

Technical Meeting — 6 March 2019

Michael Uberti, AMSA Accredited Surveyor with Maritime Survey Australia, gave a presentation on *Domestic Commercial Vessel Survey in Australia: the Changes in Regulation and Survey* to a joint meeting with the IMarEST attended by 17 on 6 March in the Harricks Auditorium at Engineers Australia, Chatswood.

Introduction

Michael began his presentation by saying that Marine Survey Australia was formed in 2016 when he went into partnership with Thom Magnuson and Isi Lyons. The company now employs nine full-time marine surveyors around Australia, with a focus on domestic commercial vessels, although they do some work overseas including a recent job in Saudi Arabia.

In general, owners like to talk to surveyors with seagoing experience, but they have found that naval architects are also ideally suited to the role of surveyor, due to their knowledge of the rules and their experience.

AMSA has made significant changes to how domestic commercial vessels are regulated and surveyed. For example, for periodic surveys, some states used to survey every vessel, every year. AMSA has introduced a new risk-based approach, and now no vessel has to be surveyed every year. A passenger vessel will be surveyed four times in a five-year period.

What is a Domestic Commercial Vessel?

From the *Marine Safety (Domestic Commercial Vessel) National Law Act 2012* (the National Law):

7 Definition of domestic commercial vessel

- (1) In this law
domestic commercial vessel means a vessel that is for use in connection with a commercial, governmental or research activity.
- (2) The use of a vessel in connection with an activity that is not a commercial, governmental or research activity at the same time as the vessel is used in connection with a commercial, governmental or research activity does not prevent the vessel from being a domestic commercial vessel.
- (3) Despite Subsection (1), a vessel is not a **domestic commercial vessel** if the vessel:
 - (a) is a regulated Australian vessel; or
 - (b) is a foreign vessel; or
 - (c) is a defence vessel; or
 - (d) is owned by:
 - (i) a primary or secondary school; or
 - (ii) a community group of a kind prescribed by the regulations.

By way of example, prior to the National Law, police boats and emergency services vessels were not classified as domestic commercial vessels; now, according to the definition above, they are.

State and Territory Agencies

Individual states and territories had their own interpretations of the *Uniform Shipping Laws Code* (USL Code) and the *National Standard for Commercial Vessels* (NSCV), and there was scope for discretion. Now, under the National Law, administered by the Australian Maritime Safety Authority, there is little scope for discretion in applying the regulations.

Certificates of Survey and Certificates of Operation were previously combined into one certificate in NSW, while all other states and territories had separate certificates; these are now separate everywhere. Previously, Certificates of Survey and Certificates of Operation were specifically for operation within the home state, and it was often difficult to transfer a vessel from one state to another, due to local (state) interpretations and survey. Now, AMSA certificates apply Australia-wide and, on them, a vessel can be operated in any state.

The USL Code was a prescriptive code. In order to make it work for the varying conditions encountered Australia-wide, there were equivalent solutions, state interpretations, and local rules.

The National Marine Safety Committee was formed in 1998 in an effort to coordinate the marine safety activities of the various states and territories. The NMSC comprised representatives from each state and territory, meeting approximately monthly, and they came up with the NSCV which was implemented in 2008 as a performance-based standard. The intent was for it to be more flexible, and that has, for the most part, been achieved. Michael noted that the NSCV is not yet complete, and that the USL Code is still referred to for load lines, watertight integrity, damaged stability and, of course, “grandfathering” of vessels built in accordance with it.

The National Law

The *Marine Safety (Domestic Commercial Vessel) National Law Act* (the National Law) was introduced by AMSA in 2012 and replaced all equivalent state and territory legislation. This provided for national certificates for five years of operation. The Certificate of Survey applies to the vessel itself, and the Certificate of Operations applies to the operations which the vessel undertakes.

The role of the states and territories has now been replaced by AMSA as the single authority, and AMSA has agreements in place with the state and territory authorities regarding compliance. However, the survey function is now carried out by private surveyors who have been accredited by AMSA for specific survey functions.

The cost of survey has now changed: the survey company sets the price and, as a general rule, overall it is cheaper than it was under the previous system. In NSW, Roads and Maritime Services had a policy of full cost recovery for survey, and so costs for survey there have reduced. In Victoria, Marine Safety Victoria had an arrangement whereby survey costs were about 7% of the actual cost, and so costs for survey there have increased dramatically.

Where are we Now?

On 1 July 2018, AMSA became the single national regulator, and private surveyors must be accredited by AMSA to carry out surveys of domestic commercial vessels.

AMSA monitors the dates required for periodic survey of each vessel, and sends reminder notices to owners that a vessel is coming up for a particular survey.

Surveyors are accredited across a wide range of categories, and each surveyor is not often accredited for all types of survey. In a large organisation, there is usually expertise to cover the full range of survey categories but, for the lone operator, it can be quite difficult and require additional expertise. For example, a naval architect could not usually expect to be accredited to carry out electrical surveys, nor could a marine engineer expect accreditation to carry out load line surveys.

Surveyor accreditation categories are as follows:

Initial Survey	Periodic Survey
Plan approval	Survey
Stability approval	Electrical
Load line	Load line
Electrical	Safety equipment
Construction or alteration	Communications equipment

Accreditation is granted by AMSA for a period of five years. For renewal of accreditation, an application for renewal must be submitted at least three months before the current accreditation expires.

The system is in its infancy, but a vessel with a Certificate of Survey now is likely to be at a better standard of seaworthiness and safety than previously.

Risk-based Survey

AMSA has implemented a risk-based approach to survey and the frequency of periodic surveys. Risks are categorised as high, medium or low and, as the risk decreases, the frequency of periodic surveys also decreases.

Categories of risk
(Table courtesy Marine Survey Australia)

	Class 1	Class 2	Class 3	Class 4
High	Class 1 - All Operational Areas	2A - With Passengers 2B - Extended with Passengers 2B - With Passengers		
Medium		2A - Without Passengers 2B - Extended Without Passengers 2B - Without Passengers 2C ≥ 12m 2C - With Modifier 2D - With Modifier 2E - With Modifier	3A 3B Extended 3C ≥ 12m 3C - With Modifier 3D - With Modifier 3E - With Modifier	4C ≥ 12m 4D ≥ 12m 4E ≥ 12m 4C - With Modifier 4D - With Modifier 4E - With Modifier
Low		2C < 12m without Modifier 2D - Without Passengers and Without Modifier 2D < 12m with Passengers and Without Modifier 2E - Without Passengers and Without Modifier 2D < 12m with Passengers and Without Modifier Class 2 Ferry in Chains* Class 2 Permanently Moored Vessel* Class 2 Unpowered Barge*	3C < 12m - Without Modifier 3D - Without Modifier 3E - Without Modifier Class 3 Permanently Moored Vessels* Class 3 Unpowered Barge*	4C < 12m - Without Modifier 4D < 12m - Without Modifier 4E < 12m - Without Modifier

Class 1	Passenger vessels
Class 2	Workboats
Class 3	Fishing vessels
Class 4	Hire-and-drive vessels

Frequency of survey depending on category of risk
(Table courtesy Marine Survey Australia)

Survey Frequency Category	Year 0	Year 1	Year 2	Year 3	Year 4	Year 5
High	Initial Survey	In Water Periodic	In Water Periodic	Out of Water Periodic		Renewal Survey (In and Out of Water)
Medium				In Water Periodic		
Low						

Area A Unlimited
Area B Within 200 n miles of coast
Area C Within 30 n miles of coast
Area D Partially-smooth waters
Area E Smooth waters

It can be seen from the table that no vessels have to be surveyed every year. Class 1 vessels, and Class 2 vessels operating in Areas A or B, i.e. those presenting the highest risk, are surveyed in all years except Year 4. Low-risk vessels are only surveyed every five years. However, some owners of high-risk vessels see the benefit of surveying in every year, and some do it as a requirement of their insurance company.

If a vessel is not on the list, e.g. a Non Survey (NS) vessel of less than 12 m in measured length operating on Sydney Harbour, the owner can apply without the need for a surveyor to say that the vessel meets the requirements of a Non Survey vessel. This would mean that the construction, buoyancy, engineering, flotation and all other requirements do not have to undergo any initial survey by an accredited surveyor. However, that is quite a brave thing for an owner to do! The biggest danger is from these vessels, having no construction survey and allowed to carry up to four passengers.

As AMSA set the survey schedule, by virtue many owners tend to use this as their maintenance schedule. Michael said that he often fields questions like “How do I keep my vessel in the water for five years, and what do I need to do regarding maintenance, etc.?”

If a vessel is behaving well and is obviously being kept up to scratch, then it can move up in the table and the frequency of periodic surveys can decrease. Similarly, if a vessel is behaving poorly and is obviously not being kept up to scratch, then it can move down in the table and the frequency of periodic surveys can increase.

Naval Architects

Naval architects are particularly suited to carrying out plan-approval surveys, initial surveys, stability surveys and preparing stability books, five-yearly renewal surveys and lightship checks.

However, if a naval architect designs a vessel, then he/she cannot conduct the initial survey on that vessel.

The naval architect preparing the stability book for a vessel can also conduct the inclining experiment on which the book will be based.

A naval architect can self-certify his/her own drawings, but many design companies contract another company to certify their drawings or stability books as a further check.

Conclusion

The *National Standard for Commercial Vessels* and the new National Law have changed the face of domestic commercial vessel survey in Australia; the NSCV by changing to a performance-based standard in place of the prescriptive *Uniform Shipping Laws Code*, and the National Law by creating a single national jurisdiction, and putting the survey of vessels into private hands (with oversight by AMSA), and introducing a risk-based approach to the frequency of periodic surveys.

Questions

Question time was lengthy, and elicited some further interesting points.

A vessel owned by the Royal Australian Navy but operated by civilians is a domestic commercial vessel. Vessels owned and operated by the Australian Border Force may be domestic commercial vessels, but are operated primarily as regulated Australian vessels because DCVs cannot exit Australia’s exclusive economic zone.

To become an AMSA-accredited surveyor, you need to apply to AMSA and have all your documentation to meet the requirements. As a minimum, you need to have a degree in naval architecture or a certificate as a Class 3 Marine Engineer, or a Diploma in Marine Surveying. You then need to sit for the AMSA exam.

There are more AMSA DCV employees around Australia now than there were state/territory-based DCV employees by all the states and territories combined prior to 1 July 2018.



Michael Uberti (L) accepting the “thank you” bottle of wine and certificate from Graham Taylor
(Photo Phil Helmore)

The vote of thanks was proposed, and the certificate and “thank you” bottle of wine presented, by Graham Taylor.

