to get on location as quickly as possible.

At 11.40 am on 12 August 2018, one such situation began to unfold, when AMSA detected two emergency position indicating radio beacon (EPIRB) activations near Euston Reef, 28 nautical miles north-east of Cairns, Queensland.

Registration details for the EPIRBs indicated the people in distress had been on a 14.8-metre motor cruiser but we had little more to go on.

AMSA Search and Rescue officer, Daniel Redondo, said AMSA's initial response on receiving a distress beacon alert is always to contact the registered owner and, if unsuccessful, attempt to get in touch with any emergency contacts listed with the EPIRB's registration details.

'In this instance, the owner was not contactable and the emergency contacts were unable to provide information about the number of people on board or details of the voyage,' Daniel said.

While trying to get in contact with the vessel owner and emergency contacts, we develop a rescue plan to task the necessary number of search-and-rescue assets to locate and safely recover the people involved.

Daniel said 14 minutes after the EPIRBs were activated, two aircraft were sent to the scene—Townsville's Rescue Helicopter and AMSA's Challenger aircraft. The expected time of arrival (ETA) for both aircraft was two hours from tasking—a long time for people in distress, let alone when their exact predicament is unknown.

AMSA contacted Cairns Water Police to check the availability of rescue vessels and subsequently tasked a rigid-hulled inflatable boat from Fitzroy Island, 20 nautical miles from the scene and a Cairns Coastguard vessel.

'Although numerous rescue craft were on their way, the ETA of between one and two hours was still of great concern,' he said.

'From a search-and-rescue perspective, when an EPIRB distress signal is initiated, we assume that the people involved are in the water, and we need to access the quickest possible help available, which is where we request assistance from any other craft we can locate in the area.

'AMSA identified a Nautilus Aviation helicopter—*VH-ZVO*—and a dive charter vessel called *Scubapro*.

'Cairns Vessel Traffic Services contacted *Scubapro* at 12.08 pm and *VH-ZVO* at 12.25 pm, and asked

them to proceed to the scene and advise the nature of distress, the number of people involved and provide any assistance they could.'

At 12.56 pm *VH-ZVO* advised that two people were located standing on the Euston Reef navigation mark with an overturned tender on scene. Their vessel had sunk after it ran aground, but they had managed to activate the EPIRB and launch the vessel's tender.

Shortly after at 1.19 pm *Scubapro* recovered both people, who were checked by doctors on board and given the all clear before being transported back to shore by authorities.

AMSA relies heavily on the goodwill and professionalism of vessels and aircraft like *Scubapro* and *VH-ZVO*—particularly where formal rescue assets may be unavailable or a significant distance from the distress position. Without this much-appreciated assistance, our capacity to safely rescue people from potentially life-threatening situations would be substantially compromised. Read more in Heroes recognised at NATSAR awards on page 11.

Good to know

- You can register your distress beacon over the phone on **1800 406 406** or online at beacons.amsa.gov.au and list up to three emergency contacts.
- We strongly recommend that these emergency contacts include people who are likely to know your whereabouts, intended destination or specifically in the case of EPIRBs have some familiarity with the vessel and the people likely to be on board.



Macquarie lighthouse

200 years of history

Australia's first lighthouse was built in 1818 on Dunbar Head, Vaucluse—an eastern suburb of Sydney on the southern head of the entrance to Sydney Harbour.

The architect of the original Macquarie tower was Francis Greenway, a 'gentleman convict' who was transported to Australia for forgery and later became Australia's first government architect.

Governor Macquarie was so impressed with Greenway's work that he granted him a pardon so that he could be honoured as a free man at the opening ceremony.

The Macquarie Lighthouse tower you see today is not the original—it was added in 1883, because the original building no longer stood up to the test of time. Colonial Architect James Barnet designed the new tower, which resembled Greenway's original design externally. However internally, the new lighthouse sported an electric light,

which at the time was a relatively new technology in lighthouses and a first for Australia. For a short time, the two towers stood side by side until the original Macquarie tower was demolished.

Macquarie Lighthouse remains one of Australia's most beloved and recognisable lighthouses. Its role in bringing ships safely into Sydney Harbour makes it an important part of the nation's colonial history.

AMSA still operates Macquarie Lighthouse today for the safety of ships. The Sydney Harbour Federation Trust manages the site under a tourist licence from AMSA and offers tours of the lighthouse each month.



harbourtrust.gov.au/visit/macquarie-lightstation



Clockwise: Macquarie Lighthouse today: [iStock.com/maonakub](https://www.istock.com/maonakub); Original and new Macquarie lighthouses (courtesy of the State Library of New South Wales); Francis Greenway: [iStock.com/GeorgiosArt](https://www.istock.com/GeorgiosArt); 150th Anniversary of Macquarie Lighthouse stamp.



Candelas

The power of the light from a lighthouse is measured in candelas. One candela represents the same amount of light as one burning candle. Macquarie Lighthouse has a light power of 229,000 candelas. The light actually comes from a set of high-powered, modern lights called LEDs or light-emitting diodes.

Timeline

- 1790 The site was first used as a signal point for ships entering Sydney Harbour. This was only a brick column and signal station. A bonfire was also used for the first time to signal the passenger ship *Bellona* as its crew navigated into Sydney Harbour.
- 1793 A permanent fire beacon was set up. This was a wood fire in an iron basket and was lit by convicts each night.
- 1797 The range of the fire beacon was increased by burning coal from Newcastle instead of wood. Sailors could then see the light from 10 kilometres away.
- 1818 First Macquarie Lighthouse tower built. The light was made by whale oil lamps concentrated with a series of mirrors and could be seen up to 35 kilometres out to sea.
- 1836 Head keeper's cottage constructed.
- 1881 Assistant keepers' cottages constructed.
- 1883 The tower we see today was built next to the original tower. A bigger lantern room allowed a Fresnel lens to be installed, which extended the range of the light to 45 kilometres.
- 1884 The deactivated original tower was removed.
- 1885 Lighthouse engineers' quarters were built. These were demolished in 1970 and townhouses built in their place.
- 1933 The lighthouse lens you see today was installed and the lighthouse was connected to mains electricity.
- 1976 The lighthouse was fully automated.
- 1989 The last lighthouse keepers were withdrawn from the site—batteries now provide the back-up power.

What are we hearing from you?

Your questions help us provide better information about meeting safety requirements and how to access our services.

Here are some of the common questions over the past few months, gathered from industry associations, AMSA Connect, community and industry events, and from our regional liaison officers and port marine surveyors.

1. Where can I fill in a form to notify authorities I am conducting a flare demonstration?

You can use the Notification of flare demonstration (AMSA50) form to inform AMSA of your intention to hold a demonstration of a distress signal or device—such as flares—that could be mistaken for a real distress situation.

Please submit your form one week before your planned demonstration.

Find more information at:

amsa.gov.au/forms/notification-flare-demonstration

2. Do I need a coxswain certificate of competency to drive a volunteer marine rescue (VMR) vessel?

No. Crew on VMR vessels are not required to hold a national law certificate of competency, unless required to do so by the relevant VMR organisation.

However, crew must be at least 16 years old, and meet the medical, eyesight, and training requirements imposed by the relevant VMR organisation.

Find more information at: amsa.gov.au/exemption24

3. Do I need a licence to operate a marine radio?

Yes. The type you need will depend on what type of radio equipment you intend to operate.

Find more information at: acma.gov.au/Citizen/TV-Radio/Radio/Marine-and-Amateur-Radio/marine-radio-qualifications

4. Before AMSA took over I had to register my vessel with my state marine safety agency. Do I have to do this under the national system?

All Australian commercial vessels, 24 metres and over in tonnage length are required to be registered on the Australian General Shipping Register. If your vessel is smaller than this there is no requirement under the national

system for your vessel to be registered, but you will need a:

- Certificate of survey
- Certificate of operation
- Unique identifier

Or you need exemptions from these. Local state and territory requirements may still apply.

Find more information at: amsa.gov.au/registeravessel

5. How can I transfer my certificate of operation?

A certificate of operation is not transferrable. The previous operator must vary, revoke or suspend their certificate as applicable. The new operator must apply for a new certificate of operation, or vary their existing certificate if the vessel will be used in the same way as the other vessels already listed on the certificate.

6. Do I need to re-register my vessel if I travel outside of Australian waters?

All Australian-owned vessels proceeding on an overseas voyage must be registered on the Australian General Shipping Register.

Find more information at: amsa.gov.au/registeravessel

7. Does a vessel owner need to submit an online application to have their periodic survey (other than renewal survey) processed by AMSA?

No. Simply do your periodic survey with an accredited marine surveyor or recognised organisation. Then the surveyor will submit the report and recommendations regarding your vessel to AMSA.

Find more information at:

amsa.gov.au/newsurveyrequirements



If you have a question, please send us an email at communication@amsa.gov.au



**Lindsay Grenfell,
Bellbowrie Qld**

'Every time we go out, the skipper assesses the risks with his crew.'



**Tim Allingham,
Wannanup, WA**

'Every time I go out—tides, winds, weather, the number of other boat users around, sun exposure.'



**Ethan Allingham,
Wannanup, WA**

'Every day before I head out. There's no other way, otherwise you could cause someone injury and financial repercussions.'



Sam Williams, Shark Bay, WA

'We assess the risks every time we go out. The main thing is to check the navigation equipment is working correctly and that everything else is functioning.'

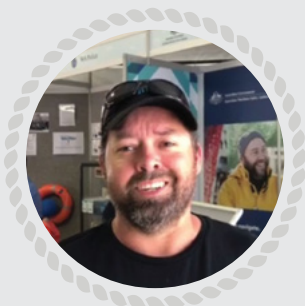
How often do you assess the risks on your boat?

At the Perth International Boat Show in September we asked people how often they assessed the risks on their boat. Here's what they said...



**Phillip Hague,
Triabunna, Tas**

'Every time I go out I do a general check up. The fuel shut-offs—when I go out, I turn them on, and turn them back off when I come home. I also turn off my electrical switch and my batteries.'



**Adam Brennan,
Sorrento, WA**

'We assess the risks every time we go out on the boat. We always do a safety talk about where the lifejackets are, where the flares are kept, how to operate the EPIRB and what to do in the case of an emergency.'



**Allan 'Poly' Polglaze,
Coolbinia, WA**

'I have to assess the risks on my boat every day because every day I'm on different boats. I make sure the hull is ok and that the bungs are in, that we've got the correct safety gear, and also that we've got enough fuel.'



Ian Fryer, Waikiki, WA

'I assess the risks on my boat prior to leaving. I make sure the equipment is all good to go; that no one has tampered with the boat. I check the weather so I know what's coming up, and once out on the water I keep an eye on the boat and surrounds for potential risks.'

**Carlos Del Pino,
Waikiki, WA**

'We conduct a risk assessment every morning before we start the shift. Being a diver I check for correct functionality of the equipment, as drowning is the main risk for us.'



**Narelle Kennedy,
Rockingham, WA**

'We assess the risks on our boats and do pre-op checks every weekend. We check for mechanical risks and safety equipment for the crew and for any passengers we may have to bring on board.'



Community events

Recently we took our safety message to the community at the Perth International Boat Show, Fremantle Maritime Day and the Summer Safe Boating Open Day on the Gold Coast. In the New Year we will be at the Australian Wooden Boats Festival in Hobart—see you there!



The galley

The Lobster Shack in Cervantes—a well-known stop for seafood and lobster—suggests this simple recipe.

BBQ western rock lobster with garlic butter, served with chips and fried rice: Image supplied by the Lobster Shack.



Serves 1

Preparation: 20 minutes

Cook: 6 minutes

Total: 26 minutes

We spoke to Western Rock Lobster fisher Sam Konkurat about how he prefers to eat lobster. He said it depends on whether he's at sea or ashore. 'If I'm at sea it's with two-minute noodles and chilli sauce—but nothing beats fresh rock lobster on the barbecue with garlic butter.'

Ingredients

- 1 lobster (about 600g)
- 8 tbsp. unsalted butter, softened
- 4 cloves garlic, finely chopped
- Salt and freshly ground black pepper, to taste

Instructions

1. Combine butter and garlic, salt, and pepper in a bowl—set aside.
2. Using a cleaver, split lobster in half lengthwise through its head and tail. Scoop out and discard the yellow-green tomalley and break off claws.
3. Spread the garlic butter on the lobster halves, shell-side down. Leave for 10 minutes.
4. Heat a charcoal or gas grill to high; bank coals or turn off burner on one side.
5. Place lobster halves, shell-side down and covered with a lid or foil. Add the claws to the grill; cook for 6 minutes.

In the above image, the lobster is served with chips and fried rice—on the menu at the Lobster Shack.



Eating a variety of fresh foods daily is important for your physical and mental wellbeing.



We'd love to know what fare you serve up from your galley. Please send your recipe, the story behind the recipe and pictures to communication@amsa.gov.au



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Australian Maritime Safety Authority



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