Australian museum
LIZARD ISLAND RESEARCH STATION

7 July 2014

To Whom It May Concern

The Lizard Island Research Station appreciates the opportunity to comment on the "Streamlining Review" of regulations under the National System for Domestic Commercial Vessel Safety. Detailed comments are attached and summarized below:

- Ensure the Great Barrier Reef (GBR) region is retained as C waters.
- Provide more reasonable construction standards for 2C vessels < 7.5 m in length
- Eliminate the classification of 'high risk' for 2C vessels operating more than 5nm off the mainland; at least when they operate in the GBR region.
- Expand the non-survey category to include 2C vessels <7.5 m that operate on the GBR. (Alternatively, reduce the base periodic survey levels so that Class 2C vessels < 7.5m operating on the GBR have an initial survey and then an annual self-inspection.)
- Retain the current exemption allowing a person with a recreational license to operate a 2C vessel on the GBR when undertaking scientific research and educational activities **AND** incorporate this exemption into the National Law regulations so that it doesn't have an expiry date which is currently 30 June 2018.
- Provide permanent exemptions for some items of safety equipment on small vessels used for scientific research and educational activities within the GBR region.

Our comments are made in the context of providing efficient and safe boating regulations for researchers and educational groups who conduct boating operations on the Great Barrier Reef (GBR) and in particular at the Lizard Island Research Station (LIRS). Implementation of these proposals will provide for cost-effective and efficient boating operations without compromising safety.

LIRS is a facility of the Australian Museum, Sydney, and has supported scientific research and educational activities on the GBR since 1973. It is located at Lizard Island which is about 270 km NE of Cairns, Qld and 17 nm from the mainland. The distance that LIRS and other GBR island research stations are located from the mainland is highly significant with regards to proposed changes in existing regulations.

LIRS annually supports about 100 research projects by over 350 researchers plus numerous educational groups. Almost 50% of the Station's usage is by overseas scientists. Scientific output from LIRS is important for managing and conserving the GBR which in turn is vital to sustaining a vibrant reef based tourism industry. LIRS is also an important "hands on" training hub where future marine researchers gain valuable diving and boating experience.

LIRS has a fleet of 15 small vessels that is used by virtually all visiting researchers and educational groups. Twelve of these boats are about 5m in length and the three "larger" boats are about 6 m. All vessels previously had Certificates of Registration from Qld Transport but they now have a current Certificate of Operation issued by AMSA. Operational limits of the vessels range are 15 nm or 1 nm from land depending on the number of passengers and provided the maximum wave height does not exceed 1.5 metres. All vessels carry multiple Class ratings of 2C, 4C, 4D or 4E. Many of the vessels are used on a daily basis and so LIRS oversees several thousand boating operations annually. Most research and educational activities occur within 1 nm of the Lizard Island Group but the larger vessels are sometimes used by the more experienced operators out to their maximum operational limit of 15 nm from land. The Station's boating safety record is unblemished despite its high annual usage of vessels for over 40 years by both domestic and overseas researchers.

Although our comments are primarily in relation to LIRS, we are confident the principles are relevant to other research stations on the GBR such as Heron Island Research Station (Univ. of Qld), Orpheus Island Research Station (James Cook University) and One Tree Island Research Station (Univ. of Sydney). In addition, many of our comments are pertinent to researchers using vessels in other areas of the GBR.

Thank you for consideration of our recommendations.

Regard

Dr Lyle Vail AM

Dr Anne Hoggett AM

Directors
Lizard Island Research Station

Comments on "Streamlining Concepts" document
National System for Domestic Commercial Vessel Safety
By L. Vail & Anne Hoggett
LIRS – 7 July2014

Area 4: Clarifying the "C Class" operational area

The Streamlining Concepts document states that "…the 'C' operational area in Queensland currently extends to 50 nautical miles from the main land coast and also includes the Great Barrier Reef Region and the Torres Strait zone. These arrangements would be maintained;".

We strongly support this provision. It is absolutely essential to retain the GBR Region as C waters in order to enable scientific research and educational activities to continue. If this provision does not make it into the final version, then many additional "specified islands" must be listed, including Lizard Island.

Area 7: Survey exemptions

The current arrangements for survey exemptions have been in place in Queensland for just over a year. These make it virtually impossible to build small research boats economically (see below). Boats built before those provisions came into effect (1 July 2013) do an excellent job and have a proven safety record. The Streamlining Concepts document should reverse that poor outcome but it does not.

As an example, a small (<7.5 m) outboard-powered research dinghy operating in Great Barrier Reef waters did not need to be in survey prior to 1 July 2013. Since that date, new dinghies of that type do need to be in survey for two reasons: they are operating in C waters and they are considered "high risk' because they operate more than 5 nautical miles off the mainland. Provisions of the Streamlining Concepts document still require such dinghies to be in survey, for one reason only: they are operating in C waters.

Requiring small research boats to be "in survey" is unwarranted for the GBR Region given its numerous sheltered areas, the long-term safety record of small research vessels operating in this region, and because these vessels generally operate from a support base such as a research station, mother ship or similar. The requirement has major operational and financial implications. For the GBR, this is an example where regulations are not proportionate to the risk and neither are they justifiable on a cost-benefit basis. For instance, several boat builders have stated that under the current National Standards it is virtually impossible to build a small, open, mono hull boat to 2C survey such as the ones currently used at LIRS (see photo at end of document). One builder stated that to get even a 7.5m vessel in 2C survey for 6 passengers he had to: make the width at the chine nearly the same as the W.O.A of the boat; the wet deck needed to be at least 150mm above the loaded water line; and the height of the coamings needed to be 750mm above deck. These and other requirements not listed here result in a vessel that is not suitable for use as a small research vessel. Furthermore, even if a usable design could be built it would cost up to $8,000 for design and survey fees alone. This would result in an extraordinarily high cost for a 5 m aluminium runabout powered by a small outboard motor. In

addition, under current legislation, because these 2C vessels operate more than 5 nm from the mainland, they are subject to expensive periodic surveys.

We recommend that class 2 vessels less than 7.5 m operating in the GBR and Torres Strait regions are included in the "Exempt from Survey" category. If this is accepted, then the provision must change for vessels "In survey" from "All vessels in A, B or C operational areas" to "All vessels in A, B or C operational areas except for those operating in the GBR or Torres Strait regions"

Following on from the above, we propose the ensuing amendment to line 1 of Table 6 (Proposed survey exemption arrangements):

Exempt from survey ('non-survey' vessels)
Vessels **<12m**, in sheltered (D or E) waters, which: • do not carry any passengers; • do not carry goods listed in the International Maritime Dangerous Goods Code; • are not support vessels in the offshore oil industry;

Line 1 above, change to:

Vessels < 12m, in sheltered (D or E) waters, or vessels < 7.5 m in 'C' waters of the Great Barrier Reef Region and the Torres Strait Zone, which:

This assumes that the concept of "High risk vessels" is removed in this context, as proposed in the Streamlining Concepts document. If, however, the concept is not removed, then its definition should be altered to: "Vessels operating more than 5 nm off the mainland, except for those operating in the GBR or Torres Strait regions" (see AMSA 570, page 4; Applicable Standards and Requirements for Vessels under the National System).

As we understand the rules, implementation of this amendment to Table 6 will ease construction requirements for these 2C vessels and thus will result in achievable designs and lower manufacturing costs. Our prime motive in proposing that Class 2 vessels < 7.5 m operating in the GBR region be put in the non-survey category is so that we can acquire at reasonable cost and within realistic design parameters these small research vessels which are the 'workhorses' of most research stations and scientific institutions conducting research on the GBR. (We highlight our prime motive here so that our comments regarding proposed survey requirements (Area 9 below) don't appear contradictory.)

If the above recommendations are not acceptable then we request the opportunity for further input into how the important issue of 2C construction requirements for small vessels can be resolved.

Area 9: Periodic survey requirements

Prior to the National System for Domestic Commercial Vessel Safety coming into effect on 1 July 2013, small research boats at LIRS were built to a Queensland-approved standard but they are not “in survey”. Design parameters and statements of suitability and positive flotation were provided by an accredited builder. This information was submitted to Qld Transport for original registration. Subsequent annual renewals were dependent on self-assessment that the design and integrity of the vessel had not been altered.

Current legislation requires such boats to be in survey. It also requires them to be surveyed initially and then annually because they are deemed “high risk” as they operate more than 5 nm from the mainland. We have argued above (Area 7) that small research boats within the GBR should be exempt from survey. If that recommendation is accepted, it is not clear what the periodic survey requirements would be.

Is it intended that boats that are “exempt from survey” are subject to periodic survey requirements? Or do “exempt from survey” boats not require any initial or subsequent assessment? That is not at all clear from Table 8. Surely such boats still need some sort of initial assessment at least. If that is the case, it seems that using different words would alleviate some confusion. For example, a boat would be either “in survey” or “exempt from survey” as proposed. But instead of referring to “periodic survey requirements”, the terms “periodic assessment requirements” or “periodic inspection requirements” might be less confusing.

It is vitally important that small research vessels remain in the category of annual self-inspection. It would be prohibitively expensive to have them undergo regular surveys given the locations of their home bases. It is also unnecessary from a safety aspect given their relative simplicity and their long and uneventful history of self-inspection.

If we understand correctly, the Streamlining Concept recommends in this context that the following clause is removed from the high risk category: “a vessel operating more than 5 nautical miles off the mainland”. We strongly support this amendment.

To clarify, if the AMSA proposal is adopted we understand that 2C vessels < 7.5m operating in the GBR region would be subject to survey requirements as per line 1 of Table 8 (Streamlined periodic survey table; partially copied below).

Category	Vessels	Survey requirements	
		Initial	Periodic survey – 5 year period
Survey ‘C’ Lower risk trading, fishing hire and drive vessels	2C <7.5m no passengers and not high risk 2D ≥12m no passengers and not high risk 2E ≥12m no passengers and not high risk 3C <7.5m not high risk 3D ≥12m not high risk 3E ≥12m not high risk 4C <7.5m	Plan approval, initial survey and commissioning For hire and drive: Plan approval and initial survey in accordance with NSCV F2	Annual self inspection Flexibility to change formal survey requirements based on vessel and operator performance

Please let us know if our interpretation of this streamlining proposal is not correct.

Area 10: Minimum crewing

The streamlining concept proposes to allow " research vessels <7.5 m in sheltered (D and E) waters (and potentially C waters), to be operated by a person who holds a recreational qualification."

We strongly support this provision but it needs to go further: C waters (or at least GBR waters) must be included unequivocally.

In GBR waters it is **essential** that vessels used for research and educational activities be allowed to be operated with a person with a recreational license. We provided detailed reasons for this position in a previous submission about the National System and are happy to provide them again, if needed. The importance of including C waters in this provision is demonstrated by the fact that using a small vessel on the GBR for scientific research and educational activities is already permitted under AMSA Marine Safety (Scientific research and educational activities) Exemption 2013, provided written approval is obtained for the specified operation. Although we welcome this sensible exemption, we note that the approval is only until 30 June 2018. For the long-term viability of business operations it is essential that this exemption for GBR 'C' waters be incorporated into the National Law with no expiry date.

Area 13: Recreational use exemption

The streamlining concept proposes to remove unnecessary paperwork regarding recreational use of commercial vessels.

We support the proposal that enables the recreational use allowance to be noted on the Certificate of Operation or a similar proposal provided it eliminates the necessity of advising the Regulator each time the vessel is used recreationally.

Other 1: Vessel Equipment List – Class 2 C
(AMSA 697 (0713) Pages 1-5

Some items in the NSCZ Vessel Equipment List for Class 2C boats provide only marginal safety benefits in return for substantial cost (in terms of purchase price, space occupied and maintenance required) when used in small (5 m) open boats operating for research or educational purposes in GBR waters, Others are impractical or counterproductive in that context.

We propose the following amendments or request clarification on the following items for 2C vessels ≤ 5.0 m regarding Navigation and Miscellaneous equipment. If a blanket waiver for 2C vessels ≤ 5.0 m is not feasible in the National System, then we request special exemption for 2C vessels ≤ 5.0 m when used for scientific research or educational activities within the GBR region as listed below.

Items required	Vessels currently affected	Change proposed or clarification requested under Streamlining	Justification

		Concepts for 2C vessels ≤ 5.0 m	
Clock	< 35m	Not required	Minimal safety benefit for cost and effort required to keep dry and operational.
Pair of binoculars	< 35m	Not required	Minimal safety benefit for cost, effort, and space required to keep dry and operational.
Echo sounder	< 35m	Not required	This is a particularly onerous and expensive requirement for a small vessel that would not otherwise need a sounder. Like binoculars, difficult to protect and takes up valuable space on a very small boat.
Radar reflector	< 12m	Not required	Minimal safety benefit for the space it occupies and considering the other signalling equipment already carried.
Speed and distance indicator	< 35m	Not required	Another onerous and expensive requirement with minimal safety benefit for a very small vessel.
Navigation lights, day shapes and flags	All	Allow small boats engaged in diving to exhibit a normal (fabric) international code flag A.	MO 30 allows exemption for the shape and light signals otherwise required during diving operations when it is impractical to do so due to the small size of the boat. Instead, a rigid replica of international code flag A not less than 1 m in height must be used. However, this is also completely impractical from a 5 metre boat.
Bilge pumps	All	Not required	This requirement is excessive, and possibly counterproductive, if the boat has a statement of positive flotation (designed with level flotation), sealed decks, and underfloor compartment(s) filled with

			foam.
Gangway capable of being used on either side of the vessel or approved safe means of access	All	Please clarify whether or not the stern ladder on the 5 m vessel shown in the photo below would qualify as an ‘approved safe means of access’.	

Other 2: AMSA web-based Equipment List Generator –version 1.0.0.0

For a 5.0 m vessel in 2C waters, the AMSA Equipment List Generator gives the following requirement for VHF radios:

Item	Minimum requirement	Comments
Radiotelephone and satellite communications equipment		
VHF Radiotelephone or VHF Radiotelephone with DSC	1	Portable hand-held units are not acceptable as primary distress and safety equipment. VHF (DSC) will not be monitored from land, a VHF (DSC) distress signal is most likely to be received by other vessels. Obtaining a MMSI number from AMSA will support the use of VHF (DSC).

We note that portable hand-held units are not acceptable as primary distress and safety equipment.

We request clarification from AMSA that use of a portable hand-held VHF radio is acceptable provided the vessel also has an EPIRB.

Requiring a 5.0 m vessel to have a non-portable radio is excessive, especially if they have an EPIRB.

Typical 5m dinghy used at LIRS