



Australian Government
Australian Maritime Safety Authority

WORKING BOATS

July 2019



Safe workplaces

Personal, operational and environmental safety

Going over the
rail isn't fun
Lessons learned

Which lifejacket?
What the regs say

Eye Spy
An epic approach
to safety



Australian Government

Australian Maritime Safety Authority

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Illustration: Scott Kimber

Message from the Chair

AMSA Chief Executive Officer Mick Kinley has kindly asked me to open this edition of *Working Boats* magazine. As well as being AMSA Chair, I am a commercial fisherman and offshore services operator in Tasmania and an avid supporter of safety on commercial vessels. Like many in the industry, I am proud to see my son following in his grandfather's and my footsteps choosing a career in the domestic commercial vessel industry and taking a leading role as a skipper in our business.

Having family on board certainly helps sharpen my focus on safety. I have worked for many years to develop a safety culture on my vessels.

We have float-free EPIRBs fitted to our vessels and all crew wear PFDs on deck in bad weather when undertaking tasks at or near exposed areas, or when operating out of a tender, but I also know getting work done safely requires more than just investment in gear.

Recently, my safety culture was tested. On one of my now not-so-frequent trips to sea, without thinking, I was getting into a tender dinghy to do something without wearing a PFD. I admit I neglected to follow my own rules, but my son didn't hesitate to call me out. He sent his dad straight back to the wheelhouse to put on a PFD with a few choice comments to the effect of 'that's not the way we do things here!'

For me, it was a perfect validation of our safety culture. Everyone on board, regardless of experience or role, must look out for their crewmates and prioritise safety. We should all discuss safety more—sharing stories of foolish mistakes and close calls.

Operating in the offshore business has sharpened our safety culture. Crew and contractor safety inductions, as well as toolbox meetings prior to commencing a new task, are standard operating procedure.

In this edition, I am pleased to see fisherman Joseph Smythe share his story of lessons learned the hard way. The thing I like about Joseph's story is that he knows an experienced fisherman can still make a mistake and find themselves going over the rail. Most of us who have worked at sea have our own stories of bad calls made in the heat of the moment.

Next time you get downtime at work, whether at sea or on shore, share a safety story. Tell the young deckhands about the lessons you've learned the hard way and discuss safety with your experienced crewmates too.

And when the skipper takes his slippers off and comes out of his warm wheelhouse to do something on deck without a PFD on, tell them to go back and get it! It might feel awkward, but they will appreciate it as the mark of a working boat with a true safety culture.

Stuart Richey AM

Chair of the Board



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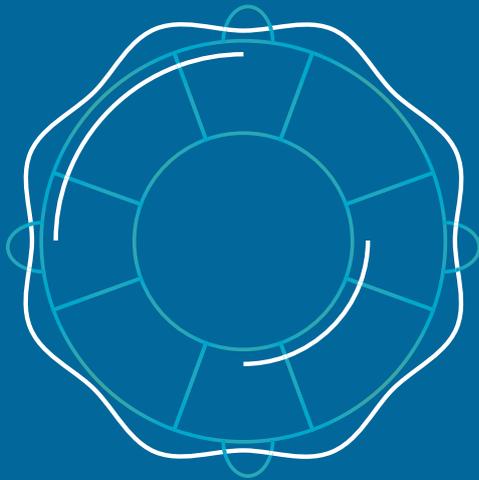
We talked to Sealink's Chris Ha.

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Australian Government
Australian Maritime Safety Authority

Report maritime incidents directly to AMSA in two simple steps



1. Alert AMSA as soon as practicable when a serious incident has occurred

Serious marine incidents include:

- death or serious injury to a person
- loss of a person overboard
- loss of, or significant damage to, a vessel.

* You can submit an incident alert by phone, email or online.

2. Submit an incident report – within 72 hours

This gives us detailed information about the incident and mitigation measures.

Form 19 – Incident report

Other types of marine incidents you need to report:

- fire
- loss of stability
- fouling of a vessel
- a close quarters situation
- any event that could impact the safety of a vessel, those on board or nearby.

Submit forms via amsa.gov.au or email completed forms to reports@amsa.gov.au



Call AMSA CONNECT **1800 627 484**



Visit amsa.gov.au/incident-reporting

Introduction of service delivery under the national system kicked off a whirlwind of enquiries from commercial operators, putting the folks at AMSA Connect through their paces during the transition period. We chatted with Eliza, Josh and Krystal, who coordinate the team that field calls on all things maritime, from certificate exemptions to advice on transporting a giraffe!

By Desiree Cairra

In the past 12 months, AMSA Connect took more than 167,000 calls.

AMSA Connect gets down to business

It's likely that the AMSA Connect team have heard every sailor joke, storm story and fishing tale around.

Yet the team—made up of around 50 national staff—are well regarded for their patience, composure and the ability to make strong connections with callers.

In the past 12 months, AMSA Connect took more than 167,000 calls, with a large portion involving matters on domestic commercial vessel safety since AMSA rolled out service delivery on 1 July last year.

That's almost triple the number of calls the team managed in 2017–18 at around 64,000 the same time last year.

This was a busy time for Connect staff—many new to AMSA—who were the first point of contact for every enquiry no matter how small or complex.

'As AMSA took on service delivery, lots of people thought all their certificates would expire on 30 June and we could reassure them they were ok,' said Eliza.

Hiring the right team meant finding a unique mix of people with great communication skills, empathy and the ability to make quick connections with people seeking answers.

'We've retained so many staff since the transition even though it was a really hectic period, which is a great reflection on how well the team members work together and communicate,' said Josh.

There have been some interesting moments in AMSA Connect—calls to renew car registrations, a school wanting to register an underwater drone, and there was the zoo who wanted same-day shipment of a giraffe to New Zealand.

Handwritten letters, cards and return calls to AMSA Connect staff are testament to their dedication.

'It's important that customers know AMSA listens to them ... we see some very complex issues and AMSA's business areas have been supportive of us wanting to get the right information for customers,' said Josh.

The Connect team also understands no problem is insignificant.

'It's not uncommon for a caller's situation to be their whole world and we have to remember that,' said Krystal.

'They might have been in business for 50 years, or never been on a vessel before, but you've got to remember people are working under enormous pressure so they could lose a season's worth of business and it could be the end of their livelihood'.

AMSA Connect is open Monday to Friday from 8am–7pm.
1800 627 484
amsaconnect@amsa.gov.au



Going over the rail *isn't fun*

By Joseph Smythe

Originally published on the
Australian Professional Fisherman
Facebook page, 17 November 2018.

Sunrise on the Bass Strait: Images supplied by Joseph Smythe.

In the blue waters of Bass Strait, I thrashed my arms and legs, timing my breathing between the waves washing over my head.

Floating effortlessly, a nearby Albatross inclined its head towards me, its great black eyes frowning as if to say 'what the hell are you doing in here?' Good question...

Fishing had been slow all day. At about eleven at night the conditions were sloppy and a driving rain swept the deck. My skipper decided to steam through the night to new ground—the pressures of quota lease price, fuel and bank repayments spurring him on to forgo sleep and drive the vessel on into the conditions.

At about four in the morning we finally arrived. Me and the other deckhand, Ramel, ran out onto the spray-lashed deck to shoot the gear away, sheltering behind the wheelhouse to avoid the cold wind, which seemed to cut right through our wet-weather gear. With the

gear shot away by the time the first grey glow of dawn cracked the eastern sky, we set the anchor and got some sleep for a few hours.

Up again at ten, the wind had subsided significantly but with a moderate sea still rolling through. Scoffing down breakfast and taking a gulp of strong coffee, I got into all of my wet weather gear and got up to the bow, preparing to gaff on if necessary. But the fishing started off slow again, disappointing us all and raising the anxiety level on the boat. We were all a little tired still.

Then I looked down in time to see a big gummy caught by the head in a scrap of net twist free as it broke the surface and drifted down, struggling slowly.

Oh no you don't, hundred-dollar fish!
I seized up the gaff and went after it.
Damn, it's already behind the roller.

I lept around and lent over just abaft the roller, leaning my chest over the net. I leaned further over. The bow dipped into a trough, the net going

slack, allowing me to lean further over as the net sagged to below my waist. Reaching hard for the fish, I forgot completely about my surroundings. Unconsciously, I stepped back along the gunnel rail. The net was beneath my knees. Head and chest right over and below the gunnel by now, still reaching for the fish, reaching...

Then the bow rose up sharply. The net snapped tight and flung me like a trampoline; legs above my head. For a split second I hung in mid-air—*ah you idiot*—then I fell headfirst into the water.

Everything went quiet as I plunged beneath the waves. Endless blue below me. Red hull beside me. Port-side batwing in front of me.

Get to that! I twisted my head around and upwards towards the surface. Three arm strokes ripped me up, my head breaking the surface. Adrenaline thumped now.

Get in control, NOW!!

Port Welshpool

Bass Strait

Wilson's
Promontory
National Park

'Between breaking the surface and the life ring landing only two seconds had passed, but it had felt like a lot longer.'

A detached calm took hold of me in an instant, punctuated by a cascade of thoughts. *This is bad. It's really hard to float in wet-weather gear.* Waves washed right over my head.

Breathe. I got a lung full of air but a mouthful of water too. *Time your breaths between the waves. Breathe out through them. Suck it in now quickly. Breathe out under water again.*

A lifering landed beside me. *Get your arm into it—that's better!*

The skipper had been out the wheelhouse door before I'd even hit the water. Between breaking the surface and the lifering landing only two seconds had passed, but it had felt like a lot longer.

I tried to swim for the batwing but it was almost impossible to swim in all my gear, even with the lifering. The skipper went behind the wheelhouse to fetch the lifering with the lanyard attached. I kicked back to assess the situation a bit.

I was being carried away from the boat slowly by the tide. I still had the gaff in my right hand. The skipper had the lanyard-equipped lifering now, but the lanyard was tangled. Kicking and lunging as best I could with the gaff, I hooked it around the base of the mast stay and hung on.

'Then the bow rose up sharply. The net snapped tight and flung me like a trampoline; legs above my head.'

The skipper had the lifering sorted now and lobbed it beside me. Letting go of the gaff, I grabbed hold of it with my left arm and the skipper dragged me back to the batwing. I got my feet up on it and stood up holding on to the side of the boat. I passed the lifering back up then stuck my left arm up to the top of the gunnel rail. The skipper grabbed hold of it and pulled my 84kg

plus sopping-wet clothing and wet-weather gear up the side like I was a fish. I got a toehold in the scupper with my boot and climbed over.

'Well that wasn't much fun! Sorry about that fellas,' I said feeling ashamed.

'That's alright. Have a shower and get dry,' the skipper said.

I stripped out of my wet-weather gear and clothes down to my undies, ran down to the focsle and got showered as quick as I could. After I got dressed and found a dry pair of boots, I ran behind the wheelhouse and donned the skipper's wet-weather gear. His jacket was so comfortable he had to confiscate it off me two days later.

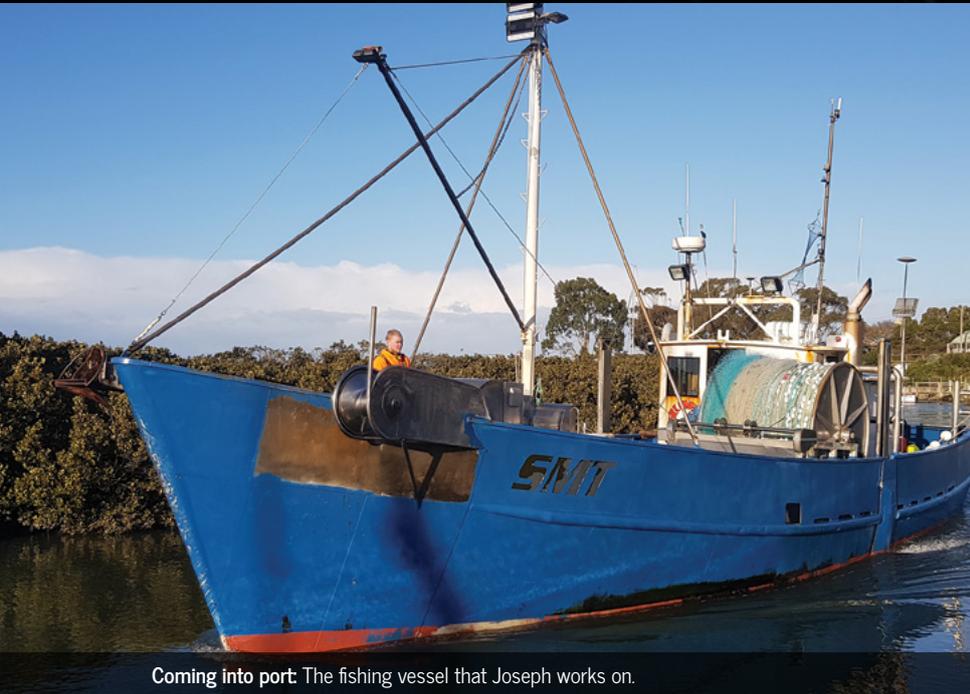
Walking back past the wheelhouse door he commented, 'How was the water? Did it feel like 14.5 degrees Celsius?'

'Ah yeah, a bit fresh,' I said.

To tell the truth I never even noticed the cold, the adrenaline was pumping that hard. It's probably lucky I'm as



Rewarding work: Joseph's view of the sunrise on Bass Strait.



Coming into port: The fishing vessel that Joseph works on.



'Controlling yourself in these potentially life-threatening situations is crucial, and it is possible.'

— Joseph Smythe

fit as I am, so I could concentrate on breathing and actually have the lungs to do it.

Back on the bow, the sun was shining warm upon my back. Our resident dolphin pod surfed on the bow below me, right beside the net rising from the deeps.

My nausea completely gone, my forearms and hands were numb and tingly. *This is quite the high, now that I'm safe*, I thought. There was an oily, queasy edge of fear to it though. Not a rush I want to feel again. I'll leave the swimming to the dolphins from now on and buy a life vest and a pair of wet-weather pants.

Controlling yourself in these potentially life-threatening situations is crucial, and it is possible.

It probably wasn't even the most dangerous situation I've been in over the years—bar crossings with the old man; rolling the dice and sprinting across banks in the dark in six-metre swells; being knocked out by a fish trap; washed across the deck of *Ocean Wild II* and slammed into the other side...

I started thinking about all the other things I've done countless times at sea that could be risky. Leaping up onto the roller to gaff and drag in great big, heavy sharks; leaning over the side to scrub blood off the gunnel at the end of

winch up. But I'll never be so stupid as to do these things again, particularly go into the net again, even on a glass-off day. I will always gaff fish from in front of the roller.

It's embarrassing to recount this but I hope it's of value to other fishermen to learn from my mistake. And the point is that the risks can pile up and align and catch any of us out—bad weather, slow fishing, nausea, fatigue—and all of a sudden, we can forget years of learned situational awareness and get a nasty fright.

Now I am off to check out life vests.

Communication at *sea*

Clear communication: A man sets off a distress flare at sea. Image source: iStock.com/jeffix

Since the earliest vessels took to sea, every master has experienced that feeling of isolation at voyaging beyond the heads to navigate the ocean's perils. This sense of disconnect with land, to enjoy the ocean's freedom still holds true, although modern seafarers are better equipped than ever before to ensure they stay connected and return to port safely.

By Alex Bourke

These days, with myriads of vessels out on the water—sometimes in confined areas or narrow lanes—the risk of collision is increasing. Automatic Identification System (AIS) and radio are the most effective means of allowing other vessels to see your location, direction and speed—especially in low visibility.

People often think of marine communication equipment as two-way verbal mechanisms such as very high frequency (VHF) radio, medium frequency (MF) or high frequency (HF) radio fitted with digital selective calling, satellite phones, Immarsat and AIS.

It's also important to remember the non-verbal and one-way communication methods available to mariners. Emergency Position Indicating Radio Beacons (EPIRBs), Search and Rescue Transponders (SARTs) and distress flares are essential items used to call for help in an emergency. Even flags, signalling lights, heliographs and rudimentary methods like hand or smoke signals can be used.

By law, commercial vessels are required to have certain communication devices on board. As an additional measure, vessel owners should risk assess their operation and consider whether they need extra equipment, above the minimum requirements.

For example, where tender vessels leave the parent vessel for periods of time, radios should be installed on each tender as well as the parent vessel. There should also be operational procedures in place to regularly communicate between the parent vessel and the tenders, to check in on the crew and passengers.

Mobile phones should never be used as a substitute for approved communication equipment because coverage at sea can be unreliable.

Learn more about equipment requirements on different types of commercial vessel.
amsa.gov.au/equipmentlists
amsa.gov.au/myboat

Ask:

- Is my equipment effective for my operating needs?
- Have I informed other parties about my voyage and established a reporting procedure?
- Do I know how to effectively operate my equipment in an emergency?
- Am I monitoring the right distress frequencies?
- If one piece of equipment fails, do I have another that will work?
- Can I access and activate my equipment quickly?
- Do I have marine communication procedures in place that form part of my safety management system?



Coastal lifejackets save lives: Image source: iStock.com/Mickrick

The national law requires you to have either Safety of Life at Sea (SOLAS) or coastal lifejackets on your vessel, depending on your operational area.

Both SOLAS and coastal lifejackets are designed to be worn while abandoning a vessel. They are bulky, with flotation material at the front so an unconscious person will automatically roll onto their

back. They also have reflective tape and a whistle to attract attention.

SOLAS and coastal lifejackets are made to different standards, with SOLAS lifejackets designed to help people survive in the water for longer periods of time while awaiting rescue.

Certain models of personal flotation device (PFD) are also acceptable for use as a coastal lifejacket—if they are

manufactured to certain standards. Because they are less cumbersome to wear than coastal and SOLAS lifejackets, this makes them ideal to wear during normal activities on a vessel to reduce the risk of drowning if you fall overboard.

Safety equipment lists for each service category are available at amsa.gov.au/about/equipmentlists

Operational area	Lifejacket requirement
B Extended offshore B Offshore	SOLAS with a light for every person on board (crew & passengers). Additional SOLAS lifejacket with light for each child under 32 kilograms or 10% of all passengers, whichever is greater.
C Restricted offshore C Restricted offshore—specified areas	Coastal lifejacket* with a light for every person on board (crew and passengers).
D—partially smooth water E—smooth water	Coastal lifejacket* for every person on board (crew and passengers).

Note: Existing vessels, which were entitled to operate prior to 1 July 2013, may continue to carry lifejackets that meet the standard that applied to the vessel at the time. However remember that:

- when your existing lifejackets require replacement, they must be replaced by lifejackets that meet the latest standard; and
- kapok filled lifejackets were outlawed many years ago, so if you have any of these lifejackets, they must be replaced immediately with lifejackets that meet the latest standard.

* Certain models of personal flotation device (PFD) are acceptable for use as a coastal lifejacket if they are manufactured to one of the following standards.

- AS 4758.1 (level 150)
- ISO 12402-3 (Level 150)
- BS EN 396

Is your inflatable lifejacket going to *inflate*?

Make sure your lifejacket is in good working order for when your life depends on it.

By Tegan Weber



Lifejacket maintenance.



- ✓ Skippers must ensure the PFDs are fit for purpose and that all crew know how to use them.
- ✓ Vessel owners must supply suitable PFDs.

Lifejackets are an important piece of safety equipment on any boat, but they don't last forever. Exposure to sun, salty water and rain mean this vital lifesaving device can become damaged over time.

Inflatable lifejackets—also known as personal flotation devices or PFDs—are no exception. These types of lifejackets are suitable for commercial vessel operations as long as they meet required standards—read more about this on page 7.

PFDs are compact and comfortable, but if they don't inflate in an emergency situation, they are no use at all. All it takes is exposure to chemicals or sharp objects to pierce the bladder of the jacket and prevent it from inflating, so regular servicing and checks are important.

To ensure they work when you need them to, have your PFD serviced annually and check them before use.

The annual service

Annual servicing to thoroughly inspect the PFD and replace parts if needed, is essential. The only exception to this is if the manufacturer recommends a longer period between servicing.

Depending on the manufacturer's requirements, this can be a self-service (conducted on board) or be carried out by an authorised agent.

You are not allowed to carry out repairs on your PFD. Even if you carry out the checks, you must take the PFD to an authorised agent to have repairs done. If the PFD fails any step of the service, it can no longer be used.

You should also keep a formal record of the service as part of your safety management system—including the date of service, what checks were done and what work was carried out on the PFD.

Self-service is not simply a routine check and clean, it is far more involved and is not considered complete until the PFD has been left inflated for a specified time, which is set out in the manufacturer's guidelines.

The pre-wear check

The pre-wear check is a basic visual check of your PFD to make sure it isn't damaged and everything is still connected properly.

Step 1 Look for visible signs of wear and tear.

Step 2 Check the gas cylinder is full and screwed firmly. The only way of determining this is by weighing the gas cylinder.

Step 3 Check that the retaining clip and automatic cartridge are secure.

Step 4 Ensure the pull cord is clear and ready for use.

After wear, remove the automatic cartridge, wash the PFD in warm soapy water and dry it thoroughly.

Store the PFD in a dry, well-ventilated area away from direct sunlight and harmful chemicals.

Take 5 to save lives

Take 5 is a simple risk assessment process that involves taking a moment to think through the task at hand, identify risks, and adopt measures to get on with the task safely. By Brad Roberts

Risks can change from day to day and job to job. Routine jobs can be dangerous if you become complacent and just as risky as unfamiliar tasks without the proper safety measures in place.

Vessel owners are legally responsible for identifying the risks in an operation, and managing the risks through a safety management system. By talking to the vessel owner about any risks you are not able to control safely, you are contributing to a safe work culture.

Take 5 doesn't replace the safety management system. It is a useful tool that can form a part of the safety management system and help keep people safe as tasks and work conditions change.

Remember, the quickest way or the traditional way of going about a task is not necessarily the safest way.



How to Take 5

Before starting work on a task, think about the risks involved and implement changes or control measures to complete the task safely.

Use these steps to help you.

- 1 Stop.** Take a few steps back from the work to assess what the task involves.
- 2 Think.** Is it safe? Are there other ways to do the work? Is there a safety procedure in place that I can follow? Do I have the permits I need?
- 3 Identify.** Look for the hazards. What has changed in the environment? What is different with this job? How will I get out or stop the job in an emergency? Do I have the correct personal protective equipment?
- 4 Control.** Control the hazard. Awareness of the risk is not an adequate control. What can I do about it? Can I eliminate the risk, or replace it with something less risky? Can I isolate the risk, apply guards, or redesign the work? Do I need to create a procedure or train people on how to manage risks involved with the task? Do staff need to wear personal protective equipment for the task?
- 5 Do it safely!** Will these controls help me and my crew to stay safe? If yes, do it safely. If not, don't go ahead with the work.



Make maritime safety your business

When was the last time you reviewed your vessel's safety management system?

In Australia, vessel owners and operators have a legal obligation not only to maintain a seaworthy vessel, but to document procedures that keep all crew, visitors and passengers safe.

AMSA is making this easier to achieve with our series of free safety management system (SMS) workshops being held nationally.

Aimed at owners and operators of domestic commercial vessels who have an existing SMS in place, it's an opportunity to learn how to continually improve on your system.

While most successful operators integrate their SMS into daily operations, it's vital to vessel and crew safety to regularly evaluate the risks associated with on-board hazards.

Our three-hour workshops will focus on applying a practical and practiced SMS so you continue to keep your vessel, crew and the environment safe.

Workshop participants will learn the simple principles for an effective SMS, safety requirements under the national law, and tips on how to review, revise and continue to improve a SMS.

You will also have an opportunity to discuss and ask questions about your SMS with an AMSA representative.

Information on building an effective safety management system for your operation can be found at amsa.gov.au/sms

Register your interest to attend a workshop at amsa.gov.au/smsworkshops
Book your free spot today.

My Boat online system

Enter details about your boat to find out what safety requirements, legislation and standards you have to comply with.

Useful for vessel designers, builders, surveyors, owners and operators.

The image shows a person's hands holding a tablet that displays the 'My Vessel' online system. The interface is a web-based form with a dark blue header and a light grey content area. The form is titled 'My Vessel' and has a navigation bar with links for 'My vessel', 'Help', 'FAQ', 'Dictionary', 'Register', and 'Login'. The main content area is divided into several sections:

- Principal particulars**: Includes 'Vessel type' and 'Vessel class' dropdown menus.
- Mandatory fields**: A note stating 'Mandatory fields - please complete all fields in this section before proceeding to the section below.' followed by input fields for 'Measured length' (Metres), 'Breadth' (Metres), 'Day passengers (excludes berthed passengers)' (People), 'Berthed passengers (excludes day passengers)' (People), 'Crew' (People), 'Special persons' (People), 'Power (largest single engine)' (kW), and 'Maximum speed' (Knots).
- Additional inputs**: A note stating 'Additional inputs in this section may be required to obtain your desired output. Grey, disabled fields are not required for your regulations.' followed by input fields for 'Demihull breadth' (Metres), 'Depth' (Metres), 'Draft' (Metres), 'Compartment length' (Metres), 'Maximum displacement' (Tonnes), 'Voyage length' (Hours), 'Is this a high risk vessel?' (checkbox), and 'Fuel type' (dropdown).
- Your Regulations**: A sidebar menu with 'National Standards Vessel' checked, and options for 'Leisure Craft', 'Restricted C', 'Non Survey Vessel', and 'Unpowered Barge'. Below this is a section for 'Available Standards' including 'Bilge System', 'Equipment', 'Fast Craft', 'Navigation Lights', and 'Propeller Shafting'.



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It's easy to do.

Simply visit amsa.gov.au/myboat



CERTIFICATE OF SURVEY

Marine Safety (Domestic Commercial Vessel) National Law Act 2012, Schedule 1
Marine Order 503 (Certificates of survey – national law) 2018

Name of Certificate Holder:		Unique vessel identifier	Certificate number
Name of vessel	Type of vessel	Measured depth (m)	Gross tonnage (if applicable)
Measured length (m)	Measured breadth (m)	0.8	Survey frequency
5.30	1.90	Hull material	LOW
Engine make/type	Engine power (kW)	Aluminium	
Class(es) and number of persons this vessel is certified to carry			
Class	Crew	Unberthed passengers	Berthed passengers
3C	1	0	1
Special personnel			
1			

Get your certificate of survey without delay

Being aware of the required documents, and asking the right questions of your surveyor, designer or builder, could help you save time and money.

By Gerard Walsh

AMSA's *Marine Surveyors Accreditation Guidance Manual (SAGM)* should be in every vessel owner and surveyor's toolbox.

If you're a vessel owner or operator, we encourage you to download the SAGM (part 2) from our website and familiarise yourself with any sections relevant to your vessel or operations.

The SAGM is our official go-to vessel certification reference guide. It clearly sets out how your vessel will be surveyed under the national system, how often, and the documentation required.

AMSA relies on the recommendations of accredited marine surveyors to determine if your vessel meets the applicable safety, design, construction and equipment standards under the national law.

Our assessors must be able to access all the relevant documentation referred to in a recommendation to ensure prompt issue of certification.

It's essential that drawings and plans, approvals, technical evaluations and calculations are prepared and submitted alongside requirements outlined in the SAGM.

If your accredited marine surveyor has, for example, not adequately completed a plan approval letter or referenced the exact standards applied, this will delay the issue of a certificate.

When an assessor requests additional information, it's often because a recommendation hasn't been made using the SAGM checklists.

We're finding instances of this in the design and plan approval phase—and these delays are easily preventable.

It's worth having a look at the sample plan approval letter and recommendation, and supporting documentation expectation matrix in the SAGM.

The one-page matrix is especially valuable as it conveniently links the survey activity to the required AMSA form or report.

amsa.gov.au/marinesurveyorsmanualpartsland2



Towing HMAS Darwin from Sydney to Perth

There's no room for error when you're planning to tow a 4200-tonne ex-Navy frigate more than 2000 nautical miles through open sea from Sydney to Perth.

By Peter Strachan



Molly Grace in front of HMAS Darwin.
Image supplied by Polaris Marine

On a route navigating some of the most unforgiving water along Australia's southern coastline, the need to get everything right from the start becomes imperative.

For veteran tug master Steve Kennedy, setting sail from Sydney last December with former *HMAS Darwin* in tow came after a month of intensive planning and cross-checking. Every foreseeable risk had to be assessed and minimised—eliminated if possible.

By the time he and his crew set sail on 1 December, the biggest remaining challenge in his mind was the weather.

Probably the least predictable element, it would be among the most closely watched—especially as they set out across the Great Australian Bight.

With more than 20 years' experience as a master and engineer, Steve is co-ordinator of all offshore requirements including towage, for Sydney-based Polaris Marine Pty Ltd.

Taking the *Darwin* from Sydney to Perth was the third ex-Navy vessel and second frigate Steve had moved through open seas in three years. Earlier tows were the former *HMAS Sydney* over the same distance and the somewhat larger *Tobruk* landing craft, from Sydney to Bundaberg.

'Weather is always on your mind with this type of work, especially when you have to cross something like the Bight from east to west,' Steve said.

'You don't need anything to go wrong, so you eliminate every risk you can with extensive planning, long before you leave port on the first leg of the trip.'

'In the case of the *Darwin*, our planning started as soon as the Navy ordered the 18-day tow to Western Australia.'

'But before this, the Navy would have spent about six months in its preliminary steps to get the vessel ready to go. It would have cleared any possible pollutants and emptied the

fuel and oil tanks. In short, it would have removed anything its experts could see would be a risk that we might have to tackle on the tow.'

The Polaris team started with a detailed run-down on the state of the vessel as it presently stood.

'It began with Navy experts briefing us on the liquid state of the vessel—what ballast it was carrying and the like. We needed to have a clear picture of its stability. All of this information was then checked by our naval architect as an added precaution,' Steve said.

'Weather is always on your mind with this type of work...'

'I then drew up a voyage plan covering the entire tow. Not just the course, but emergency procedures and plans for how we would tackle any contingencies. Then we submitted the detailed plan to AMSA for approval.'

'Both AMSA's surveyor and our surveyor carried out a full inspection of the ship, along with our insurance inspector and myself. It took us half a day to confirm *Darwin* was fit to be towed,' said Steve.

'The inspection included all towing gear. It was fully set up on board and closely inspected before being given the all-clear,' he said.

'This is the time when we would have found any things like a vent or hatch needing to be boarded up to prevent the vessel taking in water during the tow.'

With all inspections completed, all parties signed-off and AMSA issued a certificate for the tow.

'That's the time when weather really came into play. We started looking closely for a suitable window,' Steve said.

'Apart from our own judgment and experience, our tow certificate defined the acceptable weather conditions that we could tow in.'

When the tow started, all eyes were out for any potential problems.

'These might have included a failure in any of the tow gear, any leaks, whether the towed vessel was sitting low or listing—that sort of thing,' he said.

'But whatever else, we knew especially on a long tow like this, we always had to keep a close eye on the weather ahead and where the next port of refuge was. As it was, we stopped in Eden for about 36 hours to dodge poor weather.'

During the tow, the crew checked in with head office twice daily.

'These reports included our position report, our speed and how much fuel we were using,' Steve said.

'The reports also went to AMSA, the Navy and our insurance surveyor.'

Standard procedure included advising Sydney Port Authority of their departure.

'We advised our arrival port about three days beforehand to let it plan for us. We also advised local ports along the way, so they could advise other shipping we were in the area.'

For most of the trip, the crews communicated with families using their mobile phones. When this wasn't possible they used satellite communications.

And what was the most picturesque part of the trip?

'From Botany Bay to Eden is quite good, but seeing Perth coming up through the front window and knowing the next meal would be something like roast lamb served at a steady table instead of a microwaved pie in a heavy sea was hard to beat,' Steve said.

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General safety duties

Fishing trawler at sunset: Image source: iStock.com/BoValentino

The maritime industry is diverse, covering everything from kayaks to tugboats, barges, fishing vessels and large passenger vessels carrying hundreds of people. All commercial vessels are required to operate to a safety standard that is consistent across Australia.

By Sam Cardwell

Because no two operations are alike, various standards of construction, equipment requirements and crew qualifications exist to address the basic safety requirements across the commercial vessel fleet around Australia. But that is not enough.

General safety duties provide a framework that ties all the standards together and assigns legal responsibilities to different people associated with vessels and the operations. The general safety duties apply to all commercial vessel operations—even those that are grandfathered or operating under an exemption.

There are general safety duties for vessel owners, masters, crew, vessel designers, builders, service providers and even passengers and visitors. For

example, the first general safety duty—which applies to all vessel owners—is to ensure the safety of the vessel, marine safety equipment that relate to the vessel, and the operation of the vessel. Vessel owners can address this requirement by arranging vessel survey and inspections, doing regular vessel maintenance, having appropriate safety equipment and by implementing a safety management system.

Grandfathered vessels may not be in survey, but the vessel must still be fit for purpose, and this must be addressed through the safety management system. Read more about this on page 17.

Developing and maintaining a safety management system is fundamental to meeting general safety duties. It involves identifying the safety risks unique to an operation and putting mechanisms in place to manage or minimise those risks. This process

is covered under two general safety duties—one that requires vessel owners to implement and maintain a safety management system, and another that requires the master to implement and comply with the safety management system.

This applies to owners and masters of all domestic commercial vessels, no matter how big or small. In small operations, the owner and the master are often the same person so the safety management system is created, maintained, implemented and complied with by the same person.

If an incident occurs, owners, masters and others need to be able to demonstrate that they did what was reasonably practicable to prevent and prepare for that type of incident—see inset the key elements of the legal definition of 'reasonably practicable'.

So far as reasonably practicable'

The legal definition of 'reasonably practicable' is laid out in Section 27 of the *Marine Safety (Domestic Commercial Vessel) National Law Act 2012*. In simpler terms, 'reasonably practicable' means that under the circumstances, reasonable action was taken to health and safety. When assessing whether a person did what was reasonably practicable to prepare for an incident, the following things are taken into account.

- Likelihood of a risk occurring.
- Degree of harm that might result from the risk.
- What the person concerned knows—or should know—about the hazard or risk and about ways of eliminating or minimising the risk
- Availability and suitability of ways to eliminate or minimise the risk
- Costs associated with available ways of eliminating or minimising the risk, including whether the cost is grossly disproportionate to the risk.

AMSA takes breaches of the general safety duties very seriously. Breaches can lead to infringements, court fines or even prison sentences in the most serious cases, depending on the level of risk and the lack of care shown by the non-compliance. A well-documented safety management system which is fully implemented and regularly reviewed can avoid this outcome.

Domestic commercial vessel owners

and employees are also required to comply with state, territory or commonwealth work health and safety laws. These laws also require doing what is reasonably practicable to ensure that workplaces are safe—but the responsibilities are not identical.

It is up to all of us to know our safety duties and how to comply with them as we go about our daily business.

Find the list of general safety duties for domestic commercial vessels at amsa.gov.au/generalsafetyduties

Read Safe Work Australia's Guide to determine what is reasonably practicable to meet health and safety duty at safeworkaustralia.gov.au

Marine Safety (Domestic Commercial Vessel) National Law Act 2012 legislation.gov.au/Details/C2018C00484



Safety first: Commercial vessel operator conducts a safety briefing with passengers. Image source: iStock.com/southerlycourse

Safety management systems and grandfathered vessels

All grandfathered vessels are required to have a safety management system that identifies and reduces—or if possible removes—the risks in the operation. By Tobin Rudkin



Fishing trawlers: Image source: iStock.com/samvaltenbergs

If you operated your vessel prior to 1 July 2013 and its operations have not significantly changed, your vessel is probably an existing vessel—also known as 'grandfathered'.

This means your vessel may be exempt from certain survey requirements, construction standards, or the need to carry certain equipment—all things normally required under the national law to ensure safety.

Even though grandfathered vessels are exempt from some of these requirements, they must all have a complete safety management system to ensure the vessel operation meets safety standards. This is a requirement under the general safety duties for domestic commercial vessels—read more on page 15.

The only exception is around the requirement for crewing arrangements.

Grandfathered vessel operations are allowed to continue using the same crewing arrangement that was used prior to 2013, but this arrangement must still be documented in your safety management system.

Safety management systems don't have to be complex. Some of the best systems—especially for relatively simple operations—have very simple documentation. For example, the section on resources and personnel will be very short if you are a sole operator and the only person using your vessel. In larger or more complex operations the safety management system is generally more detailed.

The most important part of your safety management system is the risk assessment. If you don't know the risks in your operation—then how can you address and manage them? Once you have assessed the risks, the rest of your safety management system

will be around putting processes, and other methods of managing those risks, in place. It's important to get off to a good start by properly identifying and assessing all of the risks in your operation so your safety management system can be effective.

For grandfathered vessels that are exempt from certain requirements—such as survey requirements or the carriage of certain safety equipment—the risk assessment must also identify and manage any safety risks arising from this. This means that while your vessel may be exempt from survey, you must still ensure that it is fit for purpose.

Risk assessments may seem difficult, but if you have been working at sea for several years, it is likely that you have already done most of it instinctively. The focus will be on thinking about whether your approach can be improved and further supported in your operation. Take advantage of the free safety management system workshops being held in different locations around Australia to help you improve on your own personalised safety management system.

Free safety management system workshops

AMSA is holding free workshops around Australia to help people improve their safety management systems.

Find the workshop nearest to you and register your interest to attend at amsa.gov.au/smsworkshops

Information on building an effective safety management system for your operation
amsa.gov.au/sms

Curt Jenner talks

whales,

the web of life & boat design

Collisions with ships, habitat degradation and rising pollution levels are now presenting a serious threat to the future of whale numbers both in Australia and around the world. But there is also reason for hope of a brighter future—for whales, our oceans and our vital fishing and marine industries.

By Peter Strachan



Proudly holding Flag 69 from The Explorers Club: are from left Tasmin Jenner (14), Micheline Jenner and ship's Master, Curt Jenner during WAVES (*Whale Song* Antarctic Voyage for Ecosystem Studies) in 2013/2014 when the CWR research team studied blue and humpback whales in the cool and krill-rich summer waters of the Antarctic. Image supplied by Inday Ford.



RV Whale Song in the Kimberly region: The vessel has complex systems on board making it very capable for its size. Image supplied by Curt Jenner.

The way forward is highlighted in part by ongoing studies undertaken by marine biologists Curt and Micheline Jenner. The couple has studied humpback and pygmy blue whales and conducted biodiversity and cetacean observation surveys since 1986.

Their studies—and those of researchers worldwide—have found more and faster ships are leading to more collisions with the animals. Increasing noise is affecting their ability to feed, find mates and nurse their calves. And pollution is limiting their food supplies.

Curt said it is a worrying combination, but the global community's increasing willingness to bring change is encouraging.

Noise pollution has the potential to displace whales from important feeding and calving areas.

'Whales are an important part of the food web in the ocean. This web turns the energy from the sun into phytoplankton meadows, which feed

swarms of krill, which then feed fish and whales, which then excrete soluble nutrients—whale poo acts as fertiliser,' Curt said.

'These nutrients fertilise more algae and feed more krill that feed more fish in a never-ending positive cycle. If a key part of this system is removed or impacted, the whole system suffers and so do we.'

Noise pollution has the potential to displace whales from important feeding and calving areas.

Curt said because noise played an increasing role in displacing whales, dolphins and even commercial fish schools, he believed the obvious solution appeared to be in the design and use of quieter ships.

'For example, diesel-electric vessels that use proportional power rather than reduction gear-managed power

systems, should be considered more for new builds because they are significantly quieter,' he said.

'They also come with the added bonus of burning less fuel and are cheaper to run.'

Collisions between whales and shipping in Australian waters has been less of a problem than in more dense shipping areas around the world, but speed is a driving factor anywhere.

'Vessel speeds of 12 knots and under rarely causes collisions. Even slowing to these speeds in areas known to have feeding or breeding whales would make a difference,' Curt said.

'Currently, legislation in the United States keeps shipping traffic to 12 knots and under, where Northern Right Whales are found along the New England coast and where blue whales are frequently seen along the California coast. This is a good step forward and would be useful in many other areas around the world.'

Closer to home we have an issue with whales getting tangled in cray fishing floats.

'Fortunately, fishers have been keen to be a part of the solution by shortening surface lines, leaving less rope for whales to come in contact with,' Curt said.

'In some areas they have taken this even further. Off the east coast of Australia, they introduced timed-release floats to minimise the amount of time the floats and lines are on the surface. Off the west coast, they are using weighted lines that hang vertically in the water, presenting a smaller profile for passing whales.'

'As technology becomes less expensive, remote-releasing floats, which are triggered only when the pots are to be pulled up, may become the way of the future.'

The Jenner's and their team are full-time aboard their primary vessel, *RV Whale Song*—a 28-metre ice-class expedition vessel.

'Previously we used a 12-metre catamaran which we lived on for 10 years and a re-designed tuna long-liner that was home for five years,' Curt said.

Whale Song and the ex-tuna boat were both commercial vessels for research, but not the catamaran. *Whale Song* is Cook Islands registered as a Special Purpose Ship for research.

Annual and more-frequent inspections are carried out by Cook Islands surveyors on their due dates, wherever the ship is at the time. The surveys are based on International Maritime Organisation and Maritime Coastguard Agency requirements for commercial vessels,' Curt said.

'*RV Whale Song* is built to Ice Class DO standards (one of the American Bureau of Shipping's system of ice classes) and was constructed to US Military Standards for sound silencing so we can tow acoustic arrays to listen for whales,' he said.

'We bought the vessel eight years ago to expand our Australian whale research to Antarctic waters, where both blue whales and humpbacks feed.'

The couple has been conducting whale research projects since 1986.

'We started with humpback whales at North Stradbroke Island, then moved to Maui in Hawaii, to study humpbacks there,' Curt said.

'In 1989 we moved to San Juan Island off the US to study killer whales and then to Dampier to study humpbacks again. In 1999 we started another study on blue whales off West Australia. We are continually learning and sharing our knowledge with the world as we go.'

Centre for whale Research cwr.org.au

 @CentreForWhaleResearch

'We started with humpback whales at North Stradbroke Island, then moved to Maui in Hawaii, to study humpbacks there.'

— Curt Jenner



At rest: In a secluded cove of an island in the Buccaneer Archipelago in the Kimberley, a resting humpback whale takes a welcome break from the boisterous breeding season.



Australian Geographic Society Gala Awards 2017: Paul Dykzeul, CEO of Bauer Media (at right) presented Curt and Micheline Jenner with their 'Lifetime of Conservation' awards for their whale research in Australia. Image supplied by Paul Lovelace.



Safety in whale research

Getting up close and personal with some of the biggest animals on the planet has been a daily event for scientist, author and mother Micheline Jenner for most of the last 30 years. Safety of the people on the research vessel and the whales they research is always paramount.

By Peter Strachan

Learning through play: Having invested 11–12 months in producing her calf, this mother humpback whale guards her offspring carefully over the next year, preparing this little tacker for the long journeys ahead with muscle-strengthening playful exercises. Images supplied by Micheline Jenner

'Whales are at the centre of our research, but our studies run much wider. Virtually everything we have done during the last 30 years is linked to the health of the sea in its entirety,' Micheline said.

'We document whale population growth levels to see whether the environment they live in is healthy enough to allow their populations to thrive. We document individual whale's birthing intervals. We tag them with satellite transmitters to give us insights into their migratory, feeding and breeding habits,' she said.

'We collect skin samples to check population health and relationships and we collect mucous samples from their blows to examine the bacterial load each animal and species carries.

'All of these data types are compared with other whale populations our colleagues are studying around the world.'

While this work often involves getting quite close to whales in the water, safety remains paramount in all of the team's planning and operations, especially when at sea.

'Our time at sea depends on the ship's schedule, but for Curt and me it's usually at least six months of each year away from the jetty—more than enough time for things to go horribly wrong if we became sloppy about safety issues,' Micheline said.

'When our two girls were children and lived on board with us, we made sure they too grew up from an early age with solid training in safety at sea—everything from how to do odd things

like Williamson turns, to operating our fire extinguishers,' she said.

'Now, Micah, who is 24, works on a yacht in the Bahamas and Tasmin, 20, is a dive instructor working on a boat in Grenada. I'd like to think the things they learnt about safety while travelling with us helps them stay safe now.'

All crew members are constantly undergoing training and drills to keep their safety skills sharp and up-to-date.

'Beyond ourselves and our ship, safety for the whales we work with is governed by respecting their space and not pushing our presence and research objectives when they are not receptive,' Micheline said.

The work is always fascinating, but often has its amusing moments—like the time a female humpback looking



Close watch: Skipper the dog enjoys the company of bow-riding bottlenose dolphins.



The Secret Life of Whales written by Micheline Jenner and published by NewSouth reveals selected unusual encounters with cetaceans during the last 30 years of Curt and Micheline's research career in Western Australia. From the Kimberley to the Antarctic, the whales and their mutual curiosity has never ceased to amaze the pair.

for a mate won the hearts of at least five suitors, but showed a clear preference for the company of the vessel.

'Over the course of four hours we had this very interesting interaction,' Micheline said.

'She continually circled our boat as we continued our scientific studies. And then her intentions became a lot more obvious and it became an encounter of the closest kind. Without going into a lot of detail, it was hilarious to be part of.'

Females invest two years with each of their calves 11 to 12-months in gestation and after birth—one year of feeding and caring for their rambunctious and playful calves.

'Play is very important in developing their muscles and getting them fit for the long journey ahead of them,' Micheline said.

'The breeding and calving season occurs during the austral winter in the warm waters of the tropics. As summer approaches, the calves of that season (3–4 months old) will travel to the Antarctic with their mothers and then north again the following winter as a yearling. Cows and calves face a huge journey and, with this in mind, the cows effectively prepare their youngsters for the perilous journey through potentially hostile seas.'



The Jenner family: from right: Micah, Curt, Skipper (ship's Jack Russell dog), Tasmin and Micheline gather on the boat deck of *RV Whale Song*.



Eye spy

Kerry Lopez has been passionate about whales and their welfare since childhood, so it's not surprising she set her sights firmly on a career based around encouraging the rest of us to share her love of these visiting ocean giants around Moreton Bay, near her Queensland home.

By Peter Strachan



Eye Spy nears a pod of whales: (clockwise) Kerry at work on the Eye Spy, Passengers enjoying the close-up encounter. Images supplied by Kerry Lopez.

'I grew up in New Zealand, where I spent a lot of time with my father on his frequent fishing trips,' Kerry said.

'I remember the sadness I felt the day I first saw a beached whale. I really felt for it and wondered what might be done to help them stay safe.'

Now company director of Brisbane Whale Watching and master of the state-of-the-art catamaran *Eye Spy*, Kerry spends six months of each year showing thousands of visitors the beauty of whales frolicking in the warm waters of Moreton Bay.

'We operate whale watching tours from the Redcliffe Peninsula in the Moreton Bay Marine Park from June to November,' Kerry said.

'My aim on these tours is to create passenger awareness of the great environmental treasure we have with whales in our waters here. My on board commentary focuses on them and their habitat and how we can all help their numbers grow.'

Eye Spy is a luxury air conditioned catamaran built in Brisbane with a specific focus on whale-tourism. It represents the best in whale friendly design and technology. It has low-noise propellers, a low-wash hull and the capacity to shut down half its engine cylinders when near whales.

'The vessel is licensed to carry 319 passengers, but we take lower numbers for whale watching. We have a crew of six and the safety of both the people on board and the whales is a top priority when we prepare for tours,' Kerry said.

'Safety checks start well before we leave port. We take the vessel out of the water annually and thoroughly check all running gear and safety equipment.'

'I also lead regular on-board training sessions with all crew members to ensure everybody is familiar with everything they need to know about

safe operation,' she said.

Company policy is to use only products that are eco-accredited.

'We also undergo an independent audit each year to ensure we are operating in an environmentally friendly way.'

'I'm particularly proud of the effort we put into the design of the vessel. Its engines are designed for absolute minimal environmental impact,' Kerry said.

'Our ability to shut down half of the cylinders significantly reduces our exhaust emissions and our footprint on the environment.'

The company also commissions an accredited marine surveyor to thoroughly check out the *Eye Spy* each year.

'This is not a requirement, but we are convinced it is a good thing to do and it saves us money in the long run,' she said.

'It's as important as continually updating the vessel's overall management system in our push for world's best practice.'

At the start of each tour, passengers are introduced to staff members, given a lifejacket demonstration and shown where life rafts are stored.

'We tell them when we are moving into open ocean and they should remain seated and not move around the vessel until we advise it is safe to do so. We make a point of giving physical demonstrations, to overcome any language barriers. We aim to leave nothing to chance. We plan carefully and we fully implement that plan at all times,' Kerry said.

But sometimes passengers still get an unplanned surprise.

'One day we all had an amazing experience watching the birth of a whale. We saw the discharge first, followed by the baby being nudged to the surface to get its first breath of air,' Kerry said.

'Then its mother nudged it towards us to show it off. It was a very emotional thing for all of us.'

For many people, just seeing a 45-tonne humpback rise from the depths in front of their eyes is itself quite an experience.

'I've seen 90 year olds through to young children with tears in their eyes, in absolute awe at these amazing animals,' she said.

'We're just so lucky. I've been in this industry for 24 years and I've seen our whale population grow as people learn how to respect their needs and care for them. In the early days it could take more than an hour to find one or two pods at the height of the season. Now we might see 30 whales on a single trip.'

Kerry has been a strong supporter of leading marine authorities working to make life better and safer for whales in our waters.

'I was greatly inspired by Dr Robert Paterson, who wrote memoirs for the Queensland Museum on the subject and was renowned worldwide for whale conservation. He was my scientific voice in being able to get my permit to operate in the first place,' she said.

'I'm so glad I got to know him and to work in this field. Where else could my day bring me into the world of gentle giants 16 metres long, with eyes the size of grapefruit and pectoral fins ten times longer than a human arm—and exhale air at 500 kilometres per hour?'



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A safe link between ports

The Spirit of Kangaroo Island: docked at Penneshaw. Opposite page: (clockwise) The ferry as it crosses Backstairs Passage; Aerial view of *The Spirit of Kangaroo Island*; Trucks carrying dangerous goods are loaded according to strict procedure. Images supplied by SeaLink.

Correspondent Peter Strachan spoke to Sealink's National Marine Training and Compliance Manager Chris Ha, about managing safety on the company's combined freight and passenger ferry services between Cape Jervis, south of Adelaide and Penneshaw, on the east side of Kangaroo Island.

Although Adelaide-based, SeaLink is well known around Australia for its tourism and transport services. SeaLink has been operating the service to Kangaroo Island for more than 30 years, making up to 12 crossings of Backstairs Passage each day.

SeaLink's charter between the mainland and Kangaroo Island includes approval to transport unleaded and diesel fuels, LPG and sometimes even explosives—along with up to 244 passengers—to the picturesque tourist island aboard the luxury 2055-tonne *Spirit of Kangaroo Island*.

Overseeing the rigid safety standards involved is all in a day's work for Chris.

'Spirit of Kangaroo Island is a dangerous goods vessel that fully complies with all the required standards for the work it does,' Chris said.

'Everything from the best of fire monitors, foam applications and extinguishers, to fire-resistant walls around the upper deck and fire-rated walls and doors, make it something any operator would be proud of.'

Fuel and other freight is normally loaded onto the vessel from the Cape Jervis ramp on the mainland, but on some occasions the ramp at Penneshaw is used. The fuel is brought on board in highly regulated road tankers, typically of about 50,000 litre capacity. They are moved into position by their drivers working under close supervision of the crew.

Both passengers and freight are loaded at the same time and strict procedures are in place to minimise risk.

'All procedures on a domestic vessel must be risk assessed but practical, so that the task can always be completed safely,' Chris said.

'When we carry dangerous goods, we follow strict procedures that are supported by competency-based training. This ensures our crew is prepared for any emergency.'

'When transporting fuel, the truck driver always comes with the truck so that they can monitor the overall safety of the fuel during transport'

'The driver is trained in the handling of the specific goods being carried and is



'Spirit of Kangaroo Island' is a dangerous goods vessel that fully complies with all the required standards for the work it does.'

— Chris Ha

able to provide any advice about their transport. This is part of a written declaration made to the Master before the truck comes aboard. Beyond that, these vehicles are extremely safe,' Chris explained.

SeaLink ensures appropriate emergency access and egress to dangerous goods and other vehicles.

'We also fully secure dangerous and other freight as necessary. There are no-smoking rules and passengers are not allowed on the vehicle deck during the voyage,' Chris said.

Additional crew numbers are not required to handle dangerous goods on board but emergency training drills are carried out around the management of all risks, including

those related to transporting fuel.

'The emergency drills are scenario-based and designed to ensure all crew members are well prepared for any emergencies we could face. One of these is based on our fire plan and responding in the event of a fire or explosion,' Chris said.

In addition to ensuring crew and other people involved in the transporting of dangerous goods are skilled and prepared to operate safely, passengers also receive a safety briefing when they come aboard.

'We have a video-based safety briefing at the start of each voyage. The master provides additional safety advice over the vessel's public address system. And of course, passengers are advised

they are restricted to a defined area of the ferry during the voyage,' Chris said.

As well as the *Spirit of Kangaroo Island*, SeaLink operates *Sealion 2000*, a 1676-tonne, 354 passenger vessel. *Sealion 2000* carries dangerous goods only when granted an exemption to do so.

'We have not had a problem or incident relating to carrying dangerous goods in the last 30 years and we are doing everything possible to keep up this track record so we can focus on helping passengers get to the pristine beauty of Kangaroo Island.'

sealink.com.au
 @sealinkkangarooisland

Inflatable *life rafts*

Steve Williams has never found himself on the pointy end of a real-life survival situation, but 30 years as a Tasmania Police Diver, and almost as long as a crewman with the Tasmanian Rescue Helicopter Service, has drilled home the importance of knowledge and training with safety equipment. Now a trainer for Seafood and Maritime Training Tasmania, Steve shares his knowledge with students of the Elements of Shipboard Safety Course. Here he talks about deploying and surviving in a life raft.

By Steve Williams

If you find yourself resorting to a life raft for survival, hopefully you have time to prepare, but this isn't always the case. Sometimes the vessel sinks so fast that you have to manually inflate the raft and get in as quickly as possible or wait for the hydrostatic release to activate the inflation of the raft and get in from the water.

The best-case scenarios are where you have time to activate an EPIRB (emergency position indicating radio beacon) or even transmit a distress call to provide your location, vessel description, nature of the emergency and the number of people involved. If the raft itself has an EPIRB you should also activate that once you enter the raft.

When AMSA receives alerts from multiple EPIRBs or PLBs concurrently in the same area or registered to the same owner or vessel, it removes any doubt that the activation may have been accidental. This may assist in expediting a search and rescue response when enquiries linked to the beacon registration, in particular getting information from emergency points of contact, are delayed or protracted.

To stay or not to stay?

After everyone is on board the life raft along with any additional equipment you have managed to take with you, paddle away from the vessel, but stay attached to the vessel via the painter line for as long as safely possible. The search will be concentrated in your last known position and the stricken vessel will increase the visibility of the raft for those searching for you.

If there is any likelihood of the raft being damaged by the vessel—such as the vessel rolling over or the mast or rigging falling on to the raft—cut the painter line and paddle away.

After paddling away set the drogue (sea anchor). This reduces the rate of the raft drifting and keeps the raft closer to the last known position. Your EPIRB should be in the water attached to the raft and transmitting your location, but it is still better to remain closer to the original position that the distress call was sent from. The drogue also keeps the raft more stable in rough conditions. Rafts also have bags under them weighted with water. This reduces drift and prevents capsize.

If you have a second distress beacon, either an EPIRB or a PLB, then this should be activated, particularly if it is



a GPS-encoded beacon. The distress beacons should remain on until rescue.

Surviving in the raft until help arrives

In bad weather, close the raft openings but keep a lookout for any rescue aircraft or vessels. Meanwhile inside the raft, check the equipment in the survival pack.

Make sure everyone in the raft takes the seasickness tablets provided. The motion in rafts may be entirely different to any other motion they have experienced. If one person is sick, this could set off a chain reaction, greatly reducing the comfort of the raft.

Check the flares and make sure people in the raft know how to fire them at short notice, even in the dark when they can't read the firing instructions.

Sponge out any water in the raft, check for leaks and check the amount of drinking water. Uninjured people should be able to survive 24 hours without water and then drink 500ml of water in three installments each day.

To keep up morale, share tasks such as lookout, sponging the raft and checking raft pressure. Maintain the pressure in the raft with the pump provided.

If the raft has an inflatable floor in cold waters this should be inflated, the extra insulation will reduce the effects of hypothermia in cold water and make the raft more comfortable. In tropical waters, not inflating the floor may help keep the raft cool.

When help arrives

If an aircraft appears, do not fire rocket flares. Use hand flares or coloured smoke to attract attention. Obey the instructions of the rescue crew. If a rescue strop is lowered from a rescue helicopter, do not secure it to any part of the raft and only fit it to a person who is outside the raft.

If the raft is still attached to the vessel you could be requested to let the raft drift further away from the vessel or even enter the water to be rescued. Stay with the raft unless directed by the rescue crew.

Don't turn off the EPIRB until instructed by search-and-rescue personnel.

Deploying the life raft

1. **Release the raft from its cradle.**
2. **Always secure the painter line protruding from the raft to part of the vessel.** There have been many cases where people have inflated the raft, only for it to be blown away. The painter line is designed to tear away from the raft in the event that the vessel sinks before the raft can inflate.
3. **Throw the raft overboard.**
4. **Pull the painter line.** This will be a minimum of 15 metres in length. Keep pulling it until it appears to be fully out of the life raft capsule, then give it a sharp pull to release the gas from the cylinder to start inflation of the raft.
5. **Allow the raft to expand.** Normally the raft cylinder contains more gas than needed to fully inflate the raft. You will hear the high-pressure relief valves letting the pressure out. Allow the additional gas to escape. Bubbles may appear in the water.
6. **If you can, always try to get in the life raft without entering the water or getting wet.** Ensure everyone is wearing a life jacket and that it is properly secured, including the crotch harness where fitted. Although the raft may contain sponges, try not to get water in the raft. Once you are wet and the raft is wet you will get cold very quickly—especially in southern waters—and it doesn't take long for hypothermia to set in.
7. **If you think there is a chance that people may end up in the water** during the embarkation process then they should activate their Personal Locator Beacons (PLBs).



What to take with you if you have time

Your life raft contains basic survival items such as food, water and flares. If you have time, grabbing the following additional items will be to your advantage:

- hand-held VHF radio
- extra water and food
- blankets
- thermal clothing
- extra lifejackets—they can provide insulation from the cold bottom of the raft, which will be the same temperature as the water.
- additional distress beacons (PLBs or EPIRBs) if they are available.

DON'T

- Take sharp objects that can damage the raft
- Wear clothes or footwear that can damage the raft.

Cold water can be dangerous, take care

Know the Rules. You're Responsible.



Water can be dangerously cold, even on sunny days. A lifejacket could save your life.





Survey to better understand *fatigue at sea*

Fatigue is a safety hazard across all sectors of the transport industry that impairs people's performance, health and wellbeing. Fatigue impacts safety and may lead to accidents.

Marine accident investigations often attribute fatigue as a contributory factor to accidents with conditions leading to fatigue having serious impacts on the safety and welfare of people working at sea.

So far, most studies on fatigue at sea are limited to international seagoing vessels. AMSA is conducting a study using a **domestic commercial vessel fatigue survey** to collect information on fatigue awareness and experiences in the Australian industry. Data collection will be done across a period of three months

Our survey is intended to gain insight into the level of awareness about fatigue, so we can develop effective guidance on managing the risk.

It's important that people working at sea and associated organisations have their say in our survey by sharing experiences in coping with the issue, so better management practices can be developed for the safety and health of all crews.

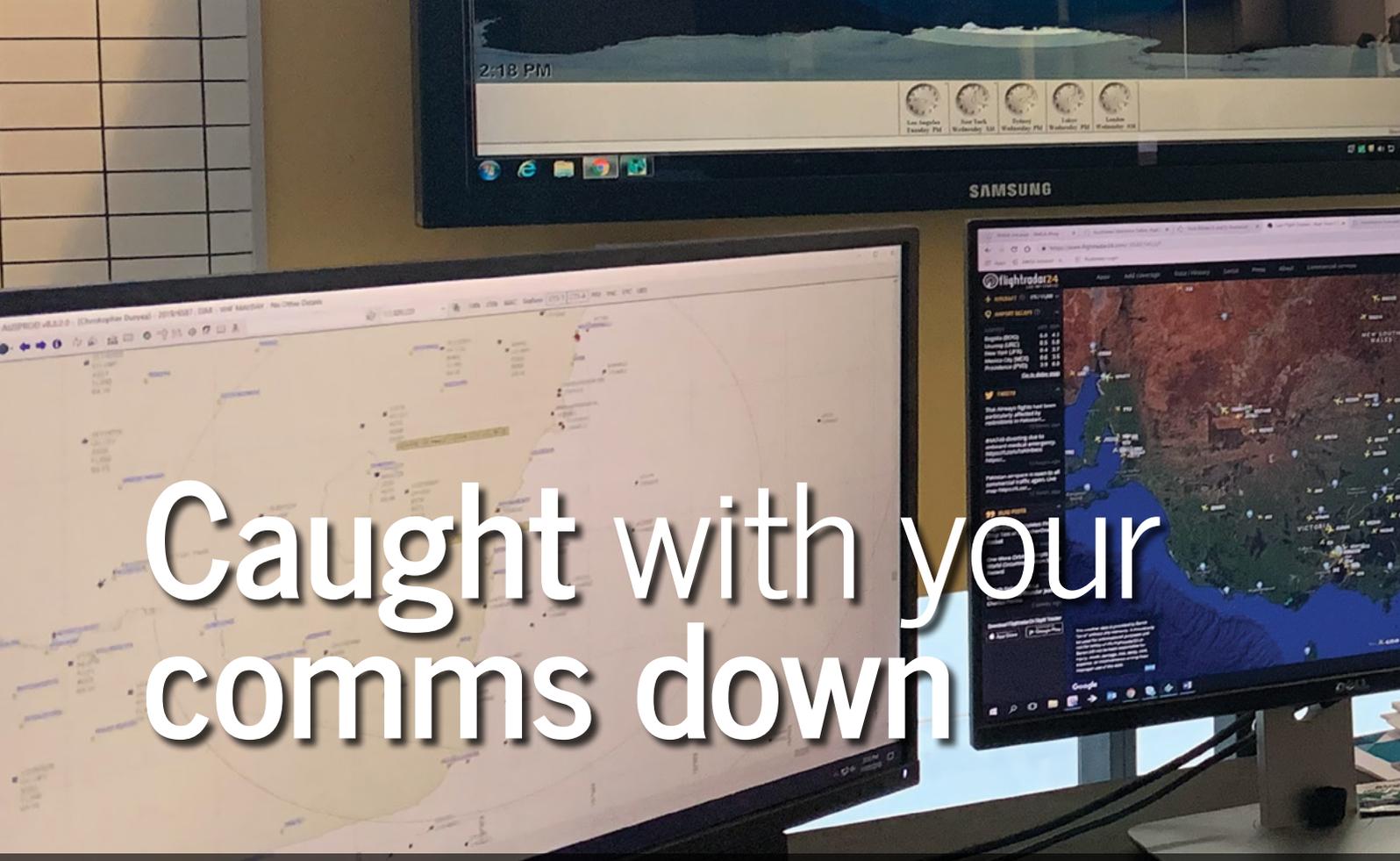
The following individuals and organisations are invited to take part in the survey:

- masters and crew in working in the domestic commercial vessel industry
- seafarer welfare organisations
- training providers
- unions
- peak bodies and industry groups
- domestic commercial vessel owners and operators.

The domestic commercial vessel fatigue survey is anonymous and will be open for three months from 18 July 2019.

No personal information will be collected or used for any other purpose.

Complete the survey at
surveymonkey.com/r/Q596VCQ



Constant watch: Monitors and search and rescue officers in the Australian Rescue Centre. Images supplied by AMSA.

Navigating the ocean can be challenging at the best of times, let alone at night in a small broken-down vessel with no way of communicating with anyone. This is exactly what happened near Edward River on Cape York, Queensland. By Daniel Redondo and Kim Daniels

On 4 April 2018, a 14-foot fishing dory with one person on board set out from its mothership in the early afternoon to travel four nautical miles for an afternoon of fishing before returning to the mothership before last light.

But the vessel and crew didn't return, and with no way of knowing what had happened, the mothership had no option but to report the overdue dory to Thursday Island Water Police, who then contacted AMSA for assistance.

Many search and rescue operations are carried out jointly by commonwealth, state and territory authorities. This incident was no different and AMSA commenced search operations as soon as local police requested assistance.

The missing dory had no communication equipment or EPIRB, and the position of the dory was

unknown, so AMSA started drift planning from the mouth of the Edward River where the dory was headed.

The search area initially covered 181 nautical miles, but due to the wind and current this rapidly expanded to 240 nautical miles over a 24-hour period.

The Weipa Volunteer Marine Rescue and the AMSA Cairns Challenger jet were tasked to assist in the search.

Two hours after commencing its search, the *Challenger* jet advised AMSA that they had located the dory and tasked a nearby fishing vessel to collect the person on board who was thankfully in good health. The dory had lost engine power and drifted 18 nautical miles off shore, approximately 18 nautical miles from the mothership.

Had the dory been equipped with two-way communication equipment, such as VHF radio or HF radio, the

mothership could have easily located the dory and rescued the people on board more quickly.

Unfortunately a lack of communication between dories and motherships—and inadequate safety equipment on board—is a frequent occurrence. This puts lives at risk and often leads to large-scale search and rescue operations when dories fail to return—usually after last light.

Last year AMSA responded to sixteen dory-related incidents. In every case, the dories involved did not have a way of communicating with the mothership or anyone else.

Thankfully all the individuals involved in these incidents were safely rescued, but the fact remains that if they had adequate communication, lifesaving and distress-alerting equipment, a search and rescue operation may not have been required at all.



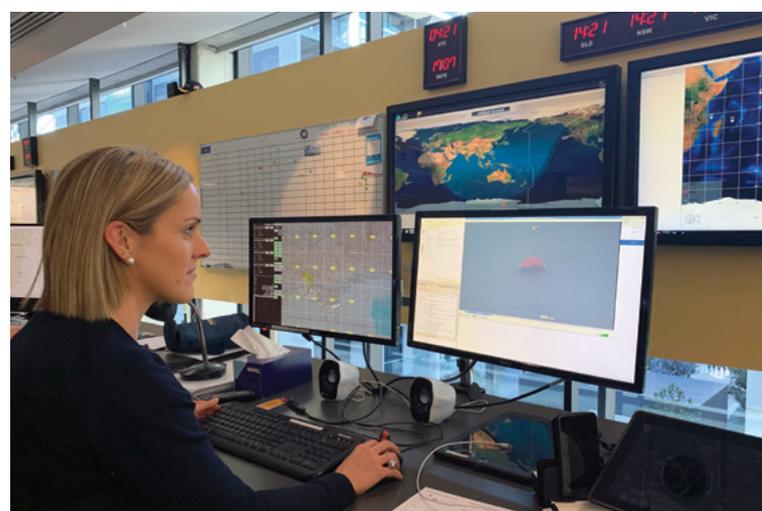
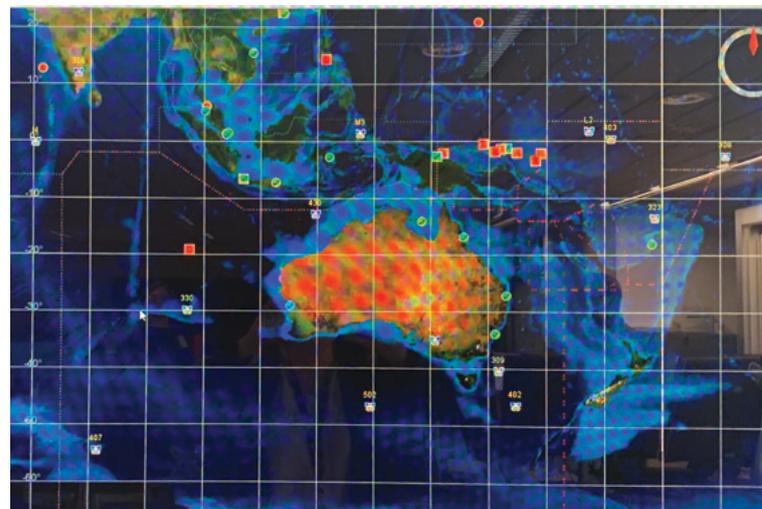
A mothership is a large commercial fishing vessel that sends out smaller fishing dinghies known as dories.

What you can do

If you are drifting or lost at sea, there are things you can do to request the assistance of nearby vessels before calling on search and rescue authorities, but this depends on being equipped with basic safety and communication equipment. If you are in a remote location, this becomes even more important—rescue could take hours, but the mothership or another vessel could be just minutes away.

You should address the risks associated with dory operations in your safety management system. Even if certain equipment is not strictly required by AMSA, you may still wish to carry it to manage risks in your operation and implement additional requirements in your operation. This may include:

- Installing VHF radios on all dories.
- Requiring dory operators to wear a lifejacket at all times (read more about this on page 7).
- Installing EPIRBs on all dories and train dory operators on when and how to activate them.



Grand icon still hard at work



In the lead: *ML Egeria* leading the fleet up the River Derwent to the Australian Wooden Boat Festival. Image supplied by the Motor Yacht Club of Tasmania.

AMSA's Sarah Cameron spoke to *ML Egeria*'s coordinator Graeme Foale and skipper Bernard (Bernie) Smith at the MyState Australian Wooden Boats Festival in February.

Constructed by Purdon and Featherstone at Battery Point in 1941, the 18.9-metre Huon pine luxury vessel *ML Egeria* was quickly deployed for navy service in World War II as harbour defence launch—*HMAS Tasma*.

HMAS Tasma carried out its war service on the River Derwent for two years and three months, inspecting every vessel entering the busy port as a security measure against invaders during wartime-mandated radio silence.

Once the war ended, *HMAS Tasma* was returned to the marine board as a VIP vessel with its original name *ML Egeria* and a full-time crew.

Egeria enjoyed a long stretch of golden years as the Marine Board's entertainment vessel, operating as vice-regal launch for Tasmanian Governors

and many distinguished guests including Her Majesty The Queen and the Prince and Princess of Wales.

'You wouldn't have got on board if you didn't have a letter after your name—it was pretty upmarket,' Bernie said.

'You wouldn't have got on board if you didn't have a letter after your name—it was pretty upmarket.'

'*Egeria* has been used for all VIP occasions on the river—the governor uses it every year,' he said.

In 2007, administration of *Egeria* changed when TasPorts sold it to the Motor Yacht Club of Tasmania in Lindisfarne for the princely sum of \$1, in a bid to keep *Egeria* at home in Hobart.

Apart from a brief period of about six months to replace decking in keeping with the original grand design, *ML Egeria* has maintained its certificate of survey.

'The replacement of the decks was a major job, where we stripped the blistering and cracked paint off the entire hull to assess the timbers and found them to be in excellent condition,' Graeme said.

'We are very lucky to have Hobart's oldest surveyor, and the most experienced wooden-boat man, who has now retired—John Lucas. John was a shipwright and the owner of Purdon and Featherstone, and he's now part of our volunteer crew,' Bernie explained.

'We haven't had to do any major work on this vessel at all. The decks were the major job, and we've stripped the paint off but the hull is in excellent condition,' Graeme added.

'The idea is to keep the vessel as original as possible. We have a smothering system and other modern aids to meet survey requirements,

Built in 1941 as an entertainment launch for the master warden of Hobart's Marine Board, *ML Egeria* has an esteemed history of transporting dignitaries along Hobart's River Derwent. Thanks to the efforts of a group of dedicated volunteers and the Motor Yacht Club of Tasmania, this stately antique remains to this day a functional vessel in its home port.



ML Egeria was sold to the Motor Yacht Club of Tasmania in 2006 and has been used since as a vice regal launch for distinguished guests around Hobart.



HMAS Tasma as harbour defence launch during WWII.



Bernie Smith (from left) and Graeme Foale.

but the vessel itself, the cabins, the wheelhouse, is all original. The only thing is, there used to be bunks down here for the crew but it's now our store room,' said Bernie.

'*Egeria* is class 1E and we have it surveyed every year out of the water. We've got 25 volunteers that can scrub the hull and apply a new coat of anti-fouling and have it back in the water in four hours if we need to.'

Maintaining the launch is a big expense and following the yacht club's \$150,000 spend on new decks, the *Egeria* works for its keep as a charter vessel.

'All the money that we raise is put back into the vessel—this year we'll probably do about 100 charters. Since coming to the Motor Yacht Club Tasmania in 2007, we have given over 8000 members of the public an opportunity to experience this historic vessel,' explained Graeme.

With its rich history as Hobart's esteemed vice-regal launch and wartime auxiliary, the dignified 78-year-old is also

the official vessel for the opening sail past at the annual MyState Australian Wooden Boat Festival.

'The boat's proudest moment would have been having Her Majesty The Queen aboard, but every day is a proud moment for us.'

'Leading the fleet up the Derwent for the Australian Wooden Boat festival is also something we are very proud of. But for the crew, it's being able to show the vessel off at events like the Wooden Boat Festival,' Graeme and Bernie said.

motoryachtclub.org/functions-dining/ml-egeria

 @M.LEgeria



radio silence

noun

an absence of or abstention from radio transmission

'at midnight, the enemy went on total radio silence.'

a period during which one hears nothing from a normally communicative person or group

'Apologies for the radio silence but I've had my nose to the grindstone this week.'

Shining a light on modern AtoNs

Long before Australia's earliest lighthouse was built at Vaucluse, NSW in 1818, European mariners were guided by onshore fires lit to navigate their ships to safety. More than 200 years later, our nation has around 480 aids to navigation (AtoN) managed by AMSA at 390 sites across the country, to ensure today's mariners arrive safely at their destination.

By Desiree Cairra

On 1 July, AMSA joined maritime safety agencies from around the world to mark the first World Marine AtoN Day.

World Marine AtoN Day recognises the significant role modern AtoNs have in today's navigation safety, while paying homage to the role traditional lighthouses have played in our history.

Australia has 62 heritage-listed traditional lighthouses, yet the majority of our AtoNs operate offshore and are technologically advanced marine aids that support modern navigation safety.

AMSA's offshore AtoN network is made up of fixed, floating, visual and electronic aids that operate from remote sites.

Also known as navigation marks, AtoNs can be lighted buoys or beacons that warn mariners of hazardous areas and guide them to safe water, or away from protected marine zones.

Some AtoNs have an Automatic Identification System (AIS) transmitter that sends signals to vessels using the VHF radio frequency, while others are virtual AIS AtoNs that mark hazards and protect sensitive sea areas by signalling from another location.

Another type of AtoN is a racon, or radar beacon, that can be detected by ships' radars; it transmits a

unique or distinctive Morse code signal, which helps vessels positively identify the AtoN.

AMSA provides a year-round servicing of its modern AtoNs, cleaning and maintaining solar power supply equipment, undertaking corrosion control and painting of structures, replacing buoy moorings, checking LED lights and radio AtoN such as racons, Differential Global Positioning System (DGPS) and AIS.

Keeping Australia's maritime history alive

Mark Sherriff is a former AMSA lighthouse keeper and recipient of a Medal of the Order of Australia (OAM) for his services to community history.

Mark is passionate about lighthouses and since finishing up his final posting at Seal Rocks, NSW in 2006, he has worked on preserving and restoring some of Australia's most spectacular maritime monuments.

How did you become interested in working with lighthouses?

My keeper life began at Sugarloaf Point (Seal Rocks), followed by Booby Island in the Torres Strait as a relief keeper then at various manned light stations along the eastern seaboard.

Working as a relief keeper was a great chance to experience the maritime legacy of lighthouses and be part of its history. I was so proud to be part of AMSA.

A relief keeper often travels far and wide. They have to be adaptable, get along with everyone, self-sufficient and be a skilled plumber, carpenter, electrician, cook, painter and fond of working at great heights in a southerly bluster. Talk about living my dream!

What was the greatest challenge while working as a keeper?

A keeper's motto is to expect the unexpected and trust no one.

I recall waking one morning to the sound of cries from men on a trawler that had jammed on the rocks below the lighthouse. It had a tragic ending, but life as a keeper must carry on. There is the light station to run, lawns to mow, chimneys to paint and veranda braces to replace.

When you leave a station, you pack up your possessions, sweep out the shed and leave no stone unturned before handing over to the new custodian. There is a feeling of great relief and a sense of accomplishment.

Are you still involved in lighthouses?

I began as a lighthouse keeper and finished as a historian. I'm a keeper of history and still very involved in restoration work. I'm part of a legacy lost in time and I often hear tourists staying at converted lighthouse cottages say, 'what a great resort they built us!'



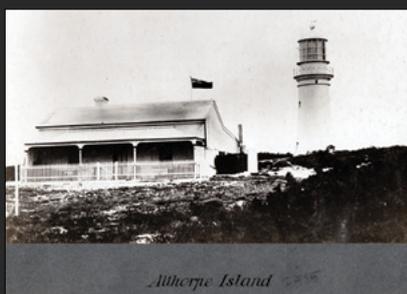
Althorpe Island Lighthouse

Enjoying some of the most picturesque lighthouse views in Australia, the Althorpe Island Lighthouse sits atop precipitous cliffs rising 91 metres above Investigator Strait in South Australia.

Magnificent views: Althorpe Island lighthouse at sunset. Image supplied by Gary Searle.

The cliffs presented a serious challenge for the engineers charged with the lighthouse construction. Before commencing work in 1878, a jetty and a tramway up the cliff face had to be built to facilitate the movement of materials and supplies for construction. This was later converted to a flying-fox system in 1885.

The lighthouse itself was built using a mixture of limestone and hard sandstone quarried from the Island. Powered by a four-wick oil burner and a Chance Brothers 12-inch diameter lantern with a first order dioptric lens (sixteen panels). The new lighthouse was first lit on 14 February 1879. The lighthouse, three keepers' cottages and a shed cost £11,299 to construct.



Althorpe Island

In 1991, the light was converted to operate on automatic solar power and was then declared part of a conservation park in 1996. The Friends of Althorpe Island now assist Yorke District Staff to manage the Althorpe Islands Conservation Park.

Life on the island

The first three keepers of Althorpe Island Lighthouse wasted no time in giving rise to a community of children.

Within just two-and-a-half years of the lighthouse commencing work on Valentines Day, five children had been born. The three keepers had many more children in following years.

A casualty of isolation

Life on Althorpe Island saw its fair share of accidents and casualties and the isolation meant help was not readily available.

During construction of the tramway up the cliff-face in 1878, a well-respected foreman was crushed by falling rock while he slept in his tent on the beach below the cliff. Without a surgeon,

they were unable to save him and his passing left a shadow on the remaining workers who liked and respected him. After that, the workers moved their tents to the top of the cliff.

In 1890, the wife of the head keeper—Mary Ann Webling—died giving birth to their tenth child. The head keeper later remarried and one of the children—Darcy Webling—became the lighthouse's third keeper.

In 1908, Darcy accidentally shot himself in the chest while he was hunting for goat on the island, but in the end luck was on his side. The other two keepers found him and tried unsuccessfully for days to attract the assistance of passing ships, so they set off a distress rocket. The rocket exploded only six metres into the air, a piece of shrapnel causing one of the other keepers to lose the use of his right leg. However, the distress rocket was successful in getting the attention of a passing ship, which took the injured keepers to Port Lincoln for medical attention.

Are you PPE ready?

Arming your crew with the right personal protective equipment is vital to keep them safe from harm while doing their job, in often hazardous conditions.

By Desiree Caira



Safety gear: Image source: istockphoto.com/Denys_Yelmanov

For workers at sea, personal protective equipment (PPE) isn't simply a pair of rubber safety boots or a lifejacket in rough conditions.

PPE protects people from all kinds of hazards in maritime work—from man-overboard situations, to dangerous marine life, heavy moving objects, electrocution, and slippery decks. Possible hazards can often result from a number of unforeseen factors coming together.

It's vital that vessel owners, as a part of their safety management system, identify all the possible risks to personal safety and implement ways of minimising or eliminating those risks.

You can minimise the risk of injury through work procedures, training and vessel maintenance—but part of the solution should also involve having the right PPE handy so that crew can access it readily during their work.

Commercial vessels are often required by law to carry specific equipment, including PPE items like life jackets. These items are contained in equipment lists for different types of operation, and are the minimum equipment required by law. Vessel owners and operators should carry out a risk assessment to identify what other equipment may be required, and make sure this safety gear is in top condition and staff know how and when it must be used.

Equipment can be replaced, lives can't

Let's say your trawler is involved in a hook-up situation requiring crew to activate the response to free tangled nets and prevent the vessel taking on water.

Wet conditions mean equipment is slippery so donning protective gauntlets before cutting equipment free such as trawl wires, is vital to keep limbs safe from injury.

During rough weather, clipping on a safety harness while on deck is a better option than ending up overboard—so ensure enough harnesses are within easy reach so crew are more likely to use them.

Installing appropriate signage to remind workers when and where PPE must be worn is the responsibility of owners and operators, in addition to providing clean, hygienic gear in good working order.

By making it compulsory for workers to wear PPE while carrying out selected tasks, vessel owners and masters are meeting their general safety duties. For example, wearing helmets to protect from overhead moving machinery or wearing sunscreen outdoors.

Learn more about equipment requirements on different types of commercial vessel.

amsa.gov.au/equipmentlists

Information on building an effective safety management system for your operation

amsa.gov.au/sms



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 questions received over the past few months, gathered from AMSA Connect, community and industry events.

1. I finished my training course ages ago, how do I apply for my coxswain certificate and sit for an oral exam?

Instead of an oral exam you will need to complete an AMSA-mandated practical assessment (AMPA) at a registered training organisation. You can do an AMPA even if you finished your training course several years ago but the training organisation will need to check your course documents to make sure you've met the requirements.

Once you have completed the AMPA you can supply the front page of the completed AMPA with your application to AMSA for a certificate of competency.

Read about the AMSA mandated practical assessment at amsa.gov.au/ampa

Learn more about applying for a certificate of competency amsa.gov.au/qualifications-training/domestic-qualifications

2. If I sell my boat, do I need to transfer ownership of the EPIRB on the boat?

Yes. If you sell a vessel with a distress beacon you must update your registration account to indicate the beacon has been sold and provide the purchaser's contact details if available.

You can do this in any of the following ways:

Log into your account at amsa.gov.au/beacons. Click on 'change beacon ownership', sign in, and follow the prompts.

Call the beacon helpline on 1800 406 406. Make sure you have the beacon's HEX ID/UIN code on hand, as well as the purchaser's name, address and phone number.

Email AMSA at ausbeacon@amsa.gov.au. Ask to transfer ownership of the beacon. Include your HEX ID/UIN, along with the purchaser's name, address and phone number.

Download the *Change in ownership* form (AMSA245)

from amsa.gov.au/beacons. Complete the form and return it to AMSA.

If you have purchased a vessel with a distress beacon call AMSA on 1800 406 406 to register the beacon in your name. You will receive registration confirmation via SMS, email or letter. Beacon registration is valid for two years.

3. How long will it take to get my certificate of competency once I apply?

You will get an automated email once we have received your application and started work on it. You will get another automated email once the certificate has been sent in the post. If you haven't heard from us and it's more than three weeks since we sent the first automated email, call AMSA Connect on 1800 627 484.

4. How can I use my Royal Australian Navy (RAN) sea time towards an AMSA certificate?

If you are a technical sailor who has a Certificate in Maritime Operations, go to a registered training organisation to complete an AMSA Mandated Practical Assessment and then apply for your certificate through AMSA (see question 1).

To apply for either a coxswain or deck certificate you will need to take your RAN certificates to a registered training organisation for recognition of prior learning then complete an AMPA and apply for your certificate. We will accept your RAN sea time as long as you were performing either deck or deck and engineering duties on board.

5. Can I use my near coastal certificate of competency overseas?

That is up to the country where you want to work. Several countries will allow you to use an AMSA near coastal certificate to work in their near coastal waters.



Mark Willets,
Sactuary Cove QLD

'Guys on other boats not communicating so I don't know where they are going.'



Bill Corten,
Ormiston QLD

'Crossing the bar.'



Barry Barnes,
Sunshine Coast QLD

'Me falling overboard or having an injury that incapacitates me.'

Whats the biggest safety risk on your boat?

At the Sanctuary Cove International Boat Show we asked people what the biggest safety risk was on their boat. Here's what they said...



Raul Cruise,
Marcoola QLD

'Not knowing your environment, not knowing your charts or where you are heading to, and not being prepared for the weather.'



Denise Beasley,
Ballina NSW

'Weather would be the biggest risk, followed by fire, because we have got a big petrol engine.'



Matthew,
Robina QLD

'Night time navigation can get a bit dicey at times in a small vessel.'



Greg Hickling, Currumbin QLD

'The wake from other boats spilling the boiling water that we cook the crabs in on the boat.'

Community events

It is all happening in the eastern states—from Avalon Airshow, where we proudly showed off one of the AMSA Challenger rescue jets, to the Sanctuary Cove International Boat Show before heading back to Victoria for the Melbourne International Boat Show.



© Martin Porcelli



Have you renewed your beacon registration?

Your registration must be renewed every two years, so make sure you update it before it expires.



Australian Government

Australian Maritime Safety Authority

It's easy to do.

Simply visit amsa.gov.au/beacons
or phone **1800 406 406**