

SHIPPING

AUSTRALIA

The **BOX** that changed the world

Agri exports are all the go



THE CAR TRADE'S LAST MINUTE RUSH

PROFILE



SHIP ARREST

MELINDA PAVEY, NSW Minister for Ports

WHY INTERNATIONAL TRADE IS IMPORTANT

AUTUMN/WINTER 2017



BRISBANE MARINE PILOTS

PARTNER.SHIPS

Proven | Collaborative | Safe



EMPOWERED BY



EMPILOT

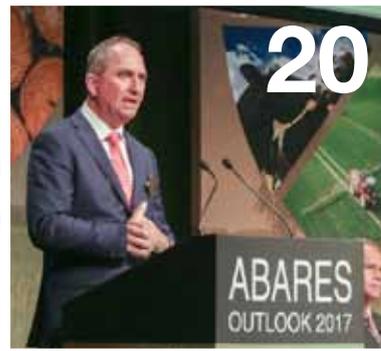
www.brisbanepilots.com.au



12



14



20



26



34



40



44



50

- 02 FROM THE BRIDGE**
- 06 VIEWPOINT**
Petty politics preventing possibilities
- 08 PROFILE**
MELINDA PAVEY, New South Wales Minister for Roads, Maritime and Freight
- 12 INTRODUCING**
CHARLES MASTERS, SAL's Victoria state secretary
- 14 THE CAR TRADE**
Last-minute rush by our car workers is like last dance on *Titanic*
- 20 AGRICULTURE**
Get on the gravy train
- 22 ECONOMY**
22 International trade, it's important
24 The property market – is the end near?
- 26 LEGAL**
26 Panama accedes to the Hong Kong Convention as ship recycling hits record highs
28 The facts about ship arrests in Australia
- 32 NAVIGATION**
Precise positioning technology for Australia's maritime industry
- 34 TRAINING**
Port Ash Australia - Overview
- 36 THE SCENE**
- 38 BOOK REVIEW**
They sang like kangaroos
- 40 PASSENGER FERRIES**
Megastar highlights LNG and design
- 44 ROAD TRANSPORT**
Heavy hauling and "hidden subsidies"
- 46 ALC FORUM 2016**
Focus: Getting the supply chain right
- 50 CONTAINERISATION**
The **BOX** that changed the world
- 52 FAREWELL**
Philip Charles Kelly OAM - a lifetime of service to shipping



THE OFFICIAL JOURNAL OF
Shipping Australia Ltd
Level 1, 101 Sussex Street, Sydney NSW 2000
PO Box Q388 Sydney NSW 1230
P: 02 9266 9911 F: 02 9279 1471
W: www.shippingaustralia.com.au

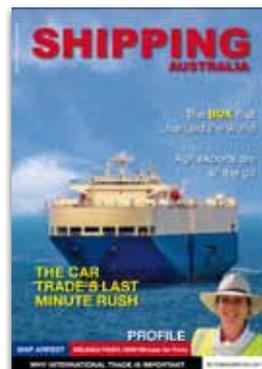
PUBLICATIONS COMMITTEE

Chairman: Ross McAlpine
Vice chairman: Frank Needs
Executive editor: Rod Nairn
Executive assistant: Sharyn Flood
Feature writer: Archie Bayvel
Graphic designer: Sarah Abrahams
E: design@ontimepublications.com.au

Advertising Co-ordinator:

For advertising contact Steve Moxey
P: 0400 473 200 E: steve.moxey@ontimepublications.com.au
PO BOX 43, Woonona NSW 2517

Shipping Australia Magazine is published for Shipping Australia Ltd by Ontime Publications.



Front Cover:
Car shipping is big business



Ontime Publications



What a difference a year makes

By ROD NAIRN AM, CEO, Shipping Australia Limited

to improve cash balances, and now they have to deal with the pressure of rising charter rates.

Northbound container freight rates from Australia have shown a good recovery on the back of a bumper agricultural export season. Yet the unpredictability of this sector and the inability, or inability of exporters, to make firm bookings early enough has led to a much-publicised shortage of **food grade 20 foot containers** – or at least a shortage of these containers in the right place at the right time. The situation is exacerbated by some shippers booking the same cargo on multiple carriers, leaving carriers with excess boxes and empty slots, it's no wonder that some have been forced to introduce a “no-show” charge. I've said it before, that in a competitive market you cannot blame carriers for making the best financial decision for their business, in fact they are legally bound to. So if agricultural exporters are not willing to make firm bookings for food grade containers at rates that the carrier finds acceptable, there is no surprise that the carrier will market their 20 foot containers and ship slots to other shippers who don't require the costly upgrade to food quality – and gain a better return.

The upturn in global markets has come too late to save some, and it is not limited to Hanjin. Rickmers, a large global operator, albeit not

in Australia, has succumbed to excessive debt and sold off assets and parts of their business. There is still talk of further consolidation between box carriers, the cut-throat race to the bottom on rates has resulted in unrelenting years of losses, and consolidation is the fastest means of reducing operating costs and reducing empty slots.

Meanwhile, the ship building industry remains completely on its knees. There are record low ship building orders in the yards and many yards, particularly in China, are closing or have already done so. Meanwhile another problem for the container industry is that despite record low new orders, capacity is still increasing as the behemoths ordered a few years ago roll out of the yards. Every month we see another headline of “largest container ship ever”. The January leader *MSC Oscar* at 19,224 was surpassed by *MOL Triumph* at 20,150 TEU in March and just two weeks later was out boxed by *Madrid MAERSK* 20,565 TEU. But were they really trying? In May, the *OOCL Hong Kong* blitzed the field at 21,413 TEU. If you see my point, with all the superseded models cascading onto the lesser loops, it doesn't look like the self-inflicted overcapacity problem will be over any time soon.

But even the punch-drunk container shipping market must be glad that they are not invested in **offshore oil**

At this time last year I was lamenting that for most shipping sectors we were experiencing the worst economic indicators for shipping in history and while there were improvements throughout the year, by Christmas it was still hard to be optimistic. In the Annual Review I stated that “you have to be an optimist to be in shipping”. Now, while it's not the time to be jumping for joy it is the time to take off the grey tinted glasses and admit that both globally and locally the freight markets appear to have turned the corner. In the dry bulk market the Baltic dry bulk index has grown 300 per cent from its record last February, and the Shanghai Containerised Freight Index is up 100 per cent. On the flip side, charter rates for container ships are up around 70 per cent, which is good for ship owners but not so good for container lines who rely on chartering in capacity. As losses have mounted, a lot of operators have sold some of their ships on leaseback in order

and gas exploration. The bottom fell out of that one with the collapse of the petroleum price and nothing looks like changing in the near future. Further uncertainty was injected into the American market with President Trump's executive order to tighten the Jones Act and crack down on foreign flagged vessels in the offshore oil and gas industry. However, US Customs have now advised that they are not intending to change the status quo in this regard and US oil producers, who were worrying whether they could continue operations, have now breathed a collective sigh of relief.

Of course, **the cruise shipping industry** was the one sector that bucked the trend then, and continues to show annual growth of around 15 per cent, even in Australia. One must wonder whether the fact that the large cruise ship market was exempted from the Coastal Trading (Revitalising Australian Shipping) Act has enabled it to flourish, while the percentage of domestic cargo carried by sea continues to decline? Be that as it may, the ever-growing demand in this sector, and thus the growing demand for more frequent visits for bigger and bigger ships, is keeping argument for another cruise terminal east of the Sydney Harbour Bridge well and truly alive. SAL is pleased to note that NSW Ports is looking into berthing arrangements for these ships unable to pass under the bridge.

A year ago, we were also lamenting the defeat of the Shipping Legislation Amendment Bill and wondering what the future would hold for **coastal shipping**. The important step that the Government needs to take is to free up the use of international shipping for carrying coastal domestic cargos. Thus, making the best use of the infrastructure that they don't even have to build, the highways of the sea, to enable Australian products to be competitive in Australian markets.

After surviving a quick Federal election, **Minister for Infrastructure and Transport, Darren Chester** has taken a more measured approach to coastal shipping regulation. While many in the mining and agricultural industries international shipping industry would criticise his recent Coastal Shipping Reform Discussion Paper as not bold enough to make a difference, Shipping Australia accepts that his efforts to gain bi-partisan support for re-tuning of the current legislation are more likely to yield at least some positive changes and

will provide longer term regulatory stability. Minister Chester spoke on his policy aims at a Shipping Australia lunch in Melbourne in April; we all remain eager to see the final Government proposal now that the consultation period has closed.

A dampener on my upbeat commentary on the fortunes of shipping is that we are now amidst the **season of port price rises** as we approach the new financial year. While the price control mechanisms in Melbourne have kept rises in line with CPI and we have seen general restraint from private port operators, our members are dismayed by excessive price rises from government monopoly providers, whose sole justification is to increase their return on government assets. It is my strong belief that governments should be enablers of trade, not profiteers from selected aspects of it. Efficient trade brings massive benefits to the state through the multiplier effect of encouraging business activity, fees and charges do the opposite. As we go to print, Ports Authority NSW has just announced a 3.5 per cent increase on pilotage and navigation charges, (with the exception of Newcastle pilots, who underwent a pricing re-structure last year), that's 1.9 times their own CPI benchmark. These ship-based charges provided the greatest hurt for carriers because the hyper-competitive nature of the industry makes it almost impossible to pass the increased costs through to the cargo shipper.

In the private sector, **DP World's decision to hike their infrastructure charge** has drawn strong condemnation, especially from the trucking industry. I understand that DP World's justification for these charges, at least in Melbourne, is substantial increases in land rents and a requirement to upgrade infrastructure to meet performance targets. The container stevedoring industry in Australia is very competitive, so there are other options and time will show its effect on the market. Additionally, the performance of the stevedoring industry is monitored by the ACCC. If the infrastructure investment it to improve performance, and I accept that we have seen productivity increases in recent years, then DP World will recover their investment through increased productivity going forward, so they shouldn't be charging customers now for

something they haven't yet delivered. We are very disappointed to see such large increases passed on to users.

The Annual **Australian Logistics Council Conference** returned to Melbourne's iconic MCG in March this year. Victorian Minister for Transport, Luke Donnellan opened the conference, highlighting the new initiatives recently announced in the Victorian Infrastructure plan including the Murray Basin rail project and the M80 ring road upgrade but after him, the focus of the conference was unswervingly the National Freight and Supply chain strategy. An overview of the conference is on page 46.

After the weight of logistics industry argument that was presented in support of inland rail throughout the ALC Conference, it was no surprise to see \$8.4 billion of funding allocated to the project in this year's **Federal Budget**. This is a massive investment into something that could be seen as an unnecessary duplication of the free 'highways of the sea' that already join our east coast capital cities, but if they get it right then it will serve a useful purpose, streamlining agricultural exports' journey to the ports.

The **first focus of inland rail should be to feed the ports** with our exports and allow the efficient distribution of imports to inland, rural areas. It is essential that the rail connections go all the way to the ports and while this hasn't yet been resolved in Brisbane, Shipping Australia is delighted to see the Federal Budget allocate \$70 million to the duplication of the Port Botany rail link. This is a key enabler to get more port freight onto rail, make proper use of the network of intermodal terminals around Sydney, reduce road congestion and increase the efficiency of the end connections of the international (and domestic sea freight) logistics chain. It is also a strong endorsement of the principle of modal shift to more efficient freight transport modes and will maximise the potential of Sydney's intermodal terminals, while reducing road congestion.

Infrastructure Victoria's recommendation that a new Victorian container port is not required until 2055 came as a shock to our major container lines. Unless there are some serious unannounced plans to widen the Yarra River, Swanson Dock swinging basin and raise the Westgate Bridge, our members are dumbstruck as to how the existing



Secretary general, Robert Ward; His Serene Highness, Prince Albert II of Monaco; and conference chair, Dr Parry Oei at the official opening ceremony

ferry, the first tugs, the first LNG Container ship (TOTE Isa Bella) and soon the first LNG Bass Strait ferry, and four LNG powered cruise ships already on order by Carnival. Be assured that there will be many more LNG powered ships to come.

Lastly it is my sad duty to bid a final farewell to shipping industry legend and our former Victorian state secretary, Philip Charles Kelly OAM who lost his battle with cancer in January. Fair winds and following seas Phil. ▲

Port of Melbourne can possibly cope for another 38 years when there is already congestion and limitations on ship size. So it seems that the biggest container port in Australia is in danger of being left behind with operators eager to introduce larger, more cost effective ships on the Australian loops.

I would like to extend my sincere **best wishes to David Anderson** on his retirement from his role of CEO Ports Australia in April. David has been an energetic and effective advocate on maritime matters impacting on the operation of Ports and our respective organisations have often found common grounds in addressing maritime policy matters. I also welcome his successor Michael Gallacher into the role and look forward to continuing the mutually beneficial relationship between our two associations into the future.

In this edition, you will find some observations on the end of the Australian car manufacturing industry and the impact on the international car trade, from our feature writer Archie Bayvel. Also, perhaps as a look into the future, the new LNG powered passenger ferry *Tallink Megastar* is unveiled operating in the Baltic ECA between Helsinki and Tallinn. Our northern correspondent John Pagni also reports that the Baltic LNG Conference held in Tallinn recently, pronounced that the critical tipping point for maritime LNG was fast approaching. Searoad's new LNG powered ro-ro, *Searoad Mersey II*, for the Bass Strait service, has been launched in Germany and when Gorgon comes on-stream, Australia will jump straight to number one world LNG supplier. This should also have the effect of cutting the LNG bunker price and making it even more attractive (considering tightening of environmental regulations such as IMO's global 0.5 per cent sulphur limit

from 2020) to invest in LNG powered ships. We have seen a few firsts in LNG power with the first passenger

IHO - enabling safe navigation

The 1st Assembly of the International Hydrographic Organization was held in Monaco in April and I was fortunate to attend as a member of the Australian delegation. This Assembly is the last for Australian, Robert Ward, secretary general (former deputy hydrographer of Australia), who stands down at the end of his 10 year term. But what is the IHO and why the "1st Assembly" you may well ask?

It is no accident that ships navigating all over the world are able to do so safely by using nautical charts, electronic navigational charts and other navigational publications that all look and perform in the same way despite the fact that there are around 50 different nations that produce these products. The IHO has been around since 1921 coordinating standards for hydrographic surveying and nautical charting products to ensure that this is so. Seafarers owe a lot to the IHO for enabling safe navigation by promoting hydrographic surveying and information sharing, and developing common standards for navigational products that have been adopted world-wide, across the oceans.

Why the first Assembly? The IHO is one of the oldest international bodies, it was formed in 1921 with a convention based on the consensus principles of the Treaty of Versailles. The consensus principle made decision making difficult and at the end of last century work commenced

on modernising the convention. I attended the IHO Conference in 2005 as head of the Australian delegation where, after eight years of development, a new convention was agreed upon by the member states. But due to the changes having to be officially ratified by two thirds of the member states, it took until 8 November 2016, when the 48th member state formally ratified the amendments, before the new conventions entered force. Under the new convention the first Assembly was held between 24-29 April this year, marking a re-birth of the organization. The final act of the 1st Assembly was to elect the new secretary general and directors to guide global hydrography and nautical cartography over the next three years.



The new IHO Secretariat – Abri Kampfer (South Africa), director; Matthias Jonas (Germany), secretary general; Mustafa Iptes (Turkey), director



Geelong's port, a gateway to the world

Helping your business sail to a safe and successful future

- Quality marine services and shipping channels
- Efficient access for large ships
- Cutting-edge technology including DUKC®
- Record cargoes

Keep clear of big ships.
www.regionalchannels.vic.gov.au

VIEWPOINT

Petty politics preventing possibilities

By MATTHEW WHITTLE, policy advisor, Shipping Australia Limited

In November 2016, the Turnbull Government published its response to Infrastructure Australia's first 15-year 'Australian Infrastructure Plan', and the Minister for Infrastructure and Transport also announced the establishment of an independent inquiry into how best to lift the productivity and efficiency of Australia's freight supply chain. This inquiry aims to guide the development of a National Freight and Supply Chain Strategy and will produce a final report by March 2018. One of the stated objectives of the Government is to 'deliver world-leading infrastructure that supports world-leading cities and regions'.

In its response to the Australian Infrastructure Plan the Government supported 69 of the 78 recommendations made in the Plan and noted six of the recommendations. As a nation that strives to match and exceed world standards for trade and development, resilience and sustainability, it is understandable there was government support for Recommendation 10.5, "That Federal, State and Territory governments should adopt international standards". The ability to compare apples with apples will allow Australia to be assessed against international benchmarks for infrastructure to support our

world-leading aspirations. Aspiring to be world leaders on infrastructure measures will be challenging but Australia has undertaken strategies to improve its world ranking before: for example, after ranking 32nd in the 1976 Olympic Games medal tally, the Australian Institute of Sport was established to address this poor result.

The challenge to deliver world-leading infrastructure cannot be understated, as revealed by the World Economic Forum 2014–15 Global Competitiveness Report, which ranked Australia's overall infrastructure at 35 out of 144 countries. On the components relevant to supply chain infrastructure, the quality of Australia's railroads, ports and roads was ranked at 32nd, 38th and 43rd, respectively. The obvious extenuating circumstances that contribute to these poor rankings are the relatively vast distances between population centres and productive areas, placing extra-ordinary costs on maintaining domestic supply chains. A smart first step to address these circumstances was the reversal of the fragmentation policy of separate National Land Freight and National Port Strategies, in favour of establishing a holistic National Freight and Supply Chain Strategy. In order to compete effectively, an

assessment of all possible solutions and combinations is essential.

One possibility with the potential to immediately improve the quality of Australia's infrastructure is the political reform of coastal shipping. Allowing for the increased integration of sea transport in the domestic supply chain is a single measure that would significantly increase Australia's domestic freight capacity. Additionally, as the resource intensity of shipping is very low relative to railroads and roads, the resources currently expended to facilitate the national freight task would be saved. In fact, diverting these resources to improving the quality of Australia's port infrastructure would increase the effectiveness of coastal shipping, reduce the cost of imports and increase Australia's export competitiveness. An additional consequence would be an improvement in the quality of Australia's railroad and road infrastructure, as the resource intensity of its maintenance would reduce as more cargo is carried by sea.

There is significant improvement to be gained by the political reform of coastal shipping, and — as another international benchmark, namely, the Liner Shipping Connectivity Index (LSCI) demonstrates — Australia has

Disclaimer:

Readers are advised that Shipping Australia Limited and the Publisher cannot be held responsible for the accuracy of statements made in advertising and editorial, nor the quality of the goods or services advertised. Opinions expressed throughout the publication are the contributors own and do not necessarily reflect the views or policy of Shipping Australia Limited or the Publisher. While every reasonable effort has been taken to ensure the accuracy of the information contained in this publication, the publisher takes no responsibility for those relying on the information. The Authors, Publisher and Shipping Australia Limited disclaim all responsibility for any loss or damage suffered by readers or third parties in connection with the information contained in this publication. Nothing in this publication should be construed as personal or professional advice and should be read as general information only.

Warranty and Indemnity:

ADVERTISERS and/or advertising agencies upon and by lodging material with the Publisher Ontime Publications for publication or authorising or approving of the publication of any material indemnify Shipping Australia, the Publisher, its servants and agents, against all liability claims or proceedings whatsoever arising from the publication and without limiting the generality of the foregoing to indemnify each of them in relation to defamation, slander of title, breach of copyright, infringement of trademarks or names of publication titles, unfair competition or trade practices, royalties or violation of rights or privacy regulations and that its publication will not give rise to any rights against or liabilities in the Publisher, its servants or agents and in particular, that nothing therein is capable of being misleading or deceptive or otherwise in breach of Part V of the Competition and Consumer Act, 2010 (Cth).

quite a bit of ground to make up. The LSCI is published by the United Nations Conference on Trade and Development (UNCTAD) in its annual Review of Maritime Transport and in 2016 ranked Australia at 50th place. Instructively in the 2016 report the UNCTAD identifies three policy areas which can improve a country's LSCI ranking. In the Australian context for reform, these policy areas can be described as: widening the port hinterland; ensuring competitive markets; and having efficient and modern ports.

Widen the port hinterland

The port's hinterland is defined by the size of the market area/region which accesses the port's services. The market area for port services can be widened by giving domestic productive industries the choice to use coastal shipping and by investing in infrastructure that connects to the port. Measures that widen the port hinterland would also be improved by the landside transport sector's development of intermodal services and systems to support port connectivity. Ship capacity is relatively flexible and responsive to demand. The benefits of shipping increase with the economies of scale; therefore, expanding the hinterland will continue to improve services and reduce cost.

Ensure competitive markets

The UNCTAD notes, "Any restriction on transport services, such as cabotage restrictions in shipping, leads to lower maritime connectivity". This is exactly

the situation in Australia, where the *Coastal Trading (Revitalising Australian Shipping) Act 2012* is restricting the use of shipping and where constructive amendments were rejected by interests opposed to a competitive market. This lack of competition and its consequences were identified in the Productivity Commission's 2016 'Regulation of Australian Agriculture' inquiry, which found that cabotage laws are harming farm businesses. The inquiry recommended that "as a matter of priority, the Australian Government should amend coastal shipping laws to substantially reduce barriers to entry for foreign vessels, to improve competition in coastal shipping services".

Efficient and modern ports

The Australian Competition and Consumer Commission has, for the last 17 years, reported annually on the productivity and efficiency of Australia's container ports. The establishment of three stevedoring providers at each of the three largest container ports has promoted intra-port competitiveness, resulting in increasingly efficient and highly modernised ports. There are however viability concerns of this extra stevedoring capacity such that any political reform that resulted in an increase in the volume of container throughput would be very welcomed. Additionally, with the demonstrated enthusiasm for technology among Australia's stevedores, the transit of domestic containers through the ports

would be quickly optimised to ensure competitiveness with other supply chains.

The possible and the political

Australia is a market economy and those charged with its governance have an obligation to ensure that all markets are competitive. All sectors of the economy face increasing competition, and the expectation of productive industries to subsidise a fantastic ideal of a nation of domestic ship-owners is not viable and fails to prioritise the end-users: individuals, families and businesses. The political narrow interests that support this position ignores, and is contrary to, the necessity for Australians to leverage our natural competitive advantages. The standard of living enjoyed in Australia is founded in our status as a trading nation, and one natural competitive advantage which is failing to be leveraged is the integration of the domestic freight task with the international supply chain. This integration would: enable the concentration of freight infrastructure resources, further enabling an increase in the efficiency of trade; free-up resources to diversify the development of infrastructure; increase the domestic supply chain's resilience to natural disasters, shift the transporting of freight to a more sustainable footing by lowering its energy and emissions intensity. All these outcomes are possible with greater domestic connectivity to liner shipping and a change in political will. ▲



Port of Melbourne

MELINDA PAVEY, New South Wales Minister for Roads, Maritime and Freight

Shades of Hanson as a farmer's daughter meets her first big challenge on our waterfront

By ARCHIE BAYVEL

When one recalls the scorn poured on former fish-and-chip shop proprietor Pauline Hanson, when she entered politics, it should not be surprising if a soupcon of alarm is aroused by the appointment of café owner Melinda Pavey, as the new minister for three critical portfolios that include maritime affairs.

Commenting on her own new job Ms Pavey says: "As a farmer's daughter, with a background in small business and media, I bring energy, experience and knowledge to the new Nationals Ministry."

To be Maritime Minister is to oversee a highly industrialised industry and to be at the same time Minister for

Roads AND Freight makes it an even bigger challenge.

The financial worth of all these departments must measure many billions of dollars and require extraordinary qualities in the politician charged with the responsibility of linking their professional managers to We The People.

Melinda Pavey's predecessor, Duncan Gay MLC, oversaw a record \$38 billion spend on infrastructure since 2011. Today's expenditure would be very much more, what with the massive roadworks in western Sydney and distribution centres springing up all over the State. Little wonder that Ms Pavey's appointment to these massive industrial portfolios has already been described as the most remarkable since Roman emperor Caligula made Incitatus a senator.

The lady herself is charming. A tall woman with a country woman's firm step and a friendly, quizzical stare, she has well and truly served her time in both New South Wales's houses of Parliament. She entered the Legislative Council in 2002 before standing for election to the Legislative Assembly in 2015, when she won the Nationals' mid-north coast stronghold of Oxley following the retirement of its previous incumbent, Andrew Stoner.

She apologises for being a few minutes late for her interview for this profile. "Been having lunch with Barnaby Joyce (deputy prime minister and Nationals MP for New England)", she says.

A later phone call may or may not be from Barnaby who may or may not be wanting to continue their discussion. Whoever it is, they're firmly told: "I'll be in here 'til seven tonight."

End of conversation, back to business ...

Her internet CV outlines her career pretty much from the day she left school to her recent elevation to the ministry. It describes her as a radio and TV journalist, having spent one year with Sydney's radio station 2UW. According to her CV she is also an experienced small business executive. This experience, she says, springs from her work since 1997, as part owner of an 85-seat coffee shop at Coffs Harbour.

A chronological list of Ms Pavey's post-2UW political experience is formidable, both as a government employee (she was an advisor to former Deputy Premiers, Wal Murray and Ian Armstrong) right up to her first entering Parliament as



the Member for Oxley, a quite different electorate to Pauline Hanson's one of the same name in Queensland.

Her own CV sums it up, "After more than a decade working for the people of regional New South Wales in the Legislative Council, and since 2015 in the Legislative Assembly, Melinda Pavey has dedicated herself to improving the lives of regional and rural constituents.

"As the mother of two young children Melinda is keenly focussed on the issues that matter to families across the State."

Her CV also reveals that over almost 14 years in Parliament Ms Pavey has served on some 25 committees and standing committees, including almost five months in 2015 as a member and chair of the select committee on the regulation of brothels.

She is the daughter of dairy farmers who came to Australia in the 1920s and settled at Kyabram, an irrigation district in the Goulburn River Valley, 200 kilometres north of Melbourne.

Today her family lives at Urunga in the Coffs Harbor area, where her husband Warren looks after their two school age children while she is in Parliament.

On her suitability for her new political appointment she says, "In politics you're given a job and you do it. That's the essence of our parliamentary democracy. One is the interface between the community and the professional managers.

"We pay a lot of attention to the views of industry because – write this down – it's business that pays the bills.

"We need to help them do the best job they can in a fair and appropriate way."

She glances briefly at her watch – it looks like an Apple – and a commotion outside the room indicates another engagement is looming. The room is invaded by a covey of her staff – Polly, Lance, and Jessica, with an unseen Justin seemingly not far away. Polly takes a seat and listens intently; Lance, a veteran of politics and PR has made himself scarce.

The name of Marika Calfas (CEO of Port Botany, Port Kembla, and the intermodal terminals at Cooks River and Enfield) crops up and Polly contributes to the discussion by writing a note of her name.



Melinda resumes, "In my maritime portfolio we are addressing the problem of berth shortages in the Harbour-White Bay area and finding extra capacity for cruise liners.

"My door is always open for people with problems. I don't see their issues as problems but rather as opportunities and challenges."

What about the half-built Dombarton rail link, whose connection to Port Kembla has been discussed for many years now? She's on the case and says, "A lot of energy has gone into the Dombarton railway development. If it was easy it would have been done by now. So I'm not making any false promises.

"The Liverpool intermodal is important, as are events at White Bay. Google, it and you'll see. Sydney Harbor will always be a working port."

Google offers no visible evidence to support this claim but no matter, Polly and the next appointment wins the day, sweeps the minister out of the room, and the Open Door closes behind them.

No matter, because Google does report her inaugural speech to the Legislative Assembly and reveals many other insights into our Minister. Among other things she says:

"I pay respect to the descendants of the First Nation, the Gumbaynggirr, the Dunghutti and the Biripi people in Oxley.

"When I am driving across the electorate, I often contemplate what it would be like if there were large, long paddocks of high-value crops growing without irrigation for dairy cow rations and beef feedlots, for food processors and manufacturers, or even for licensed hemp production for the fibre and textile market.

"I am talking about rethinking what we do with the land to optimise its use and the value of its outputs as well as increase overall economic activity while supplying raw materials to attract secondary industry.

"Can we think differently about land tenure so that there can be leasing and share farming for the younger or entrepreneurial farmers who want to farm but who cannot afford the capital cost of land, which is particularly high in this lifestyle-rich environment?"

"My parents were share farmers. Their share farm was the first step along their journey towards achieving their goal of owning their own dairy farm.

"My grandfather was a railway ganger and my husband was introduced to Oxley through his father—a Barnardos orphan who served us in World War II. He became a train driver on the North Coast line.

"We decided that my role in politics would never compromise our children's desires or goals. That is why Warren contributed hundreds of volunteer hours to their surf club and in 2013 the North Coast branch of Surf Life Saving New South Wales made him Surf Life Saver of the Year.

"It is also why he did not travel to Government House to receive an award for saving the lives of a family who were being dragged out in a dangerous rip. He chose instead to go to our children's end-of-year school assembly. That is just the sort of person he is."

In her new role as a minister, Ms Pavey also faces the brave task of showing the sort of person she is. ▲



LINX CARGO CARE GROUP

More than 100 years of ports and logistics experience

- ▶ Line Haul & Freight Management
- ▶ Bulk Transport & Storage
- ▶ General Stevedoring
- ▶ Warehousing & Distribution
- ▶ Global Forwarding
- ▶ Automotive Logistics & PCC/RORO
- ▶ Project Cargo
- ▶ Forestry & Livestock Logistics
- ▶ Port Management
- ▶ Oil & Gas Services

Combining the capabilities of four market-leading operations, **LINX Cargo Care Group** formed following the separation from Patrick and the ASX-listed Asciano group of companies.

1300 487 837

linxcc.com.au



INTRODUCING

CHARLES MASTERS, SAL's Victoria state secretary



Rationalisation of shipping industry seems inevitable over the next 10 years

Interviewing Charlie Masters is a lot like enjoying a Chinese meal... When one has finished, one has a lingering desire for a little more. He cuts quickly to the chase.

After 18 years with Marfret, and a shipping man all his working life until his recent retirement, he now devotes one day a week to keeping SAL's flag flying in Victoria, as our state secretary there. The rest of his time, he says, is spent riding his bike around Melbourne, playing tennis, golf, and having lunch.

Charlie's ancestors were a lot less sedentary; they were an adventurous mixture of Vikings from Denmark and Shetland Islanders, from Scotland's extreme north.

By 1924, however, they had put away their longboats and pointy helmets and his grandfather, Hugh Masterton, was an English tailor who set off to Australia from Cowles, in the Isle of Wight, in an 80-ton yacht. When he arrived in Wellington he bought a hotel and kept in touch with one of his fellow passengers, Sir Charles Fergusson, who was coming out to be New Zealand's governor-general.

So it goes without saying that OUR Charlie is a New Zealander. "I have two older sisters and my mother was a full-time mum but my father died six weeks before I was born," he says. "So I had no role model when I was very young and became almost out of control with no real knowledge of how to behave. I don't know how I escaped being sent to prison."

Escape he did, however, and went to school at Auckland Grammar instead, which he describes as very intimidating if one was not of the elite. After school he enrolled in accountancy at Auckland University. But he left before graduating and went to Sydney instead, with the goal of riding a motor bike to the Pilbara and working in the mines there.

He was 19 and it would have been a challenging task but he says he got caught up in Sydney's beaches and playing rugby union for Manly, where he played in the scrum from 1972 – 82.

His first job was with the Sydney Hardboards Company, before he became one of the first employees of the Columbus Line (later to become Hamburg Sud), which had just opened in Sydney. But he found operational roles unfulfilling and he considered leaving the industry but he joined the commercial side which he found much more rewarding.

Eventually, however, the ongoing travel and entertainment demands took a toll on him and he was moved to Melbourne as the company's state manager.

"All that was before computers," he says, "and each State was responsible for its own outcomes. Computers have changed all that and company management became more centralised.

"Today most major carriers have downgraded their regional offices and many Australian companies now face

the possibility of all their operations being centralised offshore.

“Instead of executives flying around the world every few months to report to head and regional offices, their information is delivered day-to-day without leaving their desk.”

Then Charlie declined offers to move to the USA or to Sydney because by this time he had become an ardent fan of Melbourne, as well as having married Cynthia and had two sons.

He decided to start his own business by importing medical products manufactured in America by his wife’s family. So in 1997 after 25 years in shipping he decided to concentrate on his medical business, Purmark Australia Pty Ltd, which had products completely new to the Australian market.

“But,” he says, “I soon became conscious of the expenses that lay ahead to expand that business and rather than indulge in that risk I returned to shipping and took a job with Compagnie Maritime Marfret.

“It was a challenge because Marfret then was an unknown brand; I had to win it a profile, primarily in the meat sector.

“We were successful and I stayed with Marfret for 18 years as owners’ representative in Australia and New Zealand, before retiring in 2015.

“For the future: I see new and possibly disruptive technologies, such as block chain shipments, being developed in our



industry.

“Block chain shipments could, for example, involve simultaneous bitcoin payment on delivery for everyone involved in a container shipment. The first such delivery has already been made. Block chain goes far beyond the shipping industry because it tracks every transaction, including those with suppliers and purchasers from other industries.

“Because it uses Bitcoin for its cryptology I believe it poses as many questions as answers. But we will see; nobody knows too much about all this as yet. Maersk and IBM are the current leaders in such transactions which are expected to be commonplace within a year.

“Rationalisation of our industry seems

inevitable over the next 10 years and hopefully it will bring profitability back to our sector, although it will need a lot more scrapping of vessels.

“Despite that, the growth which banks have relied on for their investments may stagnate for a while longer.

“Both the US and Europe hope to bring back manufacturing and produce just-in-time; so we may no longer have to import full containerloads.

“Freight forwarders are another issue where a balance needs to be achieved. Currently they are destroying revenue for the carriers.

“In all these areas SAL’s name and role will need to be enhanced among the regulatory bodies. I will be helping to do that.” ▲



The shipping industry association for ship owners, operators and agents

- ▲ Promoting the shipping industry across the wider community
- ▲ Trusted by government and industry for quality advice
- ▲ Advocating policies that enable safe, sustainable and environmentally sound shipping operations
- ▲ Contributing shipping advice to inform governments’ policy and regulatory development
- ▲ Supporting members with technical matters and regulatory compliance
- ▲ Providing secretariat services for liner shipping discussion agreements

Join us and have your voice heard

Membership enquires – admin@shippingaustralia.com.au

Shipping Australia Limited – we know shipping!

Last-minute rush by our car workers is like last dance on *Titanic*

By ARCHIE BAYVEL

Even as its death is confirmed as a *fait accompli* later this year, Australia's car manufacturing industry is being jolted by scandals involving millions of dollars at its lower end and billions of dollars at its high end.

The high end is where the industry's trans-ocean transport operates.

Almost everyone accused of rorting the system vigorously denies any wrongdoing and with court cases looming it is no surprise that nobody is talking.

To read the internet offerings of Ford, Holden, and Toyota one would think there had never been an Australian car industry. In fact both GMH and Toyota still have plants operating at full speed to fulfil manufacturing schedules before their close-by date a few months from now.

Like the dancers on the *Titanic*, for them the music is still playing and will still be playing as you read this. Only a very few dancers will survive however, to work in various so-called research and design offices run by Holden, Ford and Toyota and enthusiastically promoted by them and their lucky

survivors - sorry, employees.

The idea that these vast overseas companies will be looking to Australia for their intellectual inspiration, development solutions and problem solving seems improbable - "Hey, Hank, phone Austria. *They'll fix it. What? It's not Austria? Orstrliar you say? Okaaaay ...*"

But let's cut to the chase - first, the pending court cases.

The elephant in the room is some months old but surprisingly few noted it when the news broke:

At least two Japanese car carriers, NYK and KLine - have been prosecuted by the ACCC over alleged anti-competitive cartel practices in the last 12 months. NYK is believed to have paid a fine and got on with life.

ACCC Chairman Rod Sims said at the time, "This is the first criminal charge laid against a corporation under the criminal cartel provisions of the *Competition and*

Consumer Act.

"This matter relates to alleged cartel conduct in connection with the transportation of vehicles, including cars, trucks, and buses, to Australia between July 2009 and September 20 12."

The maximum fine for each offence will be the greater of:

- \$10 million;
- three times the total benefits that have been obtained and are reasonably attributable to the commission of the offence;
- if the total value of the benefits cannot be determined, 10 per cent of the corporation's annual turnover connected with Australia.

In a third but unconnected case last year, Brazil's Administrative Council for Economic Defence announced a probe into alleged anti-competitive behaviour involving the car carrying industry.

Wallenius Wilhelmsen Logistics was one of nine companies mentioned at the time and has now entered into a settlement agreement in which the company paid a US\$3.9 million fine and all charges against WWL were dropped.

The second and much more recent event to rock the car industry is Toyota suing a former employee



The first Australian made Holden sedan came on the market in 1948

over millions of dollars it alleges were fraudulently obtained and is seeking to recover, not only the illicit funds but compensation as well.



The now closed Toyota Camry production line in Altona Victoria



Did it have to happen? Draw your own conclusions:

A recent News Corp investigation says that of the Federal Government's \$500 million assistance to keep Ford, Holden and Toyota operational to at least 2020:

- Holden received \$179 million (\$149 million from the Federal Government and \$30 million from the South Australian Government) to build the Cruze small car;
- Ford received \$42 million towards developing the four-cylinder Falcon, diesel Territory and a new LPG system;
- Toyota received \$35 million to go towards local production of the Camry Hybrid.

News Corp also claims that in addition to \$7000 for every four-cylinder car Falcon sold - up to 20 per cent of the purchase price, taxpayers spent \$1400 on every locally-made Holden Cruze, \$980 on each LPG Ford, and \$875 on every Camry Hybrid. They also contributed \$305 to every Ford Territory diesel built since 2011.

Little wonder that the actual reality is the fact that Ford has already closed, Toyota will roll out its last car on Tuesday, October 3, and GMH will follow suit at its Altona factory in Melbourne's south-west on Friday, October 20. One of the first consequences has been AAT's withdrawal from Adelaide's port, leaving any residual business to existing stevedores.

Right now all news of our vehicle manufacturing industry is enthusiastically upbeat with little mention of catastrophe at the factories. Trade and consumer publicity is directed towards the wonderful new models on the way.

One gets the feeling that a cloud of obfuscation is being steadily puffed across the industry's past. It extends even to the simple task of finding historical manufacturing and export figures for Toyota, Ford and GMH, in Australia.

Best search efforts indicate that in 2016 GMH produced 38,667 vehicles, down from 56,786 the previous year; 4191 were exported, down from 10,452 the previous year. Figures for Toyota are 61,000 built, of which 34,000 were exported.

Ford, the country's first major car maker, shut its factories in Melbourne and Geelong last year, leaving 600 workers unemployed. Latest figures indicate its final year's output was

Mirratt aims for a million cars p.a

The Mirrat car terminal at Port Melbourne's Webb Dock is designed to be able to handle up to a million vehicles a year, in the post-car production era. Up to 8000 cars can arrive on a single ship and are unloaded at one of the terminal's three berths before being moved within days, to neighbouring yards for distribution to dealers across Victoria. Mirrat (Melbourne International Ro Ro Automotive Terminal) is operated by Wallenius Wilhelmsen Logistics. When completed next year, the \$70 million terminal will handle all Victoria's car imports – around 300,000 vehicles a year – taking over from Appleton Dock's RoRo facility. It will have 11,000 car bays tracked by an online system. It is also used for importing and exporting industrial equipment, heavy agricultural machinery, trucks, buses, railway carriages, helicopters and military equipment.



A 2015 Ford Ranger at work

30,000 units, down from 48,545 the previous year and from 111,000 in the glory days of 2011.

Nobody is prepared to predict how future figures might work out for the trans-ocean car carriers. Will the lost exports be compensated by

increased imports? Too soon to tell but there is a murmur from out in left field that the next decade might see a downturn in second car ownership caused by driverless rental vehicles only a phone call away. More on that later.

Australia was one of Ford's five product development centres globally, and will continue to design and develop cars and trucks for the Asia/Pacific region, after closure of its manufacturing arm here.

Mark Fields, its world president and CEO, announced its 2016 net income as \$4.6 billion, on an adjusted pre-tax company profit of \$10.4 billion, its second best ever. It's expected to retain about 1300 workers in Australia.

"This year, we're focused on building on our strengths, transforming underperforming parts of our business and investing in the emerging opportunities that will provide even more profitable growth in the future," Mr Fields said.

Meanwhile back in Melbourne Ms Rhiannon Gardner, a Ford graduate in its Prototype Physical Engineering Division, says, "One of the most frequent questions I am asked is 'How did you get a job at Ford? Isn't it closing down?'"

"There's a significant disconnect surrounding the public's understanding of vehicle manufacture and vehicle product development. Although Ford manufacturing may have left Australia, Ford product development is here to stay, and it's growing bigger every day.

"Graduate engineers and designers like myself are a testament to Ford's ongoing and significant investment into R&D within Australia. Along with 1100 other engineers here at Ford, I'm helping to design vehicles of

the future on both local and global platforms, which is really exciting."

Toyota Australia currently holds the largest market share of Australia's new car market. It launched here in 1958, began assembly here in 1963, and bought-out British Leyland in 1972.

Its decision to close was based on the unfavourable Australian dollar making exports unviable, the high cost of local manufacture, and high competition in a relatively small local market. It began retrenchments in April 2012 when 350 workers were escorted to the gates by security guards. The company will continue operating both AM and PM shifts until the final closure date. This will ensure the total volume production of 61,000 vehicles for the year, made up of 26,600 domestic and 34,400 exports, is met.

The company plans to consolidate its corporate functions in Melbourne, and the Altona plant will be retained for other functions. The workforce is expected to be reduced from 3,900 to 1,300.

The company's chief designer here, Mr Nicolas Hogios, told GoAutoNews a few weeks ago that its design studio was safe from closure and that the 30 designers within its 150-strong product planning division, continued to have a full load of projects from small parts to larger concept vehicles.

"We're doing many projects at one time, ranging from small components to advanced work," he explained.

"The October closure doesn't impact us," he said, "we are on a different trajectory."

Holden confirmed the end of its domestic manufacturing by being upbeat about the end of its role, and announcing that 30,000 vehicles will be built at Elizabeth before closure. In its transition to a full importer, nearly 70 per cent of its workforce has secured employment within 12 months of leaving the company.

The Ford company will retain more than 300 designers and engineers at its headquarters in Melbourne, the design studio, at its Victorian proving grounds

Next question, of course, is what will happen to all that real estate and the giant machinery sitting on it?

GMH has already sold its massive Fishermans Bend car manufacturing plant to the Victorian Government in

More radical changes on the way

With radical change already under way in the Australian car industry, some futurists are looking ahead to how people will use cars in the next 10-15 years. The Federal Chamber of Automotive industries has already said we need to look more closely at autonomous vehicles and Co-Operative Intelligent Transport Systems or C-ITS. This technology is being introduced globally and we have already seen small-scale trials in Western Australia and South Australia, with heavy vehicle trials taking place in New South Wales.

While such activity marks the start of an exciting new era, new regulations must be formulated to adopt this technology. The way people use rental cars is predicted to change, with people using them instead of having a second family car. Will demand for second cars decline in hi-rise and inner-city areas? Already there is visible growth in the number and size of rental companies ahead of driverless vehicles: You phone for a car, it drives itself to you. When you've finished with it, it drives itself back to the rental office!

a \$130 million deal which will see it transformed into an innovation and employment hub.

And in Adelaide the company is sending to global auction the \$millions of engineering equipment in its Elizabeth factory. All the site's assets have been catalogued and online auctions will dispose of the surplus plant and equipment.

And, of course, there is lots more to come before the last hardware of our once-greatest manufacturing industry disappears, possibly to once-rival plants overseas. Then all that will remain to be done is to attach the blame for its disappearance.

With only one exception everyone agrees that it's nobody's fault, although some blame the Howard government; others say it's all PM Kevin Rudd's fault. Then there's the unions, their high wages and strikes. The fragmentation of the Australian market – too many brands competing for too few consumers, is a popular whipping boy. Our high dollar breaking parity with the \$US is another.

Our 2005 free trade agreement with Thailand attracts tremendous criticism; since then we have imported 2 million of their cars tariff-free; they appeared to offer us the same opportunity but hidden extras have made it impossible for us to

New RoRo ports under consideration

Some lines have added extra sailings from Asia to Australia, to cater for higher demand for vehicles in our market, and this will need expertise and labour to handle and deliver them to dealers. Melbourne, Port Kembla, Adelaide, Fremantle and Brisbane are still the main car ports, though there is transshipment activity to Townsville, Gladstone, and Dampier. Despite industry mutterings, no new RoRo port is being established, although other ports, which are not fully utilised, are being considered, and some traditional bulk ports are trying to adapt for RoRo berthing. Currently Mirrat is the only dedicated RoRo terminal in Australia. Fremantle Port Authority had intentions to develop one on its Victoria Quay site but that has been put on hold pending a decision to sell the port.

sell them more than 100 cars. Not 100,000. Just 100!

It looks as if we were diddled!

Only one group disagrees with the fatalistic what-will-be-will-be view – the Japanese executives at Toyota Australia. Announcing the forthcoming closure of their plants here they were in tears. In Japanese culture the closure of a plant is considered a management failure, and is perceived by top executives as the ultimate blight on their own abilities.

Ian Porter, an automotive journalist

for years, says that Australia's automotive industry assistance worked out to about \$20 per capita, against about \$100 per capita in Germany and the US. He says every major car-producing nation subsidises its industry and, unlike Australia, recognises the economic benefits of that.

And in Brazil, he says, they have a floating import tariff in place for its homegrown automotive industry, one that rises and falls with the value of the Brazilian currency. It ensures that domestic sales of locally-built cars underpin the Brazilian industry and are never under significant threat from imports due to currency exchange rates.

Whether the same idea would have worked in Australia, with our volatile currency, is unknown but there's no indication that our governments of the day even considered it.

As for the influence of union activity, an article published by the Economic Society of Australia ruled that this factor made no identifiable difference to the final decisions of the parent companies in Tokyo and Detroit to cease production here.

After all that, Nissan Australia's managing director and CEO, Richard Emery, claims that Australia should still be making its own cars and that this could be done profitably with the Australian dollar at current levels.

What has never been really canvassed by anybody is the possibility that buyers in Australia and overseas simply preferred to buy other brands, regardless of country of origin. ▲



The production line at Toyota's Altona plant will fall silent on 3 October 2017



2016 Port State Control Report Overview

AMSA recently released the 2016 Port State Control Report, which shows the statistics on inspections of visiting ships last year. The results are encouraging. Deficiencies remain at historic lows as does the average age of ships visiting Australian ports.



Our statistics also show positive trends in compliance with the Maritime Labour Convention (MLC). As you can see from the figures opposite, MLC related deficiencies have been falling in recent years. I'm particularly pleased to see the MLC maturing as an industry standard and improving working conditions for seafarers.

We have sought to improve port State control with a focus on identifying and targeting high-risk ships. This has resulted in greater efficiencies for AMSA and less regulatory burden on those businesses operating safely. The best reward for maintaining high standards is that good operators will see AMSA inspectors less often.

The risk-based approach has driven a heightened industry awareness of Safety Management Systems or 'whole of ship safety'. We want ship operators to take responsibility for on board safety and take pride in operating to the highest standards. For many, an AMSA inspection with zero deficiencies is a badge of honour.

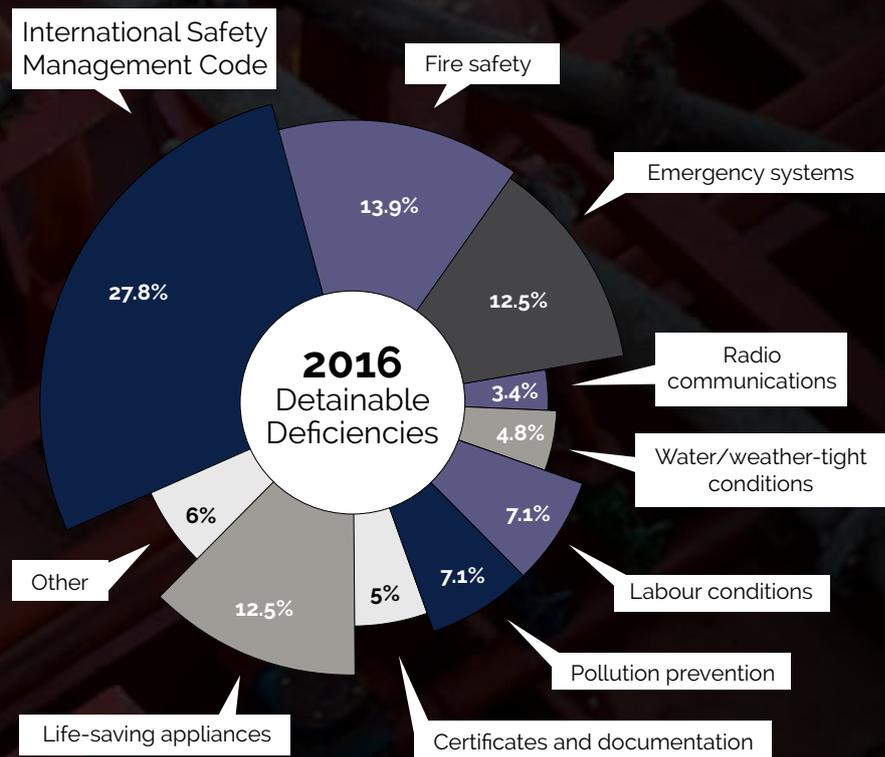
I encourage you to read the full 2016 Port State Control Report on our website at amsa.gov.au.



rol

“ We give great credit to those who are proud of achieving an AMSA inspection with zero deficiencies, which is seen as a badge of honour around the world. ”

*Mick Kinley
Chief Executive Officer
Australian Maritime Safety Authority*



MLC related deficiencies	2014	2015	2016
Number of MLC deficiencies issued	1652	1443	1091
Percentage of total deficiencies	15.1%	15.2%	12%
MLC deficiencies per inspection	0.4	0.4	0.3
Number of detainable MLC deficiencies	21	26	28
Percentage of total detainable deficiencies	5.5%	7.5%	8%
Vessels banned for repeated breaches of MLC requirements	1	1	1



Get on the gravy train - our agri exports are all the go

By FRANK NEEDS, vice chairman, SAL Public Relations Steering Group

Recently a large group of agriculturalists attended the annual ABARES 2 day Outlook 2017 Conference in Canberra. The Deputy Prime Minister and Minister for Agriculture and Water Resources, Barnaby Joyce, opened the conference and stated that the sector has been growing, with the gross value of farm production to reach \$63.8 billion in 2016-2017.

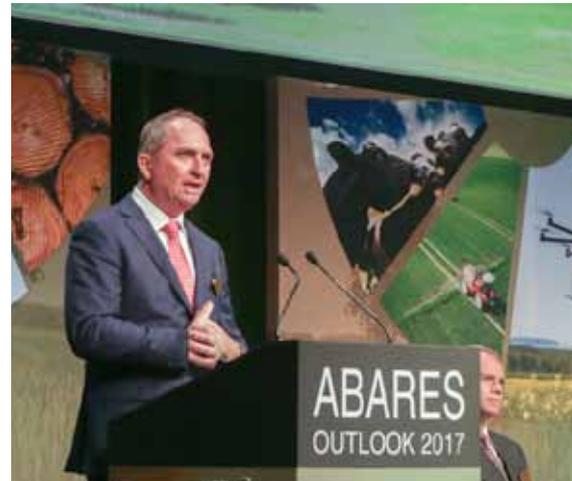
The free trade agreements with Japan, South Korea and China have been beneficial in increasing trade within the region. Export earnings for farm commodities were forecast to reach a record \$48.7 billion in 2017-2018, as against \$47.7 billion in 2016-2017. In 2012-2013 agriculture exports totaled \$38.2 billion, that is a growth of 27 per cent in 5 years.

Mr Joyce stated that the real value of food consumption in China was projected to more than double

between 2009 and 2050, likewise in India and Indonesia, it is forecast to increase more than four times over the same time frame.

Peter Goodday executive director of ABARES addressed the conference and stated that the gross value of livestock production is forecast to decrease 2.6 per cent in 2016-2017, as cattle and sheep numbers are rebuilt following high turnover in recent years.

However, this figure is forecast to increase by 4.4 per cent to \$31.2 billion in 2017-2018, as cattle slaughter rises after two years of declining turn-off, and wool production rises. If this figure is realised the gross value of livestock production in 2017-2018 would be around 28 per cent higher than the average of 24.4 billion over the five years to 2015-2016. This is a very strong performance.



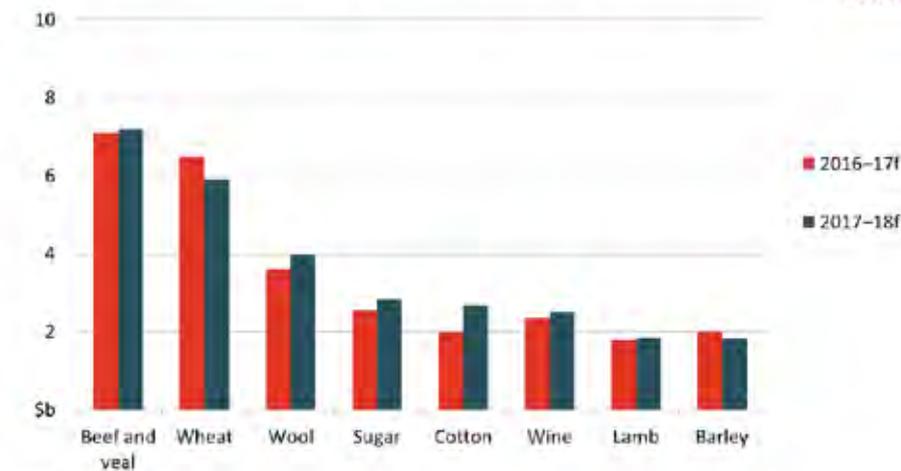
Barnaby Joyce, Deputy Prime Minister and Minister for Agriculture and Water Resources
Image: Ian Ackerman

Increased crop exports following an exceptional season, have resulted in a forecast to reach a record \$48.7 billion in 2017-2018, topping the \$47.7 billion forecast in 2016-2017.

The good news is export earnings in 2017-2018 are forecast to rise for beef and veal (up 1 per cent), wool (10 per cent), dairy products (11 per cent), sugar (10 per cent), cotton (35 per cent), wine (5 per cent), lamb (3 per cent), live feeder/slaughter cattle (4 per cent), rock lobster (6 per cent) and mutton (1 per cent).

However, these positive forecasts are partly offset by expected declines in export earnings for wheat (down 9 per cent), coarse grains (11 per cent) and canola (6 per cent). Also, exports earnings of chickpeas are expected to decline by 42 per cent, with lower production volumes from previous record levels and easing of international prices. ▲

Major Australian agricultural exports



ABARES forecast.

Round-the-clock shipping services to keep your business moving



Delivering quality services and peace of mind

With 14 strategically located offices, GAC Australia has what it takes to serve your ship agency needs for all types of cargoes and vessels, at all ports and offshore terminals throughout the country. Whether you are an oil trader or a cruise operator, moving wet or dry cargo, we put the muscle of the GAC Group's global network and financial stability right at your doorstep. And, we know you demand total peace of mind. That's why, our operations are handled in full compliance with strict HSE and quality standards at all times.

Get 24/7 support @gac.com/australia



Delivering your strategy.



Our offices:
Sydney (Main Office) | Port Kembla | Melbourne | Adelaide |
Fremantle | Dampier | Port Hedland | Darwin | Townsville | Mackay |
Gladstone | Brisbane | Newcastle | Geelong

Gulf Agency Company (Australia) Pty Ltd
Tel : +61 02 8028 2400
Fax : +61 02 9279 0457
Email : shipping.australia@gac.com



International trade, it's important

By TIM HARCOURT*

The election of Donald Trump on an economic nationalist platform means we now live in a world of American economic isolationism. President Trump has vowed to withdraw or renegotiate the trade agreements signed by the United States. This is on top of Britain leaving the European Union (EU) through *Brexit*.

This means Australia may sign an agreement with the UK separately to the EU, as Britain scrambles to sign its own trade deal around the world. And it also signals the end of the *Trans Pacific Partnership (TPP)* that has just been given its death knell by President Donald Trump, with the potential replacement with the rival pact *Regional Comprehensive Economic Partnership (RCEP)*, proposed by China.

But why is international trade important?

Despite Trump's inauguration speech that said, "Protection is prosperity" and he will "Put America first", what happens if America only buys American, Australia only buys Australian, Malaysia only buys Malaysian etc.? That's right – you get a worldwide recession just like in the 1930s when tariff protectionism was associated with mass unemployment.

By contrast, open trade goes hand in hand with a growing world economy. For example, in our own backyard, in the Asia Pacific, in the latter part of the 20th century, international trade has proved to be one of the world's greatest ever anti-poverty programmes.

Why does trade matter to Australia?

Australia has been a trading nation ever since the indigenous people of Arnhem Land traded sea cucumber with the people of Makassar (now part of Indonesia) and our reliance on trade continued as a convict colony after European settlement. In fact, according to economic historian Geoffrey Blainey, the penal colony of New South Wales was "saved by the growth of Pacific commerce."

Ever since then, Australia has been

dependent on importing foreign capital, given our small population. And we have needed exports to pay for our imports, as our economy has developed and our population has grown with it.

Fortunately for "The Lucky Country" we've had a number of export booms to help pay for our prosperity. In the 19th century we "rode on the sheep's back" with the wool boom followed the gold rushes. We had similar booms in both rocks and crops (that is minerals and agriculture) in the 20th century, and now in the 21st century with resource finds like LNG.

Of course we can't just export and not import. That would be unacceptable to our trading partners and bad for us. After all, much of our exports depend on imports. For example QANTAS may import planes from Airbus or Boeing, but with those planes they carry tourists and international students to Australia, and create export revenue.

And two thirds of our exporters are

importers too. And those exporters' pay 60 per cent higher wages on average than non-exporters, provide better Health and Safety, and education and training. In the end trade is good for workers as well as the businesses who employ them.

The Power of Proximity

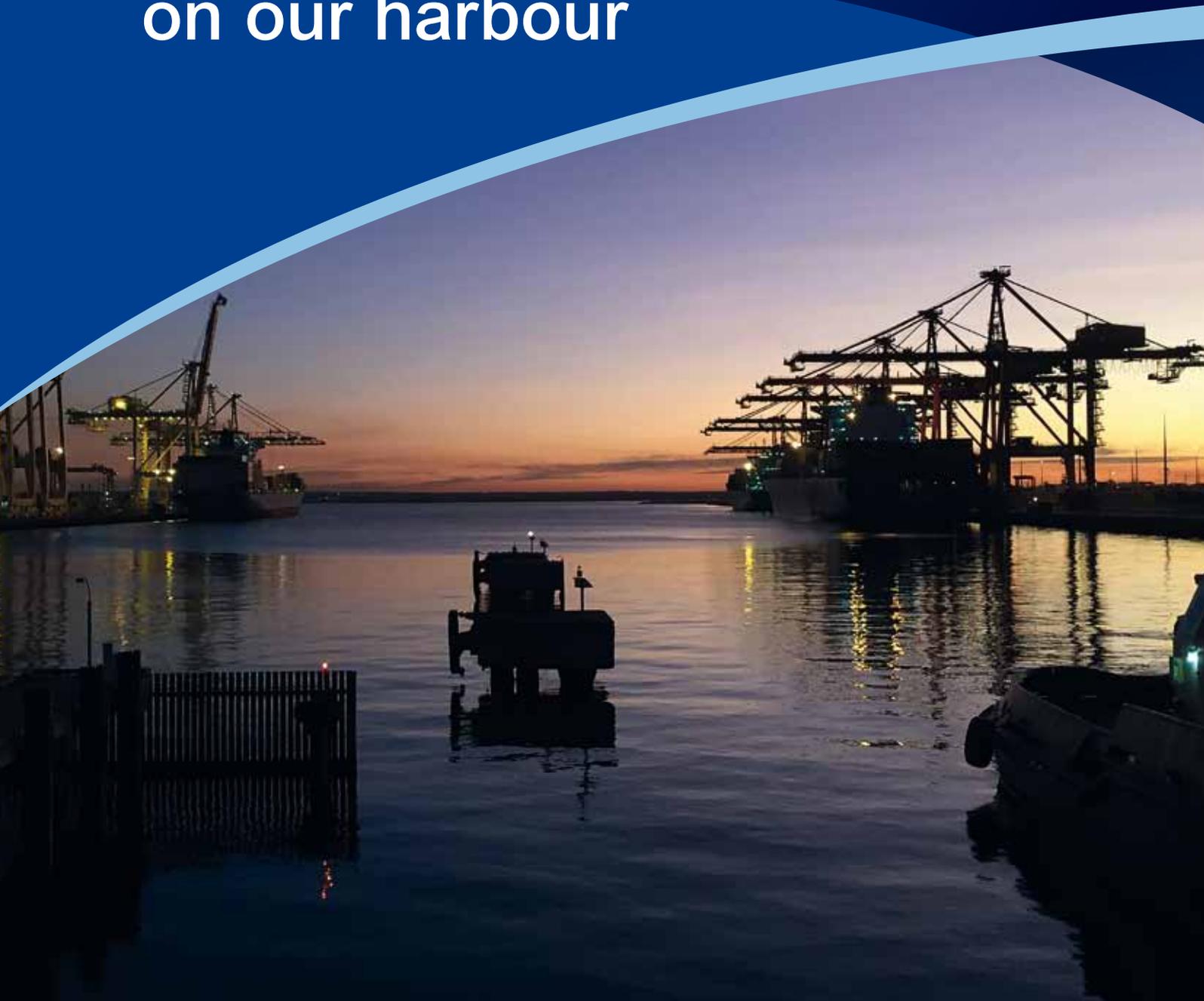
So whilst Trump turns his back on trade, and the UK on Europe, should Australia worry? Since Japan took over the UK as Australia's number one export partner in 1966, Australia has been looking to Asia, with China, India and ASEAN following North East Asia's lead. Australia will soon have more trade pacts in Asia as 'the Power of Proximity' replaces 'the Tyranny of Distance' in the Asian Century.

Because after all, as our economic history shows, Australia's path to prosperity depends on our success as a trading nation. ▲

*Tim Harcourt is the JW Nevile Fellow in Economics at the University of New South Wales, Sydney, Australia and author of *The Airport Economist*.



Providing safe,
efficient and sustainable
world-class port
and marine services
on our harbour



The property market – is the end near?

By BERNARD GRESSER, director, Infinitas Asset Management Limited

You can't go far in Australia without someone wanting to discuss the Australian property market.

What's more interesting is you can't go far in the region without someone wanting to do the same.

There's little doubt that Australian property prices are not cheap, but how does one really know if it is expensive. Just because an asset has increased in value over the last decade, year in, year out, doesn't make it expensive. On the flip side, just because an asset has decreased in value over the last decade, doesn't make it cheap.

As far as Australia is concerned, there have been two main drivers of the property market.

Interest rates and population growth (essentially immigration) always have been and always will be the primary determinant of property prices.

Since the GFC, Australian official interest rates have decreased at varying rates until they settled at the current 1.5 per cent.

Since the GFC, the Australian net immigration rate has averaged just over 3 per cent per annum.

Against that backdrop, there should be little surprise that housing prices in east coast metropolitan areas have risen by approximately 100 per cent for the period since the GFC, up until 2017.

When focusing on the immigration side of the equation, it has fed into substantial overall population growth. To put hard metrics around this, in the first nine months of 2016, the populations of Victoria, New South

Wales and Queensland grew by over 300,000. Most of that growth was in the capital cities of Melbourne, Sydney and Brisbane.

The chart below from the ABS shows just how swayed that growth was to the eastern seaboard.

When one reflects on these numbers, it would be surprising if we didn't see substantial growth in the prices of residential properties.

We can conclude that population growth (immigration) and all-time

low interest rates, are the real driving factors behind property price growth.

We can also dispel some widely held myths. Firstly, contrary to the popular narrative, superannuation fund investors are not a major driving force in the housing market.

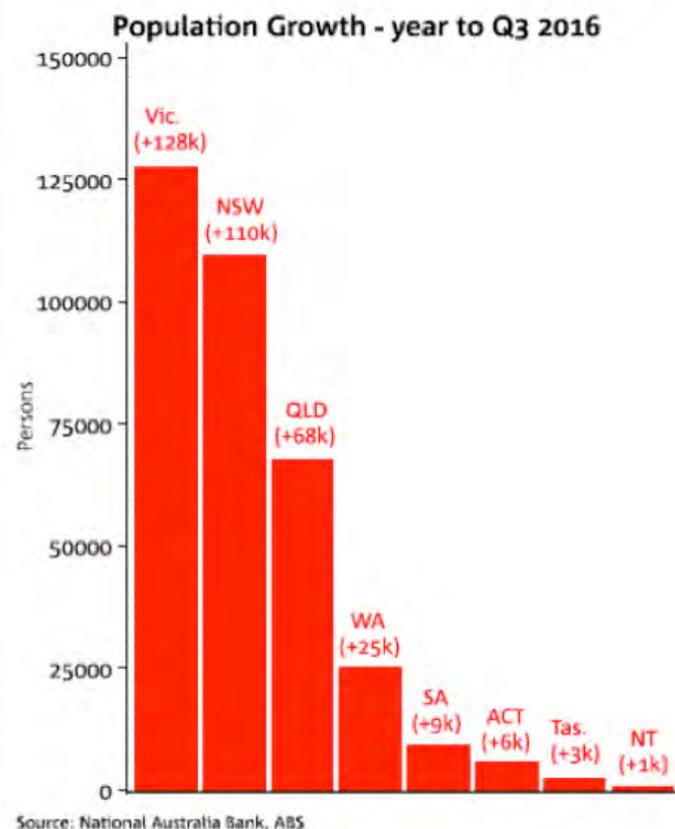
As per the table to the right, unlisted property investments only make up approximately 6 per cent of the Australian superannuation market.

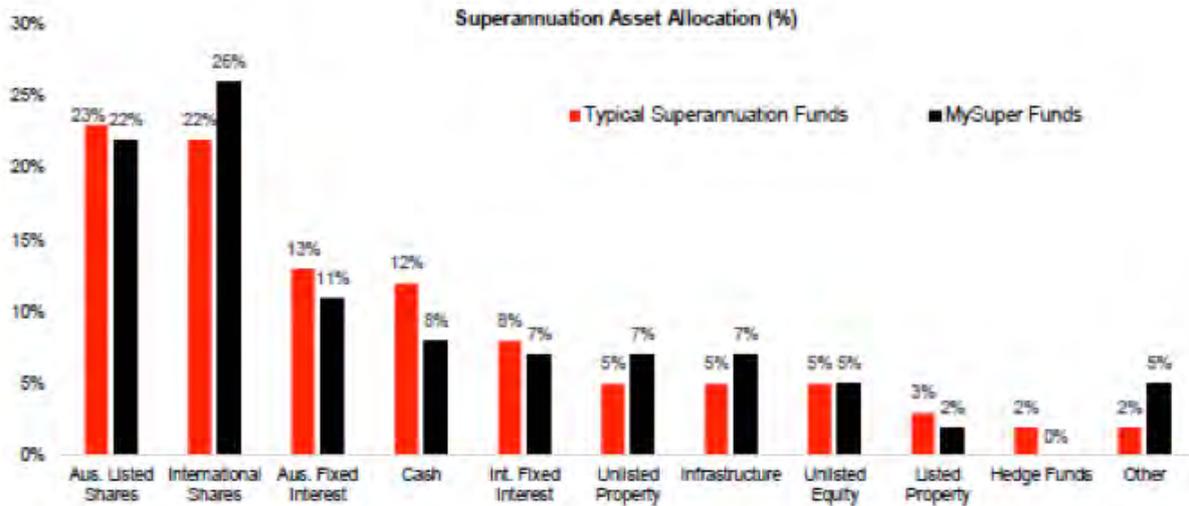
This includes all kinds of unlisted property assets, not just residential properties.

Given that the size of the Australian superannuation savings pool is just over the \$A2.2trillion mark (as at the end of March 2017), that 6 per cent is not small in a nominal sense. But when that is viewed in the context of Australia's residential property market that is in excess of \$A6trillion (as at the end of 2016), superannuation funds investing in residential property is not all that much of a factor in the greater scheme of things.

At the other end of the equation, there is little real discussion surrounding another key segment of population growth, even though it is sometimes only temporary.

This is in regards to the ongoing, welcome boom in international





Source: APRA, Macquarie Research, December 2016

Leaving Home

China and India top the list of students studying overseas

	Outbound students	Top destinations
China	712200	U.S., Australia, Japan
India	181900	U.S., Australia, U.K.
Germany	119100	Austria, Netherlands, U.K.
South Korea	116900	U.S., Japan, Australia
France	84000	Belgium, U.K., Canada

Source: UNESCO, Oxford Economics
Outbound student data as of 2013, the latest available from UNESCO

students. Without international, full fee paying students, most universities in Australia would be a dire financial situation.

Also, after iron ore and coal, education is Australia's largest export industry.

Globally, Australia ranks well when it comes to international students. As the table above shows, we capture a lot of the market.

When looking at the real numbers, Australia is on track for a record 805,000 international student enrolments 2017. That is an over 12 per cent increase over the 2016 numbers. Over the past 5 years, international student numbers have been growing at an annual compound growth rate of 9.4 per cent per annum.

The table to the right breaks down these numbers.

These students have to live somewhere and student-only accommodation is in chronic short supply throughout Australia.

With the numbers we are talking

regarding international students, and with the expected continued rates of growth, this is a factor that feeds into demand for properties in Australia but is rarely discussed.

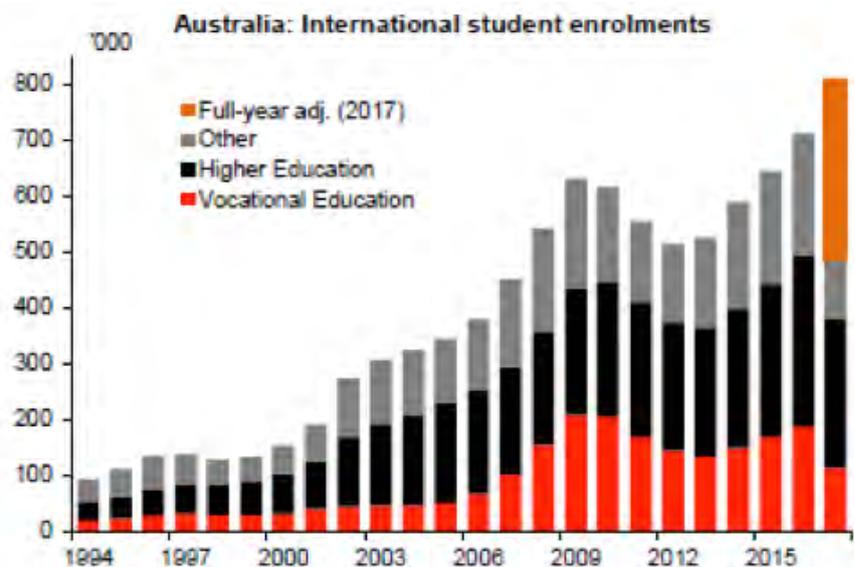
As we can see, within the glorious beast that is the Australian residential

property market, there are factors that are overstated (superannuation fund investment) and there are factors that are probably understated (international student enrollment growth).

Over the coming year, we'll no, doubt see some fantastic returns from some post codes across Australia, just like we can expect to see some really struggling areas.

This is what happens when you have circa 16,000 suburbs in the country over a wide land expanse.

Ultimately, until there is a dramatic shift in immigration policy and prolonged rise in interest rates that curtails credit growth, the outlook is unlikely to change from its current positive stance (for home owners) or its negative stance (those who are not home owners). ▲



Source: AusTrade, Macquarie Research, April 2017

Panama accedes to the Hong Kong Convention as ship recycling hits record highs

By ROBERT WILSON, partner, Norton White

On 19 September 2016, Panama announced that it had acceded to the Hong Kong International Convention for the Safe and Environmentally Sound Recycling of Ships, 2009 (the 'Convention'). As the world's largest flag state, the accession by Panama brings the Convention a step closer to entry into force at a time when more ships are being sent to the recyclers than ever before.

2016 was a difficult year for the shipping industry as the global commodities slump sent freight rates tumbling and left many ships idle and growing barnacles. In an effort to rebalance the ledger, many Owners decided to cut their losses and a record number of ships were sent to the shipbreaking yards of Turkey, Pakistan, India, Bangladesh and the People's Republic of China. By November 2016, for example, BIMCO had reported that over 500,000 TEU in capacity had been removed from the global container fleet (over four times more TEU than had been scrapped during the same period in 2015), while some 385 bulk carriers, accounting for 27.7 million DWT, had also been sold for scrap.

At the same time, hazardous and controversial shipbreaking practices (including the 'beaching' of vessels and subsequent dismantling by hand) were again in the spotlight following a number of tragic incidents including, among others, the explosion on 1 November 2016 at the Gadani Shipbreaking Yard in Pakistan that killed at least 28 workers and injured many others.

The Hong Kong Convention, which was adopted by the International Maritime Organisation in 2009 but has not yet entered into force, seeks to address the human and environmental issues associated with ship recycling by imposing obligations on key stakeholders at various points throughout the life of a ship.

The Hong Kong Convention

The Hong Kong Convention covers the design, construction, survey, certification, operation and recycling

of ships with the dual objectives of:

- (a) protecting the health, safety and welfare of workers in ship recycling facilities; and
- (b) preventing pollution and environmental degradation during the ship recycling process.

The Convention will apply to any ship over 500 gross tonnes that is entitled to fly the flag of a Party to the Convention and that is involved in international trade (including submersibles and floating platforms) except warships, naval vessels and government owned non-commercial ships.

The principal obligations to be imposed by the Convention can be summarised by reference to the key stakeholders.

A Obligations of Flag States and Port States under the Hong Kong Convention

One of the primary obligations on Flag States and/or Port States that have ratified the Hong Kong Convention will be to control the use of certain hazardous materials throughout the life-cycle of a ship.

Under Regulation 4, for instance, a Flag State will be required to implement measures to prohibit and/or restrict the installation or use of certain hazardous materials (including, among others, asbestos and certain antifouling compounds) on ships entitled to fly its flag or on ships operating under its authority. Port States will also be required to take steps to prohibit and/or restrict the installation or use of those hazardous materials on any ships that are within that Port State's jurisdiction, irrespective of the ship's

flag.

In addition, Regulation 5 will require each ship flying the flag of a Party to the Hong Kong Convention to carry on board and maintain an Inventory of Hazardous Materials (an 'IHM') that identifies the presence, location and quantity of certain hazardous materials. The IHM must be maintained and updated throughout the operational life of the ship, being transmitted to successive Owners before eventually being used by a Ship Recycling Facility to develop a Ship Specific Recycling Plan.

In order to prepare and verify the IHM, Regulation 10 of the Hong Kong Convention will require a Flag State to conduct an initial survey before a ship is put into service and regular renewal surveys throughout the life of a ship for the purpose of issuing an International Certificate on Inventory of Hazardous Materials. Prior to recycling, a Flag State must also conduct a Final Survey to:

- (a) verify the accuracy of the IHM;
- (b) approve the proposed Ship Specific Recycling Plan that has been developed by the Ship Recycling Facility; and
- (c) issue an International Ready for Recycling Certificate under Regulation 11(11).

Parties to the Hong Kong Convention that have a domestic ship recycling industry will also be required to establish appropriate mechanisms to ensure that any Ship Recycling Facilities operating within their jurisdiction are authorised and are designed, constructed and operated in a safe and environmentally sound manner.

B Obligations of Owners

In order to initiate the ship recycling process, Regulation 24(1) will require that an Owner of a ship that is subject to the Convention must first notify the Flag State of the intention to recycle. At the same time, Owners will be required to forward all relevant information regarding the ship (including a completed IHM) to an authorised Ship Recycling Facility so as to permit the development of a proposed Ship Specific Recycling Plan.

Following completion of the Final Survey and the issuance of an International Ready for Recycling Certificate, Owners will then arrange delivery of the ship to the Ship

Recycling Facility but will be required by Regulation 8 to take certain steps to minimise the amount of cargo residues, fuel oil and wastes remaining on board and to also ensure that cargo tanks and pump rooms are ready for "safe-for-entry" and "safe-for-hot work" certification.

C Obligations of Ship Recycling Facilities

Under Regulations 17, 18 and 19, each authorised Ship Recycling Facility will be required to establish and implement management systems, policies and procedures to prevent, minimise and, to the extent practical, eliminate the risks to human health and any adverse effects to the environment caused by ship recycling.

Among other obligations, authorised Ship Recycling Facilities will be required to:

- (a) develop and implement a Ship Recycling Facility Plan that provides for worker safety, the protection of the environment, emergency preparedness and reporting systems for incidents and accidents (Regulation 18);
- (b) ensure that appropriate training programmes and personal protective equipment are provided to workers (Regulation 22); and
- (c) ensure that Ship Specific Recycling Plans account for any hazardous materials identified in a ship's IHM and provide for the safe handling and disposal of those

materials (Regulation 20).

Entry Into Force

Under Article 17, the Hong Kong Convention will enter into force 24 months after the date on which it is ratified/acceded to by at least 15 States which represent at least 40 per cent of the world's merchant shipping by gross tonnage and account for no less than 3 per cent of combined annual ship recycling volume. To date, five States have signed up to the Convention with Panama's accession boosting coverage of global merchant tonnage to over 20 per cent.

Closer to home, ratification of the Convention appears to be a relatively low priority for the Australian Government, perhaps due to the fact that Australia does not have a domestic ship recycling industry and our ocean-going fleet is relatively small.

Comment

While entry into force of the Hong Kong Convention may still be some years off, it appears that there is growing consensus in the international community that substantive reform is required in the ship recycling industry. The Hong Kong Convention includes a number of mechanisms which aim to ensure that decommissioned ships are recycled in a safe, sustainable and environmentally sound manner. ▲



The facts about ship arrests in Australia

By NATHAN CECIL, partner and STEPHANIE TRIEFUS, lawyer, Holding Redlich



Ship arrest in Australia – an update

With the Hanjin crisis and resulting scramble for security now settling down, it is timely to review when and how a ship can be arrested in Australia. Australia is an arrest and enforcement-friendly jurisdiction and has the advantage of a dedicated Maritime court. Arresting a ship in Australia is straightforward and can generally be achieved within 24 hours.

Australia is not a party to any arrest conventions, however the *Admiralty Act 1988 (Cth)* and the *Admiralty Rules 1988 (Cth)* largely reflect the position under the 1952 Arrest Convention.

Maritime claims

Under the *Admiralty Act*, claims can be made *in rem* against a ship for maritime liens (section 15), proprietary maritime claims (section 16) and general maritime claims (section 17).

Maritime liens attach to a ship and are enforceable against the ship notwithstanding changes in ownership. The four maritime liens actionable in Australia are for:

- salvage reward;
- damage done by a ship;
- wages of the master or member of the crew; and
- Master's disbursements.

For a short period following the

decision in *Reiter Petroleum Inc v The Ship "Sam Hawk"* [2015] FCA 1005, it was thought that in some circumstances, foreign maritime liens outside the above list may be enforceable in Australia. However, the Full Court of the Federal Court overturned this decision in September 2016. It appears that Australia will continue to follow the UK position, whereby a maritime lien will only be enforceable if it corresponds to a local Australian maritime lien.

Proprietary maritime claims attach to a ship *in rem* and include claims relating to:

- the possession, title, ownership or mortgage of a ship or of a share in a ship or of a ship's freight;
- claims between co-owners of a ship relating to the possession, ownership, operation or earnings of the ship;
- enforcement of a judgment against a ship; and
- interest in relation to the above.

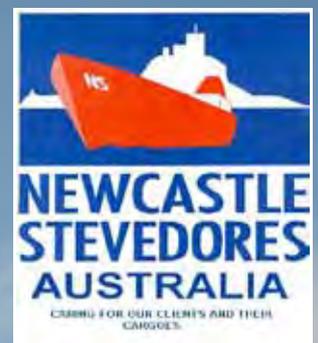
General maritime claims attach to a ship *in rem* and include claims in connection with:

- damage done by a ship (whether by collision or otherwise);
- liability of the owner of a ship arising under the *Protection of the Sea (Civil Liability) Act 1981*;

- loss of life, or personal injury;
- an act or omission of the owner or charterer of the ship in the navigation or management of the ship, including in connection with the loading of or unloading of goods, embarkation or disembarkation of persons, and the carriage of goods or persons on the ship;
- loss or damage of goods carried by a ship;
- an agreement that relates to the carriage of goods or persons by a ship or to the use or hire of a ship, whether by charterparty or otherwise;
- salvage, general average, towage, or pilotage of a ship;

Australia is an arrest and enforcement-friendly jurisdiction and has the advantage of a dedicated Maritime court. Arresting a ship in Australia is straightforward and can generally be achieved within 24 hours.

- goods, materials or services for a ship's operation or maintenance;
- the construction of a ship, alteration, repair or equipping of a ship;
- a liability for port, harbour, canal or light tolls, charges or dues, or tolls, charges or dues of a similar kind, or a levy in relation to a ship;
- disbursements incurred by a master, shipper, charterer or agent on account of a ship;
- an insurance premium, or for a mutual insurance call, in relation to a ship;
- wages or other amounts owing to a master, or a member of the crew;



Newcastle Stevedores, through its extensive service provider relationships and sub-contractor management plan can provide clients with a total logistics package, and is happy to arrange the complete door to door movement of project freight.

When you combine Newcastle's hugely diverse range of facilities with our levels of service, competence and experience, we believe you will find a genuinely competitive option for all your imports and exports through the Eastern Sea Board.

Our mission is to provide the best stevedoring services in Australia, by offering thorough efficiency and bankable reliability, at very competitive prices.

- the enforcement of, or a claim arising out of, an arbitral award made in respect of a proprietary or general maritime claim; and
- interest in respect of the above claims.

Proceedings on maritime liens and proprietary maritime claims

Proceedings on a maritime lien or proprietary maritime claim in respect of a ship can be commenced as an action *in rem* against the ship.

Proceedings on Owner's and/or Demise Charterer's liabilities

Proceedings on a general maritime claim against an Owner or Demise Charterer of a ship can be brought where the Owner/ Demise Charterer:

- was, when the cause of action arose, the Owner or Charterer of, or in possession or control of, the ship; and
- is, when the proceeding is commenced, the Owner/Demise Charterer of the ship.

Can sister/surrogate ships be arrested?

Australian law permits the arrest of one ship as surrogate for another, but in circumstances slightly narrower than jurisdictions such as South Africa. Proceedings on a maritime claim against a surrogate/sister ship can be brought where the relevant person (the person liable for the claim):

- was, when the cause of action arose, the Owner or Charterer of, or in possession or control of, the first ship; and
- is, when the proceeding is commenced, the Owner of the second-mentioned ship.

This right of surrogate ship arrest does not extend to maritime liens, as maritime liens attach only to the ship in respect of which the claim arises. However, if the circumstances of the claim also give rise to a maritime claim, then surrogate ship arrest may be available.

Under Australian law, the 'Owner' of a ship or surrogate ship means the beneficial or true Owner, which may be a person other than the Registered Owner. Typically, a beneficial or true Owner would have the power unilaterally to sell or otherwise dispose of a ship.

Ship arrest procedure

In order to arrest a ship in Australia a party must file a Writ commencing proceedings and, at the same time or shortly after, an Application for Arrest

Warrant, Arrest Warrant and an affidavit in support. The Admiralty Marshal will arrange to serve the documents by affixing them to the mast, bridge or a conspicuous part of the ship. The Application for Arrest Warrant includes a personal undertaking, either by the arresting party themselves or their legal representative, to pay the Marshal's costs and expenses of the arrest.

Arrest can be carried out at any time on any day of the week and regardless of whether the ship is at berth, anchor or sailing to or from an Australian port.

The costs of arresting a ship include filing fees and a deposit for the costs and expenses of the Marshal. The deposit is generally A\$5,000 for capital city ports and A\$10,000 - A\$15,000 for remote ports. Even if the deposit is not received, the Marshal will execute the Arrest Warrant in reliance on the arresting party's undertaking to pay.

Counter-security is not required in order to arrest a ship.

Where arrest is not available under the *Admiralty Act*, an applicant could instead apply for a freezing order (also known as a Mareva injunction) prohibiting the removal of the ship from the jurisdiction. In order to obtain a freezing order, the applicant would need to establish that it has a *prima facie* cause of action and a good arguable case, as well as that any judgment for the applicant will not be satisfied due to the danger of the defendant absconding or the assets being removed from the jurisdiction or disposed of.

How to release a ship from arrest - What security is required?

To release a ship from arrest a party can apply to the Registrar or the Court (*Admiralty Rules, r51*).

The Registrar may release a ship upon application if the Registrar is satisfied that:

- the claim amount (on the basis of the 'reasonably arguable best case') or the value of the ship, whichever is lesser, has been paid into court or a bail bond has been filed; or
- the arresting party has consented to the release.

Arresting parties will typically consent to release if they have been provided with a Letter of Undertaking from a P&I Club or insurer or a bank guarantee.

The Registrar may refuse to release the ship unless satisfactory arrangements for payment of the Admiralty Marshal's expenses have been made.

The Court has the discretion to order

the release from arrest of the ship or property on such terms as are just.

The arrested ship can generally be released within a day of security being provided and accepted.

How to contest an arrest?

An arrest can be challenged in court for lack of jurisdiction if it does not fall within the rights to claim under ss15-19 of the *Admiralty Act*.

A claim can be made for damages for unjustified arrest by a person with an interest in the ship or who has suffered loss or damage as a direct result when:

- a party unreasonably and without good cause:
- demands excessive security in relation to the proceeding; or
- obtains the arrest of a ship or other property; or
- a party or other person unreasonably and without good cause fails to give a consent required for the release from arrest of a ship or other property.

Possibility to sell the ship during or after proceedings

The court may, on application by a party to a proceeding and either before or after final judgment in the proceeding, order that a ship or other property that is under arrest in the proceeding:

- be valued;
- be valued and sold; or
- be sold without valuation.

If the ship or property is deteriorating in value, the court may, at any stage of the proceeding, either with or without application, order it to be sold.

The purchaser receives a clean title and any claims are to be made on the proceeds of sale.

What is the limitation period?

The *Admiralty Act* provides that the *Limitation Acts* of the States and Northern Territory apply. These vary according to jurisdiction and type of claim. For claims brought only under the *Admiralty Act*, the limitation period is three years from the date the cause of action arose.

How we can help

Our national Transport team are experts in procuring the arrest and release of ships from arrest. We are available to assist at any hour and in any Australian jurisdiction. ▲



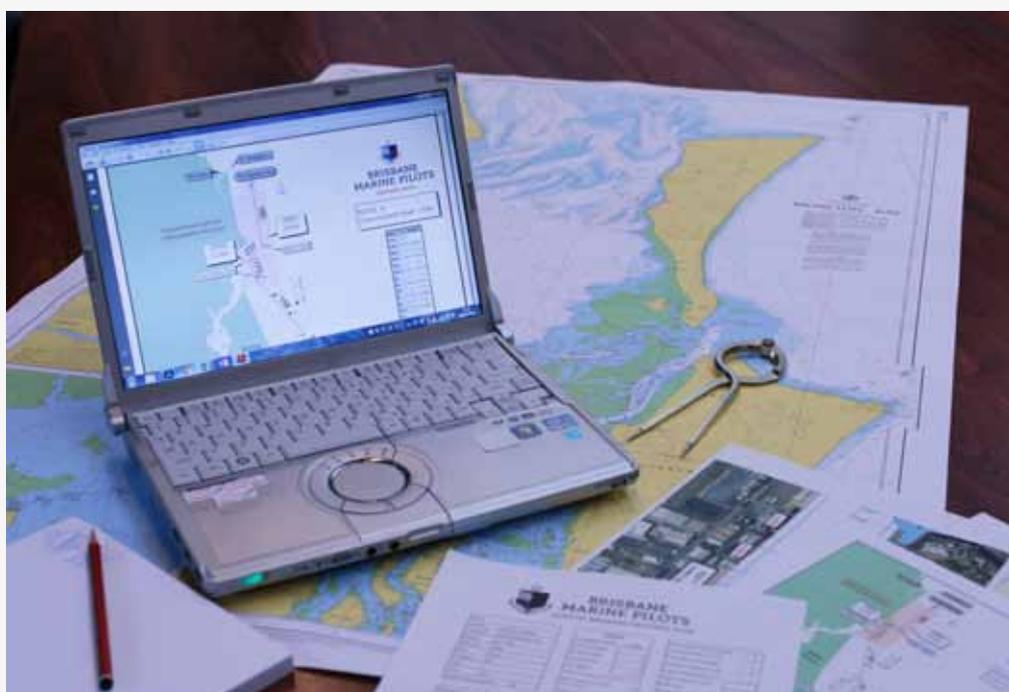
Brisbane Marine Pilots – Technology and Innovation

By CAPTAIN DOUGLAS WILLIAMS, managing director, Brisbane Marine Pilots

Brisbane Marine Pilots use our industry-leading systems and technology to bridge land and sea logistics safely. We continually improve our service and performance by adopting the world's best innovations, training solutions and management systems. Brisbane Marine Pilots is the first Australian pilotage organisation to:

- Introduce ISO standards across all facets of its business
- Routinely use standardised portable piloting units on all pilotages
- Develop and implement a Pilotage Safety Management System
- Develop a dedicated Competency Management System
- Deliver the first mobile pilotage dispatch system in conjunction with a software developer
- Develop fatigue management software for pilots in conjunction with the Sleep Research institute
- Become accredited to the International Standard for Marine Pilot Organisations (ISPO)

Our goal to deliver a faultless performance every time, we must continue to learn and develop. That's why we never stop exploring modern technologies and assessing their viability for our local operation. We're engaged in research projects with tertiary institutions and we work with international partners to keep abreast of world's best practice to improve our service. Our ongoing investment in optimising pilot training ensures that we meet the expectations of all stakeholders.



Brisbane Marine Pilots and EMPILOT are collaborating on a range of Pilot Smart systems and technology projects:

- Packaging administration and safety systems to enable smaller pilot groups to achieve independence through economies of scale
- Streamlining systems to avoid unnecessary duplication across large and small pilot organisations
- Developing a new-generation mobile pilot dispatch system with increased capabilities and flexibility
- Developing improved communication processes to enhance safety by optimising the

Master Pilot exchange process

- Developing improved IT solutions to ensure all pilots have immediate and mobile access to the necessary information they need to perform

To find out more please visit www.brisbanepilots.com.au



**BRISBANE
MARINE PILOTS**

PARTNER.SHIPS



Precise positioning technology for Australia's maritime industry

By GRANT JUDSON, principal advisor navigation, Australian Maritime Safety Authority (AMSA)

Introduction

Position, Navigation and Timing (PNT) information from Global Navigation Satellite Systems (GNSS) is widely used in the Australian maritime industry. As more positioning technologies become available, the demand for higher accuracy PNT information and resilient, integrity-proven data grows.

Better positioning data, with proven integrity and a higher degree of accuracy, can deliver increased safety, environmental and economic benefits to Australia. Australian industry, including the maritime sector, will benefit substantially from a new project that Geoscience Australia will lead this year.

The new project involves establishing a testbed for a second generation Satellite-Based Augmentation System (SBAS) in the Australia and New Zealand region. It will create new opportunities across a range of industries. The Australian Maritime Safety Authority (AMSA) will work with Geoscience Australia to facilitate the maritime industry's access and contribution to this new, world-leading testbed.

What is SBAS?

SBAS is designed to improve the accuracy and reliability of satellite signals, such as those provided by the Global Positioning System (GPS) and other GNSS. First generation SBAS systems are already in use in other regions of the world. Over continental United States, the system is known as the Wide Area

Augmentation System (WAAS), whilst over Europe it is known as the European Geostationary Navigation Overlay Service (EGNOS). The Australia and New Zealand region is one of the few that does not yet have an SBAS.

SBAS works by providing users with corrections to GNSS signals. To create these corrections, Geoscience Australia will draw on a national GNSS reference network. Data from this network will be provided to a computation facility, where corrections will be calculated. The corrections will then be sent to a ground station for uploading to a geostationary satellite. The satellite will then broadcast the corrections over the Australia and New Zealand region free of cost to the user. The following diagram illustrates how this works:

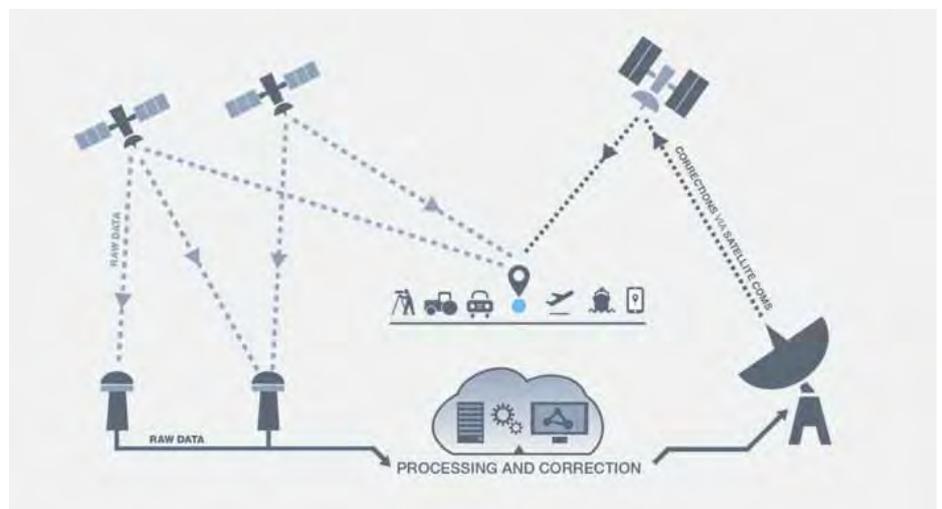
Benefits of SBAS

Geoscience Australia's coordination, establishment and operation of the testbed will take place over two-years, starting mid-2017. The testbed is designed to evaluate the reliability of the system and assess how different industries can make use of the technology. SBAS technologies have compelling cost-benefits. A study by ACIL Allen Consulting in 2013 highlighted that widespread access to precise positioning could boost the national economy by between \$7.8 and \$13.7 billion by 2020.

SBAS and the maritime industry

The maritime industry's reliance on satellite-based positioning is increasing.

AMSA maintains a network of sixteen



NPI Capability - SBAS Graphic Credit: Geoscience Australia

Differential GPS (DGPS) radio stations around the coastline to ensure mariners have more accurate and reliable data from the GPS system. These radio stations provide free-to-air accuracy and integrity data for GPS signals.

AMSA's DGPS network has been operational since the mid-1990s and is used by many sectors of Australia's maritime industry. However, the existing DGPS network is limited in range and does not provide coverage over all of our coastal waters. While it can provide positional accuracy better than ten metres, there is increasing demand for even more accuracy. The test-bed project will test two new satellite positioning technologies – next generation SBAS, also known as SBAS-2, and Precise Point Positioning – which provide positioning accuracies of several decimetres and five centimetres respectively. These technologies have never been widely tested anywhere before, however GMV, Inmarsat and Lockheed Martin have extensive experience in implementing first generation SBAS positioning technology around the world.

The Geoscience Australia trial will exploit the availability of the European Galileo satellite constellation, as well as the Global Positioning System (GPS), to provide improved accuracy and reliability. The trial will also be multi-frequency, enabling improved atmospheric corrections to counter performance degradation due to ionospheric storms, which can limit the use of SBAS in equatorial regions, including Northern Australia.

Use of precise positioning

In ports and confined harbours, precise positioning enables safer and more efficient navigation. This is achieved through precise positioning enabling the bridge team to accurately assess and manage challenging environmental factors such as strong winds, tidal streams and small tidal windows. This can also help to reduce costs when investing in port infrastructure, dredging and other development work.

High accuracy positioning provides for high accuracy measurement of speed and course over ground, which helps to improve the bridge team's situational awareness and ability to judge a dynamically changing situation. This means that large ships

can be manoeuvred and berthed safely in confined areas, with minimal risk of damage to port infrastructure.

The offshore oil and gas industry is a prime user of accurate positioning and integrity proven PNT information. Offshore oil and gas vessels have been using augmented GNSS signals for many years, and the industry depends on accurate and integrity-proven PNT information. High accuracy PNT information is used for cable and pipe laying, drilling for oil and gas and wellhead placement, general engineering works and dynamic positioning. Generally, this industry uses a combination of different precise positioning systems to enhance accuracy and provide redundancy of PNT data.

Use in ports

Several ports in Australia already use dual antenna, multi constellation GNSS systems to improve the accuracy of GNSS information. With many maritime industry sectors already making use of DGPS and other high accuracy positioning technologies, the further development of readily available systems has the potential to enable new innovative maritime applications. This may include gains in productivity and safety.

High accuracy systems also have the potential to improve efficiency in port logistics, saving time and costs. Ports increasingly rely on automated logistics systems to move and track shipping containers and other cargo.

When vessels load more cargo, they are deeper in the water, bringing them closer to the sea floor, and making them more challenging to manoeuvre. High accuracy navigation enables bridge teams to manoeuvre and navigate vessels more accurately through close monitoring of the ship's position and movement in relation to hazards. When using electronic navigation systems, this becomes possible through the precise measurement of speed, acceleration, deceleration, lateral movement and the overall high accuracy positioning of the vessel.

SBAS also has potential to reduce the environmental impact of shipping by limiting the need for dredging and port development. High accuracy positioning enables larger vessels to be manoeuvred in confined areas, and this can mean less dredging may be required to accommodate larger

ships.

Improved data integrity

The accuracy level of second generation SBAS will not be immediately applicable to all parts of the maritime industry. However, the satellite ranging corrections provided by SBAS are also valuable in providing a high level of confidence to users about the integrity of satellite-derived positions. Other transport modes that are also witnessing growing levels of automation are increasingly demanding precise positioning with both high integrity and precision.

The International Maritime Organization (IMO) provides guidance that requires GNSS to alert users by alarming within 10 seconds if the GNSS integrity data indicates a discrepancy of 25 metres or more for general navigation and 2.5 metres or more when conducting port navigation. The IMO's rules are aligned to what was achievable when they were written, and clearly there is a need to revisit and update them. Variations in position of up to 2.5 metres are in many cases today not acceptable. Integrity monitoring will be instantly achieved through the augmentation of the GNSS signal that will be tested in the upcoming SBAS trial.

The future of high accuracy positioning, navigation and timing

Demand for high accuracy PNT data will undoubtedly see further growth, especially as automation has an increasing role in the maritime industry. Automation will most certainly demand the highest levels of certainty of PNT data. Unmanned vessels will depend on precise and high integrity positioning to safely and reliably navigate autonomously.

Over the next two years AMSA will be working closely with Geoscience Australia and the Collaborative Research Centre for Spatial Information (CRCSI) on the SBAS project. The testing process will involve a variety of maritime industry participants who have previously registered their interest in this project.

Further information on the SBAS trial can be found on the Geoscience Australia Website <http://www.ga.gov.au/scientific-topics/positioning-navigation/positioning-for-the-future/satellite-based-augmentation-system> ▲



Port Ash Australia - Overview

By Captain CLIFF BEAZLEY AM, managing director

Port Ash (Australian Ship Handling) is a manned-model ship handling training centre situated on the Pacific Highway about half an hour's drive north of Newcastle, New South Wales. It comprises a 2.5 hectare lake and seven large ship-models at scale 1:25, capable of seating up to six persons each.

It is one of only six such centres in the world – possibly because construction is more expensive than an electronic simulator and the highest level of piloting experience is required from the instructors. The convenience of indoor electronic simulators suitable for all climates cannot be overlooked and is one of the several reasons why there are so few manned model facilities.

Port Ash was established in 2001 with important features drawing on and reflecting the writer's thirty years' experience of ship handling as exempt master with the Howard Smith fleet, and later as senior training pilot in the port of Newcastle. During this later period, training of new pilots both on-the-job and with the Australian Maritime College's electronic simulator, revealed aspects that either dared not be explored with a real ship, or could not be sufficiently simulated on a screen due to the inherent lack of realism and fidelity.

The obvious answer was models – large ones! Over the mid-1990s, our family team built a 7 metre long model of tanker *Ampol TVA* supplementing it with remotely controlled tug-models to the same scale to create a 'ship handling kit'. It remained to provide a scale port - this came later, and so Port Ash was born.

The Centre has national Registered Training Organisation status and was established under the then Skills Centre Program of the NSW Department of Education and Training, with some funding assistance provided by the Australian National Training Authority. Without the wonderful assistance, encouragement and advice provided by those government agencies, it probably would not exist.

Training

The fidelity of models is undisputed, as every ship starts its life as a model in a test tank. A miniature but real world is built to match. Only the accelerated time-scale is different but this becomes a positive and provides for time and cost-efficient training.

In this digital era of high-end electronic simulators, ship-models are a puzzle to many, yet only their inherent accuracy in real wind and water allows the complexity of hydrodynamics

to be experienced. Models are used to this day, partly because electronic simulation is at best a mainly convincing approximation of a highly complex mix of two mediums, air and water.

Only last year the Panama Canal Pilots established a new manned-model centre to supplement their electronic simulator! In talking to Kiel Canal pilots recently, a similar situation exists.

In the accelerated time scale, errors show immediately but with sufficient time for correction. Thus, operators must know their stuff spontaneously with lessons learned repeatedly practiced to 'get it right'. It is a teachable skill but aptitude too has a part in the process. For those who

have low aptitude, a workmanlike job is mostly achievable after only a few days training.

Initial explanation is carried out with classroom table-top models to show how a ship moves in water and how its pivoting point moves under the influence of applied forces. This usable theory is straightway experienced aboard a ship-model, which then self-demonstrates proving the theory. Models are particularly good at this as, due to their size, the entirety of the forces at work affecting a ship, such as hydrodynamics, wind, current and tugs, are seen and felt.

The thrust of the training is entirely practical and the 5-day 40-hour course provides a nominal 200 hours of concise lectures and practical ship handling sufficient for most trainees to become instinctive in the task. Day 1 can be confronting, but these difficulties are mostly routine by Day 3 and humdrum by the end of the week. It is thus very efficient and time-effective.

Instruction aboard models must be 'top-end' and our instructing facilitators comprise eight highly experienced pilots, mostly retired, who have served in command and in several different ports as pilots. They provide personal on-board guidance and tuition including the handy hints for getting out of trouble that all pilots develop during their careers. This can only be taught and demonstrated by the highest level of professional experience, expertise and competence.

Equally important is for trainees to identify potentially hazardous circumstances. Hazard avoidance is a mental image that individuals must memorise and take away with them.

Remotely controlled tug-models are operated from on board by serving and retired tug masters who add their accumulated wisdom to the course. This is of immense value and completes the trainee's picture of different tug types, their usage and effects. Often, we create a specific small port, or part of a larger port with buoys, beacons and leads providing sufficient and recognisable realism for research and development, manoeuvring and tug placement.

Refresher courses for experienced pilots are created on demand. The venue allows cost and time-effective manoeuvres with analysis, correction and the ability to repeat scenarios within a short time period.

Personalised short courses are occasionally delivered associated with post-incident trauma, or with new pilots who find that this ship handling business is not quite as easy as it looks! The models are particularly effective at this, in tandem with an analytical, sympathetic and caring facilitator.

Clientele

Australasian pilots generally carry out initial ship-model training at Port Ash, but some prefer to train overseas. Some do not train with models at all, despite recommendation by IMO and the Australian Marine Pilot Institute's Continuous Professional Development Program. In New South Wales model training was written into the Training Code, then curiously written out again during a restructure.

The recent shrinkage of Australian shipping means that masters have largely disappeared from Australian training schemes, despite similar, or the same ships in some cases, still trading on the coast in different guises and with overseas crews.

Overseas oil and gas majors send their masters for training when more convenient northern centres are closed for the winter. Australia is a favourite destination for some US pilots who much enjoy the course with their experienced facilitator peers.

In the selection of new pilots, a harbourmaster or chief pilot observes candidates at work in a practical way as part of the interview process. On other occasions, our facilitators provide on-board coaching, then put the candidate through a formal test run recorded on USB flash drive for viewing by the selecting port. In both cases, essential aspects of the candidate's technical skills and temperament can be observed and assessed as part of their application for the job. This process has been 100 per cent successful to date.



Every ship starts life as a model in a test tank

Manned-model training has found favour with both the Royal Australian Navy and the Royal New Zealand Navy, whose commanding, executive and navigating officers undergo regular one-week courses. These officers often return later with their junior bridge teams to provide them with insight into how lightly-built and powerful warships are best handled.

Port Ash enjoys a close relationship with both navies and has been contracted to the RAN since 2007. The unique experiment of training with models was triggered by constant minor mishaps which, with guidance and practice, rarely happen these days. This is particularly interesting as all previous training was carried out using the state-of-the-art simulation which followed the discarding of training ships in the '80s and '90s. Clearly simulation missed something and perhaps in this case, a training scheme has actually been measured! I hasten to add that these figures are official and not ours!

The future

Ports require speedy ship turnaround times with appropriate safety and environmental protection. Initial and refresher pilot training are critical elements in ensuring that essential key performance indicators are achieved.

IMO recommendations for pilot training are many and regarded as 'best practice'. Highlights are bridge resource management, simulation exercises to include radar, and manned model training. The first two are large industries with marketing clout, but with only six model centres in the world and no lobby, one must conclude that models are valued and retain their place for their own unique virtues.

The primary factor in piloting large and expensive ships in expensive ports is and always was accurate visual ship

handling. Visual judgement of the constantly moving vista and correct placing of the ship, while anticipating problems, is the very essence of good piloting and this is what models do best. In bad visibility, radar and/or digital navigation are used as valuable aids to navigation, but are not the principle means.

Equally important is the ability of the pilot to communicate with and engage the bridge team to assist the act of pilotage. This is a more recent subject born of the pain of many expensive accidents and is taught both in the classroom and in simulators.

There are and always will be different perceptions of what is most important, but I submit they are all important and should be taken with great seriousness. They should also be refreshed from time to time, as all such skills are perishable.

Today technology is king and we are urged on pain of obsolescence to bow down and worship it. To some, the use of a sacred computer with ship-shape and course predictor superimposed upon the chart is the ultimate piloting method! A child can do it! But if it fails – and there are myriad trivial reasons why it might – what then?

With the enthusiastic embracing of every new technology there are unforeseen pitfalls – 'radar assisted collision' was one such. We are now seeing technology-assisted incidents due to people simply not looking out of the window. Professional journals often contain pleas from experienced mariners to new mariners to 'please look out of the window'.

Old fashioned? Well, by definition – yes. But the real world will always be the real world whether enthusiastic futurists want it to be or not. ▲



SAL Queensland Golf Day

Our Queensland Golf Day was held on Wednesday 17 May 2017 at the Wynnum Golf Club in Brisbane. This popular annual event was attended by 124 keen players in fine weather.

The SAL Cup was won by the CS Leasing team (Lionel Edwards) and the Dennis Briant Cup was won by a team from the PBPL. Sel Morrow and his team from Aust Global Freight won the Chairman's Award.

Funds from the event help to support the Brisbane Mission to Seafarers and Stella Maris Apostleship of the Sea.

A special thank you to Chalmers, Svitzer, Austrans and Thynne Macartney for their generous sponsorship of the event.



Geoff Dalglish, SAL Queensland chairman presents the SAL Cup to CS Leasing team: Daniel Hauser, Lionel Edwards, Dennis Kumsing and James Nasch (absent)



The winning team (Patrick): Matthew Kidman, Matt Mealing, Adam O'Keeffe and Nick Long



Asiaworld team: Mark Todd, Dean Schopen, Ken Fitzpatrick and Joe Falco



Specific Freight team: Walter and Reyna Futschick, and Maree McCluskey

SAL New South Wales Golf Day

This year, the SAL NSW Golf Day was held at the scenic Coast Course at Little Bay, on Wednesday 3 May. Grey skies and rain on the day didn't deter the teams and individuals from hitting the course.

The winners of the SAL Cup were the team from Patrick: Matthew Kidman, Matt Mealing, Adam O'Keeffe and Nick Long.

SAL wish to thank major sponsor, Svitzer and hole sponsors: Hamburg Sud, Smit Lamnalco, Evergreen Line, Linx Cargo Care Group, QUBE Ports and Bulk, Svitzer, Patrick and Maersk Line.

SAL Victoria State Committee Lunch

The Federal Minister for Infrastructure and Transport, Darren Chester MP, outlined the challenges of coastal shipping regulation to 165 shipping industry guests at SAL's Victorian State Committee lunch, held at the Sofitel Hotel, Collins Street on Tuesday 26 April. The event was proudly sponsored by the Port of Melbourne and Svitzer Australia.

Images: David Sexton, Lloyd's Lists Australia



Steffan Risager, Svitzer Australia; Minister Darren Chester



Brendan Bourke, Port of Melbourne; Stephen Bradford, TasPorts



Masayuki Okasi, Marubeni Itochu Steel; Karen Kwok, Swire Shipping; Tim Nesbitt, Marubeni Itochu Steel



Adam Lucas and Greg Metcalf, Swire Shipping



Craig Marnell, Incitec Pivot Ltd; Gareth Long, Gulf Agency Company

SAL Victoria Golf Day

Threatening weather conditions failed to deter the 88 strong field lined up for Shipping Australia Victoria's annual golf event, held at Waterford Valley Golf Course on Wednesday 22 March. We are indebted to gold sponsor Svitzer underwriting the event and the many silver sponsors.

Congratulations to DP Worlds team, led by Ben Moke, who won the day and take home the inaugural Phil Kelly Memorial Trophy sponsored by Wallenius Wilhelmsen. Runners up, Victoria International Container Terminal team, led by Anders Dommestrup, pressed hard over the 18 holes to ensure that stevedores dominated the podium. Full details of the event are posted on the Shipping Australia website.

As one top liner executive put it "being able to bring select clients along for a day's outing underpins the relationship for the remainder of the year by contrast to phone contact, which tends to be transactional". A great day which provided invaluable networking opportunities.



Thanks to Victoria Golf Day hole sponsors



They sang like kangaroos

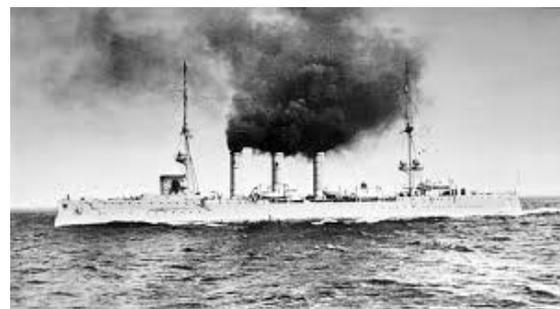
By Dr ANTHONY DELANO*,
Australian Scholarly Publishing Pty Ltd, 2012

Recently I visited my local municipal library to see what I could find which would make good reading. I have always liked stories with a maritime flavor so of course, what might well be called the “maritime shelves”, was my first port of call. I was surprised to come across a soft covered book entitled “They Sang Like Kangaroos”. My immediate thoughts were what has singing and kangaroos to do with maritime matters. I decided to find out and discovered that the book is a review of the exploits of the Royal Australian Navy (RAN), both at sea and on land, during World War I.

Dr Delano writes that a tribute written

by English poet Sir Henry Newbolt to the cruiser HMAS *Sydney* after her famous action with the German cruiser *Emden* (more about this later), concludes with the words, “They sang like Kangaroos”. Whilst this explains the origin of the book’s title it does not explain what kangaroos have to do with the RAN. Why these words were included in the tribute remains a mystery.

All of the 12 chapters, which go to make up the book, are supported with illustrations which give a fascinating insight into life in the RAN during 1914/1918. There is no doubt that the author has undertaken



Emden underway in 1910

painstaking research into this subject.

The first chapter starts in August 1914, when the RAN was just three years old. Britain, and thus Australia, had been at war for less than a week. According to the author on 11 August 1914, the ships of the Royal Navy in the North Sea and English Channel were yet to glimpse the enemy. However, an Australian force comprising the then new cruiser HMAS *Sydney* in company with the three Australian destroyers *Parramatta*, *Warrego* and *Yarra*, was approaching Rabaul, capital of German New Guinea, with the aim of neutralising the German land presence.

This bold attack was conceived on board the flagship HMAS *Australia* by Rear Admiral Sir George Patey, the Flag Officer commanding the Australian Fleet. Designated as “Operation Order No 1” it was the first wartime Operational Order issued to the Australian Fleet. The land action in German New Guinea, as well as land actions involving the RAN in other South Pacific locations such as Samoa and Fiji, are interestingly described.

These achievements on land were overshadowed by concerns about the



The RAN's flagship HMAS Australia

presence of German Konteradmiral Graf Maxamillian Spee's eight ship Asiatic squadron. These ships were thought to be in Tsingtao, the port of a German enclave in China. However, this was not so, as the Admiral had departed for Germany via Cape Horn. Prior to sailing from Tsingtao, Graf Spee detached the cruiser Emden from the fleet to operate as an independent raider in the Indian Ocean. This ship is credited with sinking 17 merchant ships. The book has a section which deals with the famous action which resulted in *Emden* being sunk by HMAS *Sydney*.

There is reference in the book to the Battle of Coronel. This took place on 1 November 1914, off the west coast town in Chile from which the battle's name is derived. Graf Spee's fleet destroyed a British Fleet in an action which the author describes as "one of the RN's more futile and bitter defeats". However, there is no mention of the destruction of the German Fleet a little over a month later by the Royal Navy at the Battle of the Falklands. There is also no mention of the fact that Graf Spee and his two sons (who were serving in other German ships) lost their lives when their ships were sunk. Incidentally the word "Graf" is an historical German title usually translated as "Count".

The scene shifts from international waters to the Brisbane River in a chapter headed "Standoff at Kangaroo Point." This story goes back to pre-RAN days when the Australian States had their own armed forces. The saga, which involves Her Majesty's Queensland Ship *Gayundah*, highlights the undesirability of having State naval forces. This small vessel was under the command of a Royal Navy captain



HMAS AE2 in dock in Sydney

who refused to take orders from the Queensland Government. In fact, he actually prepared to abscond with the Government's flagship. Furthermore, at one stage the locals thought that he was about to bombard Brisbane. Eventually peace was restored. The old vessel went on to make coastal voyages up the Queensland coast and in Torres Strait under the command of a young man known as "Cocky" Warren. In a relatively short period this young man became Commander William Warren DSO, RAN. His exploits are covered in various parts of the book.

An interesting period of history is covered in a chapter about the involvement of the RAN during the British raid on the port of Zeebrugge. Many RAN officers and ratings were killed or seriously wounded during this action. The war at sea in the Mediterranean and the RAN's submarine actions in the Dardanelles also feature.

There is also a sad tale about the damage to the flagship HMAS *Australia* caused as a result of a collision at sea with her sister battleship *New Zealand*. It would seem that our flag ship was a most unlucky vessel and appears to have been at the wrong place at the wrong time to feature in any of the RAN's important war time actions.

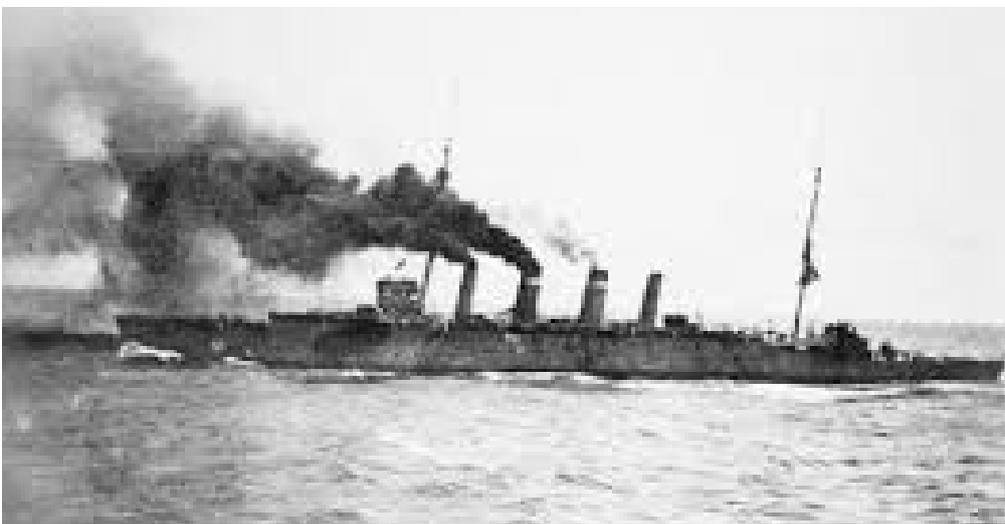
Perhaps the most amazing chapter deals with an RAN officer posted to the USA, who was virtually a spy.

Those with an interest in Australia's maritime history are sure to find this book, which was first published in 2012 by Australian Scholarly Publishing Pty Ltd, North Melbourne Vic 3051, not only informative but also entertaining.

- ROSS McALPINE ▲

***About the author**

The frontispiece of the book says that Dr Anthony Delano enjoyed a lengthy career as a foreign correspondent for British national newspapers before turning to academic life. He is a visiting professor at the London College of Communication, part of the University of Arts, London. When not teaching or researching in London, he lives in the south of France. Maritime history is one of his special interests. In his acknowledgements he includes relatives of one of the officers mentioned in the book and to Mr Paul Dunn and Mr John Perryman of the Sea Power Centre in Canberra. It is interesting to note that he says, "I enlisted in the RAN at the very end of World War II" and mentions Flinders Naval Base.



HMAS Sydney steaming for Rabaul 1914

Image credit: All images are reproductions from "They sang like kangaroos"



Megastar highlights LNG and design

By JOHN PAGNI*

The 80 kilometre Helsinki-Tallinn crossing is the world's second-biggest international ferry route. Since 1991, when the Soviet Union collapsed, traffic has grown between the Finnish and Estonian capitals to over 8 million passengers, 1.25 million vehicles and 200,000 rolling cargo units (2016). Steady growth is forecast to continue at 2-4 per cent.

Current competition is tough, with three ferry companies competing year-round: Eckerö Line and Viking Line have one large fast-ferry each, making four 2½ hour crossings daily. When ice-free, Linda Line operates two passenger-only catamarans in calm conditions. Fast rivals Nordic Jet

Line and SuperSeaCat stopped in 2008 – victims of the oil price rise. Tallink, the market leader with around 60 per cent, has 13 departures every 24 hours.

Meanwhile, Viking Line (VL) has chartered Incat-built HSC Express for this year's April-October peak period. VL also sends its Stockholm ferry over to Tallinn and back, instead of spending the day in Helsinki in summer too, bringing its daily schedule to 12 crossings.

Companies introduce a new vessel regularly to spruce up their brand image to attract business. Viking Line's newbuild *Viking XPRS* arrived in 2008

and Eckerö's *Finlandia* was bought from Italy's Moby Line in 2012. They followed Tallink's *Star* and *Superstar* newbuilds in 2007-2008.

Enter the *Megastar*

The latest is the fast-ferry *Megastar*, delivered to Estonia's Tallink, and starting her commercial career on Sunday 29 January. Tallink has a fast-ferry service branded Shuttle and a slower Cruise option. The Shuttle – as the name suggests – is a crossover service with two vessels: *Star* and *Megastar*. *Superstar* was sold then switched to Italy, upon *Megastar's* debut.

The two shuttles make their 2 hour voyage six times a day between the Finnish and Estonian capitals, with the majority of passengers being Finns going to the Continent because of the non-Nordic prices there – especially for booze. This trade got a boost when both became EU Member States and generous personal import limits replaced duty free*.

The difference between *Megastar* (her name was chosen by online vote) and her contemporaries, is that the interior layout was based on the short voyage time and customer feedback of the previous Shuttle ships. Her technology and naval architecture too, veered towards the radical. Simply put, *Megastar* is perfectly tailored for the Helsinki-Tallinn route.

"We are rewarding our loyal customers in a sustainable way with a faster (60 minutes) turnaround and shorter waiting times," defined Janek Stalmeister, Tallink Grupp's CEO.

State of the maritime arts

Megastar is different in many ways, on many levels. The most obvious was choosing liquefied natural gas (LNG) as the main fuel – the first on the route,



Megastar docked in Helsinki by the Automatic Mooring System (AMS)

though *Megastar* positions second for LNG passenger ships after *Viking Grace* (see Shipping Australia Summer 2012). It is no coincidence however that both share the same Turku shipyard birthplace, which is now called Meyer Turku, after the German family-owned shipbuilder's 2014 takeover.

To propel her at the required 27 knot service speed, *Megastar* has an unusual permutation of dual fuel engines: three Wärtsilä 12V50DF and two 6L50DF, with the first number denoting the cylinders and DF meaning dual fuel. The combined gen-set output totals 45.6MW with 40.6MW for propulsion. This suite has the highest thermal efficiency of any gas-burn engines, while the power plant concept converts into an optimal energy combination and is more environmentally friendly.

Using LNG means *Megastar's* emissions are well below the strict 0.1 per cent S Emission Control Area (ECA) limits that came into force in the Baltic (and North Seas, plus the English Channel, (see Shipping Australia Autumn-Winter 2015) two years ago. SOx and particles are virtually zero, while NOx and CO2 are 85 per cent and 25 per cent less respectively, than HFO. *Megastar* also meets the 2021 Nitrogen ECA limit for newbuildings that apply from that year.

The ship will be refuelled five times a week at both ends: Eesti Gas in Tallinn, using Russian LNG and Skangas imports from Norway, in Helsinki. For safety reasons, refuelling takes place via road tankers at night, after operations finish at 0030 and before the first departure at 0730. Should an LNG supply disruption occur, the engines switch seamlessly to marine diesel oil (MDO).

Unlike her 'LNG sister' *Viking Grace*, *Megastar's* (2 x 600m³) LNG tanks are located inside the hull amidships in the vessel's bowels, forward and adjacent to the engine rooms. *Viking Grace* has two tanks astern and in the open, where they are clearly visible, but she is bunkered in Stockholm by AGA's special tanker.

Megastar's dual fuel engines can run on LNG and MDO and when using gas, 1 per cent of liquid fuel oil, in this case MDO is injected for ignition at 100 per cent load. "*Megastar* uses mainly gas for electricity production, just 6 per cent of total on-board energy is from LFO," informs Virgo Vinkel, Tallink's Technical superintendent/Megastar Warranty Engineer.

"If engine(s) run 30+ per cent on HFO, the combustion group overhaul should be done at 12,000 hours. But if they run on 70+ per cent on LFO/gas it is 18,000



Photo shows Megastar at speed outside of port of Tallinn's Old City Harbour, where Tallink's terminal is situated. Tallinn TV Tower in the background is a landmark, needless to say, and a souvenir of Soviet occupation - all the Baltic's got one!

hours. Experience of LFO/gas ships shows that cylinder liners and pistons look like new after 30,000 running hours."

To help minimize fuel consumption, the hull shape too was re-designed by Meyer Turku, after thirty-five models were thoroughly laboratory tested. "The hull combined with the new rudders behind the propellers results in a smaller wake with less noise and vibration," confirms Captain Tuulik, Technical Director and *Megastar's* newbuilding project manager.

Megastar is Tallink's first to have two five-bladed controlled pitch propellers (CPP) driven by two shaft lines, and is the first diesel-electric ship in its fleet. Unusually, nobody can comment on her performance in thick ice as this winter was mild, but the ship has 1A classification from classification society Bureau Veritas.

The vessel qualifies for a Green Passport, according to the 2009 Hong Kong International Convention for the Safe and Environmentally Sound Recycling of Ships (aka Hong Kong Convention). This means all hazardous classified materials employed were mapped for when *Megastar's* lifecycle ends in approximately 60 years.

Safety aboard prioritized

Although not the first to feature Safe Return To Port, this resulted in a curiosity: no lifeboats. *Megastar* has four small fast rescue boats: two on each side for SAR. If abandon ship is necessary, the mass evacuation systems (MES) of chutes and huge rafts will be employed, as well as the top deck helipad behind the bridge, if possible.

To ensure this is most unlikely, *Megastar* has independent engine rooms, propulsion, navigation, fuel, fire-smoke

detection and fire extinguishing systems, as well as redundant communications.

In addition, there are 10,000-plus sensors throughout the vessel to detect any malfunction and immediately raise the alarm. The ship's computer uses information gathered to calculate the best engine regime and route, according to prevailing weather and payload, while controlling other on-board conditions, such as AC and waste heat recycling.

"It is far harder to guarantee safety on a raft than on a sturdy ship in extreme weather, as well as being time-consuming and a logistical challenge to evacuate thousands of people. Abandon ship at sea is the last resort," reasons Tuulik.

New interior design concept

For maritime insiders – as well as passengers – it is the approach to *Megastar's* interiors that will raise eyebrows. Only two decks are for passengers with four to hold vehicles on 3,653 lane metres. The lowest, Deck 3, plus fore and aft sections of Decks 5 and 6 above, set aside for trucks and trailers, having a high ceiling. The mid-section of Deck 5 is hoistable, to double up car capacity there.

Deck 7 is set aside for more cars, but again novel innovations have been introduced. Deck 7 has eight charging points for electric cars plus a 100-car 'supermarket parking' area. This is next to the lower floor of the Traveller Superstore astern, so drivers and passengers can take their purchases directly to their vehicle.

These vehicles can also accommodate pets too if desired. The official Pets Corner is also on the same deck with sandpit. Generous spacing is similar to



onshore, to fulfil regulations that require a two-minute evacuation time. If demand dictates, then tighter parking can raise capacity to 150.

To disembark a maximum load of vehicles, there are two twin-level entry-exits on Decks 3 and 5 at both the bow and stern, as *Megastar* uses the stern in Helsinki and bow ramps in Tallinn. Foot passengers have gangways fore and aft on Deck 7, with forward also twin-levelled on Deck 8.

Passenger options aboard built for speed

With just 120 minutes, passengers have clear choices to make in advance and swifter ones when aboard. There are three public lounges: Business, Comfort and Sitting. Business has food and all drinks included in the extra price, while Comfort includes snacks and non-alcoholic drinks for a smaller fee. Sitting is for those who wish to work or sit in peace and quiet in train-like compartment areas at no extra cost.

For drinkers, there is the Victory Bar and Sea Pub, with the former for sports fans and the latter's troubadour and karaoke entertainment replacing screens. For a marine view, the Winter Garden astern behind the pub, overlooks the Baltic.

Fast food fans are served by Burger King and Fast Lane – the latter has a meatball and salad buffets plus made-to-order menu. The main dining option, Delight Buffet (474 seats), is the only eating option to have a wide range. All others have limited menus of about ten items. The à la carte Chef's Kitchen, part of the Delight Buffet Area, has a 4 course Chef's Menu for about 60. The Children's Playroom is right next door. The large Coffee & Co

café-bar area on Deck 8 just after the Info desk, has a shop and at one end, standing and seating divided up by criss-crossing paths for groups.

Cabins are a casualty of the voyage's brevity: there are just 47 for passengers and drivers on Deck 10, though another 105 for the 170-200 crew on the same level or Deck 11, where the Drivers Lounge and crew mess are.

The 2,800m² Traveller Superstore is the biggest afloat in the Baltic and is a department store selling alcohol, clothes, tobacco, perfumes and cosmetics (even a Kiehl's consultant), children's and adult gifts and products. In addition to the normal check-outs, there is the option of Q-shopping, as all products have electronic price tags. Fresh fruit and food items complete the choice.

The interior designers are two Finnish offices: dSign Vertti Kivi & Co created the cafés, pubs, buffet and Business and Comfort Lounges, as well as carpets, lamps and glass surfaces. Aprocos was responsible for the shopping area, Drivers Lounge, staircases and halls, cabins, corridors and Sitting Lounge. Both are experienced: dSign started ship design on *Viking Grace*, while Aprocos has done many Baltic ferries and cruise ship, new and retrofit, projects.

Value for money

Megastar cost €230M (AUD\$325m) and was built by Meyer Turku inside two years, from contract signing to delivery in January 2017. The EU donated €4.8M via its CEF Transport-MotS (Connecting Europe Facility-Motorways of the Sea) environmental funding, while both ports received considerably more to construct

facilities under their Twin-Port concept.

For *Megastar*, the ports of Tallinn and Helsinki built upper-level vehicle ramps plus gangways for passengers, costing millions of euros. Port of Helsinki has a new €45M terminal for Tallinn traffic and was first to invest in an automatic mooring system that employs vacuum pads from New Zealand's Cavotec. Although relatively common elsewhere, it is the first time they have been deployed where harbour ice forms.

Here the captain manoeuvres the ship assisted by two thrusters at the bow and stern to the wharf, and triggers the AMS when the ship is correctly positioned. If the wind or ice is above the AMS tolerances, the vessel docks in the traditional way. This extra task illustrates the master's workload as *Megastar* has three captains working 5 days on with 10 off, while the two crews rotate fortnightly.

Tallink and Meyer Werft are delighted with *Megastar*, which both agreed exceeded specifications during sea trials. "Her energy consumption is the same as for our other ships, but now we count in MW not tons," added Tuulik.

Megastar in figures (figures in brackets comparison with Star):

- 49,200GT (+35 per cent)
- Installed power: 45.6MW (-13 per cent)
- Installed power/GT: 0.931 (-36 per cent)
- Passenger capacity: 2,824 (+36 per cent)
- Passenger areas: 8,600m² (+62 per cent)
- Vehicle capacity: 3,653 lane metres = 110 cargo units and ~320 cars or 800 cars (+60 per cent).

Like *Viking Grace*, *Megastar* is silent and smooth in most conditions. "We will be able to operate *Megastar* with LNG, enabling lower emissions and reduced energy consumption while carrying more passengers," sums up Stalmeister. ▲

*JOHN PAGNI is a freelance photographer, journalist and correspondent, based in the Helsinki Area, Finland



Australian Maritime Lawyers

australianmaritimelawyers.com.au

admin@australianmaritimelawyers.com.au

Ph: 1300-MARITIME (6274-8463) Australia wide, 24-7 service



Advice and representation in all maritime matters including:

- Regulatory matters
- Infringements/criminal offences inc dangerous navigation, PCA, safety breaches etc
- Admiralty claims, arrest and ownership matters
- Arbitration and mediation
- Contractual disputes
- Marine and personal insurance
- Bills of lading
- Carriage of goods
- Ship purchase, sale, repair
- Environmental and pollution matters
- Liner shipping
- Commercial fisheries
- Towage and pilotage
- Port operations
- Issues arising under the *Biosecurity Act 2015 (Cth)*





Heavy hauling and “hidden subsidies”

By Dr PHILIP LAIRD*

For decades, road user charges for trucks with annual registration fees and fuel taxation have resulted in “hidden subsidies” to the operation of the heavier semitrailers, B-Doubles and road trains called articulated trucks.

Since the 1990s, these charges have been determined on a conservative basis. Compared with “user pays” charging, there is an under-recovery of road system costs attributable to articulated trucks of at least \$1.5 billion per annum.

Added to this are the so called “external costs”, including those of road crashes involving articulated trucks, emissions, noise and air pollution. These costs are broadly estimated at a further \$1.5 billion per annum.

As a result, Australia puts more ‘loads on roads’ than need be, and makes rail freight, sea freight, pipelines and conveyor belts financially unattractive for moving many types of freight.

For many years, it has been recognised that the heavier articulated trucks should be meeting their attributable road system costs with the use of mass-distance-location pricing. Such pricing has been in place since the late 1970s in New Zealand.

Although the necessary reform to date has proved to be difficult, there are indications that some changes may now actually happen.

Some background

The issue of hidden subsidies to the operation of heavy trucks that haul long distances each year (like interstate, as opposed to container pick up and delivery at a port) has been long standing.

Back in 1990, Australia’s Prime Minister and Premiers agreed that road pricing for heavy trucks should be put on a ‘user pay’ basis. To implement this, a National Road Transport Commission (NRTC) was established. However, after some astute lobbying by the trucking industry, ‘user pay’ charges were abandoned.

Instead, moderate charges were

determined by the NRTC in 1992, with the then Chairman of the NRTC saying that ‘user-pays’ was untenable.

The NRTC charges determined in 1992 set an annual charge for B-Doubles at just \$5500 per year. At that time, the New South Wales annual charge for a large B-Double was over \$12,500 per year. The lower charges led, in 2006, to the Productivity Commission finding that the NRTC charges were “conservative” and that as a class of heavy trucks, B-Doubles “do not cover the network-wide costs attributable to their road use.”

Since 2004, the NRTC has been called National Transport Commission (NTC). Their charges continue to be conservative.

The NTC makes use of Equivalent Standard Axle (ESA) kilometres for separable pavement cost allocation, which depends on the fourth power of the axle loads. In addition to the use of ESA kilometres, their cost allocation methodology uses vehicle kilometers, average gross mass kilometres and passenger car equivalent kilometers, as parameters for cost allocation.

The fourth power law gives rise to the rule of thumb that a moderately loaded semitrailer causes about 10,000 times the road wear and tear that a family car does. For a heavily laden B-Double, the road wear and tear factor is about 20,000 times that of a car.

Use of methodology adopted in 1980 by a New South Wales Commission of Inquiry into the road freight

industry to calculate road system costs attributable to articulated trucks, gives an estimate of about \$1500 million, in 2005-06, higher than the NTC approach. The NTC approach is light on ESA kilometres and makes more use of the other parameters, and sets its road user charges (annual registration fees and a fuel levy appreciably less than that paid by motorists) to match its road system costs. So, in 2005-06, there was a hidden subsidy of about \$1.5 billion per annum.

The main beneficiaries of the hidden subsidies to the heavier articulated truck operations are not the truck drivers who work hard in a dangerous occupation but the companies that choose to consign freight by road.

Modal Shifts

The resulting hidden subsidies for heavy long-distance trucks not only affect rail freight, but also sea freight. By way of example, for over 40 years, Hansons had moved aggregate from their Bass Point Quarry in Shellharbour to inner Sydney by ship. However, in 2013, they sought and obtained permission from the New South Wales Government to discontinue the use of shipping and put quarry trucks on congested Wollongong and Sydney roads.

There has also been a steady drift from rail to road for interstate freight, to the point that there are now over 10 million tonnes per annum (mtpa) of freight moved between Sydney and Melbourne, by over 3000 B-Doubles and semi-trailers each day.

The 2009 decision of Shell Oil to cease using rail for long-haul movement of petroleum products in New South Wales and to use B-Doubles, is yet another modal shift. Although this was done for several reasons, it was in part due to the hidden subsidies for B-double operations. Shipping was once used extensively to move oil to regional ports. Yet, today, Australia over-relies on road freight of petrol and diesel, often with tragic consequences.

A need for reform

Although it was intended in 1990 to put truck road user charges on a 'user pays' basis with the option of some mass-distance pricing, the first determination of the NRTC in 1992 had low annual registration charges, with no mass distance pricing.

The views of the Industry Commission (now Productivity

Commission), in commenting in 1992 on the NRTC charges, are of note "...Annual fixed charges are not efficient because costs vary with the distance travelled and the mass of the vehicle. The result is that some vehicles - the heaviest travelling long annual distances - will meet less than 20 per cent of their attributed costs... Differences between the recommended charges and road-related costs are greatest for vehicles competing with rail. The charges, as recommended, will therefore potentially distort the long-haul freight market as rail reforms take effect...."

Despite some minor changes, with recommendations for modest increases successfully opposed by the road freight industry, this situation of under-recovery persists to this day. Instead, there are on ongoing concessions to mass and dimension limits for heavy trucks.

In 2010, the Henry Tax Review made several pertinent recommendations for road pricing reform. These included that CoAG "should accelerate the development of mass-distance-location pricing for heavy vehicles..."

The issue was again addressed in 2015 by the Competition Policy (Harper) Review, who gave a further call to government to accelerate heavy vehicle road pricing reform.

In New Zealand, a six-axle semitrailer can pay 56 cents NZ (about 52 Aust cents) per kilometre in mass distance charges. In Australia, the same truck hauling 100,000 kilometres a year or more, pays registration and fuel road user charges of less than 17 cents per kilometre.

Data from New Zealand shows that their road user charges, which are mostly made up of mass distance charges levied on heavy truck operations, account for some 37 per cent of all revenue to their land transport fund.

In Australia, NTC data shows that in 2014-15, heavy vehicle operators paid combined road user charges and registration fees revenues of about \$3 billion. This was about 13 per cent of all government outlays on roads.

It is hard to see why Australian charges for heavy vehicles in aggregate, and charges for many heavy semitrailers, should continue to be set at about one third of the respective New Zealand charges.



Loads on roads

Recent responses

In July 2016, the South Australian Premier, Jay Wetherill, called for "a national heavy vehicle road-user charging system run by the Commonwealth in which State-based registration and Federal-based fuel-excise charges are replaced by a charging system based on mass, distance and location."

In August 2016, Urban Infrastructure Minister, Paul Fletcher, in a speech in Sydney concerned with road pricing for all road vehicles, suggested that trucks weighing more than 4.5 tonnes should pay road user charges that more accurately reflect the damage they do to our roads, with the option of establishing an independent price regulator. The Minister's well researched speech is at:

http://minister.infrastructure.gov.au/pf/speeches/2016/pfs007_2016.aspx

As noted by Sydney Morning Herald economics writer Ross Gittins" (Sept. 21, 2016) "Minister's bold call needs to be bolder", heavy vehicles do most of the damage to our roads, and that we charge in Australia "semi-trailers and B-doubles only a fraction of the cost of the damage they do."

In November 2016, the Transport and Infrastructure Council agreed to progress reform of road user charging for light vehicles. However, this Council is yet to address the thorny issue of road pricing for heavy trucks.

With Australia's population having grown to over 24 million, road outlays costing over \$25 billion per year, and road congestion due to cost \$20 billion a year by 2020, road pricing reform for heavy trucks is overdue. ▲

"Dr. Philip Laird, FCILT and Comp IE Aust, is an Honorary Principal Fellow at the University of Wollongong and a well-known commentator on transport issues. More information is given in "Time to rebalance the transport mix" in the current issue of Track and Signal Magazine and a 2006 background paper, "Freight Transport Cost Recovery in Australia" at atrf.info.

Focus: Getting the supply chain right

By A SPECIAL CORRESPONDENT

Nearly 200 industry leaders gathered at the Melbourne Cricket Ground from 7-9 March, to attend Australia's premier freight, logistics and supply chain event - the annual Australian Logistics Council Forum. The opening keynote address was provided by Victorian Minister for Roads, Road Safety and Ports Luke Donnellan who outlined plans for better connectivity to the newly privatised Port of Melbourne.

The Australian Logistics Council is the peak national logistics industry body, with a supply chain focus and a membership spanning the major logistics customers, providers, infrastructure owners and suppliers.

ALC works with government at all levels to ensure it considers the needs of the logistics industry in its investment and policy decisions.

The theme for this year's forum was: 'Getting the Supply Chain Right'.

The conference revolved around the required content of the National Freight and Supply Chain Strategy, which Prime Minister Malcolm Turnbull committed the Australian Government to developing in the Annual Infrastructure Statement last November. The Forum was the first opportunity for an industry-wide gathering of the logistics sector's key representatives, since the Prime Minister's announcement.



Minister Luke Donnellan delivering the opening address

Why do we need a national strategy?

Ian Murray AM, chairman, ALC, opened the Forum and stressed the importance of the discussion and debate to take place over the two days.

"We are a nation, the industry is a national industry today, we have to have a strategy which is going to make sure we can deliver efficiently right throughout the country.

"There's no point having an infrastructure strategy for New South Wales and a different one for Victoria, and a different one yet again for Queensland... infrastructure has to work together..."

"It's absolutely critical that it be national and it's absolutely critical that all levels of government, local government as well, works together to make sure that that strategy is implemented."

David Erwin, CEO, Pacific National



Getting the supply chain right



Ilan Murray addressing the forum

agreed, "A national freight and supply chain strategy is critical for Australia."

Key topics were addressed by speakers from all sectors of the industry. As well as core transport and logistics leaders, representatives from Australian Super funds, education and research, government and infrastructure contributed valuable perspective to the debate.

Session topics included:

- The case for a National Freight and Supply Chain
- A customer perspective on National Supply chains
- Port of Melbourne development of a reliable and integrated intermodal network
- The role of superfunds in infrastructure
- Growing rail freight
- The challenge of CBD freight delivery
- Melbourne to Brisbane inland rail project
- Planning and development of urban encroachment
- New South Wales and an integrated intermodal network
- Supply chain visibility and disruption.

Outcomes

While it is hard to elicit firm outcomes or agreements from such a large and diverse gathering, the clear focus of the conference was the National Freight and Supply Chain Strategy and the general tenet of discussions indicated:

- A consensus that the National Freight and Supply Chain Strategy should build upon positive progress in recent years to improve logistics planning and reforms. The National Strategy stands its best chance of success if its development is supported by all political parties and at all levels of government.

- That the National Freight and Supply Chain Strategy should be 'mode neutral'.

However, there was broad agreement that the strategy should particularly examine initiatives to increase rail's share of the national freight task, especially with regard to long-haul, bulk freight.

- That Inland Rail should be 'port to port' and form the backbone of the National Freight and Supply Chain Strategy.
- There was agreement that achieving a better road-rail mix in the delivery of the national freight task will help to reduce costs, deliver improved safety outcomes on our roads and produce clear environmental benefits.
- The Strategy must take a long-term view, to ensure the best freight links are not lost to the supply chain through encroaching residential and commercial development.
- Attendees called for more effective action from government at all levels when it comes to preserving transport and logistics corridors. Unless State and Local governments commit to a National Strategy the most efficient transport and logistics solutions will become prohibitively expensive. This will in turn limit the

nation's capacity to achieve better economic outcomes.

- The Strategy must be backed by investment. The financial resources required to make it work will be significant over time, and will likely depend on investment from a mix of government, private and institutional sources, and possibly proceeds from asset recycling.
- There is a need for greater harmonisation between State jurisdictions when it comes to regulation in this area if efficiency and economic gains are to be achieved.
- There was strong support for reform of road pricing. It is imperative that we move to a model where road users pay according to where and when they travel.
- It was recognised that we must achieve a better balance between the planning needs of efficient freight transport and residential development requirements.
- Local government must be incentivised to consider national freight needs in the context of their own decision-making. Equally, State and Federal governments must recognise that Local government cannot be expected to pick up the cost burden of building and maintaining roads which form part of



Session chair Andrew Ethell; Richard Sellers, director general, Department of Transport; Michael Masson, CEO Infrastructure Victoria; Philip Davies, CEO Infrastructure Australia; Mike Mrdak, secretary, DIRD; Rod Sims, chairman ACCC

a national or export freight network.

In an industry with enormous competition between stake-holders, the major outcomes and points of agreement reflect the enthusiasm across the board, to develop this Strategy. The economic and social benefits that the successful development and implementation of the Strategy promises will ensure national efficiency, as well as increasing prosperity for industry and ultimately, for all Australians.

Developing the National Freight and Supply Chain Strategy

The terms of reference for the Inquiry into National Freight and Supply Chain Priorities were announced by the Minister for Infrastructure and Transport, the Hon Darren Chester MP.

Broadly speaking, these will examine future growth and development, accessibility, costs and benefits, planning and predictions, advances in technology, regulatory changes and investment actions, incorporate Australian government policy reviews - including international best practice guidance, ensure our capability keeps pace with the growing global supply chain and review the adequacy of investment planning to efficiently meet forecast growth to keep Australia's position with its trading partners.

Industry advisory panel announced

During his speech to the ALC Forum dinner, Minister Chester also announced the formation of an expert panel to advise the Government on



Session chair – Nicole Lockwood, chair, Freight and Logistics Council, WA; Chris Noble, group director Toll; Roy Cummins, CEO, Port of Brisbane; Marika Calfas, CEO NSW Ports

the development of the Strategy.

Three outstanding logistics industry leaders have been appointed to the panel:

- Marika Calfas, chief executive officer, NSW Ports;
- Maurice James, managing director, Qube Holdings; and
- Nicole Lockwood, chair, Freight and Logistics Council of Western Australia.

These appointments received universal support from the logistics industry guests. "All Panel members are recognised as industry leaders and have made a considerable contribution to the freight and logistics industry, said Michael Kilgariff, ALC managing director.

"Freight and logistics plays an important role in Australia. The industry represents approximately 8.6 per cent of Australia's GDP and employs 1.2 million Australians. ALC research shows that a 1 per cent increase in supply chain efficiency will deliver a \$2 billion benefit to the national economy. That is why it is critical that we get this strategy right."

"The strategy also needs to be supported by industry because if it's not supported by industry, then it's not sustainable," added Marika Calfas.

The panel will examine any regulatory and investment barriers alongside opportunities to improve the capacity and reduce the cost of transporting goods through our major national container ports and intermodal terminals.

Inland rail at last?

There have been years of advocacy in support of an efficient inland rail connection between Melbourne Brisbane and Sydney. Shipping Australia has always added the proviso that the proposed inland rail network should be focussed on feeding the ports and enabling efficient distribution of imports to the interior – not bypassing the efficient highways of the sea with a less efficient land transport link.

Clearly the government is close to a decision on funding this development. Minister Darren Chester stated, "Most of our exports come from our regional centres and as a regional MP I know how important efficient freight links are in giving regional economies the best chance for growth.

"Transport infrastructure provides the economic and social arteries essential for life in a large nation like Australia.

"The once-in-a-generation Melbourne to Brisbane Inland Rail will play a key role in moving freight along the east coast.

"Inland rail will connect our regions to our ports, reduce congestion in our cities and make our roads safer—and we can build it within a decade.

In the federal budget, only two months after the conference the government announced \$8.4 billion towards building the link. Now the logistics sector eagerly awaits the development of the National Freight and Supply Chain Strategy, due by the end of this year and looks forward to the benefits it will deliver for Australia. ▲



Michael Kilgariff, ALC managing director



Inchcape
Shipping Services

Through our network of offices in more than 60 countries we service a diversified customer base of 2,500 clients across the oil, cruise, navy, container and dry-bulk commodity sectors.

A global resource providing:

- Port Agency
- Liner Agency
- Husbandry Services
- Offshore Support Services
- Bunker Coordination
- Ship Maintenance
- Spares & Supplies
- Provisions & Stores
- Cash to Master
- Marine Surveys
- Medical Assistance
- Crew Movements
- Accommodation, Air Tickets & Visas
- Disbursement Accounting, Bunker Duty & Freight Tax



Australia

Inchcape Shipping Services Pty Limited,
Level 10, 54 Miller Street,
North Sydney, NSW 2060, Australia
Tel: +61 2 9410 8888
Email: australia@iss-shipping.com

New Zealand

ISS-McKay Ltd
The Shipping Exchange,
2 Akaroa Street, Parnell, Auckland 1052
Tel: +64 9 3094266
Email: auckland@iss-mckay.co.nz

Papua New Guinea

Inchcape Shipping Services
Level 5, Mogoru Moto Building
Champion Parade, Port Moresby
Tel: +675 321 2599
Email: port.moresby@iss-shipping.com.pg

A World of Local Expertise
www.iss-shipping.com



The **BOX** that changed the world

A free outdoor exhibition in development at the Australian National Maritime Museum

By MARY-ELIZABETH ANDREWS, curator special projects, Australian National Maritime Museum

Love them or loathe them, shipping containers are everywhere. As a fundamental maritime technology, containers have moved far beyond secluded ports and busy highways over the past few decades and into the design lexicon and popular imagination.

development at the Australian National Maritime Museum. Housed entirely within specially modified 20-foot shipping containers, the exhibition quite literally takes our visitors 'inside the box' to explore the economic, geographic, technical, environmental, social and cultural history and impact of containerisation.

The six containers, each of which takes one aspect of the container revolution as its theme, are placed around the Australian National Maritime Museum's Pyrmont and Darling Harbour site, creating a series of inviting new spaces as walk-in exhibition modules and giant showcases. By utilising these outdoor spaces, the museum can extend its free offering, connect with the local community and reach new audiences, while linking directly to the history of the precinct and its transformation during the era of containerisation and beyond.

We explore, for example, the changing face of Darling Harbour via a cut-out window looking directly over the former Hungry Mile. Through a series of viewfinders, visitors can see compelling images of life on the docks before the arrival of the container. This is extended by the use of graphics to situate the scenes within the early 20th century working harbour, showing the dense proliferation of wharves, shipping lines and associated warehouses and industry that are all but invisible in the landscape of today's business and entertainment district. Thinking beyond Sydney, these images are designed to be easily interchangeable when the exhibition travels to other locations, so that they could just as easily tell the story of Port



Architect's rendering of the proposed Hechingen Studio, James Whitaker, 2010. Reproduced courtesy Whitaker Studio Limited

From the realist paintings of expatriate Adelaide artist Jeffrey Smart in the 1970s and 80s, to the obligatory face-off at the conclusion of so many blockbuster action films, containers and container terminals have become symbols of the 21st century city and our globally connected lives. Half a century after containerisation first took hold, it seems those outside the shipping industry are

finally becoming aware of the enormous impact of this seemingly mundane maritime innovation – an innovation that has transformed the relationship between land and sea and facilitated profound shifts across the globe.

"CONTAINER – the box that changed the world" is an exciting new temporary and travelling exhibition currently in



The nation's lifeline, James Thomson, 1991. ANMM Collection Gift from James Thomson. Reproduced courtesy of James Thomson

Kembla, the port of Melbourne or Fremantle.

The exhibition tackles a range of historical and contemporary themes including: shipping and ship technology, ports and port development, trade, quarantine and customs, marine health, and design and architecture. Key Australian developments such as Associated Shipping's world-first purpose-built cellular container ship, the MV *Kooringa*, and the arrival of OCL's *Encounter Bay* at the newly built Seatainer terminals at Fremantle, White Bay and Swanson Dock, are situated within a broad global story.

Visitors can explore the containers individually or as part of a trail. Each exhibition space is self-contained and represents a total offering, which is extended and complemented by the associated containers, to build up a comprehensive picture. Bold external graphics and a vibrant colour scheme link to way-finding throughout the precinct to draw visitors and passers-by to the exhibition to learn more about the impact of containers, and shipping more generally, on their everyday lives.

This is epitomised by one of the containers, a side-opener with a purpose-built acrylic window. This container acts as an installation, a 6m x 2.5m museum showcase, rather than a walk-in space. Through the window is a typical lounge/dining room, complete with dinner on the table, smart phone by the couch and fresh cut flowers on the sideboard. With only around five per cent of Australia's imported flowers arriving by sea (though the

use of reefers for the cut flower trade is increasing in other markets), the flowers represent the one per cent of total imports that come in as air cargo. These are the exception that proves the rule, and by showing the origin, distance travelled and mode of transport for the various components of each item within the room, visitors are confronted with the often overlooked

fact that shipping is fundamental to the way we live our lives.

The key message here is that in Australia 99 per cent of all imports and exports travel by sea, higher than the already very high global average of 90 per cent. By going beyond the 'made in' label, the final assembly point, to trace manufacturing inputs, visitors will hopefully also grasp something of the complex supply and manufacturing chains that shape the world we live in today – a world that would never have been possible without the enormous savings in sea freight ushered in by the container revolution.

"CONTAINER – the box that changed the world" opens at the Australian National Maritime Museum in October 2017. It will travel to New South Wales regional locations during 2018–19 with a potential national tour following. The first stage of this free and accessible exhibition has been made possible by the generous support of our Major Sponsor NSW Ports, along with MCS, ACFS, DP World, Royal Wolf, Transport for NSW, Property NSW. and Shipping Australia Limited. For information on additional sponsorship and partnership opportunities contact Gail de Raadt at gail.deraadt@anmm.gov.au or on 02 8241 8312. ▲



Wharfies positioning wool bales in the cargo hold of the Magdalene Vinnen. Samuel J Hood Studio, 1933, ANMM Collection

PHILIP CHARLES KELLY OAM – passed away 10 January 2017 – aged 88

A lifetime of service to shipping

By ROD NAIRN

I am very sad to advise that our esteemed friend and Shipping Australia colleague, Phil Kelly passed away after a tenacious but ultimately unsuccessful battle with cancer. Phil had beaten cancer once before and was optimistic about his prospects. But in Phil's words "we fight a lot of battles in this industry and we certainly don't win them all", sadly his final battle fell into the latter category.



Our sincere condolences to his wife Frances, sons Philip and Jack, daughter Alexandra and their families. The Shipping Australia family and particularly the shipping community in Victoria, extend our deepest sympathies.

Phil always told me that he would continue to work for as long as he could make a contribution because he loved the industry and it kept him active, and that he did. Phil reluctantly resigned from his role as Victorian State Secretary in July

last year, when he realised that he would not have the energy and strength to continue while undergoing chemotherapy. Since then, Phil had remained optimistic about the outcome until quite recently.

Phil has been an icon of the shipping industry, especially in Melbourne where he has spent almost 70 years in the industry. He was influential during the transition from general cargo to containerisation, became Victorian State Manager of Associated Container Transport

Australia, served on the board of the Melbourne Harbour Trust and later took on the role of general manager of the historic barque Polly Woodside. Retiring from full-time work 28 years ago, his commitment to the maritime sector saw him immediately take on the role of Victorian Secretary of the Australian Chamber of Shipping, which later became part of Shipping Australia Limited. It was a role he held until his retirement in July last year. With his polite demeanour and quiet efficiency, he guided the Victorian State Committee, demonstrating an outstanding ability to represent the industry at the highest level and negotiating positive outcomes for members. He contributed to numerous Victorian logistics reviews and represented the shipping industry in the channel deepening project, empty container park working groups and the 2015 review of the privatisation bill for the Port of Melbourne.

His illustrious career has been widely reported. In 2008 he was awarded the Medal of the Order of Australia for services to the shipping industry and to the preservation of Australia's maritime history. Most recently, in November 2016, Phil was selected as the 2016 inductee to the Australian Maritime Hall of Fame.

We will miss you Phil and wish you fair winds and following seas. ▲





Townsville, 2016

Efficient, Environmentally Compliant Hoppers

When environmental compliance is key to your operation, we can provide a solution.

Dust Controlled Hoppers

- Dust extraction system
- Dust control grizzly chute
- Retractable loading spout
- Ship to hopper spillage recovery
- Integrated dust collection unit

Design and Build

- Technical site assessment
- Build to complement existing wharf configurations
- Custom integration with existing plant
- Material batch weighing

Bulk Grabs

- Wire or chain operation
- Diesel hydraulic operation
- High productivity
- High digging capacity
- Excellent bucket sealing integrity



Perth



Darwin

Talk to us today.

Bruce Ennis, Manager, Port Equipment

P +64-7-575 5079 E portequipment@page-macrae.co.nz



Page Macrae Engineering has a reputation as one of New Zealand's premium engineering companies. Based in Tauranga, we are located close to New Zealand's largest and busiest port. We offer a wide range of engineering services from design, fabrication, onsite installation, project management and pride ourselves on our ability to provide solutions through innovation.



PAGE MACRAE
Engineering

Providing safe,
efficient and sustainable
world-class port
and marine services
on our harbour

