



Australian Government
Australian Maritime Safety Authority

Safety Equipment Trial Report

Personal Flotation Device (PFD)
Personal Locator Beacon (PLB)



August 2017

Karumba - North Queensland

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Acknowledgments

The Australian Maritime Safety Authority (AMSA) would like to acknowledge the support and contribution of all participants including;

- The Karumba, North Queensland commercial fishing community for identifying the need for a safety trial
- The Fishermens Portal Inc.
- The Gulf of Carpentaria Commercial Fishermen's Association Inc.
- Marine Safe Australia for sourcing a personal flotation device and personal locator beacon to ensure fishers had access to the most current technology.

Executive Summary

The Australian Maritime Safety Authority (AMSA) conducted a trial of specific safety equipment in conjunction with the North Queensland, Karumba based commercial fishing industry.

The objective of the trial was to identify opportunities and set industry benchmarks for survivability of commercial fishers at sea and to introduce commercial fishers to advances in flotation and global monitoring technology.

Commercial fishing is known to be a dangerous occupation. History has proven that a large percentage of injuries and fatalities result from vessel capsize and persons falling or being dragged overboard. Some fishing vessel owners and operators view the dangers as an accepted part of commercial fishing operations and rely on traditional approaches to safety management. Lifejackets carried by most commercial fishers are bulky, packed away in storage areas, unsuitable for wearing while working, and considered too hot to wear in the hot and humid Queensland climate like that of Karumba.

The recent safety equipment trial conducted by the Australian Maritime Safety Authority (AMSA) exposed commercial fishers to a new technology in lifesaving equipment and also personal safety and monitoring devices. The trial also aimed to dispel initial concerns by commercial fishers that wearing lifejackets, in the workplace at sea, would increase the risk of injury to crew through entrapment in machinery, trawl or fishing net gear.

The safety equipment trial assessed a range of inflatable Personal Flotation Devices (PFDs) and Personal Locator Beacons (PLBs), this was based on criteria set by the Karumba fishing community that a PFD had to align with the following;

- Be somewhat weatherproof and able to be washed (wipe clean)
- Withstand a barramundi spike (puncture)
- Have no catch points that a small monofilament net may catch on
- Be comfortable to wear in all weather and sea conditions
- Be self-inflating and able to house a Personal Locator Beacon (PLB)

This equipment was provided to commercial fishers in two regions – Karumba, North Queensland and the East Coast of North Queensland. The trial gathered information from participants who wore the equipment in a diverse range of operational, climatic and environmental conditions.

The trial confirmed there is no singular brand or type of PFD that would suit the diversity of commercial fishing operations. The choice of PFD is affected by factors such as climate, operational area, the industry sector, that is, trawl, fishing, crabbing; and a fisher's physical characteristics and personal preferences.

The trial of PFDs and PLBs by participants identified a number of opportunities to enhance equipment design and improve the safe wear ability of the equipment. Some commercial fishers independently altered the PFD with different styles of buckles to minimize catching on nets. Some fishers introduced a risk based approach to the donning of a PFD generally based upon weather conditions.

Moving forward, the preferred approach is to ensure commercial fishing vessel owners and operators conduct an informed risk assessment with crew to identify high risk situations at sea as to when PFDs will be worn. Under the National Law it is the responsibility of vessel owners and operators to ensure the risk assessment/s and management strategies are recorded and documented as a safety procedure within the vessel's safety management system and subsequently implemented by the vessels crew.

The Australian Maritime Safety Authority is committed to pursuing opportunities to work collaboratively with the commercial fishing industry and to establish a performance based safety environment for each individual operation.



Overview and Background

Prior to the commencement of the National Law in July 2013, Maritime Safety Queensland (MSQ) was the State safety regulator for commercial vessels. Within the State's framework for regulatory management were allowances for certain types of vessels to be equipped to recreational boating standards or be exempted from any commercial equipment standards. This included commercial fishing vessels of less than 10m in length.

Ref: ***Transport Operations (Marine Safety) Regulation 2004, division 4.***

From July 2013, the National Law came into effect and the Australian Maritime Safety Authority (AMSA) became the National Regulator and proceeded to engage with local industry groups for awareness of issues, incidents and continued educational activities to raise the current safety standards and lower marine incident occurrences. This included groups that were previously, under state law, unregulated.

Engagement with the Kurumba community commenced in 2014 and, as a result of education, interactions and safety management system workshops, AMSA staff observed some short comings with regard to safety systems and safety equipment carriage throughout the local community. Observations were also made about safety equipment perceptions, i.e. that devices were too bulky and unsuitable for general working conditions experienced by commercial fishers.

To address these observations a safety initiative was raised and discussed with a group of fishermen attending a safety management system workshop regarding the use of PFD's and PLB' s within their individual operations. This was the catalyst for AMSA to commence a trial for fishermen to use PFD's and carry a Personal Locator Beacon (PLB) in higher risk operations.

The primary focus of the Kurumba Life Jacket Trial was to improve and promote safety within the Kurumba fishery and set bench mark examples of marine safety standards within the commercial fishing industry throughout Australia, focusing on those fishing sectors that operate vessels <10m in length within the Kurumba area especially. Additionally the initiative was to introduce commercial fishers to modern life saving equipment and to encourage the wearing of devices.

Trial Location

Kurumba is a town in the Gulf Country region of North Queensland, Australia, 71 kilometers by road from Normanton and 2,159 kilometers from the State capital Brisbane. Kurumba forms part of Carpentaria Shire Council, the administrative headquarters of which is in Normanton. The 2006 census indicted that Kurumba had a population of 518. The town is sited at the mouth of the Norman River, and enjoys the distinction of being the only town along the southern Gulf of Carpentaria that is within sight of the Gulf itself. The Gulf's extensive tidal flats prohibit settlement elsewhere along its shore. As such, the town's economy revolves largely around fishing. The Kurumba port services had a history with zinc mining as well as fishing, however mining activities ceased in February 2016. The prawn industry expanded in the 1960's.



Objectives of the Trial

- Promote the use of a Safety Managements System (SMS) that clearly identifies heightened times of risk during an operation where donning a PFD and using a PLB will increase safety and chances of survivability at sea.
- Assess the functional design and appropriateness of a PFD whilst conducting commercial fishing activities in different operating environments.
- Promote the use of a Personal Locator Beacon (PLB) or EPIRB within individual operations.

Target Audience

- The Kurumba, North Queensland vessels <10m commercial fishermen.
- The East Coast, North Queensland vessels <10m commercial fishermen.
- The wider Australian fishing community.

Key Messages

- Understand what your operational risks are, and, introduce control measures within your operation to mitigate or reduce the risk/s occurring through the development of a safety management system.
- Wearing a PFD and having a PLB will save lives.

Scope of Trial

The Australian Maritime Safety Authority (AMSA) coordinated the safety equipment trial within the commercial fishing industry during a fishing season from May 2016 to September 2016. The purpose of the trial was to evaluate that fishers had developed safety management systems that introduce procedures to don a PFD and the performance of safety equipment in the working environment at sea.

The trial was conducted in two regions, Kurumba North Queensland and included some areas of the East Coast North Queensland. The trial involved 25 fishermen across approximately 20 different types of operations. The involvement of different types of commercial fishing operations ensured the equipment was worn and tested in a variety of working and climatic conditions.

The following types of operations were included in the trial:

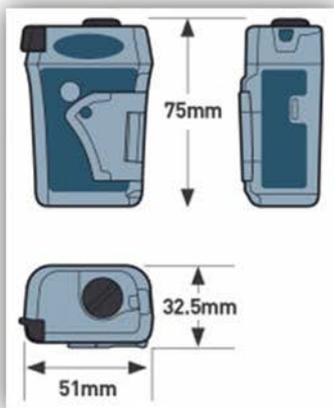
- trawl (including offshore trawl and inshore trawl)
- inshore net fishing
- line fishing
- sand and mud crab fishing.

The safety equipment trial included an OCEAN SIGNAL PLB1 fitted inside each PFD.



PLB1, the World's smallest PLB

- | | |
|--|--|
|  Waterproof to 15m |  No subscription |
|  Link via satellite to Emergency Services |  High intensity (1 candela) strobe |
|  Fast accurate positioning |  Easily deployed antenna |
|  7 year battery life |  30 percent smaller |
|  Flotation pouch |  Homing Beacon to aid final location by search and Rescue craft |



The trial identified a 'KRU' brand wipe clean style yoke jacket that aligned with the requirements requested by the local fishing community.

PFD Trial requirements from participants;

- Wipe clean
- Durable
- Withstand a Barramundi spike
- No catch points
- Comfortable

AMSA requirements to take part in the trial;

- Develop a Safety Management System
- Identify times through documented procedures that a PFD will be donned
- Provide feedback

Kru Wipe Clean

The Kru Wipe Clean offers a full range of buoyancies to meet your compliance and risk assessment when working above or near water. The strong material with a smooth outer cover is easy to wipe clean and affords excellent protection for the inflatable bladder whilst working.

FEATURES

- ISO 12402-3/6 Approval
- 150-190-275N Options
- Velcro closure
- Light attachment point
- 2 Lifting beackets
- Whistle
- Retro reflective tape
- OraJ tube

BENEFITS

- ../ Tailored 30 neck for high comfort
- ../ Rivertex fabric giving 25% more abrasion resistance
- ../ High Viz buoyancy color
- ../ UML Inflation systems
- ../ Globally available service & spares



CHOICES

- Branding
- Retro flashes on cover
- PLB fittings
- Pro Sensor inflation systems

TECHNICAL

Waist belt ISO/190N	0.8 Kg
Harness 150/190N	0.925 Kg
Waist belt 275N	1.0 Kg
Harness 275N	1.1 Kg

COLOUR OPTIONS

1111

- PRODUCT RANGE** MANUAL
- gas inflation with waistbelt AUTOMATIC
 - gas inflation with waistbelt MANUAL
 - gas inflation with harness AUTOMATIC
 - gas inflation with harness

ACCESSORIES

- Crotch strap kit
- AQ40L
- 33g Manual Re-Arming pack
- 33g UM Automatic Re-Arming pack
- 33g cylinder
- 38g Manual Re-Arming pack
- 38g UM Automatic Re-Arming pack
- 38g cylinder
- 60g Manual Re-Arming pack
- 60g UM Automatic Re-Arming pack
- 60g cylinder

ISON	190N	275N
LIF2551	LIF5251	TBA
LIF5222	LIF5252	TBA
LIF5223	LIF5253	TBA
LIF5224	LIF5254	TBA
LIF0296	LIF0296	LIF0296
LIF2065	LIF2065	LIF2065
LIF2800		
LIF2880		
LIF3025		
	LIF2805	
	LIF2885	
	LIF3025	
		LIF2810
		LIF2890

Positive Trial Promotion

In December 2016 the Fisheries Research and Development Corporation (FRDC) published an article on personal flotation devices and emergency beacons.

This was in response to the AMSA safety equipment trial that was conducted in Kurumba.

You can read the article here on page 26 - "[How to save a life](http://frdc.com.au/knowledge/publications/fish/Documents/FISH_book_1612_LR.pdf)" (http://frdc.com.au/knowledge/publications/fish/Documents/FISH_book_1612_LR.pdf)

Trial Results

Fishermen were asked to record the 'comfort' and 'work suitability' of the PFD when it was worn.

The main concern by participants prior to the commencement of the trial was that safety equipment would get caught in nets or machinery or restrict their ability to go about their duties freely.

Another main concern was the hot environment fishermen are exposed too and that a PFD will heighten this environmental impact.

Tracking results of the trial was difficult due to the general isolation of Kurumba and minimal communication methods. The trial chair generally relied on the Queensland Boating and Fisheries Patrol to verbally provide feedback and a small percentage of fishermen who had regular contact.

Most of the feedback and results were gathered during an end of season annual meeting at Kurumba in October 2016.

Throughout the trial participants were contacted at 2 monthly interviews via email and asked to respond to the following questions;

- 1. Have you been wearing your Personal Floatation Device as per your Safety Management System?**
- 2. Did you register your Personal Locator Beacon with AMSA?**
- 3. Is the PFD easy to don (wear)?**
- 4. Have you had any potential problems with the PFD?**
- 5. Are you continuing to trial the PFD and PLB?**

Any other comments?

Responses were generally lacking, however, some responses were via telephone calls and some email responses were also received;

"Hi Justin have not been doing much crabbing of late so have only been using the PFD in the Bynoe pilot boat and only a couple of times crabbing getting the PFD on and off for me was a problem so I modified the front IE got new snap fitting put into it so it clips together at the front IE you put it on like a jacket and clip it together at the front works perfectly know. it's just a matter putting it on it takes a couple of days but then you don't ever remember having it on. Its work as normal and yes I will be just putting it on and using it I have no problem with the unit."

"Have you been wearing your Personal Floatation Device as per your Safety Management System?

Yes

Did you register your Personal Locator Beacon with AMSA? Yes

Is the PFD easy to don (wear)? Not when working and not for lengthy periods

Have you had any potential problems with the PFD? The weight around the back for extended periods causes nausea

Are you continuing to trial the PFD and PLB? The pfd need modifying. So yes to a limited degree.

Any other comments? As soon as they can be modified then I am happy to try to wear the pdf for extended periods. When the opportunity presents to discuss the mods I have some ideas."

"Justin that response on the documentation to have available was very helpful thanks.

Just want to update you on the PFD.

I have found that wearing them for long periods is just about impossible. The vinyl is very hot and in fact they become quite heavy after a while. I found that the pressure actually caused me to feel nauseous and a bit giddy.

I have a feeling that the pressure on my neck lead to my loss of orientation. So I think that the area around the back of the neck, and the shoulders need to be a lot better designed

I could not use the crotch strap with my apron. In any case, removing the crotch strap got rid of another clip, and this clip in my view has the potential to hook up

The lower part of the yoke, about where your lowest ribs are, seems to want to sit high off your body. It needs to lay flat as when you're working the ends of the PFD keep rubbing on the inside of your arms and keep getting in the way of the job. In fact, unless there is some reason for the size and shape I can't see why the design couldn't be altered. This rise at the lower end is partly due to the gas chamber and beacon, but can easily be fixed.

The design of the devise (or strap buckle) that goes around your torso means it's difficult to adjust. What it needs is to be able to easily loosen the strap to remove it and then simply pull the strap with one hand to tighten the thing up. This one needs two hands and you have to be able to see it to adjust it as you need to work the strap through with your fingers. We used to make our own non-slip latches when I was working on stations as a young fella, we called it a running reign and we used to use it if we had to jump off our horses to catch a bull. As we left (at a fast canter) we'd give the strap a jerk and this would pull the horses head around and hold it so he wouldn't gallop away. It was easy to undo as well. Anyway these guys must be able to come up with something.

Do you think we could get a bit of a brief from the other participants in the trial now, (in the early stages) and then modify a few of the ones we have? I would like to see what I could do to these two but won't touch them without your permission.

We need to look at

- other types of covers, e.g. a light webbing might allow the garment to breath and
- look at changing the shape of the cover and
- Consider lowering the position of the chamber and beacon
- Cutting the bottom into a better shape and
- Shifting the lower strap down a bit
- Fitting a better designed buckle

There are good things about them too: They are robust and so are easily kept available to grab quickly, whereas conventional PFDs need to be looked after and so tend to be a bit out of harm's way, which is not that good if you need them in a hurry in an emergency. None of the suggested changes they need would reduce this.”

“Hello Justin,

I have just completed a 27 day trip trialing the PFD –PLB you supplied us for recorded feedback. Below is a log of use and problems we encountered while wearing the PFDs.

- 9/6/16 commenced trial at 0700 on board FV Empress Lane. Used from safe haven to safe haven (transiting open waters) Four hours voyage experienced headache from continued pressure on back of neck and backache. Removed life vest once in safe haven and aches subsided. Crew - Clancy Brummell also experienced similar symptoms.
- 10/6/16 - Three checks of river nets – buckle caught in net and pulled me forward towards over side of boat. POTENTIAL TO PULL PERSON OVER THE SIDE. Awkward movement, restricts ability to move neck freely and more twisting of the body. VERY UNCOMFORTABLE Worn over PPE bib and brace due date tag caught in net. Crew – Clancy Brummell wore PFD under apron to minimise hook ups but this could cause a potential accident to strangle by apron neck rope if the device was accidentally inflated. He considered it more dangerous to wear. I am aware it is advised not to wear under garments.
- Daily use - All crew commented they had difficulty lifting outboards and putting them down whilst wearing PFD and PPE. Continual hook ups and catches on net. Crew complained of neck pain as the head is forced in a downward motion. Had to tuck manual pull cord inside valcro to stop it from catching on the net and causing an unintentional inflation of the PFD.
- 25/6/16 - DJ Lane – Master Lifted submerged net and lent over the side and experienced partial garrote asphyxiation from the pressure on the side of neck from the PFD. He experienced dizziness and began seeing stars. The life vest was removed and he sat in the bottom of the dingy until he was able to continue net operations safely. POTENTIAL TO KNOCK OUT PERSON.
- 25/6/16 Crew – Clancy Brummell commented the risk was too high to wear while removing large S.O.C.I (species of conservation interest).

- 27/6/16 - Spoke to Justin Williams about the life vest trial. A discussion held and offered to return the PFDs due to high risk but agreed to keep and use when transiting open waters.
- 5/7/16 Transit back to Kurumba 4 hours to the Fairway PFD worn on deck by all on board and suitable for transiting with non-physical work. Crew – Clancy Brummell worn on back deck watching dinghies in tow.

In conclusion the Master of the FV Empress Lane deems the risks to high for potential accidents to wear PFD while engaged in netting operation within safe havens. (Rivers, creeks and near shore) However with SMS implementation and safety procedures while operating FV Empress Lane I find no safety risks while transiting open waters for Master and crew to wear PFD – PLB while on deck. As the safety culture has improved greatly over the years due to training and education on marine safety and fishing operations improved safety management via SMS and enforced regulation I recommend to AMSA that the PFD –PLB be recommended but not required. I see no reason to mandate the PFD – PLB as it will cause a large percentage of non-compliance due to the incidents and potential incidents I have identified as being increased risks while engaging in netting operations. With regard to recent coroner findings on fatalities within industry there are other contributing factors to consider as sometimes a lifejacket will not always save a person’s life. Why implement a regulation that can’t be enforced 24/7 due to the lack of resources (e.g. QBFP / Water Police/AMSA Officers) I believe continued education on marine safety matters is the best way to go as I have seen over the last 32 years I have been going to sea, Fishermen do eventually adapt and apply. Thank you for letting me participate in this trial and I hope you consider my findings.”

Participants were also emailed a questionnaire in the final stages of the trial however and unfortunately AMSA received no formal responses.

PFD Trial Participant Questionnaire

Name: _____ Contact: _____

Used to assist the Australian Maritime Safety Authority (AMSA) formulate results to include in the trial report.

Please circle your rating in response to each question (1-5), or:
Circle Y (yes) or N (no).

Questions	Rating (1-5) 1 = Strongly Disagree 3 = Neutral 5 = Strongly Agree				
AMSA explained to myself the background and purpose of this PFD trial	1	2	3	4	5
I participated in this trial of my own free will	1	2	3	4	5
The supplied PFD was easy to don	1	2	3	4	5
The supplied PFD was comfortable to wear	1	2	3	4	5
The supplied PFD was comfortable when working	1	2	3	4	5
The supplied PFD did not create any additional workplace hazards, if so please comment;	1	2	3	4	5
The supplied PFD added beneficial safety outcomes to my operation	1	2	3	4	5
Participation in this trial has improved my operations safety management system	Y		N		
Would you continue to wear a PFD outside of this trial	Y		N		
Did the PFD inflate during the trial period? If yes, please comment;	Y		N		
Were you able to keep the PFD clean? If no, please comment;	Y		N		
PFD Cost \$..... Would you purchase this product for your operation? If no, please comment;	Y		N		
Please provide any other comments that are relevant to this trial;					

Participant verbal feedback and results;

- Less than half the fishermen who participated in the trial stated that they wore the PFD all of the times required with their own SMS's.
- 4 fishermen stated that the PFD's were restrictive and added more dangers (catch points) to their fishing operations and would prefer not to wear the PFD.
- More than half the fishermen who participated stated that the PFD's were hot and uncomfortable.
- 5 fishermen stated that the PFD's were uncomfortable at first but soon got use to wearing them and then did not have any problems.
- 2 fishermen stated they continue to use their PFD's every day.
- Fishermen said that a lifejacket design is needed that does not get in the way such as a backpack or similar.
- No fishermen reported having any issues with the PLB's.
- During group feedback, a request of AMSA was made to supply more expensive and better fitting products.
- Local QBFP officers provided feedback to AMSA that during field observations some fishermen were donning a PFD but most were not at the times sighted.

Trial Outcomes

The northern PFD and PLB trials demonstrated the following:

- Commercial fishermen realise the importance of wearing a PFD during commercial operations at sea that increase the risk of personal injury, accident or fatality. For example, rough sea conditions and night operations.
- While the inflatable PFDs generally improved the participant's safety, most still felt that it was unnecessary and did not improve safety by wearing a PFD at all times. This is a significant safety cultural issue.
- Prior to the trial, commercial fishermen were not fully aware of the significant developments in PFD design, the broad range of inflatable PFDs on the market and the versatility of the equipment to suit different commercial fishing sectors. In this regard the trial was considered successful in broadening the fishermen's perception of available safety equipment.
- There is no universal PFD available that satisfies the needs and personal preferences of the commercial fishermen in all working conditions. The minor discomfort that may be caused by wearing PFDs in hot climates needs to be weighed against the increased level of survivability in a 'person overboard' situation.

- Educational programs and training sessions for commercial fishermen on the types of PFDs and PLBs available and how to use them is likely to increase the industry's ability, willingness and awareness to utilise this type of safety equipment.

Recommendations

- AMSA and industry continue to work with marine safety equipment manufacturers to design a PFD that is suitable for the North QLD climate and operating conditions.
- AMSA continue to work collaboratively with commercial fishers to educate and foster the need to determine through risk assessments the need to wear life-saving equipment especially whilst conducting high risk operations.

Lakes and Coorong Fishery South Australia

Author: Brad Milic (Liaison SA)

Acknowledgments

The Australian Maritime Safety Authority (AMSA) would like to acknowledge the support and contribution of the Lakes and Coorong Fishery commercial fishing community and the Southern Fishermen's Association.

Executive Summary

The South Australian Dept. of Planning, Transport and Infrastructure (DPTI) have indicated that maritime safety in the Lakes and Coorong Fishery was generally unregulated until 2009, when South Australian legislation was amended. Between 2009 and the commencement of the National Law in July 2013, limited action was taken by DPTI to enforce the State maritime safety legislation in the fishery.

Many of the vessels cannot be grandfathered under the National Law because they don't meet the definition of an existing vessel (Section 7 of *Marine Order 503 (Certificates of survey — national law) 2013*) as they were not legally operating between 1 July 2011 and 30 June 2013.

Background

Since June 2011, interactions with Long-nosed fur seals have increased to a point they are having a high impact on the fishery (catch and fishing gear) and the local community. A risk assessment by the Primary Industries and Resources, South Australia (South Australian fisheries regulator) determined the impact of long-nosed fur seals had a risk rating of EXTREME (Lakes and Coorong Fishery Management Plan 2016).

Since the invasion of Long-nosed fur seal in the Lakes and Coorong region it has been reported that a number of the owners and operators are experiencing financial difficulty and their colleagues/friends have concerns for mental health (hearsay of threatening suicide and reports that some are on a 'suicide watch' program).

Objective of the trial

Brad Milic, Liaison Officer SA, met with the Southern Fishermen's Association (the Association) and, with help from Shaun Thomas (Head of Safety Management, Operations), and developed a safety action plan to help improve safety in the fishery. This safety action plan attempts to improve safety by identifying various safety initiatives, which are planned to be outlined in an industry Code of Practice (still in draft), including:

- supporting operators gain appropriate Certificates of Competency
- developing a communications plan for operators
- providing assistance with vessels meeting an agreed standard (certificate or exemption), and;

- trialing various life jackets with a long-term intent to require operators to wear a life jacket when working in the fishery.

To address the action of trialing of life jackets, on 24 November 2016 AMSA started a trial of 18 coastal life jackets (10 waist belt style and 8 wipe clean yoke style) and 18 personal locator beacons (PLB). Two different types of PLBs were also provided. The life jacket trial ran for approximately 15 weeks, being finalised at an Association meeting on 10 March 2017. Since this date feedback has been gathered through contacting individuals who were provided equipment for the trial.

Generally, feedback from the fishery operators has been very positive toward AMSA due to us working with the industry to help them understand and meet the requirements of the National Law. This assistance is ongoing as many vessels still don't meet all the requirements of the National Law.

Life Jacket Standards

Table 4 (Scales of safety equipment for Class 3 vessels) in the National Standard for Commercial Vessels Section C7A sets out the requirements for life jackets in fishing vessels, see below.

Lifejackets	Annex	3B	3C	3D	3E
Adult SOLAS lifejacket with light (L1) for 100% complement, plus child size SOLAS lifejacket with light (L1) for the greater of: 10% of the total capacity of passengers, or the number of children of mass less than 32 kg.	A	YES	NA	NA	NA
Coastal with light for 100% complement (L1)	G	NA	YES	NA	NA
Coastal for 100% complement	G	NA	NA	YES	

KEY
(L1) – Lights shall comply with Annex A.

Therefore Lakes and Coorong Fishery operators, operating in Lake Albert, Lake Alexandrina and the Coorong, operate in sheltered waters (operational D and E waters) and require coastal life jackets for 100% person complement.

complement—

the maximum number of crew and passengers the vessel is permitted to carry for its service category in compliance with the whole of the NSCV (see NSCV Part B where concurrent operations are carried out by the vessel).

Annex G of the standard sets out the design requirements for coastal life jackets, shown below.

ANNEX G REQUIREMENTS FOR COASTAL LIFEJACKETS	
G1	SCOPE This Annex G provides requirements for the design, construction, marking, testing and performance of Coastal lifejackets. It forms a normative (mandatory) part of this document. This Annex is referenced in Clause 3.3.1 and Table 1, Table 2, Table 3 and Table 4 of this Subsection.
G2	DESIGN AND CONSTRUCTION A Coastal lifejacket shall comply with the requirements specified in— a) AS 4758.1; or b) ISO 12402-3 (Level 150); or c) BS EN 396; and d) this Annex. Where AS 4758.1 is used to demonstrate compliance, the requirements for Level 150 shall apply. Where there is any conflict in requirements between the AS 4758.1 or ISO 12402-3 or BS EN 396 specifications and this Annex, the requirements in this Annex shall apply.
G2.1	Inflation system Inflatable lifejackets that rely solely on oral inflation for buoyancy are not acceptable under this standard.
G2.2	Lifejacket lights Coastal lifejacket lights shall comply with the requirements of <i>Marine Order 25 (Equipment — life-saving) 2014</i> for class A vessels over 500 gross tonnage.

Further, inflatable lifejackets are required to be serviced in accordance with Chapter 6.6 of this standard.

6.6	INFLATABLE LIFEJACKETS Every inflatable lifejacket shall be serviced— a) at intervals of 12 months, or such longer intervals as recommended by the manufacturer and approved at the time the product is assessed and verified in accordance with Clause 3.3.2; and b) at a servicing station approved and accredited to do so by the manufacturer of the inflatable lifejacket.
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The life jackets

There were 18 inflatable coastal life jackets, of two different types, provided to Lakes and Coorong Fishery operators for the trial.

Eight of these were the 'Kru Wipe Clean' model life jackets produced by Ocean Safety Ltd., of the manual gas inflation type. This life jacket is approved to the ISO 12402-3 (level 150N) standard. These life jackets were due for servicing in May 2017.



The remaining 10 waist belt style life jackets manual gas inflation type model named the 'Hobie Waistbelt PFD' produced by SLH (Scott Lovig Hobie). This life jacket is approved to the AS4758 standard (including the AS4758.1 - Part 1: General Requirements) and has a buoyancy rating of 150N. These life jackets were due for servicing around September 2017.



Personal Locator Beacons (PLB)

The 10 Kru Wipe Clean model life jackets were also each supplied with a Rescue Me PLB1 model PLBs produced by Ocean Signal, which was housed inside the life jacket.



The Hobie Waistbelt PFD life jackets were each supplied with a Safety Alert PLB produced by Kinetic Technology International (KTI), which were a little too big to fit inside the life jacket but came with a body straps, to be carried on your arm or leg.



Results

During the initial stages of AMSA working with the Association, the general understanding of the Lakes and Coorong Fishery operators was there were no masters or crew in the fishery that were wearing life jackets of any kind.

Of the 18 participants in the trial, responses on the positives and negatives of the two life jacket types were gathered from 12 participants, two of the participants received one of each type of jacket (so they could trial both types and their crew could trial the alternate design) and two of the participants responses were given by their colleagues.

Kru Wipe Clean life jacket produced by Ocean Safety Ltd.

Responses included:

- The life jacket is very heavy
- The buckles were getting caught in the gillnet
- Didn't like the life jacket, I wasn't comfortable in it because I wear waders
- It may just be a matter of getting used to the right one
- Didn't like the Life jacket at all
- If required to wear one I would probably buy a Stormy Seas vest
- I wore it under my wet weather jacket and it was uncomfortable
- I have no qualms with wearing a life jacket but I am 80 years old and I have never worn one because they are cumbersome and get in the way, and
- The Life jacket doesn't fit over my head.

Hobie Waistbelt PFD produced by SLH (Scott Lovig Hobie)

Responses included:

- Didn't like the Life jacket at all
- I wore it for two days and then wanted to throw it in the bin
- I am happy with it but I wear the pouch at the back so it doesn't catch on the net
- The pouch is good as long as it is at the back
- I wear it under my waders
- I wear it every day but I don't like it
- I wear it when it is rough, when it is sunny I don't wear it.

- It feels like it will catch on the gear so I wear a Stormy Seas vest
- I wear a Stormline wet weather jacket over the top of the life jacket
- It takes a bit to get used to but once you do you don't know you are wearing it, and
- I moved the pouch to the back as it did catch on the fishing net.

Following discussions with the participants, there were no positive responses about the Kru Wipe Clean model life jacket, with a common theme of it being heavy, uncomfortable and catching on the fishing (net) gear.

There were some positive responses about the Hobie Waistbelt PFD life jacket but it is concerning that participants reported wearing the life jacket under their wet weather gear. This could possibly mean that the life jacket may not work as required or potentially cause injury/ death if set off when not being worn as recommended by the manufacturers specification. As a result of these responses AMSA sent an email to the Association's Executive Officer for distribution to the fishery operators stating:

AMSA wanted to reinforce that all life jackets are to be worn, used and serviced per manufactures instructions.

AMSA also highlighted that if operators were not going to wear a life jacket provided in this trial, operators still should carry the personal locator beacon on them while at sea as it may assist them in an emergency.

It is worth noting that moving forward, AMSA continues to work with the Lakes and Coorong Fishery operators to finalise the draft industry Code of Practice. The Association have discussed using the safety initiatives listed in the draft Code of Practice (including wear a life jacket) as an equivalent means of compliance to the basic vessel flotation survey requirements. AMSA is yet to receive, or consider an equivalence application based on the (yet to be finalised) Code of Practice.