Shipping Australia Limited

Annual Review 2018

Today, Tomorrow, Together

We're investing in the future to help you grow.
Nine new cranes are just the beginning.

DP WORLD
Australia

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Shipping Australia Limited

THE OFFICIAL JOURNAL OF
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Our Vision

The first choice for membership of a national shipping industry body promoting the interests of the shipping industry and creating enduring value for our members. An independent voice, trusted by Government and industry bodies for providing quality, expert advice.

Our Mission

To promote and advance the interests of members in shipping policy for a sustainable maritime industry.

Our Values

Professionalism, Respect, Integrity, Teamwork

Overview

Shipping Australia Limited is a peak Shipping industry association with 27 member lines and shipping agents and with 49 corporate associate members which generally provide services to the maritime industry in Australia. Our members are involved with over 80 per cent of Australia's international container and car trade, as well as over 70 per cent of our break bulk, roll-on roll-off and bulk trade. A number of our members are also actively engaged in the provision of coastal cargo services to Australian consignors and consignees. Our members include cruise ship and towage operators. A major focus of SAL is to promote efficient and effective maritime trade for Australia, whilst advancing the interests of ship owners and shipping agents.

SAL also provides secretariat services to companies that have agreements registered under Part X of the Australian Competition and Consumer Act, 2012.

We know shipping!

Supporting Australian shipping

By the Hon MICHAEL MCCORMACK MP, Deputy Prime Minister, Minister for Infrastructure, Transport and Regional Development

International shipping carries 99 per cent of the nation's imports and exports by weight, and continues to be an important industry which brings economic prosperity and employment to many.

Fewer businesses can offer a more important set of services to the Australian economy than the international shipping sector and claim a positive impact on so many peoples' livelihoods.

In a global business like shipping, Australian ships need to remain competitive, which is also supported by the Liberal and Nationals' Government.

Creating simpler and more flexible coastal shipping rules, as we are hoping to do with the Coastal Trading (Revitalising Australian Shipping) Amendment Bill 2017, will make coastal shipping a more viable mode of transport. More coastal trade will benefit the manufacturing, mining, agricultural and energy sectors, and means maritime trade can increasingly contribute to the growth in freight movements.

I must emphasise that the Bill, which is available for debate in the Senate, does not remove protections for Australian flagged vessels and doesn't affect current seafarer pay and conditions.

Every business and every industry, large or small, needs certainty for planning. To this end, I have approved the exemption of large cruise ships operating around Australia, from the Coastal Trading Act for another five years.

I've asked my department to consult with the cruise industry to develop a permanent approach to dealing with cruise vessels under the coastal trading regime, to ensure the sector can continue to grow.

The global shipping industry is facing one of its biggest environmental challenges, with the transition to low sulphur fuel high on the agenda for shipping companies. The maritime sector has recognised the need to reduce the impact of emissions on the environment and human health, and is responding appropriately. The global shift to low sulphur fuel has been coming for a number of years.

2019 is the year everyone will need to work together to make final decisions about meeting the new world standard.

There will certainly be challenges in ensuring a reliable supply of compliant fuels, as well as access to technology and expertise in exhaust gas cleaning. There is also a great deal of uncertainty regarding compliant fuel pricing predictions and the cost impact for the industry globally could be significant, at least in the short term.

Australia's shipping industry is leading innovation through projects such as the Green Corridor Joint Industry Project, which aims to develop greener, more efficient and future-proof ship designs. The transition to low sulphur fuels presents a great opportunity for Australia as a leading producer of Liquefied Natural Gas – likely to be a shipping fuel source of the future.

There are several Australian Government initiatives which continue to support shippers and sea travellers, and help our maritime industry achieve benefits for the Australian public.

The Shipping Reform (Tax Incentives) Act 2012 has been in place for some six years now, encouraging both investment in the Australian shipping industry and the development of sustainable employment and skills opportunities for Australian seafarers. In this calendar year to the end of October, eleven Income Tax Exemption Certificates and two Income Tax Exemption Notices have been issued by my department.

It has been a big year for the maritime industry in terms of recognition, dialogue and decision.

In August this year, the northbound and intrastate component of the Tasmanian Freight Equalisation Scheme (TFES) was extended to include fodder being donated to mainland farmers facing the drought.

In December last year, Australia was elected to Category B of the International Maritime Organization (IMO) Council, which reaffirms our contribution to the development and implementation of international standards on maritime safety, security and pollution prevention.

Australia now has the remarkable record of being on the IMO Council for almost 50 years and is the first country to move from Category C to B.

At the beginning of July this year, the Australian Maritime Safety Authority (AMSA) became the one point of contact for services under the National System for Domestic Commercial Vessel Safety. This implements a truly national safety system enabling domestic operators, seafarers and vessels to move seamlessly between jurisdictions, and means around 27,000 vessels and 66,500 seafarers now carry out operations in Australia under one national system. It also establishes AMSA as Australia's single maritime safety regulator for both domestic and international maritime operations, enabling lessons to be shared across sectors.

The ongoing work towards a National Freight and Supply Chain Strategy is another important outcome for our shipping industry during 2018.

In May, I released the findings of an industry-led inquiry into priorities for such a strategy, which will set the agenda for integrated government and industry action and engagement over the next 20 years. The strategy will be considered by the COAG Transport Infrastructure Council in 2019.

Australia's future growth will be influenced by our capacity to access safe, secure, efficient and competitively priced transport services, as well as responding to maritime priorities and the rapid pace of technological change.

Working together to ensure shipping is safe, reliable and efficient, and protective of the marine environment, means all countries and all industries can share the benefits of a strong international shipping sector.

Yes, there are big issues still on the table, but nothing that collaboration between industry, Government and the community will not be able to deal with as we continue to develop a strong shipping future.

I look forward to ongoing industry engagement to achieving that goal.

SAL MEMBERS

Voting members

A.P. Moller-Maersk A/S
Asiaworld Shipping Services Pty Ltd
Austral Asia Line Pte Ltd
BBC Chartering Australia Pty Ltd
CMA CGM Group Agencies (Australia & New Zealand)
Evergreen Marine Australia Pty Ltd
Gulf Agency Company (Australia) Pty Ltd
Hamburg Süd Australia Pty Ltd
Hapag-Lloyd (Australia) Pty Ltd
Inchcape Australia Limited
K Line (Australia) Pty Ltd
LBH Australia Pty Ltd
Mediterranean Shipping Co (Aust) Pty Limited
Mitsui OSK Lines (Aust) Pty Ltd
Monson Agencies Australia Pty Ltd
Neptune Pacific Agency Australia Pty Ltd
NYK Line (Australia) Pty Ltd
OOCL (Australia) Pty Ltd
Pacific Asia Express Pty Ltd (PAE)
Quay Shipping Australia Pty Ltd
Seaway Agencies Pty Ltd
Ship Agency Services Pty Ltd
Smit Lamnalco Towage (Australia) Pty Ltd
Svitzer Australia Pty Limited
The China Navigation Company Pte. Ltd. (Australian Branch)
Wallenius Wilhelmsen Logistics A/S
Wilhelmsen Ships Service A/S

Contributing members

ANL Container Line Pty Ltd
Neptune Pacific Agency Australia Pty Ltd
Pacific Forum Line (NZ) Ltd

Corporate associate members

1-Stop Connections Pty Ltd
AGS World Transport Pty Ltd
Ardent Oceania Pty Limited
Australian Amalgamated Terminals Pty Ltd
Australian Maritime College
Australian Pilotage Group
Australian Reef Pilots Pty Ltd
Brisbane Marine Pilots Pty Ltd
Chalmers Industries Pty Ltd
Clyde & Co Australia Pty Ltd
Colin Biggers & Paisley Pty Ltd
Containerchain Pty Ltd
Darwin Port Corporation Pty Ltd
Deloitte Consulting Pty Ltd
DP World Australia Pty Ltd
Flinders Ports Holdings Pty Ltd
Fremantle Ports
Gilbert & Tobin Lawyers
Henning Harders Shipping Australia
Holding Redlich
Holman Fenwick Willan HFW
Hutchison Ports Australia Pty Ltd
HWL Ebsworth Pty Ltd
LINX Cargo Care Group Pty Ltd
Macquarie Telecom Pty Ltd
Maritime Container Services Pty Ltd
Melbourne International RoRo & Auto Terminal Pty Ltd
Norton Rose Fullbright Australia Group Pty Ltd
NSW Ports Pty Ltd
OMC International Pty Ltd
Patrick Terminals
Peter McQueen Pty Limited
Port Authority of New South Wales
Port Kembla Gateway Pty Ltd
Port Lincoln Tugs Pty Ltd
Port of Brisbane Pty Ltd
Port of Newcastle
Port of Townsville Ltd
Port Phillip Sea Pilots Pty Ltd
QUBE Ports Pty Ltd
Royal Wolf Trading Australia Pty Ltd
Serco Asia Pacific
Thomas Miller (Australasia) Pty Ltd
Thompson Clarke Shipping Pty Ltd
Victoria International Container Terminal Ltd
Victoria Ports Corporation (Melbourne)
Victorian Regional Channels Authority
Westug Pty Ltd

Individual members

Mr Frank Needs
Mr Ross McAlpine

BOARD OF DIRECTORS

Scott Henderson, chairman

Appointed 24 February 2015 (chairman 2 December 2016)

Managing director, Gulf Agency Company (Australia) Pty Ltd since 2014. Scott has 25 years of agency experience in Australia, prior to that he served as deck officer in the British merchant navy for seven years.

Ken Fitzpatrick, vice chairman

Appointed 4 December 2006 (chairman December 2011 to December 2016)

Director, Asiaworld Shipping Services Pty Ltd. Ken has over 45 years shipping experience in a variety of industry related activities including the Australian and overseas market.

Simon Aynsley

Appointed 8 December 2010

Managing director, CMA CGM Group Agencies (Australia and New Zealand) Pty Ltd. Simon has 40 years shipping industry experience.

Kevin Clarke

Appointed 12 November 2003

Kevin Clarke has worked in the shipping industry for over 50 years, the past 30 of which have been as managing director, Mediterranean Shipping Company (Aust) Pty Limited.

Eddy DeClercq

Appointed 8 August 2008

Managing director OOCL (Australia) Pty Ltd. Eddy has 36 years of shipping industry experience in various key commercial and management positions in Belgium, Denmark, The Netherlands and Sydney.

Geoff Greenwood

Appointed 3 May 2004

Managing director, Hamburg Süd Australia Pty Ltd. with 34 years shipping industry experience, Geoff has held key commercial and management positions in Canada, USA and Australia.

Gerard Morrison

Appointed 8 May 2017

Managing director Maersk Line Oceania. Gerard worked in the telecommunications industry both in the United Kingdom and Japan prior to transitioning to freight forwarding. He joined Maersk Line in 2006, advancing to director of sales in 2013, then to managing director in 2015.

Adrian Peterson

Appointed 21 December 2015

Manager East Coast Oceania/PNG, Wilhelmsen Ships Service. Adrian has 30 years experience with companies such as Union Bulkships, Contship, Pacific Asia Express. He also has extensive experience working with liner traders, bulk, tanker and Ro/Ro vessels. Adrian is a member of QTLC.

CHAIRMAN'S REPORT

A year of changes... but full steam ahead

By SCOTT HENDERSON

The first part of 2018 has been an historic one for liner shipping in Australia. The sudden withdrawal of lines from the major Discussion Agreements operating between Australia, New Zealand and the USA was quickly followed by a similar exodus from the north Asia Trade Facilitation Agreement and the southbound Asia Australia Discussion Agreement. Later in the year the Australia Fiji Discussion Agreement was also closed. As a result, we have had to reduce staff in the liner services division, and in June Andrew Chittenden, our liner services manager for the past 30 years, took early retirement. On behalf of the SAL Board and all our liner services members, I thank Andrew for his years of dedicated and professional service.

Despite these changes, Shipping Australia maintains the capability to support continuing Discussion Agreements, bunker calculations, regional trade statistics (by subscription) and ongoing registration service for consortia agreements under Part X. We also continue to be the industry point of contact for the Registrar of Liner Shipping and provide advice and support on liner matters to our members.

You might say that Shipping Australia has returned to our roots. The company was formed in 2000 as the amalgamation of the Australian Chamber of Shipping and Liner Shipping Services but throughout, our policy and technical departments remain unchanged and will continue to provide information, advocacy and training services to our members and the wider shipping industry, as we have done for the past 18 years and 20 years before that as the former Chamber.

In May, our Queensland state chairman, Geoff Dalgliesh, stood down when his position with K-Line was dissolved, as the company merged container operations into the Ocean Network Express. A month later, Bill Guest, our Queensland state secretary, retired after holding this position since the formation of SAL. We have been very fortunate to engage Geoff Dalgliesh as Queensland state secretary, and with his intimate knowledge of the SAL Queensland operations he has maintained continuity without missing a beat. The SAL Queensland Golf Day earlier this year is an industry favourite and again attracted a sell-out crowd. Geoff's first event, the SAL Queensland Maritime Industry Ball, was also very successful and raised a donation of $8,000 for this year's supported charity, the Tangalooma Eco Marines, an organisation that engages school children as "Eco Marines" to promote protection of the marine environment.

In Western Australia, Robert Boyce (MSC) completed his term as state chairman and was succeeded by Kristy Craker (Ship Agency). In South Australia, Paul Paparella (Asiaworld) continues in the role of SAL state chairman and represents SAL on the South Australian Freight Council.

Our Victoria state secretary, Charles Masters, has maintained routine quarterly committee meetings under the guidance of state chairman, Captain Sunil Dhowan. Last year, Charles took on the challenge of upscaling the SAL Christmas luncheon from an intimate event at the Railway Hotel to a very successful event with more than 100 guests at the historic West Brighton Club. This year it stepped up another notch to the iconic Kooyong Lawn Tennis Club with entertainment by comedian Des Dowling. Other activities have included industry Golf Day and most recently a well-attended cybersecurity breakfast.

In New South Wales, Bill Rizzi (MSC) continues as state chairman, strongly supported by state secretary, Melwyn Noronha. After a very successful meeting with Minister Melinda Pavey last year, Bill has been invited to represent SAL in State Government's Freight Advisory Council. On the social side, the New Soutj Wales Golf Day is building in support, and two lunches at Parliament house and one at Wollongong, have continued to prove popular and excellent networking opportunities. The usual sell-out New South Wales Christmas luncheon on 7 December capped off the year with comedian Vince Sorrenti bringing down the house.

In closing, I would like to thank my fellow Board members and on their behalf recognise the work and support of our volunteer state chairmen for their leadership on shipping matters in their States. I also thank the chairmen of our national steering groups, Eddy Declerq (OOCL) - Human Resources Steering Group, David Pratt (ISS) - Bulk Shipping Group, and Dorian Moga (MSC) - Maritime Legal Steering Group). Finally, a special thanks to Ross McAlpine (MSC) - Border Agencies, Technical and Public Relations Steering Groups, who formally retired from MSC this year. In my second year as Chairman it has been a bit of a challenge to fit the work of SAL into my busy role at GAC and I am happy to be supported by the tireless and professional SAL team. Their work importantly influences policies and provides support to members but often goes under the radar, well done team.

Working for the greater good – it's harder than it should be

By ROD NAIRN

In a year that started with so much promise, this year has not delivered on the optimism that was building in shipping throughout 2017. There have been ups and downs in all sectors, with the age-old problem of capacity exceeding demand persisting in all but the LNG and product tanker categories. Most of this is related to lower demand rather than excess supply, there is greater uncertainty in the global economy, fuelled to some extent by Brexit but in the second half of the year the tariff war between the USA and China has also taken hold. Most major lines have posted losses. Looking ahead I see the challenge of meeting 2020 sulphur limits, whilst being costly, may actually help by increasing scrapping rates and restore the balance a little more.

In Australia, the sustained drought in the eastern States has had a marked impact on agricultural export quantities, and now we look back at last year's shortage of food quality containers with longing. Vehicle imports, which were at record highs earlier in the year, have now fallen to record lows, not helped by the difficult and costly management of the brown marmorated stink bug threat.

This year Shipping Australia has had to respond to some big challenges: the termination of the discussion agreements, appropriate visas for crews of vessels calling at offshore facilities, increased vessel arrival charges, so that international arrivals subsidise domestic ballast water management, brown marmorated stink bugs and of course an unjustified biosecurity levy being imposed on international shipping. We've also had some violent storms leading to port closures and in one instance, significant loss of containers on the east coast of Australia.

The year has been busier than ever in terms of staff effort on Government consultation. Shipping Australia has commenced consultation with the ACCC over the requirements of the industry for the development of a potential class exemption to cover shipping lines. Our position remains that Part X of the CCA already provides the appropriate level of competition protection. It is low on regulatory compliance red tape and is supported by both carriers and shippers. But the future of Part X is not at issue here, that will be determined by the Government at some future date, not by the ACCC. The timeline for this class exemption has blown out considerably. Originally planned for completion by the end of 2018, it is now at least a year behind this due to slow progress on the collective bargaining class exemption, which has been given priority.

The ACCC has been busy in other areas. In October, the ACCC ruled that PNO had overcharged its channel fees, and must be reduced by 20 per cent, backdated to 2016, not surprisingly the Port has appealed this decision. Then in December the ACCC announced that it would take legal action against NSW Ports for making agreements with the State of New South Wales that had an anti-competitive purpose and effect. This is an interesting development but not really a surprise. The ACCC has been critical of this privatisation process, which occurred without any effective price control, and were more dismayed when the secret compensation clause was made public. One would expect that the New South Wales Government is responsible for the deal but the ACCC has no power to pursue governments, only corporations, so they have focused on the other party. One final twist is that sources advise that the concept was conceived by the unsuccessful bidder for Botany and Port Kembla, who subsequently became part owners of Newcastle – what a complicated world.

The Department of Agriculture and Water Resources has taken more than its fair share of Shipping Australia's time and effort this year. After initially arguing against the excessive cost of port marine pest monitoring for domestic ballast water implementation, in April our members agreed to accept the increase in the vessel arrival charge (which meant international vessels subsidising domestic ballast water implementation), on the basis that port marine pest monitoring would inform and mitigate hull biofouling risks, but they didn't expect to be asked to pay again.

Since the Budget announcement of a new biosecurity levy, SAL has been engaged with a coalition of industry associations and supporters to oppose the levy. Originally proposed as a tax on stevedores, the levy applies to all containerised, bulk and break-bulk cargo, whether it presents a bio-security risk or not. In November, the department restructured the levy to place the tax collector burden on shipping lines and agents. There is no justification on a risk basis; the only fixed points in this levy are the start date of 1 July 2019 and the fact the department aims to collect around $108 million per year. DAWR now proposes a levy on all ship arrivals, in addition to continuing the levy on containers, breakbulk and bulk imports. This is a blatant duplication of the arrival charge that these ships already pay to

The shipping industry relaxes at the SAL New South Wales Christmas lunch

cover any biosecurity risk they pose. Somehow this new charge on all ships, both import and export, is meant to hide the logical flaw of charging a biosecurity levy on bulk imports, such as fuel, that don't present any biosecurity risk. They have reduced the quantum of the bulk charge levy by 50 per cent but they are still charging. Let's face it, there is absolutely no logic in either the new levy or the inefficient way it is proposed for collection – it's a cash grab and a tariff on trade, using biosecurity as an excuse. Strong biosecurity is critical to Australia and it should not be the joke that it is being made, by poor policy being badly implemented. Biosecurity should be adequately Budget funded.

Brown Marmorated Stink Bugs have been the other major work area. This hitchhiker pest has now spread from USA and Italy, to nine other high-risk countries, and the spread is likely to continue with this becoming a global, all season problem. Tight restrictions for Australia and New Zealand have required offshore treatment of many cargos, and carriers have been caught out and worn massive costs when non-compliant cargo has been carried. SAL has met with DAWR weekly to monitor regulatory developments, and continues to press DAWR for appropriate offshore requirements and individual risk assessments in the case of minor infestations detected on ships. It seems that DAWR is unwilling to impose offshore pre-treatment requirements on some of our major trading partners for political reasons, but this puts the risk onto the ship operator, who bears the cost of having their ship delayed or refused entry. This has already happened for some RoRo vehicle carriers, resulting in cargo being returned to port of embarkation. Shipping Australia has previously advised our members not to embark any break bulk cargo from high risk countries, unless it has been appropriately treated. We now extend this advice to other known risk countries that are not formally on the DAWR high-risk listing. The BMSB problem will only get worse as the risk spreads to other countries, and once established in the southern hemisphere, will become a year around impact.

The Department of Home Affairs has also kept us busy. Amongst the broad range of policy matters being dealt with, appropriate visas for ships crews carrying imports to and exports from offshore facilities, has been a big one. After a lot of negotiation, a regulatory change has resolved much of the problem and the Border Protection officers have taken a more enabling position, with respect to trade. Crews of vessels from overseas now need only maritime crew visas to call at FPSO to embark export cargo.

It wouldn't be a Shipping Australia commentary without a mention of coastal shipping legislation, so I won't let you down. Some useful amendments to increase cargo tolerances and port details were pushed through the House of Representatives earlier this year but seem unlikely to be listed for debate in the Senate before the next Federal election. Yet another year of inaction, while Australia generates more green-house gas, suffers unnecessary road casualties and frustrates more Australians by utilising trucks on roads to move long-haul cargo, which should logically be moved by sea.

As we look towards 2019 the key challenges for the shipping industry will include: cybersecurity, digitisation of trade, a focus on dangerous goods packing, hull biofouling, and compliance with the IMO 2020 sulphur limit. By far, the most urgent is the 0.5 per cent sulphur limit, and this also puts a lot of responsibility on fuel companies and national maritime authorities to ensure that sufficient quantities of quality compliant fuels are available. Shipping lines have taken a mix of approaches to compliance. Many have been caught short, as they have already invested in open loop scrubbers, which have now been banned for operation in some ports. Closed loop scrubbers are more expensive and take up more space. Of course, the smaller ships will not fit scrubbers and their compliance will depend on availability of low sulphur fuel, but how will this impact on the reliability and maintenance of their engines? Then there are those who are opting for LNG but again, this brings with it a fuel availability challenge, at least in the short term. No matter which option is chosen, one thing is certain, there will be substantial additional costs and shipping cannot absorb these. Perhaps there is a business case for rejuvenation of the local manufacturing industry!

Paul McClintock, AO chairman NSW Ports (major sponsor) addresses the Christmas lunch

SAL STRUCTURE

SAL Staff

Back row (from left) Rod Nairn, chief executive officer; Bryan Sharkey, company secretary / financial controller.
Front row (from left) Matthew Whittle, policy advisor; Sharyn Flood, executive assistant; Melwyn Noronha, general manager, technical services and industry policy.

Border Agencies steering groups

General Steering Group
- Chairman: Ross McAlpine / Dorian Moga

Container Technical Steering Group
- Chairman: Dexter Vaz

Human Resources Steering Group
- Chairman: Eddy DeClercq

Maritime Legal Steering Group
- Chairman: Ross McAlpine / Dorian Moga

Public Relations Steering Group
- Chairman: Ross McAlpine

Technical Steering Group
- Chairman: Ross McAlpine / Dorian Moga

Bulk Shipping Group
- Chairman: David Pratt

State committees

New South Wales State committee
- Chairman: Bill Rizzi
- Secretary: Melwyn Noronha

Queensland State committee
- Chairman: Geoff Dalgliesh / vacant
- Secretary: Bill Guest / Geoff Dalgliesh

South Australia State committee
- Chairman: Paul Paparella
- Secretary: Rod Nairn

Victoria State committee
- Chairman: Sunil Dhowan
- Secretary: Charles Masters

Western Australia State committee
- Chairman: Robert Boyce / Kristy Craker
- Secretary: Rod Nairn

Policy Council representatives attending end of year meeting

Policy Council members [representatives]

A.P. Moller-Maersk A/S
My Therese Blank [Andrew Cumming]

Asiaworld Shipping Services Pty Ltd
Graeme Simpson [Ken Fitzpatrick]

Austral Asia Line Pte Ltd
Christophe Grammare [Frank Mueller]

BBC Chartering Australia Pty Ltd
Henrik Pedersen [Alex Wellington]

CMA CGM Group Agencies (Australia and New Zealand) Pty Ltd
Simon Aynsley
[Nishantha Wickramaachchi]

Evergreen Marine Australia Pty Ltd
Murray Read [Albert Wong]

Gulf Agency Company (Australia) Pty Ltd
Scott Henderson [Gareth Long]

Hamburg Süd Australia Pty Ltd
Peter Creeden [Geoff Greenwood]

Hapag-Lloyd (Australia) Pty Ltd
Esteban Perez [Anurag Aggarwal]

Inchcape Shipping Services
David Pratt

K Line Australia Pty Ltd
Alan Miles [Phillip Homes]

LBH Australia Pty Ltd
Johnny Tam [Clinton Wonfor]

Mediterranean Shipping Co (Aust) Pty Limited
Ross McAlpine / Bill Rizzi

Mitsui OSK Lines (Aust) Pty Ltd
Mark Austin [Hideyuki Irisawa]

Monson Agencies Australia Pty Ltd
Dale Monson [Rob Davis]

Neptune Pacific Line
Rolf Rasmussen [Bill McDonald]

NYK Line (Australia) Pty Ltd
Jason Huynh / Robert Moran

OOCL (Australia) Pty Ltd
Eddy DeClercq

Pacific Asia Express Pty Ltd (PAE)
Michael Horsburgh [Mario Fernando]

Quay Shipping Australia
Darren Dumbleton

Seaway Agencies Pty Ltd
Craig McElvaney [David Salmon]

Ship Agency Services Pty Ltd
Kristy Craker

Smit Lamnalco Towage (Australia) Pty Ltd
David Fethers

Svitzer Australia Pty Limited
Nicolaj Noes [Ivan Spanic]

The China Navigation Company Pte Ltd (Australian Branch)
Greg Metcalfe [Sean Barrett]

Wallenius Wilhelmsen Logistics A/S
Mark Guscott [Sunil Dhowan]

Wilhelmsen Ships Service Pty Ltd
Michael Buchanan [Adrian Peterson]

Support for Agreements registered under Part X of the Competition and Consumer Act 2010

The year 2018 has been an historic one for liner shipping in Australia. The sudden withdrawal of lines from the major Discussion Agreements operating between Australian, New Zealand and the USA was quickly followed by a similar exodus from the north Asia Trade Facilitation Agreement and the southbound Asia Australia Discussion Agreement. In the second half of the year the remaining Australia Fiji Discussion Agreement was also terminated.

Shipping Australia Limited was formed in 2000 through the amalgamation of the Australian Chamber of Shipping and Liner Shipping Services. Over the years the pendulum of our work effort has swung between liner services and shipping policy matters. Staff levels have been continually adjusted to meet the work demand. In the last few years, as the demand for liner services support has reduced, the workforce in the liner services division has been reduced. At the end of May Andrew Chittenden, our former manager Liner Services took early retirement but continues to provide expert advice as a consultant.

Australia/North and East Asia Trade Facilitation Agreement (TFA)

The TFA, which was registered in May 1998, aimed to promote efficient and economic shipping service from Australia to north and east Asia. The TFA is an association of member lines offering Australian exporters a variety of services from both the east and west coasts of Australia.

Between the four member lines: ANL Singapore Pte Ltd, APL Co. Pte Ltd , Hamburg Sud, and Orient Overseas Container Line, six weekly services are deployed from the south and east coasts of Australia comprising 33 vessels that provide 312 voyages annually, with fast transit times and a comprehensive port coverage in China, Hong Kong, Taiwan, Japan and South Korea.

Other ports are served by transhipment. Additionally, various TFA members provide exporters a wide choice of weekly sailings from Fremantle to ports across the north and east Asia region via Singapore.

The TFA was terminated on 1 February 2018

Australia/South East Asia Trade Facilitation Group (TFG)

The primary objective of the TFG, which was registered in 1997, is to promote efficient and economic shipping service from Australia to south east Asia. The TFG is an association of three member lines: ANL Singapore Pte Ltd, Hamburg Sud, and Orient Overseas Container Line offering Australian exporters varied shipping services from both the east and west coasts of Australia to points in Singapore, Malaysia, Indonesia, Thailand, Vietnam, Cambodia and Brunei. The scope of the agreement also covers south Asian and Gulf region destinations: Myanmar, Bangladesh, Pakistan, Sri Lanka, UAE and Saudi Arabia.

The TFG was terminated on 1 February 2018

Australia/Fiji Discussion Agreement (AFDA)

The AFDA is an association of ocean carriers, whose agreement was registered in 2000, providing liner services from Australia to Fiji. Member lines: Hamburg Sud, Neptune Pacific Agency Australia Pty Ltd., Pacific Forum Line (Group) Ltd., and The China Navigation Co Pte. Ltd. offer three comprehensive services to shippers utilising nine vessels from Melbourne and Sydney to Suva.

The main objective of the agreement is to provide adequate, economical and efficient services from Australian east coast ports to Fiji.

The AFDA was terminated on 3 October 2018.

Australia & New Zealand United States Discussion Agreement (ANZUSDA)

ANZUSDA is an association of ocean carriers registered under Part X of the Competition and Consumer Act 2010 and also with the US Federal Maritime Commission. The carriers ANL Singapore Pty Ltd , CMA CGM S.A. and Hamburg Sud provide liner shipping services from Australia and New Zealand to the USA. The main objective of the agreement is to promote adequate, economical and efficient direct services from Australia and New Zealand to a range of ports on the west and east coasts of the USA, and to other points and ports via transhipment.

The member lines operate a vessel sharing agreement between Australia and West Coast USA offering 78 sailings per year with a comprehensive port range and optimum transit times. The service is divided into two port rotation strings: Pacific North West (PNW) and Pacific South West (PSW).

The member lines provide a total of 78 sailings per year on their various services to the US East Coast. Hamburg Sud operate a vessel sharing arrangement utilising 10 vessels on a weekly service with CMA CGM as slot charterers. ANL and CMA CGM separately offer seven vessels providing a fortnightly service.

The ANZUSDA was terminated on 1 January 2018.

Ongoing provision of liner shipping services

Shipping Australia maintains the capability to support liner shipping services including registration services for consortia agreements under Part X, and provision of bunker calculations and regional trade statistics by subscription/cost recovery. We continue to be the industry point of contact for the Registrar of Liner Shipping and provide advice and support on liner matters to our members.

SVITZER

MAKING AUSTRALIAN PORTS SAFER AND MORE EFFICIENT

STATE COMMITTEE REPORTS

New South Wales

By MELWYN NORONHA, secretary

Another year has whizzed past as secretary of the New South Wales State Committee, with Bill Rizzi as its Chairman. The 'Master and Commander' continue to bring to the fore and address a range of shipping issues.

Besides SAL's head office, meetings this year were held at the NSW Ports' Enfield Logistics Centre, Australian Border Force's Container Examination facility and DP World's terminal at Port Botany, with the last meeting of the year held on 12 December 2018.

NSW Freight Advisory Council

SAL State chairman has now been on the Council for almost a year. The Council meets quarterly and SAL's State chairman has contributed in providing advice on shipping related matters, especially relating to freight in and around port areas.

NSW Freight and Ports Plan release September 2018

In September, Minister Pavey released the final Freight and Ports Plan (the Plan) which forms part of Future Transport 2056. The Plan *inter alia* updates the 2013 Freight and Ports Strategy and includes a Freight Report which aims to periodically assess and review the Strategy objectives.

Transport for NSW consulted with SAL, who made a submission on the Plan, emphasising the following areas:

- Connectivity of the port hinterlands;
- Integration of domestic and international supply chains;
- Port competitiveness;
- Investigating the utilisation of barges on inland waterways;
- Inclusion of definitive metrics for priority actions;
- Recognising logistical barriers (non-standardised pallets, inefficient port connections) for optimising containerised freight; and
- Reducing the number of empty containers exported on vessels destined for another Australian port, to zero by 2056.

Verified Gross Mass (VGM) – Two years on

Two years ago, the International Maritime Organization (IMO) amended the International Convention for the Safety of Life at Sea (SOLAS) introducing the requirement to verify the gross mass of a full container prior to its loading on board the vessel.

While it has been generally quiet since the regime was introduced, SAL's State Committee continues to keep a finger on the VGM pulse to sense any onset of behavioural change in the supply chain.

The committee continues to seek input from its members shipping lines, stevedores and AMSA for any early sign of non-compliance.

The realisation of the IMO's VGM regime would be evident if regulatory authorities were to publish their policing activities (if any), similar to those published for Port State Control. Industry is in a bit of vacuum in terms of data, and one would not wish to see that a lack of adequate policing by regulatory authorities worldwide is encouraging shippers to ignore the rules.

SAL continues to advocate regulatory interventions of onshore premises where VGM calculations may originate, to add reliability to this regime.

Shipping channel service at port of Newcastle - National Competition Council

The case of the declaration of the shipping channel at the port of Newcastle, as a service, continued into this year as well.

Readers will recall that in June 2016, the Australian Competition Tribunal (ACT) declared the shipping channel service in Newcastle under the relevant section of Part IIIA of the Competition and Consumer Act, from 8 July 2016 until 7 July 2031.

The declaration is in effect despite subsequent proceedings brought by Port of Newcastle Operations Pty Ltd (PNO) in the Full Federal Court and an application from PNO for special leave to appeal to the High Court.

This decision meant that negotiations with the Port Operator at Newcastle, over price and other terms of use, were subject to arbitration by the ACCC.

However, in July 2018 the Council received a submission from PNO seeking that the Council should recommend, under section 44J of the Competition and Consumer Act 2010 (Act), that the designated minister revoke the declaration of the shipping channel service at the port of Newcastle.

On 8 October 2018, the ACCC published its final arbitration report of the dispute between Glencore Coal Assets Australia and PNO, in which the key finding was that PNO had overcharged its channel fees, which were to be reduced by 20 per cent, and the amount of overpayment refunded. It noted that the port provides the only commercially viable means of exporting coal from the Hunter Valley region in New South Wales.

In light of the ACCC's report, the NCC is currently still deliberating its decision on the revocation of the declaration, with its preliminary views due to be released in late December 2018, at which time further submissions will be invited.

The ongoing saga with Newcastle's shipping channel clearly reflects that those involved in the sale of the port in 2012-13 were purely focused on maximising the sale price of the port for the New South Wales Government. Not surprisingly, an inquiry has been commissioned by the New South Wales Legislative Council to inquire in to the impact of the sale of the port of Newcastle on public works expenditure. It is about time that those who provided strategic advice to New South Wales Treasury, to maximise the value of the long-term lease of the port of Newcastle for the New South Wales Government, be held accountable.

Remake of the Ports and Maritime Administration Regulation 2012 (NSW)

The *Ports and Maritime Administration Regulation 2012* is due for automatic repeal under the Subordinate Legislation Act 1989 on 1 September 2019. This process was initially required in 2017 but was deferred. In late October 2018, Transport for NSW (TfNSW) commenced initial consultation circulating an Issues paper with potential amendments. SAL made a submission on the remaking of the Regulation.

Potential amendments being considered are in the areas of port charges, Port Botany Landside Improvement Scheme and dangerous goods in ports.

Back in May 2016, TfNSW attempted a new *Ports and Maritime Administration Amendment (Dangerous Goods) Regulation 2016* to replace the existing dangerous goods regulations legislation for port areas, without success.

At the time, SAL made a submission to the proposed regulation and at subsequent meetings reiterated concerns about the management of dangerous goods, especially for transhipment containers and the associated quantum of penalties.

SAL has now made another submission to the remake of the *Ports and Maritime Administration Regulation 2012* highlighting the lack of a certified and effective price monitoring regime in New South Wales and recommending such a regime similar to that in Victoria. Concerns and recommendations raised in SAL's 2016 Dangerous Goods submission were reiterated.

Functions

The committee arranged four sensational lunches during the year.

In May, the Hon Melinda Pavey, Minister for Roads and Freight, hosted the State Parliament House Luncheon. The Minister was unavailable on the day, as she was required in her electorate for Government business with the Premier. However, the Hon Bronwyn Taylor MLC, Parliamentary Secretary to the Deputy Premier and Southern New South Wales, attended.

The biennial Port Kembla Luncheon was held in August at the City Beach Function Centre. The event attracted over 120 shipping industry executives and was sponsored by NSW Ports, with support sponsorship from Port Authority of New South Wales. The guest speaker was Mr Anthony Jones, Group chief executive, Linx Cargo Care Group.

In September, a Parliamentary luncheon was hosted by the Shadow Minister for Roads, Maritime and Freight, Jodi McKay at Parliament House. Attended by over 120 guests, the event was proudly sponsored by AGS World Transport and ACFS Port Logistics, with support sponsors, Port Authority of New South Wales.

The finale was the year's Christmas Luncheon at Doltone House – Darling Island Pyrmont. Held in early December, it was once again a sell out and a resounding success, with over 300 guests. Sponsored by NSW Ports, with the entertainment and prizes sponsored by AGS World Transport and ACFS Port Logistics, and Port Authority of New South Wales respectively, members and their guests enjoyed Doltone House's fine dining. Shipping Australia once again sponsored the table gifts this year. For the first time, the invitees included seafarers from a visiting ship, who were transported to and from the venue by the Mission to Seafarers.

The 'Master and Commander' are extremely appreciatively for the continued support and interaction between by all members of the New South Wales State Committee at the meetings and their input on issues that impact shipowners and agents.

STATE COMMITTEE REPORTS

Queensland

By GEOFF DALGLIESH, secretary

The first line of duty for me in doing this report as secretary is to thank the retiring secretary, Mr Bill Guest. Bill has been at the helm as Queensland secretary for 18 years and will be sorely missed. Those are big shoes to fill, to say the least, and I am sure that we wish Bill a happy, long and fruitful retirement.

Now as to the state of play in Queensland over the past twelve months, and how it is faring under this dreadful drought. Currently 80 per cent of the State is drought declared, and having a very large agricultural industry means all ports along our coastline are, and have been, affected.

Despite this, the Port of Brisbane has had a good year, being up more than 10 per cent on the container side. Most of which has been from elevated imports, up 13 per cent, whilst the export side has been heavily affected by lower agricultural numbers. More than 252,000 motor vehicles went through the port, which is the highest on record, whilst dry bulk imports were again up by a massive 45 per cent. A note must be made here that the port recognised their lowest grain export figure on record. However, grain on the import side doubled this reporting period, over the previous period at 500,000 tonnes.

Whilst the drought has not broken, there are many projects on the go, such as solar and windfarms. The State Government has a 50 per cent energy supply target for renewables by the year 2030. Projects such as these are expected to help maintain volumes, at least in the import sector, for both Brisbane and our second biggest container port, Townsville.

Some major accomplishments for the ports of Queensland were:

- Port of Brisbane - the completion of the two-lane motor way access to and from the port. In addition to a very a successful Safety Forum held in August, as safety is very high on the agenda for all players in our Industry. Along with the ongoing development of the new cruise terminal at Luggage Point.
- Port of Townsville - on top of receiving the go-ahead for the channel widening, they also received approval for the remaining funds required to complete the project.
- The ports of Gladstone and Cairns are also trying to promote their cruise business, as it does appear that most ports around the country are trying to do.

The subject of coastal shipping has been a notable topic over the last couple of years but appears to be a slow work in progress. Not being helped by an amendment Bill from last year still waiting to be debated in Parliament.

Other notable events during the year were a few tug issues early in the year, which have been resolved to a satisfactory level. Port Pilotage service delivery modal is still a work in progress. The Port of Brisbane has a strong focus on the rail corridor between Acacia Ridge and the port, linking up to the Melbourne Brisbane Inland Rail Project. The Port Welfare Committee recorded the pleasure of being awarded the ISWAN award, which is for the Seafarer Centre of the year. It is an International Award and it is very pleasing to see our Mission to Seafarers win this accolade.

Young Shipping Australia does not have a large foot print in Queensland but it will be a focus of mine over the next twelve months.

Generally speaking we have a couple of functions during the year, held after the quarterly SAL Meeting. This year with the change-over of secretary from 1 July, things were a bit different.

So this year we saved our Luncheon until December, which was attended by a large audience, with special guest being Mr Bill Guest, who gave a very inciteful talk on 60 years in the industry. Bill's tales of experiences, knowledge and history over these many years gave all a well-rounded picture of his years in the shipping game.

In late October, we held our Annual Ball, which was well attended, however a little down on last year. At this stage I must mention our sponsors, who give so much - the Ball would not happen if not for them. Therefore, I want to name all of them, Port of Brisbane, Patrick, Svitzer, Acewaste, Brisbane Marine Pilots and Portgate Logistics, as our major sponsors. Other contributors were ACFS, BPL, CPA, ES Randle, K Line, MCC Marine, Torres Pilots and Smit Lamnalco. I must mention that Smit Lamnalco also gave a very well received one-off donation of $2,000, in addition to their sponsorship. This year's Beneficiary was Tangalooma EcoMarines. One last mention on the ball is the Ball Committee, whose work behind the scenes is enormous and hence many thanks go to them for making the night go so well.

Moving along to the SAL Golf Day, the first of which was washed out due to heavy rain. My understanding is that this had never happened before. On the second attempt, the day went ahead being booked out with 120 players! Again, we thank the sponsors for their efforts and contributions to make it a great day. Beneficiaries were Apostolatus Maris and Mission to Seafarer's.

At this point in time SAL Queensland does not have a chairperson appointed and we are searching for someone who would be interested. If you are reading this review and you might be interested then please make yourself known to me. I can say from experience the chair position really does open doors that were previously not available to me, as such I would recommend the role to any senior person in the shipping industry.

This review is basically a summary of some of the things I thought notable over the past 12 months. In actual fact there were many more events that some may think more worthy of note and you are most welcome to contact the writer in regards that.

May I take this moment to wish all Members, Associate Members and readers the very best for 2019.

Email: qld.secretary@shippingaustralia.com.au

South Australia

By ROD NAIRN, secretary

Paul Paparella (Asiaword) continues as South Australian State Committee chairman. Whilst no SAL State Committee meetings have been held this year, Paul keeps abreast of State and local matters, and represents Shipping Australia on the South Australian Freight Council. Matters of significance have been addressed through the Policy Council, the Victorian State Committee or directly with the port and service operators.

Victoria

By CHARLES MASTERS, secretary

The Victorian State Committee met quarterly, with a broad section of the marine community represented.

It has been two years since the Canadian Pension Fund, Brookfield, assumed control over Port of Melbourne assets for a figure north of $9 billion. The underlying challenges for the port are many and varied, not least to accommodate larger vessels with increased exchanges, using the existing berth face. We won't delve into the detail here as much was reported in the last SAL Spring/Summer edition, suffice to say population growth is propelling volumes, which are projected to exceed eight million TEU's annually.

Various meetings were attended throughout the year, discussing these projections and the associated challenges, not least how the industry will respond to the relentless demand of doing more with less. The yet to be built road and rail infrastructure to assist ease congestion around the port precincts is to be applauded, yet the general public has yet to accept a 30 per cent increase of heavy vehicle traffic on our roads in no short time.

Whilst Shipping Australia had been asked to provide input into Infrastructure Victoria's plans, we refrained from offering advice around land-based issues, since many other entities were canvassed for their views and who, with "skin in the game" as it relates to first and last mile logistics, are better positioned to provide their expertise. We did however advocate the use of barges to move traffic to/from Bay West and Bay East, (the latter is in name only and presently does not exist). A number of creeks in proximity to the Mornington Peninsular Freeway could be studied for this purpose. Admittedly, double handling is not ideal though this is the lot for the planned rail movements. We would assert the cost of providing the required infrastructure is less, moreover the prospect of new barge designs which provide for hybrid if not full electric propulsion, must hold some political appeal, we would have thought.

The Annual Golf Day was well attended at Waterford Valley Golf Course. The Phil Kelly Trophy donated by Wallenius Wilhelmsen Logistics was won by Laurens de Jonge, team entry from ANCRA Australia Pty Ltd International.

Following on from our Blockchain event in 2017, we tackled the issue of Cyber Security and Shipping. Generously sponsored by Victorian Ports Corporation, the underlying thought behind staging the event was to raise awareness to the risks, so as to avoid the possibility the ports activity was brought to a halt by any of the actors within it. Our president captured the essence of this highly successful event in his introduction to the SAL Spring/Summer edition.

We will look at AI during 2019, and having already approached Amazon to speak, they remain averse to discussing the subject in public. Undeterred we will seek out an Australian listed entity competing in a similar space.

The year was finished with a luncheon at the home of Australian tennis, Kooyong Lawn Tennis Club, sponsored by Port of Melbourne, Patrick and Svitzer, with numbers exceeding those of the inaugural event held last year. Sincere thanks are extended to our chairman, Sunil Dhowan, who carried out the role over the past three years with absolute professionalism and on occasions, good humour. The chairman for 2019 is Rod Begley,who is also the State manager for Swires. Rod is assisted by James Kurz, commercial manager PIL, as deputy chairman.

From all of us in Victoria, we wish all readers happy holidays and much success in 2019.

Western Australia

By ROD NAIRN, secretary

In Western Australia, Robert Boyce (MSC) completed his term as State chairman and was succeeded by Kristy Craker (Ship Agency), who was elected to the position at the State Committee meeting in September. Since the cancellation of the port privatisation plan for Fremantle in early 2017, along with reversal of regional connectivity plans, there has been a hiatus as new strategic port development plans are being developed for the outer harbour area, and a range of proposals are being considered to improve port connectivity. The first public papers on the outer harbour development concept have recently been released, and SAL will input to this process as appropriate, over the next year.

Western Australia has been a catalyst for overcoming challenges for crews of vessels calling at offshore facilities, and SAL has specifically raised interpretation of the regulations with the regional Border Force office. Western Australia has also taken a lead in the development of LNG bunkering for Australia, with current truck operations at Fremantle and proposals in place for development of barge bunkering in the north. Members have been satisfied with the effort of Fremantle ports to accommodate larger ship sizes, with a demonstrated ability to swing a ship of 47 metres length and 48 metres beam, and routinely handle ship draughts of 14.5 – 14.7 metres using DUKC.

Another big year for Sydney's young mariners

By STEPHEN WESTFIELD, chairman and LINA MARIA CORRIGAN, YSA New South Wales

The Young Shipping Australia New South Wales branch (YSA NSW) have embarked on another busy year in 2018 with a full calendar of events in Sydney. In an effort to continue the legacy, YSA NSW aims to keep members informed with the latest maritime developments, learn new ideas and network with others within the shipping sector by regularly hosting functions for "under 35 year olds". For the record, we don't check ID at the door and all are welcome to attend our events.

For the first function of the year, YSA NSW co-hosted networking drinks with The Association for Waterborne Transport Infrastructure (PIANC) at Helm Bar in Darling Harbour. PIANC members represent maritime engineers and port side construction organisations, which brought an interesting cross section of attendees. The co-host initiative witnessed our network grow, with maritime professionals whose paths rarely cross, having the chance to meet and exchange their ideas.

The flagship "Industry Outlook" seminar at Parliament House in Sydney, was our next calendar event, which continues to grow in stature and attracted a large audience. Three maritime industry experts provided the crowd with their outlook on industry developments across IT systems, the emerging online shipping marketplace and vessel salvage operations.

A big thank you on behalf of YSA NSW, to Patrick and Swire Shipping for hosting the eagerly anticipated port and vessel tour on MV *Highland Chief* in June. Attendees enjoyed the up close and personal insight into terminal operations, then a tour of a working service vessel for the Australia to Papua New Guinea trade. Lunch followed, with the friendly crew of the ship who discussed the important task of safe passage of ship and cargoes. Mission to Seafarers (MTS) representative Reverend Tey, was kind enough to drive attendees to Port Botany and provided information on the good work of the mission to ensure seafarer welfare when visiting Sydney.

In early August, Sydney law firm Holding Redlich hosted YSA NSW for a breakfast panel, which was a great success with no shortage of discussion between panel members and the audience. The three panellists represented liner companies and vessel and port operations heavy weights, and provided great insight into the qualities, experience and attitude required to advance young professionals' careers in the industry, and the key attributes to look out for to give yourself a competitive edge. It was a great opportunity for members and guests to ask questions to these senior officers and managers.

In line with our mission to support and educate young shipping professionals, we completed the year with a law seminar at HWL Ebsworth. This seminar focused educating members and guests on areas that interested them, within maritime law. The discussion focused around cyber law, and what autonomous or "driver-less" vessels will mean to the industry and Blockchain initiatives.

On behalf of the YSA Committee, we would like to thank all of those who have hosted and spoke at the events, and all attendees this year. 2019 is shaping up to be another huge year to grow the organisation and continue to foster the next generation.

The China Navigation Company

Getting fit for the future

By GREG METCALFE, country manager, China Navigation Company Australia

For the China Navigation Company (CNCO), trading as Swire Shipping and Swire Bulk here in Australia, 2018 has been a year of repositioning our business and getting "Fit for the Future". With 30 vessels in the liner business for Asia-Pacific, and now more than 100 bulk vessels owned and under management operating globally, CNCO is committed to safe, sustainable growth, and being our customers partner of choice, in all of the markets in which we operate.

We are absolutely committed to providing the safest possible shipping operations for our employees, customers, contractors and communities. Against the backdrop of a rapid expansion in our total fleet size, our safety performance has continued to improve in 2018, which is a very pleasing result.

From a market perspective, CNCO has seen a much needed improvement in freight rates, compared to 2017 in some sectors. However, rates in both markets are still well below where they need to be for long-term sustainability, due mainly to the rising charter hire market, port cost increases and rapidly rising fuel prices.

The market generally remains oversupplied with tonnage. Whilst cargo volumes are improving, there is still some way to go before we see supply and demand for ships being in balance. In response, Swire Shipping, CNCO's multi-purpose liner shipping operation, has spent much of 2018 rebalancing our fleet

and tonnage position, with a view to addressing growing opportunities for Asia to the Pacific trades, whilst right-sizing our Australia to Pacific Islands service. We recently announced an upgrade of our North Asia to Pacific Islands (PNA) service, to a weekly frequency, providing our customers with the best product in the market. This follows a rejig of our north Asia and south east Asia services into PNG, Australia and New Zealand, to improve frequency and schedule reliability.

Over the past 12 months, Swire Bulk has expanded its fleet from 65 bulk carriers to over 100 geared vessels on the water today, with a strategic plan to continue this sustained growth in to 2019. This global footprint has been actively supported through the establishment of a wider regional network, with new offices established in both Vancouver, BC and Shanghai, within the first half of 2018. Vancouver, with a team of 14 employees, is the first CNCO office to be a true hybrid bulk/liner operation capable of freight solutions from one TEU up to 60,000 metric tonnes. Concurrently, there has been additional focus to the Melbourne office, increasing its staffing level to eleven executives that puts the group in strong position to service its local clients in this strategic front haul market.

All of these changes in 2018 are designed to improve our service levels and schedule integrity, and to right-size our services to ensure our business remains competitive and sustainable into the future.

On the fleet side, in 2018 CNCO has signed new building contracts for eight new, eco-friendly multi-purpose container vessels for delivery from 2020, as well as purchased a further two new-build bulk vessels from Namura shipyard. Swire Bulk has also expanded from our traditional Handymax vessels into Supramax and Ultramax vessel sizes, providing our customers with more options for competitive freight solutions.

With the IMO requirements for low sulphur fuels coming into effect in 2020, Swire is working diligently with our vessel designers, fuel suppliers and ship yards, to determine the most co-effective solutions to ensure compliance with new rules. These are likely to come at a significant cost, which will need to be discussed closely with our customers, with whom we remain in close consultation.

We made substantial investments in 2018 to invest in our digital future. In particular, we want to develop digital solutions that will better enable us to meet our customer needs. In September 2018, Swire Shipping achieved a significant first by accelerating a shipment of containerised grain from Australia to New Zealand, using electronic bills of lading. The transaction was the first use of electronic bills of lading (eBL) by Swire Shipping and the first on the Australia-New Zealand trade route. We are very pleased with the savings in time and costs for ourselves and our customers, and we will now look to expand this service into other markets.

Looking forward to 2019 and beyond, CNCO expects significant challenges as the shipping world grapples with stricter environmental requirements and a rapidly changing digital landscape. We are confident that the steps we have taken in 2018 to build a business fit for the future will enable us to provide even better services to our customers, and in so doing, strengthen our position as a leading provider of bulk and liner services.

Hapag-Lloyd Australia

IMO 2020 Hapag-Lloyd's approach

By ESTEBAN PEREZ, managing director, Oceania, Hapag-Lloyd Australia Pty Ltd

The global shipping industry consumes about 300 million tonnes of fuel oil each year and last year alone Hapag-Lloyd bunkered almost 4 million tonnes. This makes liner shipping highly sensitive to fluctuating fuel prices and to new fuel regulations. And now the whole industry is facing a major challenge as the International Maritime Organization's new Low Sulphur regulation will come into force in 2020.

As of 1 January 2020, all vessels worldwide will only be required to bunker fuel with a maximum sulphur content of 0.5 percent, or use technologies to reduce their sulphur emissions to below 0.5 percent. At present, the sulphur cap is 3.5 percent. The so called IMO2020 regulation is one of the biggest shakeups the container shipping industry has faced and will require the industry to take significant action to ensure compliance. However, the good news is that the regulations will make the industry greener. For this reason, Hapag-Lloyd welcomes the new regulation and we believe that it is an important step towards setting uniform standards that will benefit both the environment and people.

Three options for the industry

Now the question is, how to comply with the new regulation and how much it will cost to do so. There are essentially three options worth considering for container shipping: converting to more expensive fuel with a 0.5 percent sulphur content (LSFO 0.5 percent), installing exhaust gas cleaning systems (EGCSs), or deploying ships that use liquid natural gas (LNG). We have identified compliant fuels as the key solution for the industry and Hapag-Lloyd. It is also the most environmentally friendly solution in the short-term.

The challenge we are facing now is that the lower the sulphur content, the more expensive the fuel is. Assuming that the spread between high-sulphur fuel oil (HSFO) and low-sulphur fuel oil (LSFO 0.5 percent) will be US$250 per tonne by 2020, Hapag-Lloyd expects additional costs of around US$1 billion annually. Therefore we are already talking to our customers in order to raise their awareness about the issue and to renegotiate contracts. In order to pass these costs on to our customers as fairly and consequently as possible, Hapag-Lloyd has developed a Marine Fuel Recovery (MFR) mechanism, which we will gradually start implementing from the beginning of 2019.

Marine Fuel Recovery mechanism

We believe that the current approaches to calculating fuel surcharges in the shipping industry are no longer suitable for today's world. For this reason, we decided to undertake an in-depth analysis of our approach and completely revised it. The result is a mechanism that will replace all existing fuel surcharges, and that we believe is fair and causal. The MFR mechanism is essentially a simple calculation based on fuel price, consumption and transported standard containers. It takes into account various parameters, such as the vessel consumption per day, fuel type and price, sea and port days, and carried TEU. These parameters derive from a typical representative service in the market on a specific trade.

We also based the calculation on round voyages instead of single legs, as a liner service naturally sails in both directions. This means that the same pro rata total costs will be incurred for all containers carried on a service. Furthermore, in addition to calculating the costs for fuel oil with a sulphur content of 0.5 percent, we will also calculate the costs for fuel oil with a sulphur content of 0.1 percent for operating vessels in the Emission Control Areas near coastlines. In our view, this calculation allows our customers to see exactly what they are paying for. Overall, the MFR aims to be a way of calculating costs that is transparent and easy-to-understand.

For a greener shipping

With 222 vessels and some ten million containers (TEU) transported annually, we believe it is our duty as a company to act sustainably. We are experienced in working on solutions to reduce emissions and consumption. For more than 30 years, we have been implementing measures to reduce and prevent CO2 emissions and have a first class ship recycling and a "no garbage in the sea" policy, to name a few examples. Our experience in proactively working on sustainable solutions, as well as our past track record in complying with existing regulations, makes us confident that we as a company will tackle the challenges the IMO220 regulation poses.

Port of Newcastle

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PAGE MACRAE Engineering

Droning on...

By DAVID PRATT, vice president, Marine Services Australasia, Inchcape Shipping Services

We've all experienced it; normally whilst out enjoying some quiet time in the great outdoors, and the irritating buzz like a demented mechanical blowfly starts up. There is no doubt about it, drones are everywhere and one of the latest buzz (no pun intended) technologies from both a personal and an industrial perspective. But how we do anticipate that this hardware is going to change our industry and improve our operations.

Unmanned aerial vehicles (UAV's) can be seen dating back to World War I, and their historical development was primarily for military use, until new technology and applications have brought them into the mainstream, as both tools and toys. The rapid expansion and marketing of the technology is evident, but the practical application and adoption has a long way to go before becoming the new standard, but momentum is slowly growing.

Ironically, from their origins in the military, one of the key benefits of the UAV is their ability to minimise the risk to human life. The ability to perform at height infrastructure inspections or send images back from confined spaces, such as silo's or chemical tanks, clearly allows safer operations whilst delivering the result.

Within the shipping and logistics industry, consider the cost differential and resource time of performing an at height, fully recorded, detailed hold inspection, using an aerial drone, rather than deploying a cherry picker into each hold. With an end result of high-resolution pictures or video, in media format ready to distribute to interested parties.

Yet the drone itself is only part of the hardware, we should also consider the value of different camera types and equipment. Thermal imaging camera's can be used to identify weaknesses in welds or materials, count animals in agricultural application, or have direct security applications. Combine video and camera imaging with analysis and stockpile mapping, and management becomes quicker and easier, and standardised, if a frequent flight path is maintained. The agricultural industry has taken this to the next level using thermal imaging to identify areas of crop stress, improving yield management. Environmental sampling is also a developing area, with air samples being taken for later analysis. An extreme example of this is where drones are being used to

capture samples of whale snot (this is, I am assured by the researcher, the proper terminology) by flying drones through the exhalation of a whale spout, as part of biological research. The applications are endless.

That example however leads to the regulation of this new industry. To fly an UAV, you need to operate fully within the local regulatory guidelines, appropriately licensed and within the parameters of local port authorities and stakeholders, a fact that in this new industry can be overlooked. With a potentially relatively low cost of entry into the market, its regrettable that we have already seen several parties operating outside of compliance requirements of local ports or regulatory authorities, with potential legal liability falling back to the principal.

Inchcape has an active team of pilots around the Australian coast, who have been trained and are working under guidance of a CASA certified UAV pilot. This has enabled Inchcape to deliver hold inspection, vessel media footage and infrastructure or stockpile inspection through our Marine Survey team, ensuring full compliance with local rules and regulations, and the capability to apply for flight paths in potentially restricted areas.

Flying drones in the marine industry has a range of challenges that we are continuing to identify and overcome. Operating within ships holds can provide signal interference, salt water spray, wind gust issues at anchorage locations, and port proximity to flight paths are examples of some of the challenges, where the pilot must remain in control, and be mindful that as a last resort it's better to cut power and drop the unit rather than risk human injury.

Regulations around UAV's are continually developing and evolving, and this will be an influencing factor in their widescale deployment. Drones can pose security threats, and be adapted for criminal or terrorist use, and this does restrict their deployment in specific locations globally, and reinforces necessity to operate responsibly within local regulations.

Globally the logistics industry is seeking to deliver packages (or humans) by UAV, and the value of same to the maritime industry is significant; potentially avoiding launch costs to anchorage or to deliver urgent spares or charts quickly and efficiently. This industry is developing and will become highly contested by operators providing service where regulations allow.

Aerial drone applications are continuing to develop, with strong industrial application and investment in agriculture, construction, logistics, and media. The versatility and application of this technology is starting to be embraced by the shipping industry, and with the first commercial aerial drone delivery of takeaway food in 2016, it may not be too long before we see the first delivery to deck of fresh pizza for the crew.

30 years of MSC in Australia

By JAMES GRANVILLE, National Capacity manager, Mediterranean Shipping Company (Aust) Pty Ltd

2019 is a milestone for MSC Mediterranean Shipping Company, as it marks 30 years of serving the Australian market. MSC Australia Pty Limited formally came into existence in April 1989 and shortly afterwards welcomed the first vessel into Sydney on 14 August 1989, the MV *Alexandria*, which arrived with ten containers on deck.

Today in the Australian market, MSC are operating four stand-alone services with a total of 28 vessels deployed. In addition to the stand-alone services, MSC partners on four other services within Australia as either a vessel operator or slot partner amongst a consortium.

Back in 1989, the MV *Alexandria* was operating as part of a combined service between Europe, South Africa and Australia for MSC, utilising two vessels on a three-weekly service for the South Africa to Australia leg. From these very humble beginnings, MSC has grown, diversified and adapted its presence across Australia and the Oceania region.

Nowadays, with freight rates under pressure for a variety of reasons, diversification and adaption within the container shipping industry are vital for ongoing success.

MSC Orchestra, one of the new era of luxury liners

Carriers are investing heavily in significant value-creation opportunities, particularly in relation to technology and equipment, or a combination of both.

As global demand increases for high quality perishable commodities – such as fruits, dairy, vegetables and meat, which are particularly important for the Australian export market - carriers are looking to provide customers with the most technologically advanced refrigerated containers, in order to deliver these chilled and hard frozen commodities from origin to destination in the best condition possible.

In addition to this, the technology being built into these new reefer containers has helped dramatically reduce each unit's carbon footprint. In the past year, numerous carriers have announced large reefer orders for their respective container fleets.

Dry containers too, are also now experiencing the effects of technological investment. MSC and CMA-CGM partnered with a leading innovator in the smart container space, TRAXENS, to develop an internet-connected device that is permanently fixed on dry cargo containers. This transforms a standard dry container into a smart, connected object which collects real-time data on its position and movements throughout its journey and then communicates this

MSC Fabienne visits Sydney on her maiden voyage

information back to the cargo shipper.

MSC has committed to equipping 50,000 dry cargo containers in the coming months, to meet the growing demand from shippers for TRAXENS solutions. The use of these kinds of digital technologies will bring substantial gains in efficiency, service, security and safety along the entire supply chain. It will also help manage delays and other problems along the supply chain where historically, chasing information has been time-consuming and expensive.

Similarly, vessels are becoming ever more advanced. New mega-vessels will be launched in 2019, including eleven for delivery to MSC which, in part due to increased capacity of 23,000 TEU, will also increase operational efficiency and reduce emissions.

Finally, with regard to technology, recently AP Möller-Maersk, CMA CGM, Hapag-Lloyd, MSC and ONE (Ocean Network Express) announced that they are currently in discussions regarding the creation of common information technology standards, which shall be openly available and free of charge for all stakeholders of the wider container shipping industry. Its purpose is to pave the way for digitalisation and standardisation in the industry, with all ocean carriers invited to join the association once it is established in early 2019 (subject to regulatory requirements - which is pending at this time of writing).

Outside of technological advancements, carriers have been looking beyond the traditional port to port service offerings and towards potential landside logistics opportunities. This can be big ticket items such as port and terminal investment, investment and operations of their own container depots, various intermodal functionality such as rail, trucking and warehousing - or relatively more simpler service offerings, like customs clearance. Here we have seen different approaches taken by carriers, with some investing in existing freight companies, whilst others like MSC, have launched their own existing logistics arm – MEDLOG – into the Australian market already.

Importantly, when it comes to the environment, the container shipping industry must adapt and promote a sustainable business model that goes far beyond a "business as usual" approach. More efficient new vessels, the addition of scrubbers – air pollution devices that remove particulates and gases from exhaust streams – and use of low sulphur fuels, are something we can expect to hear much more about as we head into 2019 and beyond.

The role of shipping in Australia's international economic engagement

By Senator the Hon SIMON BIRMINGHAM, Minister for Trade, Tourism and Investment, deputy leader of the Government in the Senate, Senator for South Australia

Given our unique geography and standing as an island continent, Australia has for decades relied on our shipping industry to become the trading nation that we are today.

In fact, without our shipping industry, we wouldn't be one of the world's largest exporters of iron ore, nor would we have a live cattle export sector, and our grains farmers also wouldn't have been able to take advantage of the Asian market, which has been so lucrative in recent times.

At present over 80 per cent of the goods we export to the world are transported by ship, and over 70 per cent of goods imported into Australia arrive through one of our ports. This equates to an incredible $1.2 billion worth of trade passing through our ports each day.

The high quality of services provided in association with seaborne trade is an important factor supporting Australia's enviable international reputation as a reliable and efficient supplier of goods. These services are more in demand than ever, with Australia's container throughput growing by an average three per cent each year over the last decade.

And into the future, the more opportunities Australian businesses have to export their goods to the world, the more opportunities there are for Australian freight forwarding and shipping businesses, but also for the thousands of other small and medium-sized businesses that operate within the supply chain.

However, in the past year rising trade tensions have posed significant risks to the global economy and the multilateral trading system that has underpinned global economic growth for 70 years.

Trade-distorting subsidies and unilateral tariff measures undermine that system, and detract from growth, by making goods and services more expensive for people in the nations where they are applied. This has the potential to have flow on effects to the industries that help facilitate the flow of goods across borders, such as your industry.

The Liberal-National Government continues to urge all nations to respect, and continue to abide by, the entrenched international rules that govern the way trade occurs. We strongly encourage countries to pursue their trade grievances through the World Trade Organization, and in ways that strengthen the liberal character of the trading system.

This is because, as a medium-sized, trade-exposed economy, Australia has as much at stake as anyone in the way trade disputes are resolved.

In order to secure and grow our own national prosperity in light of these global trade headwinds, Australian producers and exporters must be able to exploit new market access opportunities. That's why our trade agenda is focused on locking-in, and expanding, our access to international markets.

We are expanding our network of free trade agreements that build on, and complement, WTO rules, and that allow us to advance the cause of liberalisation when multilateral avenues for pursuing free trade appear constrained. In fact around 77 per cent of our trade is now covered by free trade agreements, and this figure will only go north as we finalize more agreements.

In October, Australia ratified the Comprehensive and Progressive Agreement for Trans-Pacific Partnership (TPP-11). This landmark agreement, one of the most comprehensive trade deals ever concluded, will enter into force on 30 December 2018, with immediate tariff cuts for Australian exporters, and access to new markets, such as Canada and Mexico.

In August, we concluded negotiations on the Indonesia-Australia Comprehensive Economic Partnership Agreement, moving us closer to being the first country to sign a free trade agreement (FTA) with Indonesia in a decade.

We are also close to concluding an FTA with Hong Kong and have also started negotiations with the European Union.

Many readers will know that next year marks the 50th anniversary of the maiden voyage of the first purpose-built container vessel, the Encounter Bay, to Australia in 1969. Warranting the title of 'disruptive technology' in today's terms, the sea container revolutionised trade by cutting costs and loading times, giving rise to a global intermodal freight transport system.

Had international agreement not been reached in 1961 on a standard size, so that ships, trains, trucks and cranes at ports all around the world could seamlessly load and transport containers, the benefits that accrue to us all from global trade might be much less significant.

This highlights a salient fact about trade – adhering to common rules generates benefits of a greater magnitude and spread than the actions of any country acting alone ever could.

That is why the Liberal-National Government will continue to push for trade liberalisation and adherence to the global rules-based system, because this has significant flow-on benefits for industries like yours.

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Department of Agriculture and Water Resources

By LYN O'CONNELL, Deputy Secretary - Biosecurity, Department of Agriculture and Water Resources

Innovation and partnerships strengthening biosecurity

Managing biosecurity is critical to protecting our environment, economy and our reputation as an exporter of `clean and green' produce.

Australia's biosecurity system is world class and reflects the shared responsibility and cooperation between governments and industry. However, with trade volumes and passenger movements forecast to double by 2025, dealing with biosecurity risk is becoming more challenging. There is much at stake and the biosecurity landscape is evolving and becoming increasingly complex.

To put this in perspective, our national biosecurity system safeguards:

- $6 trillion in environmental assets
- $63 billion in agricultural production
- $48 billion in agricultural exports
- $38 billion in inbound tourism
- 1.6 million jobs across the supply chain.

As a result, the department is committed to finding new ways to manage biosecurity risk. We are also keen to streamline processes and reduce regulatory burden for industry.

We have teamed up with the Department of Home Affairs and other agencies, here and overseas, on a range of initiatives to improve trade/border management.

On a domestic front, this includes work to develop joint regulatory standards for intermodal facilities, align trusted trader-type schemes where possible, reduce touch points at airports and progress the Government's single trade window design.

Our work with our international counterparts includes the development of sea container cleanliness guidelines, and trials of real-time tomography 3D x-ray technology and a `fast' lane for mail moving between Australia and New Zealand.

We are partnering with industry on controls and systems to manage risk offshore, and on increasing the range of biosecurity activities that can be performed by industry under an approved arrangement.

We continue to use technology to modernise the way we deliver biosecurity services, removing manual and paper-based processes that slow things down.

Other initiatives include looking into the use of drones, robotics and new x-ray and sensing technologies to improve pest detection, and using mobile applications to enable inspection results to be recorded in real-time for faster release of goods.

At the same time, we are responding to various biosecurity threats.

A pest of particular concern is the brown marmorated stink bug (BMSB), which could do tremendous damage if allowed to establish in Australia.

Each year, the department puts in place seasonal measures to prevent this from happening. Our success to date is largely due to the cooperation of industry, including shippers, port authorities, brokers, transport logistics providers and manufacturers.

Due to the spread of the pest across Europe and detections in goods previously considered low risk, the measures this season (1 September 2018 to 30 April 2019) were extended to seven other European countries, plus the USA, and with increased surveillance for Japan.

There is also heightened surveillance of all ro-ro and general cargo vessels, with additional pre-arrival reporting and daily checks to be conducted by vessel masters.

Import and shipping industries can help avoid clearance delays associated with BMSB by checking that target high-risk goods have undergone mandatory treatment by an approved offshore provider prior to arrival into Australia.

Ship operators can also take action to ensure any untreated break bulk, including those shipped in open top or on flat rack containers, is not loaded as it may be prevented from discharge on arrival in Australia, or directed for export.

We also encourage lodgement of relevant import documentation as early as possible. For containerised cargo, treatment certificates should include all treatment details, including AQIS Entity Identifier and the container number.

At this stage, there are only three treatment options that have proved effective in dealing with BMSB: heat treatment, sulfuryl fluoride fumigation and methyl bromide fumigation. Fogging with insecticide is not an approved treatment as it agitates rather than kills the bugs.

For more information on the enhanced requirements, visit agriculture.gov.au/bmsb. This page also includes guidance on photographing any bugs found on vessels, in or on cargo. Samples should always be kept for our identification on arrival if need be.

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Department of Home Affairs - Australian Border Force

Growing Australia's security and trade

By MICHAEL OUTRAM APM, commissioner, Australian Border Force

A year on from the stand-up of the Department of Home Affairs, the Australian Border Force (ABF) has seamlessly established itself within the portfolio as an independent operational body and I am pleased with the advances we have made in trade and customs during this time.

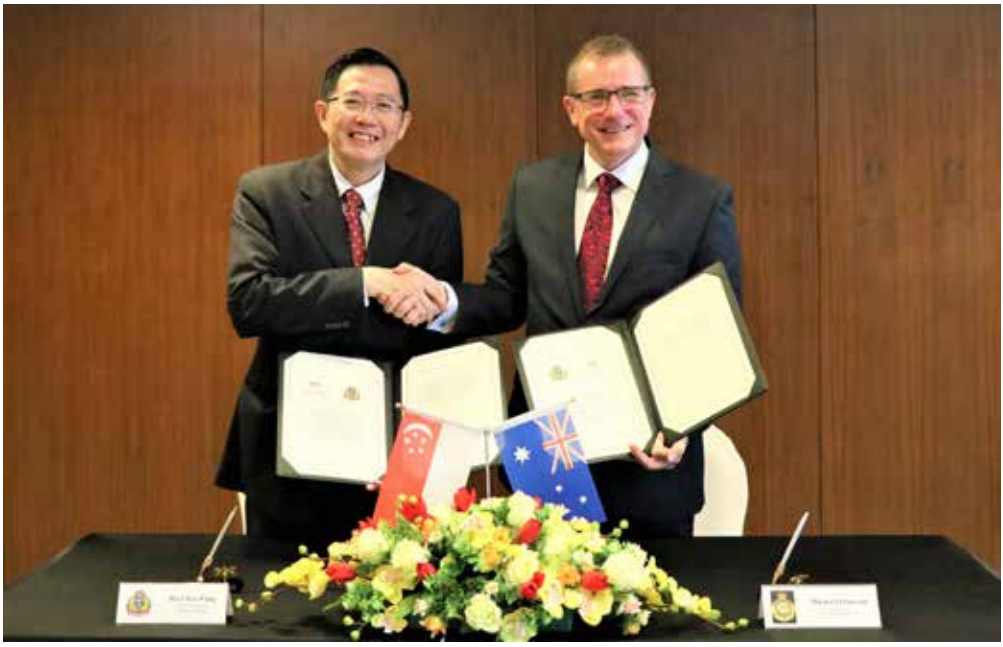
The ABF continues to manage rising volumes of trade and travel across our border. Over the next four years, we expect volumes of air cargo to increase by 28 per cent, and sea cargo imports by 13 per cent. We are seeing firsthand the fundamental changes to how trade is conducted, and how supply chains are evolving and impacted by new and emerging technologies.

We risk falling behind other major economies if our international trade regulatory and legislative frameworks remain outdated, and if our ICT systems and processes fail to keep pace with international developments.

Modernising our international trading system is critical in ensuring we take advantage of emerging business trends and new technologies to facilitate legitimate trade and secure our border. Trade modernisation will improve Australia's international trade competitiveness and enhance our national security. Our trade modernisation agenda seeks to make international trade simpler, faster and more secure. It includes all modes of international trade, including sea and air cargo and international mail.

The agenda includes reforming our trade processes and procedures to reduce obstacles for business — such as red tape, manual processing and duplication across government. It aims to harmonise and streamline international trade regulations and legislation across Government, and will include developing an enhanced single window for international trade.

Trade modernisation will build our intelligence and risk assessment capabilities to ensure systems and people can manage the increasing trade volumes and complexity. It will also leverage new and emerging



ABF Commissioner Michael Outram APM signs MRA with Singapore's Director-General of Customs, Mr Ho Chee Pong on 31 May 2018 in Singapore.

technology to reinvigorate Australia's aging trading systems.

This work will also expand existing trade initiatives, such as the Australian Trusted Trader (ATT) programme. The Australian Government initiated the ATT programme in June 2016 to manage increasing volumes and greater complexities within the international supply chain. The programme offers a partnership between business and Government to drive both economic benefits and enhance security.

ATT has grown significantly in the last 12 months and we now have almost 250 accredited Trusted Traders. These include businesses of all sizes, spanning many industries and locations across Australia.

ATT provides access to more than ten tangible benefits that save Trusted Traders time and money. A number of these benefits were identified by business for business, with more in development.

ATT has fundamentally changed the way we work with our international trading partners to manage the movement of goods across our border. We have seven Mutual Recognition Arrangements (MRAs) in place. Under these MRAs, Trusted Traders have priority and streamlined clearance of goods at overseas borders of Canada, the People's Republic of China, Hong Kong, Taiwan, the Republic of Korea, New Zealand, and Singapore. Another three MRAs are being negotiated with the United States, Japan, and Thailand.

MRAs and Trusted Traders are an integral part of Australia's long-term strategy and vision for modernising the international trading system. ATT offers a trusted environment to test and trial trade modernisation initiatives.

Working in close partnership with Trusted Traders, the ABF can develop a better understanding of how secure and compliant businesses undertake international trade. This allows the ABF to focus their intelligence and operational capabilities to better target high-risk, unknown or illegitimate traders and manage the flow of legitimate goods across the border. Therefore, improving Australia's security and economic prosperity by levelling the playing field for those traders who do the right thing.

Above: As part of the Illicit Tobacco Task Force, more than 17 acres of illegal tobacco crops and 6 tonnes of tobacco leaf found in Katherine, NT

Right: Australian Border Force (ABF) officers detected an attempt to smuggle more than 10 million cigarettes into Australia in sea cargo containers.

We are aware that for the majority doing the right thing, there is a minority who attempt to exploit our trade network by not complying with border requirements — such as those attempting to bring illicit tobacco, drugs and other prohibited goods across our borders, and those attempting to import goods and avoid revenue payments. For this reason, the ABF has made Trade Enforcement an operational priority.

In July this year, the ABF-led Illicit Tobacco Task Force was established, bringing together a number of agencies to target, disrupt and dismantle illicit tobacco syndicates. Already the task force has seized in excess of 8.6 tonnes of smuggled tobacco and 33 million smuggled cigarettes. This represents more than $31 million in attempted duty evasion.

From 1 July 2019, duties for imported tobacco will be collected at the border rather than when the tobacco leaves a licensed warehouse. From this date, businesses looking to import tobacco will need to obtain a permit. This will remove a key source of illicit tobacco and reduce the incentive for organised crime to target licensed warehouses. Further information about these changes will be provided to industry in coming months.

These measures will reduce the illicit tobacco black market and provide the ABF with new enforcement options to infringe tobacco smugglers.

And finally, work continues as we approach 1 March 2019, when export air cargo, regardless of destination, will need to be examined at piece-level by a Regulated Air Cargo Agent or originate from a known consignor.

Despite us having to manage the border with finite resources, the ABF continues to make an important contribution to keeping Australia safe, secure and prosperous.

In the international trade environment, we will continue achieving this through an intelligence-led risk-informed approach to border compliance and enforcement, increasingly harnessing new technology and big data. And importantly, we will continue to collaborate with industry to build and shape our future international trading environment, ensuring that it evolves to meet the needs of Government and Australian business.

Department of Home Affairs - Transport Security

Maritime security on the move

By ANGUS KIRKWOOD, acting executive director, Transport Security, Department of Home Affairs

With the formal establishment of the Home Affairs Portfolio at the end of 2017, the former Office of Transport Security was transitioned from the Department of Infrastructure and Regional Development to the Department of Home Affairs (the department), as the Aviation and Maritime Security Division (AMS).

The creation of the Home Affairs Portfolio (including the department) is one of the most significant reforms to Australia's national security over the last four decades. It brings together Federal law enforcement, national and transport security, criminal justice, emergency management, multicultural affairs and immigration, and border-related functions and agencies, working together to contribute to the prosperity, security and unity of our nation. Within the new portfolio, AMS is well positioned to work closely with its security counterparts, to ensure that transport security measures continue to be targeted to areas of greatest risk in an increasingly challenging environment.

Our activities in 2018 were wide-ranging, including the implementation of a number of activities to strengthen security at Australia's airports and sea ports. In consultation with industry, we have developed a nationally consistent security awareness training and testing framework for the aviation, maritime and air cargo sectors. The framework provides a baseline level of security awareness for all transport security staff. As part of this framework, AMS released the Maritime Security Awareness Training Package to maritime industry participants in October 2018, to ensure personnel are able to identify and report potential threats in their work environment.

AMS has also been working closely with industry partners on the introduction of new training and accreditation requirements for maritime screening officers. The new requirements will ensure that screening officers have the skills and knowledge to respond to the evolving threat environment. These changes will include the introduction of a specialised screening qualification (a Certificate II in Transport Security Protection) for new screening officers. Pending regulatory amendment, the new training and accreditation requirements for maritime screening officers are expected to be introduced in 2019.

In May and November, AMS hosted the bi-annual Maritime Industry Security Consultative Forum, and Oil and Gas Security Forum. This year's forums facilitated a constructive exchange of views between industry and Government on high-level security issues in the maritime and offshore oil and gas sectors. Discussions included cyber security, incident reporting and security awareness training. The meetings broke new ground in commencing desktop discussion exercises, based on AMS' attack paths work. Ongoing exercising will improve industry preparedness to respond to national security threats.

Finally, in late 2018, AMS released the Maritime Security Planning Information Pack (SPIP) to regulated maritime industry participants. The Maritime SPIP provides shipping and port security managers with information about the current transport security environment and introduces attack path analysis as a tool for informing security decisions and managing terrorism-related security risks.

We thank our industry stakeholders for their collaboration this year, and look forward to working closely with you again in 2019.

For more information, contact: GuidanceCentre@homeaffairs.gov.au OR 1300 791 581

Forward planning for New South Wales ports

By CLARE GARDINER-BARNES, deputy secretary, Freight Strategy and Planning, Transport for NSW

A little over half a century ago, Sydney's onshore shipping facilities were all located within Port Jackson. Today, we have ports up and down the New South Wales coast, automated straddles on our wharves, 8,500 TEU container vessels visiting our ports and a booming e-commerce trade feeding consumer demand.

The picture has changed and we have a plan to help the industry grow and evolve into the next era.

In New South Wales, we know our freight volumes will increase by about 28 per cent by 2036. To meet the freight task we need safer, faster and more efficient freight movement - which is why we have launched the NSW Freights and Ports Plan 2018-2023. The plan is a call to action for us to collaborate on clear initiatives and targets to make freight more efficient and safe so New South Wales can continue to move and grow.

We are investing over $5 billion in freight infrastructure to drive economic growth in New South Wales. This includes building the Sydney Gateway project to ensure more efficient access to Kingsford Smith Airport and the Port Botany precinct, helping reduce congestion across existing infrastructure networks.

Our major international trading gateways – our ports – will receive significant attention to enable better connectivity, efficiency and access, as well as capacity.

To support Port Botany, $400 million towards the Port Botany Rail Line duplication will provide greater efficiency and reliability for freight rail to the port and support the New South Wales target of increasing freight rail mode share from the current 17 per cent to 28 per cent by 2021.

We will also:

- Scope a tracking system for containers
- Implement a new Port Community System to tie in all port-based systems and reduce red tape across the supply chain
- Trial drones to investigate reasons for delays in moving goods
- Improve management of rail windows
- Improve movement and utilisation of empty containers
- Investigate a second truck marshalling yard and a new infra-red detection system for licence plates of heavy vehicles at Port Botany.

Increasingly, Port Kembla will build on its already important grain, minerals and commodities facility to become a secondary container terminal, while the port of Newcastle will be supported in its quest to become a more diversified port and explore trade opportunities in new markets, as well as continuing to be the most important coal export facility in Australia, and arguably the world. Ports at Eden, Coffs Harbour and Yamba will also see expansion and specialisation, including catering for the growing tourism industry.

Our action plan includes activities to boost coastal shipping by investigating impediments to its use by industry, advocating for Commonwealth legislative amendments to facilitate the greater use of coastal shipping and supporting the continued operation of the port at Glebe Island. New South Wales will also protect land for freight, and through the appropriate planning to support the continued operation of the port at Glebe Island and White Bay.

New to the plan is our nation-leading Freight Dashboard, a snapshot and health check across the freight industry. The freight data we have published is designed to keep the freight industry afoot of trends, issues and opportunities. The new dashboard will report on everything from road and rail freight targets to reliability, road safety, industry satisfaction and infrastructure delivery. Sharing information will put freight operators in a better position to make decisions for their businesses.

Working together, these initiatives will drive better efficiency, minimise congestion and support more liveable and sustainable cities and regions.

More information can be found on the Transport for NSW website at www.transport.nsw.gov.au/freight-hub

Queensland maritime developments

By JULIE MITCHELL PSM, deputy director-general, Department of Transport and Main Roads

The year of 2018 has been very busy for the Department of Transport and Main Roads (TMR), as we continued to push for greater safety and efficiency in our ports and shipping lanes, while protecting and defending the Great Barrier Reef.

In 2017–18, Queensland broke export records, with trade valued at more than 74 billion dollars. With this growth in trade, Queensland experienced an increase in ship movements of more than

7 per cent, to 20,560 recorded movements.

The implementation of port related actions to support the Reef 2050 Long-term Sustainability Plan (Reef 2050 Plan) has again been at the forefront of port and maritime policy within TMR.

The Queensland Government is committed to protecting the Great Barrier Reef for future generations. One of the key reef initiatives the Government is progressing is master planning for the four priority ports of Gladstone, Townsville, Hay Point/Mackay and Abbot Point. Priority port master planning is a port-related action of the Reef 2050 Long-Term Sustainability Plan and mandated under the *Sustainable Ports Development Act 2015* (Ports Act). The Ports Act and master planning responds to UNESCO World Heritage Committee recommendations for protecting the Outstanding Universal Value of the Great Barrier Reef.

Master plans are strategic documents that establish a long-term outlook for the sustainable development of the State's priority ports until 2050, while protecting the Great Barrier Reef. The port master plans balance growth, job creation, environmental values and community interests.

Through mandatory priority port master planning Queensland will:

- set the standard for port master planning, being the first State to coordinate planning and sustainable port development beyond the port boundary
- be the first State to require consultation with stakeholders and the community, on the future direction of priority ports
- protect areas that a growing port will require, such as shipping channels, swing basins and berth pockets, as well as land corridors for roads, rail lines, gas and water pipelines and power lines.

Led by TMR, the priority port master planning process has involved close consultation with relevant port authorities, other State agencies, industry, environment and community groups.

The priority Port of Gladstone master plan was released on Monday 5 November 2018. Being the first master plan of its kind, it was an important milestone for Queensland. Submissions received during public consultation on the draft master plan, which was released in 2017, were considered in preparing the final master plan.

On Monday 5 November 2018, the draft master plan for the priority Port of Townsville was released for public consultation. A comprehensive evidence base was developed to inform the draft master plan. Preliminary master planning processes for Hay Point/Mackay and Abbot Point are also currently underway.

Alongside the priority port master plans, Maritime Safety Queensland (MSQ) has been making waves in the sustainability arena. With an extensive network of 20 declared ports along Queensland's coastline, MSQ remains on the frontline of sustainability and reef protection, controlling the safety of ship movements in these ports and Queensland waters. Ranging from small community ports to world class coal and cargo ports, the port system of Queensland serves our regional and national economies.

TMR has created an integrated maritime safety network that supports the efficient operation of Queensland's port network. MSQ manages ship movement safety using technology and equipment located around the coast. It has established and operates assets, such aids to navigation, including vessel traffic services, marine pollution response equipment, hydrographic survey equipment and the technology leading SmartShip Australia maritime training facility.

The Queensland Government has reaffirmed its commitment to the protection of our unique marine environment from the potential adverse impacts of ship-sourced pollution. Dealing with ship-sourced pollution impacts within Queensland's coastal waters and the Great Barrier Reef Marine Park and Torres Strait is the responsibility of MSQ, together with the Australian Maritime Safety Authority. The arrangements for mitigating the effects of ship-sourced pollution on Queensland's marine and coastal environment are described in the Queensland Coastal Contingency Action Plan (QCCAP).

In 2018, the national marine pollution response capability exercise was held in Queensland. The Australian Maritime Safety Authority, as manager of the National Plan, exercises the national response capability annually, in conjunction with the host State/Territory.

'Exercise Torres 2018' aimed to test the strategic and operational management of a response under the National Plan, QCCAP and Queensland's disaster management arrangements for a Level 3 oil spill response, within the Torres Strait. Participants from local, State and Federal agencies, industry, and Torres Strait community representatives attended the exercise. It was a resounding success in testing the communication and coordination response arrangements for a marine pollution incident in the Torres Strait, and engaging with the local community.

We value our longstanding relationship with Shipping Australia Limited and its members, and I extend our thanks and appreciation for working with the department and other Queensland Government agencies on the many challenges facing the shipping and freight industry.

Planning and partnerships - the key to sustainability in shipping

By MIKE GALLACHER, chief executive officer, Ports Australia

Ports Australia has been a feature of the Australia maritime sector for over 100 years. It is fair to say that in those 100 years we haven't experienced the level of change we see now, since containerisation.

The shipping industry is in flux, populations are booming, and sustainability is front of mind for people, businesses and governments everywhere.

The freight sector in all modes is expected to deliver more, deliver faster and deliver cleaner, all while working quietly in the background.

Australia's Ports have met these changes and challenges through our strong foundation of industry support, networking and advocacy, facilitated by Ports Australia. This year we have held 12 working groups for various fields within our industry. These groups include environment, sustainability, planning, corporate affairs, operations, IT, security and more. They bring the best in our industry together to discuss what has been working, what is new and what failed.

These working groups are vital for professional development, idea sharing, benchmarking, plus informing Ports Australia policy and advocacy.

The Ports Australia team

Over the year the firm foundations of Ports Australia have allowed us to carry out a programme of profile building and engagement beyond what we have routinely carried out.

This year Ports Australia has actively set out to expand on opportunities to tell the story to business, Government and the public, about the role ports play in Australia's economy and society.

This focus has included reaching out to all those fellow travellers in the freight and supply chain journey, including our friends at Shipping Australia, to unite on common causes and lift the profile of the wider freight and supply chain sector.

Those who attended our Biennial Conference will have noticed the line-up of speakers went beyond the port gate. At the full event in Darwin we heard from leaders in border security, Government, transport, innovation, business, economics, environment, trade, law enforcement and shipping. They all had their views, some conflicting, on the future of our sector.

Many will know that we are advocating strongly in partnership with organisations like Shipping Australia and the Australian Logistics Council for an informed and equitable rollout of the Federal Government's proposed biosecurity levy.

Ports Australia Biennial Conference Gala Dinner in Darwin this August

At $10 a container and $1 per tonne on all non-containerised goods entering the country, there are serious concerns around the impacts this will have on business and the wider community, if not implemented intelligently.

We have also been working closely with our membership to capture the fantastic work all of Australia's Ports have been doing in the realm of sustainability. Our membership understands that to be a business that endures the test of time they have to incorporate sustainable thinking into their strategic planning. And while they have been doing this for a long time we will soon be releasing a report that for the first time captures nationwide this work, and articulates how these efforts positively impact people beyond the port area.

All these efforts are part of our broader plan to help the sector step out of the shadows and lead from the front on issues that affect their businesses and surrounding communities. Soon we will be able to launch our new website that will compliment all this work in advocacy and networking. We will be able to store and catalogue information for the benefit of the industry into the future. We will be able to tell better the sustainable stories that we have collected over the course of this year and unpack how the blue highway can improve the day to day lives of Australians.

With national and State elections looming, our population growing and the freight task rapidly increasing, we see this as a time to find our common interests, organise and ensure that freight is not an afterthought but a tool to a more prosperous and sustainable Australia.

CEO Mike Gallacher with Federal MP Andrew Broad and Neil Farmer AMPI president, touring Port Botany and talking about maritime skills

Port Authority of New South Wales

Building for the future

By GRANT GILFILLAN, chief executive officer, Port Authority of New South Wales

Securing Sydney's existing working port, while creating capacity for the growing cruise industry, is crucial to the vitality of the New South Wales economy.

Port Authority of New South Wales ensures the safe, reliable and efficient movement of vessels through Sydney Harbour, Port Botany, Newcastle Harbour, Port Kembla, Eden and Yamba. A total of 6225 trade and cruise passenger vessels visited our ports during 2017/18, and our marine pilots performed over 10,000 transfers to bring them safely to berth.

This essential work keeps our ports safe, secure, open for business and ready to handle the ever-increasing flow of passengers and goods by sea.

Sydney's working port

Our working ports are essential to the New South Wales economy, and this year we have continued our work to secure the future of Sydney Harbour's Glebe Island.

A working port for over 100 years, Glebe Island provides the city with critical capabilities for supporting the marine supply chain. It also provides a sea-based gateway for importing the construction materials required to fuel Sydney's infrastructure boom and economic future.

In the short to medium-term, we have proposed the development of a multi-user facility that would enable the port to continue supplying materials to Sydney's construction industry for at least the next ten years.

Glebe Island is now at the centre of The Bays Precinct urban transformation programme - an urban renewal plan to reinvent and revitalise the area with commercial and residential development. The New South Wales Government supports retaining port capability at Glebe Island, and the long-term vision is to integrate the port seamlessly with urban renewal.

The importance of cruise to the New South Wales economy

Cruise is the fastest growing tourism sector in Australia, and Sydney is Australia's cruise gateway. A record 352 ships visited during the 2017/18 cruise season - including seven maiden calls — seeing almost 1.6 million passengers transfer through our two terminals.

To ensure New South Wales continues to capitalise on these economic benefits, the New South Wales Government released the Cruise Development Plan in July 2018, to set out the long-term strategy to develop the cruise industry in the State. Further to this plan, Port Authority and New South Wales Treasury has been undertaking a Strategic Business Case to investigate the viability of a new passenger terminal at two possible locations: Molineaux Point and Yarra Bay at Botany Bay.

The Strategic Business Case is the very first step in a detailed process to consider the feasibility of these sites. If found to be viable and the New South Wales Government decides to proceed, a Detailed Business Case will be undertaken to understand the options in more detail.

Cruise in regional New South Wales

Outside Sydney, cruise was just as successful. Newcastle Harbour welcomed 11 cruise ships over the 2017/18 cruise season — up from five in 2016/17, while 15 ships sailed into port of Eden — up from 14 — bringing thousands of passengers to the regional town.

Port Kembla welcomed two cruise ships in 2017/18 and secured further bookings on international itineraries for 2019 and 2020, showing further potential for cruise in the Illawarra region.

In Eden, Port Authority's hydrographic surveying team was contracted to chart the sea floor ahead of construction of the 110 metre Eden breakwater wharf extension by the Department of Primary Industries. This $44 million project will enable cruise ships up to 325 metres in length, to berth in Snug Cove for the first time — bringing greater economic benefits for businesses to the region.

Keeping our waters safe

As our ports and harbours become busier, one of our primary concerns is ensuring the safety of all who use them. Our marine operations teams responded to hundreds of emergency incidents across our ports last year, from oil spills and pollution incidents to firefighting, emergency towage and vessel assists.

This included two significant maritime incidents in June 2018 - the loss of 81 containers from the *YM Efficiency* in heavy seas off Newcastle, and a fire on the *Iron Chieftain* in Port Kembla. The teams' ongoing training, participation in multi-agency drills and dedication to keeping people, ships and our port environments safe from harm is a benefit to us all.

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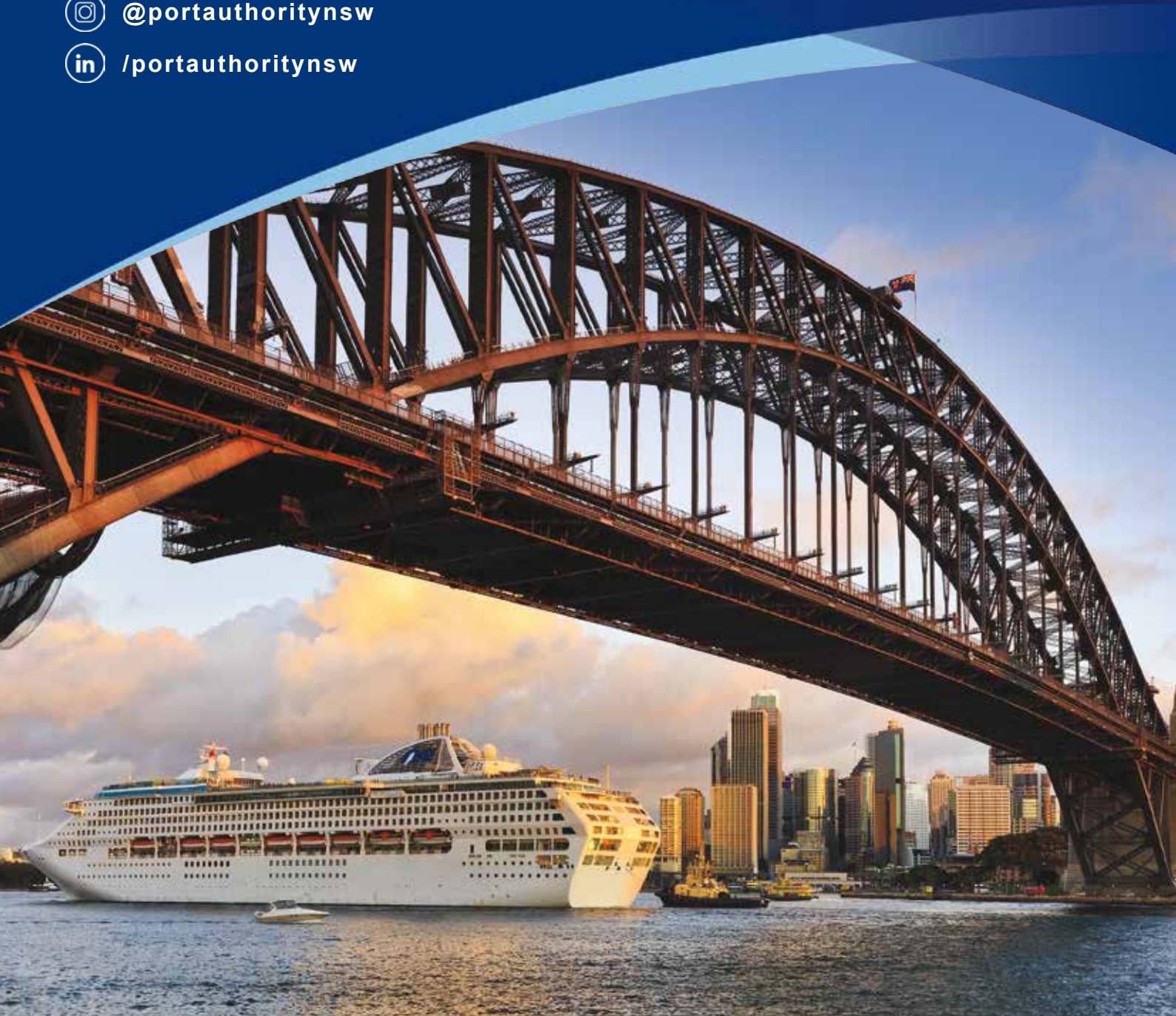

Global gateway to the Hunter and regional New South Wales

By CRAIG CARMODY, chief executive office, Port of Newcastle

The Port of Newcastle is the global gateway for the Hunter and regional New South Wales. It is the largest port on the east coast and Australia's third largest port by trade volume.

Newcastle enjoys a significant competitive advantage as a major seaport, with direct connectivity to a world-class national rail and heavy road system. Its shipping channel is only operating at 50 per cent capacity and coupled with an extensive portfolio of vacant portside land, the future opportunities for the Port of Newcastle are immense.

Geographically, the port of Newcastle provides a gateway to destinations along the Australia eastern seaboard. Port of Newcastle's catchment area extends west to Parkes and north to Moree, a fertile and diverse region producing world-class minerals, agriculture, meat, timber, steel and aluminium.

While coal exports provide a stable foundation for growth, the Port of Newcastle has embarked on an ambitious diversification strategy.

In 2018, the Port released its Port Master Plan, which provides a blue-print for current and future development and trade to 2040. It highlights key strategic development opportunities, including the Newcastle Container Terminal, Newcastle Bulk Terminal and the continuation and growth of major bulk trades, including coal, fertiliser, wheat and mineral concentrates.

A suite of key strategic development opportunities are already underway, including the Newcastle Bulk Terminal project, which commenced in May 2018. The Newcastle Bulk Terminal is a $33 million investment into world-leading bulk handling equipment, which will also drive efficiency and maximise trade growth at the busy common user bulk terminal.

Plans are currently being finalised to develop a General Cargo Hub with a focus on making Newcastle the east coast's port of choice for steel and general cargo handling, with improved berth availability and the best in cargo care.

Port of Newcastle is also continuing to progress the establishment of a niche automotive and oversized Ro-Ro facility, and is ready to leverage the future disruption of traditional automotive import supply chains.

The existing connectivity and capacity of the port makes Newcastle an unrealised competitive advantage for New South Wales. Port of Newcastle's vision is to become Australia's first choice east coast port, providing cargo owners with significant cost savings and efficiency gains as they trade in an increasingly competitive global market.

Australian freight is predicted to double over the next 20 years and beyond. The Port of Newcastle is committed to growing all trades and is ready to support Australia's freight task, now and in the future.

Aerial picture of the port's basin area, where a diverse range of trades are handled, including mineral concentrates, grain, project and general cargos

GLOBAL GATEWAY FOR REGIONAL NSW

As a global gateway for New South Wales, the Port of Newcastle enjoys significant competitive advantages as a major seaport with connectivity to a world-class national rail and heavy vehicle road system.

With its shipping channel currently only operating at 50% capacity, vacant portside land and market interest, the opportunities for Port of Newcastle and regional NSW are immense.

The Port of Newcastle has the connectivity, capacity and capability to support Australia's freight task - now and into the future.

Find out more

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Port of Newcastle

Momentum building

By NICOLAS FERTIN, chief executive officer, North Queensland Bulk Ports Corporation

As we look to 2019 and beyond, North Queensland Bulk Ports Corporation (NQBP) is building momentum across its business on the back of record trade and the successful delivery of important infrastructure and operational improvement projects.

Formed in 2009, NQBP is accountable for the four trading ports of Hay Point, Mackay, Abbot Point and Weipa. More than half of Queensland's trade by tonnage passes through our ports.

Our east coast locations make us leading service centres for the Bowen and Galilee Basins and the Mackay, Whitsunday and Central Highlands regions of Queensland. The port of Weipa, meanwhile, is the only continuously maintained deep water port on the western coast of Queensland.

With three priority ports in the Great Barrier Reef World Heritage Area, sustainability is also at the heart of everything we do.

Growing and diverse trade mix

The 2017-18 financial year saw record trade results for NQBP, with 187.7 million tonnes of throughput passing through our ports — a 10 per cent increase on the previous year.

It was pleasing to see that all our ports increased throughput.

And the momentum is continuing in 2018-19, with throughput totalling more than 30 million tonnes across all four ports for the three months to end-September 2018.

Eighty-five percent of our trade is metallurgical coal and bauxite exported to become steel and aluminium.

In addition to increased export of bulk commodities through Hay Point, Abbot Point and Weipa, we have seen increased and diverse trade through the port of Mackay.

As well as being a key agriculture export hub, the port of Mackay plays a critical role in supporting the resource sector through the import of fuel and, increasingly, break bulk cargo destined for the mines.

Major infrastructure projects are helping grow the port's capability. For example, new fenders and a wharf upgrade mean roll-on roll-off (RORO) vessels can now ship cargo directly in and out of the port of Mackay for the first time.

New lead lights were also installed at the port during the past year to improve safety of ship manoeuvring, and some overhead wires were undergrounded to allow higher load cargo to be transported unimpeded on port roads.

As mining activity strengthens, being able to bring heavy machinery and other oversize overmass cargo through the port of Mackay directly into central Queensland, helps transport safety and efficiency, and can also boost employment to the region as equipment often requires assembly or other work.

Meanwhile at port of Hay Point several productivity improvements have been made recently. The port's dynamic under-keel clearance

system was updated to further enhance planning capabilities and sailing drafts. This clever technology, which Hay Point was the first port in the world to implement in 1993, enables vessels to use real-time meteorological data to more safely and efficiently plan and execute shipping movements, while maximising the amount of cargo they can carry.

Small Australian resource company Green Coast Resources also recommenced shipping at the port of Weipa in 2018, exporting around 90,000 tonnes of bauxite to South East Asia, over three shipments.

NQBP is continuing to work with Green Coast to streamline its marine operations and we are pleased to be part of the project, which helps to diversify our port and provide additional local employment.

Each of our ports offers unique advantages to the State and, in the year ahead, we will continue to support regional growth and deliver value for our ultimate shareholders - the people of Queensland.

Sustainability

With three priority ports in the Great Barrier Reef World Heritage Area, sustainability is at the heart of everything we do.

While our role at each port differs slightly, at all ports we bring together business, community, environment and strategic stakeholders to facilitate growth by helping to create sustainable trade opportunities, infrastructure investment and development.

Over the coming year, we will continue to focus on our research and monitoring work in partnership with James Cook University. This work builds on more than 20 years of environmental monitoring across our ports.

During the past year, NQBP delivered its first online environmental dashboard that shows 24/7 real-time air quality data for sites around the ports of Hay Point and Mackay. Further online dashboards are under development and will share data from NQBP's seagrass and coral monitoring.

Outlook

As a key connector between regional North Queensland and the rest of the world, we continue to invest in skills and infrastructure to increase the resilience of our organisation and operations, to better respond to peaks and troughs of resources and agriculture industries we operate in, as well as weather events that may affect our region.

We continue to work with our customers to ensure that we provide safe and efficient port services that support their business through all market conditions.

We continue to openly engage with community representatives and organisations and take balanced decisions in relation to our ports' operation and development.

Together, our focus will be on maintaining and accelerating momentum across the business and seeking new opportunities to promote trade diversity and growth, as well as supply chain efficiency for our ports and our terminal partners, tenants and customers.

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Gladstone Ports Corporation Striving towards a safe and sustainable future

By PETER O'SULLIVAN , chief executive officer, Gladstone Ports Corporation

Gladstone Ports Corporation (GPC) has a current and future role in promoting, facilitating and generating prosperity for Central Queensland and Wide Bay Burnett regions, through the continued operation and expansion of its three trading ports at Gladstone, Bundaberg and Rockhampton.

We are unique among Australian ports as we are not only a landlord ports corporation, but we also own and operate cargo handling facilities within the port of Gladstone. In 2017/2018, GPC handled 120.2 million tonnes (Mt) across its three regional locations, with products ranging from coal, liquefied natural gas (LNG) and aluminium products, to molasses, woodchip and fuels, and the cruise ship industry.

The corporation is continuing to focus on further developing and diversifying its trade, while also driving towards a safe and sustainable future - economically, environmentally and socially - to ensure growth and prosperity for its shareholders, customers and communities.

Future planning

The forward planning process is fuelled by a clear and strategic direction aimed at delivering appropriate port trade which minimises impacts on surrounding receptors, responds to economic trade trends and capitalises on growing demand.

East Shores Stage 1B concept design

We have recently worked closely with the Queensland Government in the finalisation of the Priority Port of Gladstone Master Plan, which looks beyond the port boundary to ensure port-related development is sustainably managed while protecting the Great Barrier Reef. In addition to the master plan, GPC is progressing its strategic development plans for the port of Bundaberg, port of Rockhampton and port of Gladstone precincts, including port Central and Fisherman's Landing, while also revising the port of Gladstone 50-Year Strategic Plan. These will guide the corporation on short, medium and long-term development, investment decisions and initiatives.

Safety

At GPC, we are relentless in ensuring the safety of our people is not just a priority, but a core value. We are strong believers in the health and wellbeing of our people and that safety should always come before production.

We empower our employees with knowledge, capabilities and confidence to make safe decisions at work through various education and training programmes. At the end of the day, everyone has a role to play, a responsibility to commit to eliminating risk, staying switched on and ensuring we all return home to our loved ones.

Sustainability

We are on a pathway to a sustainable future based on the three pillars of social, environment and economic.

Our journey officially started in 1975, when GPC provided earthmoving equipment for local community projects and since then, it has continued to evolve and grow. Recent highlights include the introduction of our Reconciliation Action Plan in 2009, the launch of our employee Health and Wellbeing Program, the annual Botanic to Bridge community fun run and our multimillion dollar environmental monitoring and research programme. This year alone, we have ventured into renewable energy generation, trialling solar panels and signing a Cooperation Agreement for a tidal turbine trial at Gladstone's Barney Point Terminal.

GPC is committed to environmental monitoring as part of its sustainability strategy

High performance

The Corporation is striving towards becoming a resilient, high-performance organisation. This high performance goal relies on the building blocks of teamwork, excellence, ownership, accountability and transparency, among many other elements. This transition is underpinned by a "One Port, One Team" approach, which will ensure we grow sustainably, offer meaningful stewardship, strengthen our reputation and add value to shareholders.

Community

We support and enhance the communities in which we operate – Gladstone, Bundaberg and Rockhampton – through partnerships, education, engagement and support programmes. Over the past ten years, GPC has invested more than $14 million into funding community projects. In addition to this, GPC invests $2.5 million annually into its parkland precincts – Spinnaker Park, the Marina Parklands and the award-winning East Shores – for the enjoyment of residents and visitors alike.

Looking ahead

2019 is shaping up to be another busy year. Not only are we continuing to diversify across our three port precincts, but we are also expanding our award-winning foreshore precinct in Gladstone. East Shores Stage 1B aims to deliver a unique and memorable experience for families, both living in and visiting the region. The project includes a cruise terminal plaza to cater for Gladstone's growing cruise ship industry, as well as a ferry transfer pontoon with a pool, fitness hub, waterfront café and shaded barbeque areas. We look forward to it becoming a reality by the end of 2019.

Flinders Ports

Thriving and evolving

By STEWART LAMMIN, chief executive officer, Flinders Port Holdings

Flinders Port Holdings has seen another productive year and there are a number of projects planned that will continue to see the business thrive in an ever evolving and challenging operating environment.

Flinders Ports

Outer Harbor Channel Widening project

The Outer Harbor Channel Widening project is moving ahead with the Development Approval obtained in May 2018. The project began approximately 18 months ago with the commencement of the approval process. Dredging is likely to start at the end of the first quarter 2019, with a completion anticipated to be around the third quarter of 2019, and removal of navigational aids will commence in December of 2019. Key elements of the project include:

- Widening the existing channel by 40 metres from 130 metres wide to 170 metres
- Increasing the swing basin from 505 metres to 550 metres diameter
- Relocation of up to 16 navigational aids
- Removal of approximately 1.6 million cubic metres of material from the channel

This project will future-proof Port Adelaide and ensure that South Australia will be able to accept container vessels with a beam of 49 metres without restrictions. The widened channel and swing basin will also enable larger cruise vessels and LR2 tanker vessels to access the port.

Flinders Ports is in the process of obtaining development approvals to upgrade the Thevenard Wharf. The jetty is one of South Australia's busiest regional ports, exporting a variety of products including gypsum, mineral sands, grain and salt. A tender for the construction has been released and it is expected that work will commence in the second quarter of 2019 with completion around October 2019.

Pilot boat fleet replacement strategy

In June 2018, two new pilot launch vessels were added to the fleet as part of the pilot boat fleet replacement strategy. The new vessels were christened the Norfolk and the Providence at Port Adelaide. The vessels are identical to the Alert and Reliance vessels that were launched in 2015, built by Hart Marine, an Australian-owned boat builder, at a cost of around $2.5 million each. The design and technology of these vessels ensures the safety aspects of the boats is of the highest standard.

Flinders Adelaide Container Terminal

Flinders Adelaide Container Terminal (FACT) has seen a 2.9 per cent increase in throughput in the 2017-2018 financial year, with 413,458 TEU's handled over the wharf. During the year FACT also installed two weigh-in-motion weighbridges and launched a new customer service web portal. The weighbridges and web portal will assist landside users of the terminal with streamlining VBS bookings and meeting compliance responsibilities under the revised National Heavy Vehicle Laws. Projects to improve infrastructure and increase efficiencies continue, including the relocation of an existing rail siding to increase FACT's intermodal operational capacity.

Flinders Logistics

Flinders Logistics has seen a busy year and experienced an increase in volume of bulk materials imported and exported by its stevedoring operations. The company has also introduced additional plant and equipment to its businesses in South Australia and Queensland, to improve efficiency of operations, including increasing road capacity for Townsville Bulk Storage and Handling with the introduction of a new road fleet. Flinders Logistics is continuing to develop unique integrated supply chain solutions, and will have a further diversified offering in the logistics space in the near future.

Ports to be proud of

By ROGER JOHNSTON, chief executive officer, Pilbara Port Authority

The ports of Dampier and Port Hedland are the world's largest bulk export ports. Operations are managed by Pilbara Ports Authority which, in 2018, also added the port of Ashburton to its fold. Pilbara Ports Authority's focus on continuous improvement sees the authority deliver year-on-year increases in throughput.

In 2017/18 Pilbara Ports Authority delivered a record 699.3 million tonnes throughput, which includes the records of 519.4 million tonnes at the Port of Port Hedland and 177.3 million tonnes at the port of Dampier. These figures were achieved through 15,894 safe vessel movements across the authority's three ports.

Iron ore continues to be the biggest export out of Port Hedland and Dampier, accounting for 93.5 per cent of throughput at Port Hedland and 82 per cent of trade through Dampier in 2017/18.

Continuing this year-on-year growth requires ongoing enhancement of existing port facilities and development of new infrastructure, and Pilbara Ports Authority has a number of projects underway. At the port of Port Hedland, the three major capital improvement projects are the Integrated Marine Operations Centre, the Channel Risk and Optimisation Project (CROP), and the Channel Marker Replacement Project.

Port of Dampier *Image: Pilbara Ports Authority*

Construction on the new Integrated Marine Operations Centre began in late 2017 and, once operational in late 2018, the facility will support the safe and efficient movement of increasing vessel traffic, as well as facilitating future growth at the port. The facility includes a state-of-the-art Vessel Traffic Services centre and a dedicated incident control centre. From the new centre, Pilbara Ports Authority's marine operations team will bring together the intelligence provided through a suite of technologies that ultimately help more and larger ships, loaded with more product, to sail safely and efficiently on each tide.

The $100 million CROP will reduce the risk of an obstruction in the shipping channel. The first stage of the project was completed in January 2018 and saw a redesigned refuge zone dredged to 17.5 metres. Stage two is due for completion in 2019 and will deliver an emergency passing lane for the tidally constrained, uni-directional channel.

As its name suggests, the channel marker replacement programme will replace 35 marine navigation aids and three land-side navigation leads to ensure the ongoing safe passage of vessels within the port of Port Hedland. The project began in June 2018 and is forecast for completion by early 2019.

Port of Port Hedland

Image: Pilbara Ports Authority

The scale of the iron ore trade out of Port Hedland does not diminish attention to other cargoes through the port. The growing demand for lithium has seen the introduction of shipments of spodumene direct shipping ore (DSO) and lithium concentrate from Port Hedland. Spodumene DSO was first trialled through the port's Utah Facility in 2016/17 and in the 2017/18 financial year, three million tonnes were exported through the port. While this is a small percentage of the overall throughput at Port Hedland, it is a significant amount for a new cargo in its first year of trade. Lithium concentrate was approved for export through the port of Port Hedland from March 2018 and the first cargoes were shipped in October 2018. The authority's ability to move quickly to facilitate trade helped lithium miners secure early contracts that have helped underpin lithium mining in the Pilbara.

In recent years Pilbara Ports Authority has worked to re-invigorate live animal trade through the port of Port Hedland, upgrading its infrastructure through the commissioning of a new animal-loading ramp and the appointment of a live trade manager. More than 7,000 head of cattle have since been shipped through the port.

To facilitate non-iron ore trade, including cattle and lithium, at the port of Port Hedland, Pilbara Ports Authority has commenced preliminary works for a new General Cargo Facility and Logistics Hub at Lumsden Point, in the Port Hedland inner harbour. The works began in January 2018 and an invitation for Expression of Interest was released in May 2018 to support private investment into the second stage development.

Cruise ships offer a further point of trade diversification at the ports of Port Hedland and Dampier. Cruise ships already call at Port Hedland and, in the near term, Pilbara Ports Authority is working to facilitate cruise ship visits to Dampier as part of a broader focus on trade diversification at the port.

Iron ore, LNG, condensate and salt comprise 98.5 per cent of throughput at the port of Dampier, and Pilbara Ports Authority has been working with Government and industry to facilitate new trade opportunities, including methanol products, granulated urea, crude oil and magnesium products. These industries require further investment and cargos of these types will take a number of years to come to fruition.

In the next step of the Western Australia State Government-led port amalgamation that led to the creation of Pilbara Ports Authority in July 2014, the port of Ashburton began its transition to Pilbara Ports Authority management in 2017, triggered by the first export of gas through the port from Chevron's Wheatstone operation. The transition will be completed later in 2018. The port was developed as a multi-user facility with common use infrastructure that can accommodate LNG, hydrocarbon and natural gas, and there will be further opportunities to increase import and export capacities once full transition is complete.

Because the ports amalgamation process is still underway, the final iteration of Pilbara Ports Authority is still some years away, and potentially the authority will oversee up to 11 ports in total. Next to come under Pilbara Ports Authority management will likely be the facilities covered by the *Shipping and Pilotage Act,* of which Port Walcott of Cape Lambert – Rio Tinto's Cape Lambert iron ore port – is the biggest. The Bill to progress these transfers is currently with the Western Australian Parliament. The final ports to join Pilbara Ports Authority will be any new ports in the Pilbara, including the proposed ports of Balla Balla and Cape Preston East, which are being progressed by BBI Group and BC Iron respectively, and are likely some years from operations.

In the nearer term, Pilbara Ports Authority is focussed on completing its major capital projects and supporting its customers by continuing to facilitate safe and efficient trade through the ports.

Cruising towards a greener future

By JOEL KATZ, managing director, Cruise Lines International Association Australasia and Asia

As the world's largest cruise association, CLIA is composed of more than 60 of the world's major cruise lines and serves as a non-governmental consultative organisation to the International Maritime Organization, an agency of the United Nations.

Our member lines' ships range from the smaller ships carrying around 100 people, up to the largest cruise ships carrying over 6000 passengers. Together they represent over 95 per cent of all ocean-going cruise capacity globally.

CLIA's mission is to promote policies and practices that foster a safe, secure and healthy cruise ship environment; educate and train its more than 25,000 travel agent members, and promote and explain the value, desirability and affordability of a cruise holiday.

The growth story of the cruise industry is well known. In 2008, the industry carried 16.3 million passengers globally, and in 2018 we were at the 28 million mark.

As cruise continues to grow, so too does its contribution to global economies. Worldwide, the industry's total output year is US$126 billion, supporting over 1 million full time jobs globally.

So, with over 250 ocean-going cruise ships now and an extra 109 on order between 2018 and 2027, we are highly motivated to ensure our growth is sustainable.

At a practical level, we need to have appropriate port infrastructure that can accommodate the ships. Getting the right infrastructure remains a challenge in many areas across the region.

We need to make sure that we have a diverse and growing range of attractive and interesting destinations to visit. Without beautiful, sustainable destinations we don't have an industry. We're in the middle of a global travel gold rush, with the result that some of the world's most popular destinations are experiencing crowding issues. We know economic benefits alone do not make strong communities, and destinations need to remain a great place to live. Our approach is to partner with local stakeholders to address immediate concerns and collaborate on long-term planning.

It is also a business imperative for our industry to operate sustainably at sea and this is a significant area of focus.

The cruise industry is highly regulated, and we comply with IMO, flag state and port state requirements. While cruise ships make up less than 1 per cent of the ships in the global shipping fleet, the industry is nevertheless being proactive in how it can continually improve its environmental impact.

On air emissions, we are innovating and investing in emission-reducing technologies, such as advanced exhaust gas cleaning systems that reduce sulphur oxides in ship exhaust.

The first cruise ship powered by LNG entered service in Europe just a few months ago. Sixteen additional LNG cruise ships are on order, and 25 are estimated to be in operation by 2025. This represents industry investment of more than US$8 billion.

55 cruise ships are fitted with shore power capability and almost 60 per cent of all new builds have committed to shore power capability. We support the continued development of shore power infrastructure provided there is a clean supply of power close to the port that will achieve an overall emissions reduction. This is despite the fact that currently only 12 ports worldwide that cruise ships visit have adequate shore power facilities.

Our cruise line members are also using innovative technologies and practices to reduce their fuel consumption and increase their energy efficiency. For example, eight out of ten ships among CLIA cruise lines use low-friction hull coatings that reduce fuel consumption by 5 per cent, and new ships are built to comply with the IMO's Energy Efficiency Design Index for a mandatory 30 per cent reduction in CO2 over time.

CLIA cruise lines never discharge untreated waste water at sea and use advanced water treatment systems that exceed international requirements.

Our industry is actively planning for growth, but we know we can't take it for granted, and the industry is focused on healthy and sustainable development. Cruise ships aren't cheap and there is every motivation to get sustainability right. The fact that so much investment is being put into ensuring that the fleet is taking advantage of the latest technologies, together with the ambitious emissions reduction targets the industry is setting itself, demonstrates our industry's commitment to prioritising environmental sustainability.

50 years building world-wide collaboration and co-operation in shipping

By JONATHAN WILLIAMS, general manager, Federation of National Associations of Ship Brokers and Agents

2018 was another positive year for the Federation and I am pleased to have the opportunity once again of summarising our recent developments for the readers of this review.

Before going forward, and as we are rapidly approaching FONASBA's 50th anniversary, it is opportune this year to start by looking back. FONASBA actually turns 50 on 23 April 2019 but this significant achievement will be formally celebrated in appropriate style at the 2019 Annual Meeting in Miami in October next year. It will also be marked by the publication of a commemorative book that will look back to our founding and reflect on the changes that have occurred since our establishment at the old Baltic Exchange, right next door to where this article is being written.

To put that progress in context, at its founding FONASBA consisted of just eleven members, all from Europe, of which ten remain in membership today. The first non-European members, South Africa and the USA, joined in November of the same year. Since then of course, FONASBA has expanded to cover 62 countries spread over five continents and is recognised at all levels as the global representative body for ship agents and shipbrokers.

So coming up-to-date, what advances have we made over the past year?

As indicated in my last report, we issued our latest agency document, the General Agency Agreement, earlier this year and it has joined its earlier sibling, the Agency Appointment Agreement in gaining increasing acceptance in mainstream usage. Two seminars, held jointly with BIMCO in London and Naples in September, significantly increased market awareness of the benefits they bring to the process of appointing an agent. We have also expanded our education activities through the launch of the FONASBA Agent Diploma, which has already attracted nearly 100 students. The SAIL Programme will roll out in Europe and Argentina early in 2019 and we are intending to offer customs training for member associations through an agreement with the World Customs Organisation. Membership also continues to grow, with Bahrain, Cameroon and Mozambique joining during the year. We also welcomed

FONASBA's new President Aziz Mantrach

back India and Spain, both of which had been represented in FONASBA previously, albeit by different associations.

The Quality Standard now covers 32 countries. with Egypt and Lebanon having joined this year. The total number of companies approved now stands at 478. The Port Procedures Survey also continues to increase its coverage, with a number of new Chinese ports being added. amongst others.

The Annual Meeting in Cancún, hosted by our colleagues at AMANAC, was another very well-organised and very successful event. It saw the election of a new Executive Committee whose mandate now extends to three years instead of the previous two. Heading the Committee as President is Aziz Mantrach of Morocco, FONASBA's first President from North Africa. Another change to the Committee came as a result of the decision to split the Africa and Middle East region and to add the Indian sub-continent through the establishment of a new post, the Regional Vice President for the Middle East and Indian sub-continent (ME&ISC). The new RVP for Africa is Mohamed Mouselhy of Egypt and for the ME&ISC is Captain Vivek Anand of India. Marco Tak of the Netherlands was elected as Chair of ECASBA after Antonio Belmar da Costa stood down, after ten years in the role. Antonio however remains on the Committee as RVP for Europe. The FONASBA website is also being expanded to provide a private, password-protected, area for company members of FONASBA associations and this will allow additional information to be made available to them. This will therefore enhance the direct value of FONASBA membership to Shipping Australia members.

As ever, FONASBA continues to express its views on the main issues affecting ship agents and brokers at every opportunity and in every relevant forum. We remain fully engaged with the IMO actions to develop single windows for shipping and this year proposed, in conjunction with colleagues from the International Chamber of Shipping, the International Port Community Systems Association and the World Shipping Council, to

President Aziz Mantrach, receiving his President's Badge of Office from his predecessor, John A Foord FICS at the Cancún Annual Meeting

IMO's FAL Committee that agreeing a harmonised, internationally agreed data set was the most important factor in the process. Doing so would provide a firm foundation upon which the rest of the single window processes and procedures could be based. ECASBA, FONASBA's European Committee, is also working with European associations to promote this in the context of the new European Ship Reporting Formalities Regulation proposal. Undertaking a complete and detailed review of all the reports demanded of ships before, during and after a port call – with a view to taking out any that are irrelevant or redundant, is another point FONASBA and ECASBA are making on a regular basis.

Also at international level, we have been in discussion with UNCTAD to review their Minimum Standards for Ship Agents. Originally issued in 1988, the Standards, which were developed in part by FONASBA, are due for an update in order to ensure that they remain relevant and fit for purpose. A small group is therefore being set up under the Liner & Port Agency Committee to carry out the review and present the proposals to either UNCTAD or UNCEFACT next year. We are also working with other organisations in consultative status with IMO, to raise awareness of the impacts of maritime corruption on the shipping industry, on issues relating to port policy and development and on combatting the illegal trade in endangered species. In terms of corruption, the agent, along with the ship's officers, is usually at the very sharp end of having to face up to demands for "facility payments" and similar inducements to ensure the ship can continue on its lawful way. We are therefore working with the Maritime Anti-Corruption Network (MACN) the International Chamber of Shipping and other organisations on this issue.

Looking ahead, FONASBA will be investigating the impact of new technology on the ship agency and ship broking professions, including blockchain and the advent of autonomous ships. The direct impact of IMO's 2020 sulphur cap may pass our members by, but again it is likely there will be some fallout. We therefore need to remain vigilant to ensure that we are fully up to date with the developments so that we can evaluate the impact they will have on our members, and to take whatever steps are necessary to ensure that their interests are fully protected – as we have done for the last fifty years and will continue to do for the next fifty at least.

We very much hope that Shipping Australia, as well as all our members, will be present in Miami next October to celebrate our first fifty in appropriate style!

International Chamber of Shipping

Introduction to the Global Sulphur Cap

By SIMON BENNET, deputy secretary general, International Chamber of Shipping

One of the most immediate and pressing challenges facing ship operators is the impact of the global cap on the sulphur content of marine fuel, which will come into full effect on 1 January 2020.

In October 2018, the IMO MEPC re-confirmed that this major regulatory change will definitely go ahead in 2020 as scheduled, despite continuing questions in some informed quarters as to whether sufficient quantities of safe and compatible fuel will be available in every port worldwide.

The 2020 global sulphur cap is the requirement under amendments to Annex VI of the IMO MARPOL Convention, agreed in 2008, for all ships trading outside of sulphur Emission Control Areas (ECAs) to use fuel with a sulphur content not exceeding 0.5per cent. This is a reduction from the current permitted maximum of 3.5 per cent.

This improvement in fuel quality will bring about huge benefits to human health in coastal areas not already protected by ECAs, where the majority of the world's population lives, as well as reducing shipping's impacts (albeit relatively small) on acidification of the ocean. This new IMO regime is fully supported by the global industry as represented by ICS. But the economic impacts of the resultant additional fuels costs are likely to be significant.

Cost implications

It is important to remember that the IMO decision in 2016 to proceed in 2020 focused entirely on the likely availability of compliant fuel and took no account of the possible purchase price.

The cost of low sulphur fuels is typically about 50 per cent more than the cost of residual fuel, most commonly used by ships today when operating outside of ECAs that apply in North America and North West Europe, in which fuel with a sulphur content of 0.1 per cent or less must be used. In response to the greatly increased demand for low sulphur fuels that will now arise in 2020, the cost of bunkers compared to the current price of residual fuels is likely to increase considerably.

Even if the cost of oil stays at the lower levels which have applied since the significant fall in prices in 2015, this mandatory switch to low sulphur fuel in 2020 could mean that bunker costs for the majority of ship operators could return to their 2014 peak. If, in 2020, oil prices remain at around US$80 a barrel, it has been estimated that the differential between compliant low sulphur and the current cost of residual fuels could spike by as much as US $400 a tonne.

Implementation planning

To assist shipping companies prepare for implementation, ICS has produced – free of charge – some comprehensive guidance on implementation planning, to help ensure compliance across the shipping industry with this regulatory game changer.

The free ICS guidance has been prepared for the vast majority of ships that will comply after 1 January 2020 using fuel oils with a sulphur content of 0.50 mass per cent concentration (0.50 per cent m/m) or less.

Shipping companies may need to start ordering compliant fuels from as early as the middle of 2019, and they are strongly recommended to commence developing implementation plans as soon as possible.

Apart from the significant additional cost of compliant fuel, implementation of the global cap will be far more complex than for the previous introduction of Emission Control Areas. This is because of the sheer magnitude of the switchover and the much larger quantities and different types of fuel involved, as well as continuing uncertainties about the availability, safety and compatibility of compliant fuels in every port worldwide.

If a ship, as now recommended by IMO, has a suitably developed implementation plan, then the ship's crew should be in a better position to demonstrate to Port State Control that they have acted in 'good faith' and done everything that could be reasonably expected to achieve full compliance.

This need to demonstrate good faith could be particularly important in the event that safe and compliant fuels are unavailable in some ports during the initial weeks of implementation so that Port State Control authorities can take into account the ship's implementation plan when verifying compliance with the 0.5 per cent sulphur limit.

The new ICS guidance explains that the implementation process will need to address the possibility that some ships may need to carry and use more than one type of compliant fuel in order to operate globally. This could introduce additional challenges, such as compatibility between different available grades of fuel that could have significant implications for the safety of the ship, as well as its commercial operation.

While ICS is committed to helping to make the 2020 sulphur cap a success, the full implementation picture is far from complete, and that primary responsibility for ensuring that compliant and compatible fuels will be available rests with oil suppliers, as well as those IMO Member States which have collectively agreed to implement this major regulatory change in 2020.

ICS also wants to see more progress by governments on addressing outstanding safety issues, including serious concerns about the fuel quality of new blended fuel oils, which is a major agenda item for the IMO Maritime Safety Committee.

The Provisional ICS Guidance to Shipping Companies and Crews on Preparing for Compliance with the 2020 Global Sulphur Cap' can be found free of charge on the ICS website.

The International Chamber of Shipping (ICS), the principal global trade association for shipowners, representing all sectors and trades from 37 countries, covering more than 80 per cent of the world merchant fleet. SAL is an ICS associate member.

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Enhancing arbitration

By GREGORY NELL SC, chair, Australian Maritime and Transport Arbitration Commission (AMTAC)

Disputes arising from commercial bargains are unavoidable and part of the activity of commerce itself. The existence of such disputes and the means by which they are resolved can also amount to a hidden cost of the underlying transaction. This is especially so of shipping and international trade, where the carriage of goods by sea can be risky, and the arrangements underpinning such carriage and the employment of ships for that purpose can be complex, involving multiple countries and legal systems.

With a view to minimising, if not avoiding, these risks, uncertainties and their associated costs, commercial parties often deal with the possibility of the occurrence of disputes between them and the means by which such disputes are to be resolved in advance and in the terms of the agreement between them. In the context of international commerce and more particularly shipping, this is usually done by the parties choosing arbitration as their agreed method of dispute resolution.

The past few years have seen a reinvigoration of commercial arbitration in Australia and a strong push for its promotion as a means of commercial dispute resolution, especially in international trade and commerce. This includes by governments at both the State and Federal levels and in the context of both domestic and international arbitrations conducted in Australia, as well as the enforcement in Australia of arbitral awards made overseas.

The most recent development in this regard is the *Civil Law and Justice Legislation Amendment Act* 2018 (Cth) **(*the Act*)**, an omnibus Act that amends various Commonwealth Acts relating to law and justice, for the purpose of improving their operation and clarity. Amongst the Acts so amended is the *International Arbitration Act* 1974 (Cth) **(*the IAA*)** which regulates both international arbitrations conducted in Australia, as well as the enforcement in Australia of awards produced by international commercial arbitrations conducted overseas. The former Commonwealth Attorney General, Senator Brandis, stated that the amendments to the IAA introduced by the Act reflect *"the Government's commitment to maintain its place in the international legal environment by amending the International Arbitration Act to help ensure that Australian arbitral law and practice stay on the global cutting edge, so that Australia continues to gain ground as a competitive arbitration friendly jurisdiction"*.

The Act introduces four key amendments to the IAA, of which three are likely to have some application to arbitrations in a shipping context. The first is to specify the meaning of the expression *"competent court"* where it is used in the UNCITRAL Model Law on International Commercial Arbitration **(*Model Law*)**. Pursuant to the provisions of the IAA, the Model Law has force of law in Australia and governs both international commercial arbitrations conducted in Australia, as well as the enforcement of some overseas awards. Although the Model Law provides for certain supervisory powers to be conducted by *"the*

competent court", neither the Model Law nor the IAA specified which courts within Australia fell within that description. In the past, this lack of definition has allowed challenges to the jurisdiction and powers of courts which have been asked to exercise these supervisory powers. This amendment which expressly identifies the courts falling within this description eliminates the potential for such satellite disputes and litigation associated with the arbitral process, and the additional costs that this imposed on the parties. It also expressly includes amongst the courts within this description the Federal Court of Australia, which has adopted a pro-arbitration attitude in recognition of the public interest in international commercial arbitration and its promotion.

Secondly, the amendments clarify the procedural requirements for enforcement of an arbitral award under Part II of the IAA, which implements Australia's adoption of the Convention for the Recognition and Enforcement of Arbitral Awards 1958 (***the New York Convention***). That Convention and its widespread adoption throughout the world has been described as one of the single most important pillars on which the edifice of international arbitration rests. This is because of the Convention's facilitation of the enforcement, in the more than one hundred countries that are a party to it, of an award that is the product of the parties' agreement to refer their disputes to arbitration, especially via its adoption of a pro-enforcement bias or policy for the recognition and enforcement of arbitral awards. It is both the New York Convention's ready enforcement of awards throughout the world and its pro-enforcement bias that has provided arbitration with one of its greatest advantages over domestic court proceedings as a means of dispute resolution, especially in connection with international transactions and trade.

In particular, the Act amends s.8 of the IAA to clarify that a foreign award is binding between the *"parties to the award",* rather than to the parties to the agreement pursuant to which the award was made (as s.8 originally stated). This amendment brings both the language of s.8 and scheme for the enforcement of foreign arbitral awards in Part II of the IAA in line with the terms of both the New York Convention (which s.8 was enacted to give effect to) and equivalent legislative provisions in other leading international arbitration jurisdictions. Importantly, this amendment also eliminates an area of potential challenge to the enforcement of a foreign award in Australia, namely by insisting as a pre-condition to the enforcement of an award that the party enforcing that award first prove that the party bound to pay the award was a party to the arbitration agreement under which the award was made. This may be especially relevant where the award sought to be enforced results from a multi-party, multi-contract or consolidated arbitration. Following this amendment, a party wishing to enforce an award need only produce to the Court the award itself and the underlying arbitration agreement. As such, this amendment improves the efficiency of recognition and enforcement proceedings and brings the enforcement of an arbitral award under Part II of the IAA in line with the New York Convention and international practice.

Thirdly, the amendments introduced by the Act modernise the provisions of the IAA governing the arbitrators' powers to award costs in international commercial arbitrations. This is by removing the existing reference in s.27 of the IAA to taxation of the costs of an international arbitration and by providing that in settling the amount of costs to be paid in relation to an award, an arbitral tribunal is not required to use any scale or other rules used by a court for the purposes of making orders for costs. As the Explanatory Memorandum states, references to taxing costs on a party/party or solicitor/client basis are outmoded and inflexible, in contrast to current practice in international arbitration. This amendment is intended to align Australian practice with international standards and provide Australian arbitral tribunals with more flexibility in making costs awards, in particular by leaving it to the tribunal to settle an appropriate approach to awarding costs.

Whilst these amendments to the IAA are not in themselves extensive, they are nevertheless significant. They also build upon the previously extensive pro-arbitration amendments made to the IAA in 2010, and thereby enhance one of the many advantages that arbitration in Australia offers international parties seeking to resolve their disputes, namely a modern and transparent legislative framework based on the IAA and Model Law.

Those advantages also include an independent and supportive judiciary, expert arbitrators, a sophisticated legal profession and strong institutional and administrative support through organisations such as AMTAC, ACICA and a network of dispute centres that provide world class hearing and logistical support for arbitration proceedings. Of these, AMTAC is an innovative provider of maritime and transport dispute resolution services, catering to the specific needs of the maritime and transport industry in the Asia Pacific region. It maintains a panel of Australian and overseas-based arbitrators with specialist expertise in maritime and transport disputes. It also provides Rules that the parties a dispute can adopt (whether as part of their arbitration agreement or on an ad hoc basis) which not only supplement the provisions of the IAA and Model Law but do so in a way that provides an effective, efficient, economical and fair arbitral process. This is particularly so of AMTAC's Rocket Docket procedure, which is suitable for less complex and lower value claims and which can yield an award upon a documents only determination within a guaranteed short period and for a reasonable cost.

The above advantages and these most recent legislative enhancements offer participants in the shipping industry a means by which the hidden costs and potential uncertainties associated with disputes and their impact on their business can be efficiently managed and reduced. Moreover, by supporting arbitration in Australia, those participants can also further enhance the arbitral process and the benefits that it can offer to their industry in the long term.

Nairobi Wreck Convention - what's it got to do with Australia?

By MICHELLE TAYLOR, partner, Colin Biggers and Paisley Ltd

Australia has not signed the Nairobi International Convention on the Removal of Wrecks 2007 (WRC), even though the WRC has been in force for almost 4 years.1 This article considers whether Australia should sign the WRC, and if so, on what terms.

The WRC deals with laws of wreck removal in territorial waters, as well as the Exclusive Economic Zone **(EEZ)**. Australia already has laws about wreck removal within the *Navigation Act 2012* (Cth) **(Navigation Act)**, but they are limited. Australia's laws only deal with wrecks in our territorial sea, and those in the EEZ that are regulated Australian vessels. Whilst Australia has powers of intervention in the EEZ , none specifically relate to wreck removal. As a result, there are no powers to remove wrecks of foreign vessels in the EEZ.

The issue of wreck removal is quite different depending upon which perspective you are coming from. The greatest concerns for maritime regulators are the increasing costs of wreck removal (which were highlighted in the *Rena* casualty near Tauranga, NZ), as well as uncertainty surrounding the ability to recover these costs from shipowners.

For the shipping industry, the disparity of government approaches to wreck removal is of most concern. The most costly wrecks from the past decade were analysed by the Large Casualty Working Group of the International Group of P&I Clubs and government influence was found to be the dominant factor in rising costs.

An important element of the WRC is the ability for regulators to recover costs directly from P&I Clubs. Consistency is needed so that insurers and regulators alike can understand their responsibilities for wreck removal and assess the associated risks (which ultimately drive cost).

The WRC deals with wrecks that are either a hazard to safe navigation or the marine environment. The "safe navigation" element is a unique feature that does not exist in any other IMO convention. Most wrecks that pose a hazard to safe navigation occur in territorial waters.

To give the WRC effect in the territorial sea, contracting states must "opt-in". Almost half of the countries that are signatories to the WRC have elected to "opt-in".[3] It makes sense to "opt in" to avoid a duplicity of regimes in an already complex area. For example, consider the implications if a casualty occurred outside territorial waters but then the vessel drifted into territorial waters. By opting in, the WRC would apply regardless of where the casualty occurs.

As regards the EEZ, powers for wreck removal are limited to party states.[4] This means that a regulator of a WRC party state can only compel removal of a wreck in the EEZ if the flag state of that ship is also a party to the WRC. However, given that most of the major flag states are signatories to the WRC (i.e Panama, the Marshall

[1] On 14 April 2015 the WRC came into force.
[2] See Protection of the Sea (Powers of Intervention) Act 1981 (Cth)
[3] 19 out of 41 contracting states have elected to "opt in" to have the WRC apply in the territorial sea.
[4] This is to be consistent with the Vienna Convention on the Law of Treaties 1969.
[5] Convention on Limitation of Liability for Maritime Claims

Islands, Liberia, Bahamas, Malta, the UK, Cypress, Denmark, as well as China and South Korea), a significant part of the world's fleet is governed by the WRC.

The ability to recover wreck removal costs under the WRC extends to costs incurred to prevent or deal with major harmful consequences to the coastline or the related interests of a state. The term "related interests" broadens the scope of the WRC beyond concepts of safety and the environment to include fisheries, tourist operators, economic interests, public health concerns, marine wildlife, and underwater infrastructure.

Importantly, the WRC requires registered owners to maintain insurance in an amount equal to the limits of liability under the applicable national or international limitation regime (i.e the Limitation Convention)[5]. It follows that registered owners have the ability to limit their liability under the Limitation Convention. However, that limitation only applies to flag states that have ratified the Limitation Convention without reservation for wreck removal. The majority of countries, such as Australia, have ratified the Limitation Convention with reservation so as to preserve an unlimited ability to recover for wreck removal costs. In practical terms, shipowners cannot limit their liability for wreck removal under Australian law.

Under the WRC, the position is different in so far as insurers are concerned. The WRC enables a claim to be brought directly against the insurer to recover the costs of wreck removal, but insurers can limit their liability pursuant to the Liability Convention. This is the case even if the registered owner is not entitled to limit liability. This means that although there is a direct right of recovery against an insurer, the recoverable amount under the WRC is limited to the amount equal to the level of insurance required under the Limitation Convention.

In summary, the WRC would give Australian authorities power (which they currently don't have) to recover wreck removal costs in the EEZ from foreign vessels flagged by any one of the 41 countries that are party to the WRC. Australian authorities could also broaden their powers in territorial waters with the ability to recover costs for any economic or other loss suffered (for example by public health, fishing or tourist industries).

This power of cost recovery would then be underwritten by the direct right of recovery against insurers. Bearing in mind that the amount recoverable against a P&I insurer is limited to the amount recoverable under the Limitation Convention, this is still a significant improvement compared to Australia's current recovery rights.

For regulators, this would provide a line of sight to costs recovery for wreck removal, which doesn't presently exist. What benefit is an unlimited right of recovery against a foreign flagged shipowner? The cost and impracticality of serving proceedings and enforcing a judgment abroad are often prohibitive for regulators. In addition, this right also creates certainty for shipowners by providing a basis for limiting wreck removal costs through the platform of insurance.

For all of the many reasons listed above, Australia should consider signing the WRC on an "opt in" basis to fully maximise the potential benefits of wreck removal laws.

Getting shipshape for the Heavy Vehicle National Law changes

By NATHAN CECIL, partner, ADAM VRAHNOS, lawyer, REBECCA NIUMEITOLU, lawyer and GEOFF FARNSWORTH, partner, Holding Redlich

What would a recap of 2018 be without a reference to changes to the Heavy Vehicle National Law (**HVNL**) which took effect on 1 October 2018? First changes were passed in 2016, then the law was tweaked some more in 2018 and now it's here, there is talk of another review. That said, anticipating that the journey here may be just as long as the journey "back-to-basics", it's important for shipping lines to understand their role in the Chain of Responsibility (**CoR**) and how the new HVNL will affect their transport activities.

By way of recap the changes to the HVNL:

- Reframed CoR parties' safety duties to remove the old 'reasonable steps defence' and replace it with a positive duty to ensure, so far as reasonably practicable, the safety of transport activities. The primary duty is now forward looking rather than incident based;
- Imposed a distinct obligation on executives to exercise due diligence to ensure their business complies with its safety duties; and
- Substantially increased penalties for breaches of the HVNL to include prison sentences.

What do shipping lines need to know about COR?

Where do shipping lines fit in the COR?

In the past there has been some debate about precisely where Shipping Lines sit in the Chain of Responsibility, if at all.

The HVNL takes a broad and substantive approach to identifying whether a party falls into the CoR. This means that even though Shipping Lines aren't expressly named under the HVNL, they can still be considered a CoR party.

Key factors which signal that a Shipping Line is a CoR party are:

- Whether they engage in transport activities (including business practices) involving of heavy vehicles; and
- Whether the shipping lines' activities result in them being a CoR Party. This usually arises where they are:

  a "consignor" on transport documents or engage operators, either directly or through an agent, to transport containers or cargo by road;

  involved in managing loading, packing or unpacking container loads (particularly if a load shifts and the Shipping Line is forced to adjust a load); and/or

  involved in arranging for or providing services using a heavy vehicle to collect full or empty containers from freight terminals/warehouses to a consignee, Intermediary freight terminal or empty container park.

What steps can shipping lines take to comply with the new HVNL?

As a CoR party, shipping lines can't contract out their obligations under the HVNL, so businesses need to be shipshape and comply with the new obligations.

The big change shipping lines need to be conscious of is in relation to the new primary duty under section 26C and the executive duty under section 26D.

The primary duty calls on shipping lines to develop a Safety Management System (**SMS**) by assessing safety risks and implementing strategies, policies and procedures to ensure, so far as reasonably practicable, the safety of their transport activities. The executive duty calls on executives (not just directors, but the definition is broad enough to include higher levels of management) to consider how they can best equip their business to meet its safety duties.

Steps shipping lines can take to develop an SMS and comply with their primary duty include:

- Undertaking risk assessments for their transport activities;
- Integrating CoR compliance policies, working procedures, review/reporting systems to ensure ongoing CoR compliance throughout their commercial activities;
- Establishing induction and training systems to ensure personnel involved in transport activities (including executives) are fully aware of their obligations;
- Including CoR compliance terms in their contracts with third parties.

Steps executives of shipping lines can take to comply with the executive duty are:

- Keeping up-to-date knowledge of their business' transport activities, the associated risks and impacts on their HVNL obligations;
- Ensuring the shipping line has sufficient resources to comply with safety policies and procedures in line with their HVNL obligations; and
- Following up with relevant managers and having reporting systems in place to ensure that procedures and policies are being implemented.

Conclusion

Too often parties in the CoR wait for something to go wrong before seriously addressing their CoR compliance structures. With increased penalties being imposed on business and their executives, the amendments to the HVNL require all businesses in the supply chain to ensure that they are proactively taking control of their CoR obligations.

Cyber risk and Maritime Autonomous Surface Ships

By NIC VAN DER REYDEN, partner, HFW Australia

There have been many reported cases on how cyber-attacks cause extensive business disruption, irretrievable loss of sensitive information or data, financial loss and damage to a company's corporate reputation. It is also generally accepted that some companies are the victims of random attacks, as opposed to targeted attacks. Both types being equally lethal.

A cyber-attack on Maersk in June 2017, deploying a NotPetya ransomware virus almost crippled Maersk operations for a few days and required the entire re-build of its IT infrastructure, at a cost of about US$300 million. In July 2018, COSCO's USA operations was hit by a cyber-attack that compromised the ability of the carrier to communicate with its vessels, customers, vendors, and marine terminals in the USA.

Closer to home, in October 2018, Austal was a victim of a cyber-attack. It was reported that its systems were hacked, accessing staff email addresses, phone numbers, ship drawings and designs. This information was then offered for sale on the dark web for an apparent extortion attempt.

The shipping and logistics industry are particularly vulnerable to cyber threats given their interlinked roles in the supply chain, and these attacks will in all likelihood increase and become more sophisticated as technology develops.

One particular area which has developed significantly in the last decade, and no doubt will in the next five to ten years in, is the rise of autonomous technology of Maritime Autonomous Surface Ship (**MASS**). This, in turn, will only further increase the shipping industry's vulnerability to cyber-attacks.

Cyber-attacks are therefore not going to go away, and all players in the shipping and logistics game will have to prioritise the management of cyber risks, as Maersk's, CEO Oceania, said at a recent SAL conference on Cyber risk.

The importance of this can be illustrated by reference to the recent developments in MASS, and how the shipping industry is embracing this technology and the regulators playing catch-up.

MASS

MASS is defined by the International Maritime Organization (**IMO**) as a ship which "can operate independently of human interaction." MASS have various levels of autonomy in which they can operate, including:

- Ships without automated processes and decision support (most likely to be a conventional ship)
- Remotely controlled ships without seafarers on board
- Fully autonomous ships

The maritime industry has taken the technological development of MASS on board, which is already changing the industry. Some key developments include the following:

- In June 2017, Rolls Royce and Svitzer started trials of the *Svitzer Hermod*, the world's first remote controlled tug.
- The Norwegian technology company Kongsberg partnered with Yara to create the world's first zero emissions, autonomous container feeder vessel, the *Yara Birkeland*. She is presently under construction and is scheduled to be launched in 2019. Gard is providing hull and machinery and P&I insurance to the *Yara Birkeland*.
- Both BHP Billiton and Rio Tinto announced that they were seeking strategic partners to use MASS to transport their dry bulk cargo.
- The American Bureau of Shipping joined the Unmanned Cargo Ship Development Alliance.
- DNV GL and Kongsberg have joined efforts to test autonomous vessel prototypes.
- The Lloyd's Register has created a Design Code for Unmanned Marine Systems to ensure the resilience of unmanned systems in the marine environment.
- The UK Ship Register has signed its first unmanned vessel,

the *C-Worker 7*, which is the first to register an unmanned vessel.

- The International Association of Classification Societies requires that all of its members implement E22, an on board use and application of computer-based systems of new build vessels, including where they depend on software which controls various functions and systems on board a ship.

- Rolls Royce and the Warsash Maritime Academy completed an autonomous ship navigation system, MAXCMAS, aimed at being compliant with the Convention of the International Rules for Preventing Collisions at Sea (**COLREGs**).

- Japan's NYK line aims to pilot a remote controlled boxship across the Pacific Ocean in 2019.

- The China Classification Society and HNA Technology Logistics Group plan to launch an unmanned cargo vessel by October 2021.

Regulators worldwide and in response to these industry developments, are actively taking steps to ensure that the regulatory framework will be able to accommodate and effectively deal with MASS operating alongside conventional vessels.

IMO's Maritime Safety Committee (**IMO's MSC**) is addressing how existing IMO regulatory instruments can be applied to the safe, secure and environmentally sound operation of MASS. On 16 to 25 May 2018, the IMO's MSC met to review the regulatory framework of MASS and resolved that the following conventions should apply to MASS:

- Safety of Life at Sea (**SOLAS**)
- COLREGs
- Load Lines
- Standards of Training, Certification and Watchkeeping for Seafarers
- Maritime Search and Rescue
- Tonnage Convention
- Special trade passenger ship instruments

IMO's MSC expect that a regulatory framework incorporating MASS will to take effect by 2028.

In November 2017, the UK Maritime Autonomous Systems Regulating Working Group implemented a voluntary, non-binding Code of Practice applicable to MASS users. The purpose of the Code, is to "set initial standards and best practice for those who design, build, manufacture, own, operate and control MASS of less than 24 metres in length". The Code is considered to be the best practical guide for the industry.

The Code follows the UK Government's Code of Practice - Cyber Security for Ships and recommends that businesses include in their practice:

1. The development of a Cyber Security Assessment.
2. The development of a Cyber Security Plan (**CSP**).
3. CSP monitoring and review.
4. The appointment of a Cyber Security Officer.
5. The establishment of a Security Operations Centre.
6. A plea to deal with security breaches and incidents.

The regulatory focus on MASS, at least on a short-term basis, is likely to be based on national regulations and the operation of MASS in national waters.

One of the biggest challenges for the industry is, without a doubt, to ensure that MASS and conventional vessels can operate safety within the same waters, including ports and harbours. Port operators and MASS users will need to work cooperatively to ensure safety is at the forefront. It is foreseeable that MASS will one day operate in Australian waters and the industry needs to be prepared for the risks associated with that.

Best Practice

MASS and its technology will continue to play an important role in shaping the maritime industry going forward. Rolls Royce expects that the industry will see a greater number of MASS with reduced crew and remote support by 2020, remote controlled unmanned coastal vessels by 2025, remote controlled vessels by 2030 and fully autonomous deep-sea vessels by 2035. With this in mind, it is essential that businesses have effective cyber security and crisis management systems in place to keep up with competitors in the industry.

To limit the impact and reduce the costs of a cyber-attack, companies should progressively improve their systems, policies and training. Staff awareness and training to understand how to recognise risks, is key to avoid cyber threats. Employees, crew, passengers and suppliers must be made aware of, and understand, the potential cyber security risks and the policies and procedures that are put in place to manage those risks, including what to do in the event of a breach. It has been reported that 50 per cent of cyber breaches stem from within an organisation through deliberate or inadvertent acts or omissions of employees.

The degree of cyber-attacks can range from cyber vandalism and hacktivism to espionage, terrorism and warfare. It is crucial that the shipping industry is capable of dealing with such threats. As such, organisations should have a robust cyber security framework in place to identify the information to be protected, protect the information and ensure the company is able to detect, respond and recover from a data breach. They should ensure the cyber security strategy is tailored to the risk faced by the organisation, its critical assets, and the third-party vendors that are relied upon.

Other Developments

BIMCO is developing a clause dealing with cyber security risks and incidents that might affect the ability of one of the parties to perform their contractual obligations. The clause, scheduled for completion in May 2019, is being drafted by a small team led by Klaveness and includes Navig8, the UK P&I Club and HFW, including leaders in cyber risk security and contributor to this article, Toby Stephens (HFW Singapore), Paul Dean and Tom Walters (HFW London).

It is understood that the BIMCO cyber security clause will require the parties to have plans and procedures in place to protect its computer systems and data, and to be able to respond quickly and efficiently to a cyber–attack.

Salvage update

By JESPER MARTENS, special counsel, HWL Ebsworth

Court decisions on salvage are relatively rare, especially in Australia. In a recent judgment, the Federal Court of Australia had the first opportunity since 2007 to consider the principles of salvage and the reasonable salvage reward for salvage of a ship in Australian waters *(Mount Isa Mines Ltd v The Ship "Thor Commander" [2018] FCA 1326)*[1] .

Facts

On around 11 January 2015, the main engine of *Thor Commander* suffered a major engine breakdown close to the Great Barrier Reef, while en route from Chile to Townsville in Australia. The ship was carrying a cargo of altonorte copper anodes, owned by the Australian company Mount Isa Mines Ltd.

After the main engine breakdown, *Thor Commander* drifted towards the Reef. At the direction of AMSA *pursuant to the Protection of the Sea (Powers of Intervention) Act 1981* (Cth), a passing ship, *Xinfa Hai*, came to tow *Thor Commander* away from the reef to where she was met, on 13 January 2015, by *Smit Leopard* which then towed her to Gladstone.

For *Xinfa Hai*'s services, the owner and crew of *Xinfa Hai* received US$1 million from Mount Isa and US$100,000 from *Thor Commander's* owner, by way of settlement.

Mount Isa made a claim against *Thor Commander's* owner for the US$1 million it paid to *Xinfa Hai's* owner and crew, plus other expenses incurred due to the engine breakdown.

Was *Thor Commander* in danger?

The *Navigation Act* defines "salvage operation" in section 14 as follows:

> ***salvage operation*** means any act or activity undertaken to assist a vessel or any other property not permanently and intentionally attached to the shoreline (including freight at risk) in danger in any waters. [emphasis added]

Salvage operations that have had a useful result give right to a salvage reward.

Thor Commander's owner contended that *Thor Commander* was not in danger of drifting onto the Reef and that *Smit Leopard* would have reached her well in time to commence a tow without the need for *Xinfa Hai*'s intervention.

The Court rejected that contention. It found that, at the time that *Xinfa Hai* began the tow, no one could have known with certainty that *Smit Leopard* would arrive in time to take *Thor Commander* in tow. Until the tug arrived on scene, there was always a real risk that some unforeseen problem might arise to place *Thor Commander* and her valuable cargo in actual peril of grounding on the reef. Furthermore, the Court found that, once *Thor Commander's* main engine broke down, the ship was drifting at the mercy of the elements in a direction towards reefs and would have been likely to have been carried on to the reef unless another vessel toward her away before she reached the reef. Unaided by a vessel capable of providing effective towage, *Thor Commander* was in danger within the meaning of the expression "salvage operation".

The reasonable salvage reward

The Court noted that the general maritime law has long recognised the importance of there being an enforceable obligation on shipowners and cargo owners to reward salvors who had assisted a vessel in danger.

The Court referred to a previous decision of the Full Federal Court *(United Salvage Pty Ltd v Louis Dreyfus Armateurs SNC* (2007) 163 FCR 183), where the Court held that Story J, in *The Henry Ewbank* 11 F Cas 1166 at 1170 (1833), had identified that salvage is not a "mere matter of compensation for labour and services", but should be treated as a "mixed question of public policy and private right."

Thor Commander's owner contended that Mount Isa's settlement with *Xinfa Hai*'s owner (US$1 million) was unreasonable because Mount Isa never sought advice as to what level of salvage reward an Australian court was likely to award. It argued that were the Court to assess the salvage reward, it would be for a much lower sum.

For a number of reasons not discussed in this article, the Court found that Mount Isa was entitled to claim as damages the US$1 million that it paid in settlement of *Xinfa Hai*'s salvage claim provided that its settlement was reasonable in the circumstances at the time it was made. In the end, the Court found that the settlement was not reasonable.

The Court therefore proceeded to consider what would have been a reasonable salvage reward, which could be recovered from *Thor Commander's* owner. The Court carefully considered relevant factors, such as the purpose of encouraging salvage operations, the salved value of the vessel and cargo, danger to the ship, cargo and environment and the measure of success obtained by *Xinfa hai*. The Court ultimately found that a reasonable salvage award payable by Mount Isa was US$909,000 out of the US$1 million that it had paid to *Xinfa Hai's* owner.

[1] *Thor Commander's* owner has filed an appeal which is likely to be heard in 2019.

Time bar in arbitration and in misdelivery of cargo

By PETER MCQUEEN FCIArb, arbitrator and mediator

There have been two recent significant English Commercial Court decisions relating to the application of time bars in arbitration and to claims for misdelivery of cargo under the Hague Rules. These are the decision of Sir Richard Field in The *CAPETAN GIORGIS* [2018] EWHC 1399 (Comm) (*CAPETAN GIORGIS*) and the decision of David Foxton QC in The *ALHANI* [2018] EWHC 1495 (Comm) (*ALHANI*).

CAPETAN GIORGIS

Here there was a chain of voyage charterparties back-to-back between P and Q, Q and R and R and S. On 16 November, the last day for commencing arbitration proceedings under a time charterparty up the chain, P was served with notice relating to a claim for cargo damage. P did not give notice to Q until 25 November. On 17 November, the day on which Q first became aware of the notice from P, Q gave notice to R via its brokers, and R on 1 December gave notice to S. P, Q and R applied for extensions of time to give notice.

The first issue for determination was whether the time bar wording, which included the words, "where this provision is not complied with, the claim shall be deemed to be waived and absolutely barred", should be given its literal meaning in circumstances where the claim is time barred.

The Court found that, if the wording is clear and unambiguous, it should be given its natural and ordinary meaning.

The second issue for determination was when is it appropriate to grant an extension of time for commencement of arbitration in accordance with Section 12 of the Arbitration Act 1996 (UK).

The Court found, where there were circumstances which were outside the reasonable contemplation of the parties when they agreed the time bar wording, as here, that it would be just to extend time where an applicant has acted "expeditiously and in a commercially appropriate fashion to commence proceedings". Accordingly the claim by Q against R was found not time barred but the claims of P against Q and R against S were both found to be time barred.

ALHANI

The decision relates to a misdelivery of cargo by the owners and operators of this vessel by making a ship-to-ship transfer without production of the bill of lading, which related to a shipment of bunker fuel between Togo and Benin and which was subject to the Hague Rules **(Rules)**. Cargo interests brought proceedings in Tunisia, the PRC, France and in England, where a declaration of non-liability under the bill of lading was sought.

The first issue for determination was whether the time bar provision in Article III Rule 6 of the Rules applies to a claim for misdelivery.

The Court found that this provision does so apply as the words "in any event" and "all liability" in respect of loss or damage are wide enough to encompass liability for misdelivery, having noted that the object of finality behind the time bar provision would be seriously undermined if that provision did not so apply. In addition the time bar applied to breaches of the carrier's obligations connected with goods which occurred during the period of responsibility under the Rules. Reference was made in this regard to the Privy Council's decision in The *NEW YORK* (1980) 144 CLR 300.

The second issue for determination was whether the commencement of proceedings in a foreign jurisdiction is sufficient to interrupt the time bar when the relevant bill of lading incorporates an exclusive jurisdiction clause in favour of courts in another country.

The Court found that, where proceedings are brought in a court in a jurisdiction in breach of the agreement to bring proceedings in another forum, those proceedings will not constitute proceedings before a competent court to satisfy the requirements of Article III Rule 6 of the Rules.

Comment

Each of these decisions reinforces the fact that close attention must be given to ensuring compliance with time bar and exclusive jurisdiction provisions in maritime contracts, in these two cases charterparties and bills of lading incorporating charterparties. Also, claimants need to act expeditiously and in a commercially appropriate fashion to commence proceedings in accordance with these provisions and to do so in a timely manner.

'Brave new world?' – What industry leaders really think the future holds for container transport

By PEREGRINE STORRS-FOX, Risk Management director, TT Club

Following the publication of a comprehensive report into the global container transport industry, produced jointly by international freight transport insurer TT Club and global management consulting firm McKinsey, Peregrine Storrs-Fox, one of the co-authors, summarises the findings of their research.

This was qualitative research encapsulating the passionate thoughts and opinions of industry leaders on what the future holds for the container industry over the next 25 years.

Rather than focusing on the purely quantitative analysis of trends, we interviewed over 30 highly respected industry leaders and experts from a wide cross-section of the industry. The aim was to gain a qualitative insight into the perceptions and confidence of the people who have greatest experience in the industry and are best placed to predict the sector's future. These included Board members of TT Club, but importantly other supply chain professionals, financial intermediaries, law firms, and disruptors and innovators.

While there was inevitably diversity of opinion, we were able to draw out five broad areas of consensus as to the underlying assumptions for the industry. In building visions of the future, the report evaluates each against six potential sources of future value creation, which are likely to be key factors for the industry. The analysis ends with thoughts as to how players in the industry may today prepare for the many uncertainties of the future.

The development of containerisation over the past fifty years is well documented. The industry is now well-established at the centre of international trade with over 90 per cent of consumer goods (TVs, toys, clothing, furniture) and many raw materials, being shipped in these metal boxes. Yet despite the success of the container, the returns for the average operational stakeholder have commonly lagged the cost of capital over the last two decades. There have only been a few winners who have found a sustainable recipe for value creation.

So, in advance of describing the potential futures, 'Brave new world?' reports on the five broad areas of consensus:

1. **Physical characteristics** of the industry are unlikely to change, as the container and the ships that carry them will still exist over the next 25 years

2. **Trade flows** will become more balanced across trade lanes as incomes converge between east Asia and developed economies, and the emerging economies in south Asia and Africa "catch up"

3. **Automation** will be broadly adopted across the value chain, especially on the landside in ports, terminals, rail and trucking, to unlock significant efficiencies

4. **Digital, data, and analytics** will cause a fundamental shift in the sources of value creation, and customers will expect a high level of reliability, transparency and user-friendliness

5. **Industry leaders in 2043** will look very different; some will consolidate, others may change their business model. Some will be "digital natives", either start-ups or e-commerce players optimising the container transport leg of their supply chain.

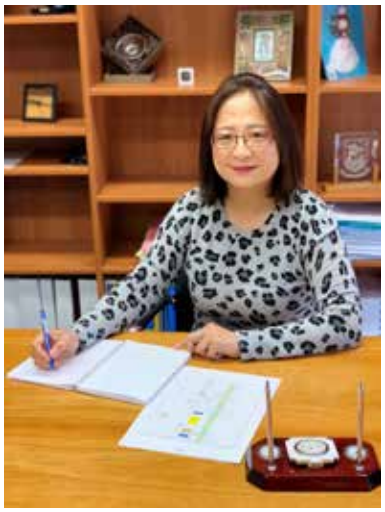
Drawing together these assumptions, the report identifies the key sources of value creation for the industry. There followed an almost-religious debate as to whether the future is fundamentally driven by trade or by digitalisation. Based on this fundamental fulcrum, the authors develop four "bookend" possibilities where the dominant factors are either of these two factors.

For those focused on trade growth, on one hand it is possible that the industry may enjoy another boom like the two decades leading to 2008, or, at the other end of the spectrum, it could be that robotics, 3D printing, near-shoring and geopolitical pressures cause a structural slowdown in trade growth. On the other side, with equal passion, were those who argued that digital, data and analytics are the key game-changers, from which new ways to satisfy customer needs will deliver value.

Watching each developing cloud, or being sensitised to another "bump in the road", the temptation for many stakeholders in the containerised industry is to tend to pessimism about the future. Recent months have certainly given some credence to the potential dislocation arising from geopolitical tensions, but it is worth recognising – particularly with a long view – that what is prevalent today is quite different to last year or a decade ago; only a doomsayer would deliberately plot an irretrievable trend line.

There is a growing pressure for the industry to make advances in relation to environmental issues. Climate and environmental policies are clearly moving in one primary direction. But more than that, consumers and society are increasingly demanding greener supply chains, which will have ramifications for asset owners' investment plans.

Ultimately, as the report concludes, "the future is unknowable, but that is not an excuse for inaction". The intention was to engender thinking, monitoring and discussion; the future for this industry appears no less exciting and demanding than the past.



Leading with innovation and technology - 2018 in review

By Associate Professor SHUHONG CHAI, principal, Australian Maritime College

The maritime sector is undergoing a period of major transformation, bringing a raft of challenges but also opportunities that we as an industry must navigate.

At the Australian Maritime College (AMC), our focus has been on how we can help industry respond to these challenges by tailoring our courses and programmes to meet shifting demands.

As the national institute for maritime training, education, research and consultancy, AMC is well-positioned to help build the skilled workforce required by industry to thrive into the future. We've been working on realigning our product offering, establishing key partnerships and investing in cutting-edge infrastructure in response to the changing operational environment.

We look forward to seeing these initiatives develop further in 2019 and working closely with industry, government and regulatory bodies to ensure our training, education and research continues to meet their needs.

Fire and Rescue New South Wales team members undertake training in the AMC ship simulators

Flexible delivery of ocean seafaring courses

We're restructuring our ocean seafaring courses to offer flexible study options and accommodate the needs of students and their employers.

Under the changes, Bachelor of Applied Science (Nautical Science) students will be able to study remotely for up to 45 weeks of their three-year degree, while Bachelor of Applied Science (Marine Engineering) students will have the option to complete up to 34 weeks of their studies online.

These qualifications lead to careers onboard oceangoing vessels as engine watch-keepers, chief mates/masters, engineers and electro-technical officers. The new blended mode of delivery will be rolled out progressively from 2019-2021 and was prompted by feedback from students and industry.

Students will be able to choose whether to attend on-campus classes or study remotely for the first eight to ten weeks of the semester. They will then attend two to four weeks of consolidated practical, simulation and revision training before sitting the final exam on-campus or at an approved exam centre.

The new course structure is designed to provide a better work-life-study balance, with students no longer required to take leave from work or be away from their families and home town for an extended time. Sponsoring companies will also benefit from reduced leave requirements and associated travel expenses.

Building our naval shipbuilding capabilities

In the Defence space, the Federal Government's $90 billion investment in the continuous naval shipbuilding plan has led to an increase in demand for maritime engineers, naval architects, logisticians, bespoke training for new equipment and systems, and research to help develop cutting-edge new vessels.

It's expected the naval shipbuilding workforce in Australia will grow by 5,200 workers by the mid-2020s to design, build and sustain our future warships, submarines and patrol boats. In April, AMC was delighted to be announced as a strategic partner in the Naval Shipbuilding College in which we collaborate with industry, government and other academic organisations to help build a pipeline of skilled workers to fulfil industry needs.

We're working in partnership with pre-tertiary education providers around Australia to create direct pathways for TAFE students to articulate from their diploma and associate degree level courses to AMC's specialist maritime engineering and global logistics degrees.

To date, we've signed agreements with TAFE SA, South Metropolitan TAFE and TAFE NSW that will lay the groundwork to help develop the next generation of professionals needed to grow Australia's sovereign naval shipbuilding capabilities.

We also continue to work closely with TasTAFE on providing vocational skills training to our students and exploring opportunities for further collaboration.

Delivering drone training to the maritime industry

Our commercial arm, AMC Search, has partnered with The Institute for Drone Technology™ to bring drone technology training into the maritime training environment.

Drone technology has unprecedented capacity to provide improvements in safety, efficiency and innovation in the maritime environment.

The partnership aims to make Australia a leader in the integration of drone technology and maritime activities and help build a highly-skilled workforce to drive the future of the maritime industry.

Relevant training products will be delivered from beginner to advanced levels and include a variety of delivery methods so workers from across maritime can access world-class training and get the skills they need to make the most of this revolutionary technology.

The first three courses, Remote Pilot's License, Safe Drone Operation for Managers and Flight Basics: Hazards, Batteries and the Law, were delivered from the AMC Sydney Study Centre in November.

AMC Search has partnered with The Institute for Drone Technology™ to bring drone technology training into the maritime training environment

Other 2018 highlights include:

- AMC was awarded $3 million to conduct research with leading US universities on improving Australia's naval capability. The researchers will study the physics of cavitation and bubbly flows to enhance our understanding of how this affects the performance of naval vessels. The three-year project is funded through the Multidisciplinary University Research Initiative (MURI) administered by the US Department of Defense and includes the Massachusetts Institute of Technology, Johns Hopkins University, California Institute of Technology, University of California, University of Minnesota, University of Iowa and the University of Michigan.

- Researcher Jarrah Orphin was awarded the Laurie Prandolini Research Fellowship through the Institute of Marine Engineering, Science and Technology (IMarEST) for his work in the field of ocean renewable energy. He will use the $14,000 grant to replicate the same scale model tests he is conducting in the AMC model test basin at another international university, with the aim of mitigating the uncertainty that currently exists in the hydrodynamic modelling of wave energy converters.

- A team of School of Engineering researchers were awarded a $460,000 grant through the Australian Research Council's Linkage Project scheme to help advance Australia's ship design capabilities and bolster the high-speed ferry industry's export potential. The team will work directly with industry to develop a "smart" semi-autonomous interface that includes a real-time on-board monitoring and feedback system. This technology will lead the way for increasing ship safety, vessel longevity and improving passenger comfort for vessels worldwide, including high-speed catamarans.

- Dr Javad AlaviMehr and his team were awarded the Medal of Distinction for best research paper through the Royal Institution of Naval Architecture for their study into reducing the motion and improving the ride comfort of high-speed wave piercing catamarans.

- The AMC Peter Morris medal for significant contribution to the enhancement of the maritime industry was awarded to Captain Brett Whiteoak for his work into mitigating the environmental impact of oil spills. Captain Whiteoak has developed a new method to skim and contain off-shore oil spills using oil tankers that can remain in situ for as long as necessary to collect and treat it.

- For the third year running, firefighters from a specialist unit in New South Wales completed a five-day bespoke training course at AMC that equips them to assess hazardous substances at sea. Twelve firefighters from a hazardous materials unit in Sydney spent five days gaining the skills they need to carry out reconnaissance on vessels at sea and identify unknown substances. The course was designed by AMC Search to meet the requirements of the Australian Maritime Safety Authority (AMSA), who enforce Australia's commitment to an international protocol to respond to hazardous and noxious substances on vessels.

- We were pleased to welcome the highest number of women to AMC Search's Pacific Patrol Boat training programme at any one time in the programme's 25-year history. Constables Annalieze Taumua, Rosalia Manutulila and Suisui Malu, from Samoa, and Second Lieutenant Domingas Soares Ximenes from Timor Leste, took part in seamanship and navigation courses at AMC in June. More women are taking part in the training thanks to changes to the next generation of patrol boats that will make it easier to accommodate a female crew.

- AMC successfully delivered a pilot programme in fishing operations to a group of Torres Strait Islander and Aboriginal students in Cairns, Far North Queensland. The Certificate III in Fishing Operations was delivered under the Torres Strait Marine Pathways Project to enable students to gain competence catching, processing, packaging and transporting fish and crustaceans.

Transition to low sulphur fuel in 2020 and beyond

By MICK KINLEY, chief executive officer, Australian Maritime Safety Authority

One of the biggest challenges for the shipping industry in the year ahead will be the transition to low sulphur fuel. The global shift to low fuel sulphur has developed over many years, but 2019 is the year everyone will need to work together to make final decisions about meeting the new world standard.

Discussions about how to meet the new standard are high on the agenda at shipping companies all over the world. Predictions vary, but the cost impact for our industry globally could be significant. There will certainly be challenges in ensuring reliable supply of compliant fuels, as well as access to technology and expertise in exhaust gas cleaning.

Despite the challenges, the transition presents a great opportunity for Australian and world shipping. I see it as a chance to remind people that shipping is the most energy efficient way to transport goods around the world.

This new limit aims to reduce the impacts of sulphur air emissions on the environment and human health. By complying with these limits, the industry can prove to its customers, governments and the public that shipping can change to meet community expectations on environmental protection and public health.

This process started over ten years ago when, in 2008, the International Maritime Organization (IMO) adopted amendments to Annex VI of the International Convention for the Prevention of Pollution from Ships (MARPOL) to set a global limit of 0.5 per cent sulphur content in fuel oil, effective from 1 January 2020.

The IMO commissioned a 2015 study to review supply and demand of compliant fuel oil. In October 2016, the IMO reviewed the study and, on the basis that there would be sufficient compliant fuel available globally, agreed to retain the decision to implement the new sulphur content limit from 1 January 2020.

After this date, all ships operating in Australian waters will be required to comply. Distillates are generally compliant and there are alternatives, such as using methanol or gas, as well as installing exhaust gas cleaning systems, if the resulting emissions are equivalent to low sulphur fuel. Recent discussions at the IMO have also seen an agreement to ban carriage of non-compliant fuel for use onboard.

I also add that in my opinion, while exhaust gas cleaning systems can be a means of achieving compliance, shipowners choosing to install these systems will ultimately face future challenges with the discharge of effluent or waste streams, particularly in ports and environmentally sensitive areas.

AMSA's role is to ensure ships in Australian waters comply with the new standard. We have been working closely with the shipping and petroleum industries over the past few years to help raise awareness of the upcoming changes and potential impacts for industry, and to ensure the position Australia takes on this issue in the IMO is informed by the views of our industry. It's important to remember this is a worldwide reform, so AMSA needs to help maintain a level playing field in world shipping by enforcing the new standard consistently.

Further discussions at the IMO to support the implementation will take place in February 2019. This process will develop guidelines for the transition, including compliance and enforcement considerations, and options when compliant fuel is not available. There will also be further discussion on the impact of low sulphur fuel on machinery systems, including at the Maritime Safety Committee meeting in December.

Australian ships, ports and fuel suppliers will need to make sure they are ready for the global implementation in 2020. I appreciate this will be a significant piece of work on the agenda for many in 2019 and I also acknowledge the efforts of those who have engaged with AMSA on this issue over the last few years.

AMSA's priority will be to engage with Australian industry in the decision-making and planning needed to comply. We will also continue to engage with the IMO during the transition to make sure shippers and regulators worldwide can work from consistent guidance.

A sulphur content of 0.5 per cent is still many times that permitted on land. By comparison, the diesel used in road vehicles has a maximum sulphur level of 10ppm or 0.001 per cent. What does this mean for the future for the industry? In my view it means that further change in environmental regulation is inevitable and the industry needs to be prepared. The challenges of bringing fuel sulphur levels to an acceptable level will be overshadowed by those required to address carbon emissions from shipping, but that path has been set with the adoption of the initial Greenhouse Gas Strategy by the IMO in April this year.

Achieving a reduction of greenhouse gas emissions from shipping of 50 per cent by 2050, compared to 2008 levels, is going to require sustained effort by all parties, starting now. Letting 10 years slip by with very little action, as seems to have happened with the 2020 sulphur cap, is not going to put us on the trajectory for success.

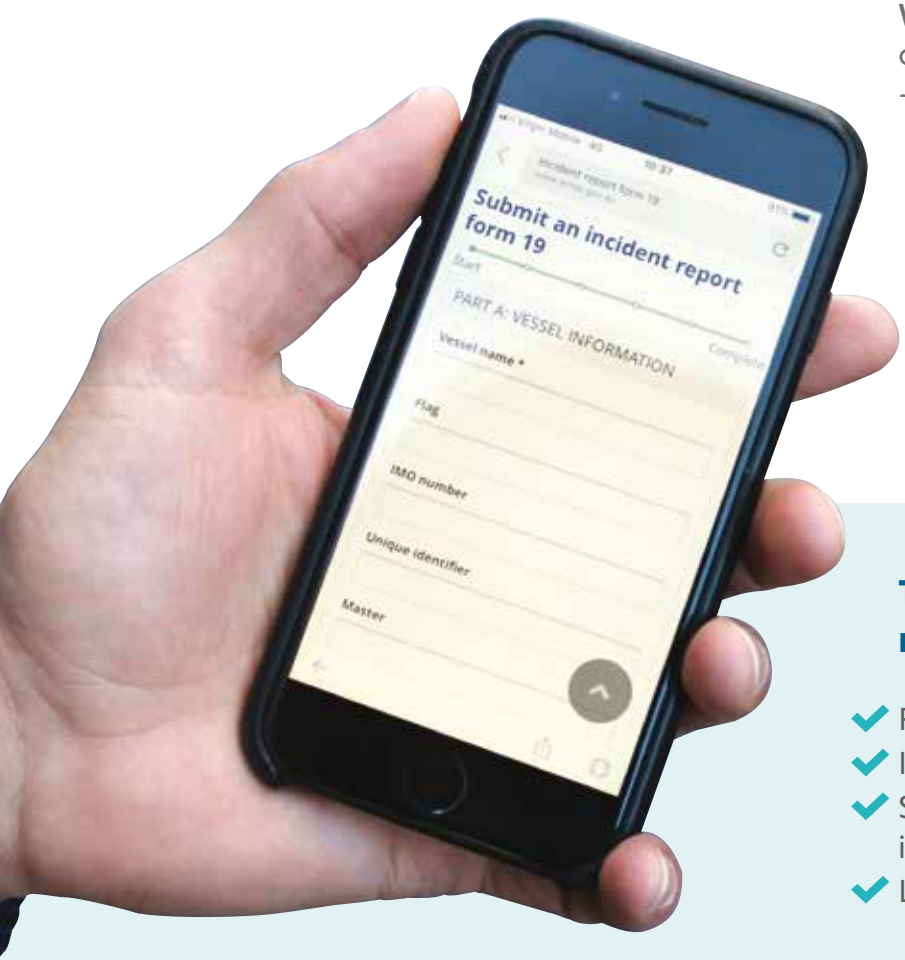
Public awareness of the shipping industry is often limited, despite its importance to our economy. Few people have direct experience of our industry and mainstream media coverage is rare. The environmental impact of shipping is one area that does get media attention however.

The transition to low sulphur fuel and a low carbon future is an opportunity to talk about the value and positive impact of shipping. Shipping underpins international trade with enormous scale and complexity, but our industry is also capable of working together at a global level to make significant contributions to protecting health and the environment. That's the story I want to tell in 2019.

Australian Government
Australian Maritime Safety Authority

Incident reporting is essential to maritime safety

You must report incidents to the Australian Maritime Safety Authority. You are required to report a marine incident which affects, or is likely to affect, the safety, operation or seaworthiness of people and vessels.



This can be done in two simple steps via the website:

1. Submit incident alert

As soon as possible and **within 4 hours** after becoming aware of the incident, submit Form 18—Incident alert.

2. Submit incident report

Within 72 hours after becoming aware of the incident, submit Form 19 —Incident report.

The information obtained from marine incidents enables us to:

- Respond to concerns
- Identify issues, patterns and trends
- Share information with the maritime industry
- Learn from and improve maritime safety.

amsa.gov.au/incident-reporting

2018: a review of marine transport safety

By NAT NAGY, executive director, Transport Safety, Australian Transport Safety Bureau

This year a number of ATSB marine safety transport investigations highlighted the danger and risk associated with two all too common safety issues: collisions at sea and fires from on-board hot work.

Collisions at sea can pose a serious threat to the lives of people on board and threaten the structural integrity of the vessels involved. However, in spite of that danger, we continue to find that such occurrences are often avoidable.

Over the past 28 years, the ATSB has investigated 38 collisions between large ships and small vessels. In nearly all cases, the ATSB found that failure to keep a proper and effective lookout and take early avoiding action was a contributing factor to the collision.

In 2018, the ATSB released investigation reports into three collisions between trading ships and small vessels —*Beijing Bridge* and fishing vessel *Saxon Onward*, *Glasgow Express* and the fishing vessel *Mako*, and *Jag Arnav* and *Total Response*.

In 2015, the bulk carrier *Jag Arnav* and the fast utility vessel *Total Response* collided off the coast of Western Australia in daylight in clear visibility. *Total Response* sustained structural damage and two of its crew were injured. The ATSB found that a proper lookout was not maintained on board *Jag Arnav* and the available electronic navigational aids were not properly used. When the officer of the watch sighted *Total Response*, he incorrectly assessed that it would pass clear. Meanwhile, aboard *Total Response*, the crew did not detect *Jag Arnav* either visually or electronically, and collided with the side of the ship at full speed.

Damage to Mako from collision with Glasgow Express

On the evening of 12 August 2017, the container ship *Glasgow Express* and the fishing vessel *Mako* were on a collision course for nearly two hours, off the Victorian coast. Radar and visual information was misinterpreted on board the container ship, with the crew assuming the ship would either pass clear or overtake the fishing vessel.

Image: Hapag-Lloyd; ATSB

At 10.34pm, the two vessels were three nautical miles apart and clearly visible to each other. However, the risk of collision was not identified and so no action was taken to avoid the collision. *Glasgow Express* was not damaged in the collision, but the damage to *Mako* was significant.

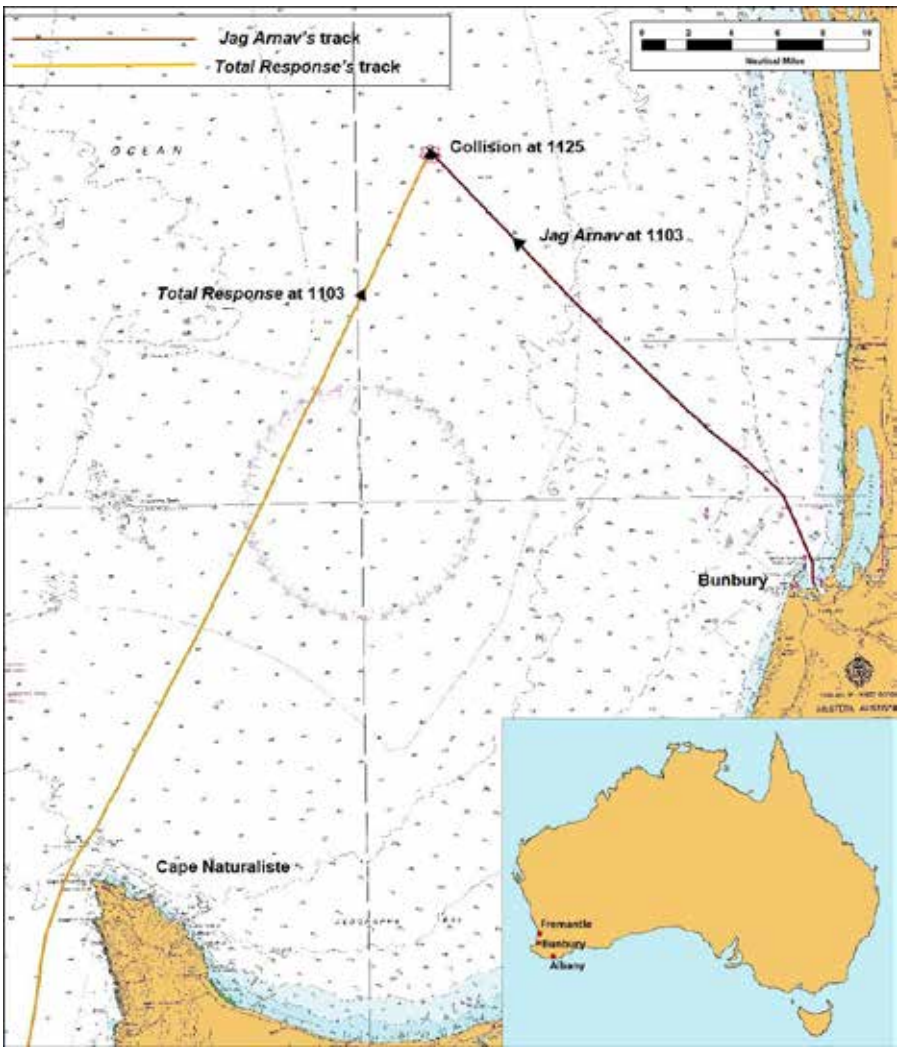
On 23 January 2018, the fishing vessel *Saxon Onward* collided with the container ship *Beijing Bridge* about three nautical miles south-east of Gabo Island, Victoria. Both vessels had been aware of each other's presence, but alterations of course increased risk of collision and measures taken to remedy the situation were insufficient.

The investigation found also that *Beijing Bridge*'s officer of the watch had been the sole lookout on the bridge during the 2000 2400 watch on the night of the collision and for several weeks preceding the collision. The absence of the bridge lookout during hours of darkness increased risk and was in contravention of company procedures and international regulations.

All three incidents highlight the importance of keeping a proper and effective lookout to avoid collisions at sea — a basic, integral part of marine navigation that can make all the difference.

A proper and effective lookout includes the use of radar, automatic identification systems, electronic chart display and information systems and radio broadcasts, as well as keeping a lookout by sight and hearing.

These occurrences also demonstrate that maintaining a proper and effective lookout requires crews, on trading ships as well as small vessels, to be able to engage actively with the equipment and their surroundings.

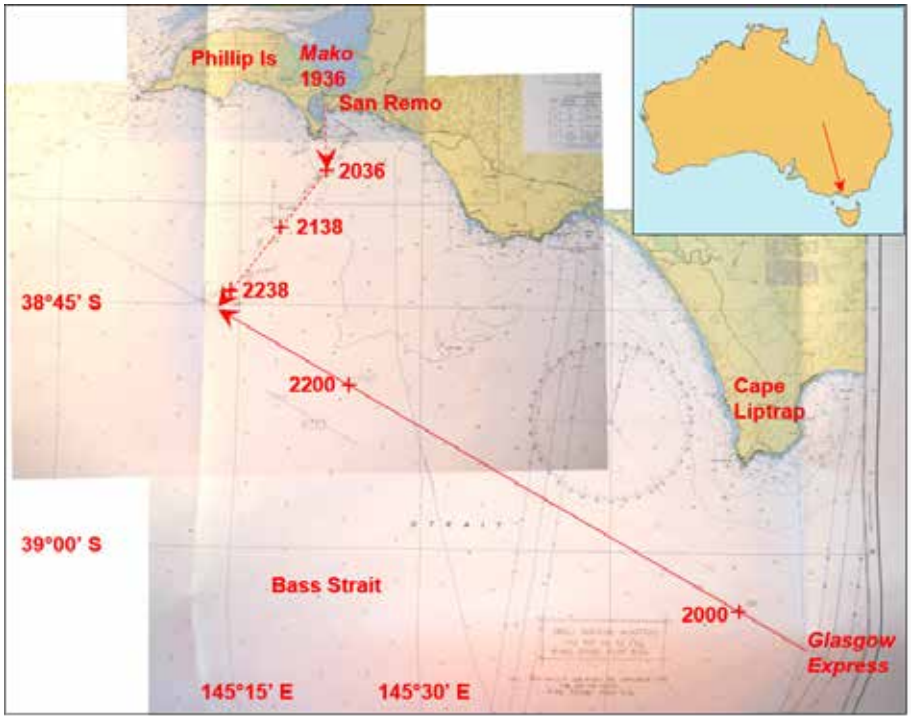


Section of navigational chart Aus 334 showing the tracks of both vessels

Another ongoing safety concern for the maritime sector is the danger of ship fires from on-board hot work. In 2018, the ATSB released its final investigation report into a fire on board *BBC Xingang*. The ATSB found that a fire watch team had been arranged, and fire blankets placed in the gaps between the tween deck pontoons to protect the cargo below. However, the hot work produced molten metal and other hot material that burnt through to the cargo below and ignited the cargo coverings.

This was the third time the ATSB had investigated an on board fire due to hot work for the removal of sea fastenings. Ship crews should never underestimate the risk associated with this common activity and must remain vigilant throughout the entire hot work process. Ship operators should implement comprehensive risk controls and procedures that should include detailed task-specific appraisals, risk and hazard assessments, work permits, and toolbox meetings for the conduct of hot work for the removal of sea fastenings.

The fact that these investigations reflect a common failure to maintain safety standards for these core activities is of concern. The ATSB urges operators and individuals to take steps to ensure their vessels and their crews are not left vulnerable to these recurring risks.



Composite excerpt of Glasgow Express's navigational chart (Aus 801) showing vessel tracks to collision

New horizons in hydrography

By Commodore FIONA FREEMAN, RAN, Hydrographer of Australia

On Friday 15 December 2017, I took over from Commodore Brett Brace, RAN, as Hydrographer of Australia. This role has the responsibility to lead Defence's Hydrographic, Meteorological and Oceanographic capabilities.

I take the helm as Hydrographer at a pivotal point in the history of the Australian Hydrographic Office (AHO), because the AHO is no longer a part of the Royal Australian Navy, as it has been for nearly a century. This change occurred in October 2017, when the AHO was incorporated into the Australian Geospatial-Intelligence Organisation (AGO) on the passing of the *Defence Legislation Amendment Act 2017*. The measures in this Act amend AGO's non intelligence functions in the *Intelligence Services Act 2001*, to enable the AHO to continue providing products and assistance to our customers. Although many aspects of our day to day business will not change, there will be new opportunities and broader horizons as a result of the move to AGO. We will be able to provide geospatial support to the Australian Defence Force more efficiently, but our traditional products which support safe navigation, the protection of the marine environment and the achievement of commercial efficiency for non-Defence customers will continue to be produced and will evolve.

Responsibility for delivering hydrographic services under the *Navigation Act 2012* (Cth) has moved to AGO under the new construct. I will remain the Professional Head of the military hydrographic workforce, which means that I will continue my regular interaction with Navy colleagues. The Navy will retain their responsibility for the operation of the Hydrographic Survey Force, and for the delivery of specialist training at the Hydrographic School.

Throughout 2018, the Navy's Hydrographic Survey Force units have continued to perform priority HydroScheme survey tasks. It will be of particular interest to coastal pilots to note a recent survey operation conducted in the vicinity of Cape Melville in the inner Great Barrier Reef, identified by the Australian Maritime Safety Authority as a potential alternate route for northbound shipping to overcome the navigational constraints within the existing narrow navigation channel to the south-west of Pipon Islets.

Data collected and analysed from this survey provides improved depth information for deep-draught vessels as well as certainty that there are no uncharted dangers to navigation in the channel. Any hazards to navigation in this area have been identified and updates will be made to existing charts, thus improving safety of navigation through critical trade routes of the Great Barrier Reef.

The AHO continues to provide maritime stakeholders with the necessary products to navigate safely, to protect the marine environment and to achieve commercial efficiency. This includes managing a portfolio of 889 Electronic Navigational Charts (ENC) and 478 paper nautical charts. For ENC, this is the fourth largest chart portfolio in the world.

Notable charting projects this year included the updating of Port Moresby chart products to support APEC 2018; updates to Weipa chart products for the new Amrun terminal installation south of Weipa, and significant enhancements to scale and levels of detail in key Australian ports, including developing high density bathymetric ENC for two of these ports. These bathymetric ENC, covering Cairns and Townsville, are the first in the world to be suitable for use by both marine pilots and ship's masters.

Our capacity building in the South West Pacific is actively contributing to the efficiency and safety of maritime operations for both the cruise ship industry and trade. Since becoming the Primary Charting Authority for the Solomon Islands in September 2017, the AHO has produced and distributed nautical charts of Solomon Islands waters

and has worked closely with the Solomon Islands Maritime Safety Administration to develop the inaugural Solomon Islands National Tide Tables, which will be published later this year.

For the AHO, our primary focus this year and next will be on preparing for the delivery of the HydroScheme Industry Partnership Program (HIPP) and development of the future Defence Hydrographic capability being delivered through Defence Project SEA2400. HIPP will significantly change the way that the AHO manages and coordinates the national hydrographic surveying and charting programme and importantly how we interact with our customers and industry. Through HIPP, the AHO in conjunction with other government, industry and academic stakeholders, will coordinate national hydrographic survey tasks. Quality assured hydrographic surveys of Australian waters will be undertaken by a panel of private survey companies through a competitive tendering process.

HIPP will enable Defence and industry to partner together to deliver an efficient and sustainable hydrographic and oceanographic surveying and charting programme with a whole-of-nation context. It is scheduled to commence in early 2020 and expected to be a multi-decade programme. This programme will engage with industry to deliver the surveys needed to meet national requirements and fulfil Defence's legislated obligations.

Defence has a long established role with respect to the provision of hydrographic and nautical charting services – this remains an ongoing obligation and the changes we are embracing through the introduction of HIPP are an opportunity to grow and become more relevant into the future. Survey activities presently undertaken by Defence are largely in support of its obligations to ensure safety of navigation for shipping in Australian waters. This has left little capacity to undertake data collection activities that directly support military interests. Navy's current fleet of survey ships based in Cairns, will be replaced by a modern and far more capable environmental collection vessel, and more deployable units accessing technologies not previously used, such as autonomous vehicles. This platform and other fully equipped deployable units, using our foundation skillsets in a different way to that required in the past, will deliver the wide range of military requirements and environmental data needed by our future force.

In 2020, the AHO will celebrate 100 years of service to the Australian nation. The hydrographic community has a rich heritage and a strong military link. As we look forward to our future, we also reflect on the milestones that brought Australian hydrography to the strong position it is in today: from the establishment of the Navy Hydrographic Service in 1920 to the *Navigation Act 2012* that legislated responsibilities for the AHO to provide hydrographic services under SOLAS obligation; and finally, the establishment of the HydroScheme Industry Partnership Program. We are proud of our rich heritage of service to Australia, and trust you will 'save the date' to celebrate our Centenary with us in 2020.

More containers need to be transported on Australia's blue highway

By Dr TERRY O'BRIEN AM, executive director

Australia is the largest exporter of dry bulk commodities in the world; its ports on the west coast ship more than 700 million tonnes of iron ore each year and that number continues to grow year-on-year. It has been estimated that the iron ore exported from Port Hedland alone contributes about 2 per cent of the national GDP.

OMC International has played an important part during the past 25 years in contributing to the efficient and safe operation of **Australia's bulk ports**. It is our proud boast that more than 95 per cent of Australia's iron ore and coal exports sail out of their departure ports under the advice of OMC's Dynamic Under Keel Clearance (DUKC®), the world-leading UKC management system which we pioneered at the port of Hay Point more than 25 years ago.

The annual 'Safe Ships - Safe Ports Forum' hosted by Pilbara Ports Authority (PPA) highlights the continuing growth in exports from its major ports of Port Hedland, Dampier and Ashburton each year (accounting for 50 per cent of global seaborne iron ore exports). It explains, for the benefit of the many ship owners and operators present, the very significant challenges involved in safely managing these enormous throughputs along narrow, depth-restricted channels, often involving at Port Hedland up to eight large Capesize vessels on a single tide with total tonnage up to 1.6 million.

The attention of PPA to improving the throughput efficiency of the port, while at the same time mitigating the effects of a possible grounding and subsequent channel blockage, is exemplified by three projects: the ongoing $120 million Channel Risk and Optimisation Project (CROP) which uses DUKC® technology and optimised dredging to mitigate the risk of disruption to the port in the event of an adverse incident obstructing the channel; the construction of a state-of-the-art VTS centre at a cost of $65 million and the Dynamic Port Capacity Modelling (DPCM®) undertaken by OMC, which has extended the stated port capacity from 495 million tonnes to 577 million tonnes per annum, and deferred the need for the construction of an Outer Harbour, at an estimated cost saving of $20 billion. PPA, in conjunction with OMC, received the 2018 inaugural International Harbour Master's Association (IHMA) Award for 'Safe, Efficient and Secure Port' for Under Keel Clearance Management (UKCM) at Port Hedland.

Our coal export ports are also extremely efficient, but in the case of the port of Abbot Point are restricted in their throughput by the absence of a rail link between mines in the Galilee basin and the port. Unfortunately, the job of completing this logistical gap has been stalled for years because of political considerations.

The DUKC® Series 1 system was first installed at Hay Point in 1993 as a stand-alone desktop system and has evolved during the intervening years through the efforts of OMC's team and the availability of new technologies such as the internet, into its present Series 5 cloud-based system. This year, North Queensland Bulk Ports (NQBP) has commissioned DUKC® Series 5 systems for the ports of Hay Point, Abbot Point, Mackay, Weipa and new bauxite port of Amrun, including critical UKC displays on the electronic charts of each pilot's PPU.

With an increasing industry recognition of our e-Nav technology as the industry standard for safe and efficient real-time management of UKC, OMC has continued to play a leading role in UKCM information exchange. OMC is providing its technology as a member of the UKCM Project Team whose brief is to develop an IHO S-129-based project specification to enable the outputs of UKCM services to be displayed for users (IHO, 2015). This Project Team comprises several IHO Member States including Sweden, France, Korea, USA, Russia, Finland, UK and The Netherlands and is chaired by a representative from the Australian Maritime Safety Authority (AMSA). The initial testbeds for the proposed standard will be undertaken in Torres Strait and South Korea during early 2019.

Turning to **container shipping**, our large metropolitan ports such as Melbourne, Sydney and Fremantle are extremely efficient in terms of their waterside infrastructure components (channels and berths), although like similar major container ports around the world, there remains the constant issue of handling larger ships with all their dimensional challenges of increasing length, beam and draft.

However, by far the greater challenge is how to move these ever-increasing container numbers to their final destinations, while

The port of Melbourne – OMC's DUKC® system at the port of Melbourne has recently been approved for upgrade to Series 5 as part of a long-term contract renewal with the Victorian Ports Corporation (Melbourne)

minimising the associated congestion, noise and emission impacts on our urban communities.

Although a large part of this problem relates to movement of containers through or around metropolitan communities, a proportion of containers find their way onto already clogged State and national highways. There is an increasing call for at least some of this traffic to find an alternative mode of transport – coastal shipping or the **'Blue Highway'** as it has been aptly called. As Mike Gallacher, chief executive officer of Ports Australia, notes in his article in the Autumn/Winter edition of Shipping Australia: "the blue highway doesn't need to be built, expanded or maintained. It is free, and it already connects all our major cities and many of our regional centres." In the same journal, Grant Gilfillan, chief executive officer of Port Authority of New South Wales, comments that taking domestic freight off our roads and rail and onto the sea will provide an economic boon to regional Australia and will reinvigorate the Australian maritime industry. The whole idea seems a "no-brainer" so the question remains: why is it not being vigorously pursued by governments at both Federal and State levels?

What are the barriers to this eminently worthwhile development? In a green paper released by MIAL in 2016 (mail.com.au/our-work/coastal-trading-green-paper), improvements to the process for obtaining temporary licences to operate coastal shipping services are described, which would allow almost all voyages to be undertaken with a minimum of paperwork and approvals. This may well be a good and simple place to start the coastal shipping revolution that our nation surely needs – it is something that our Federal Government can take on board quickly without damaging its improving budget situation! The green benefits of coastal shipping would also be a great sell: it is well known that shipping by sea is the most carbon efficient mode of transport and produces less emissions for each tonne of cargo transported than air, road or rail transport.

It is also pleasing to note from Gallacher's article that Ports Australia has commissioned Deloitte "to help us understand exactly the role our ports can play in the domestic shipping mix". This is certainly a very important step from a private sector organisation but needs to be followed by action from both public and private sector stakeholders to build some momentum

OMC executive director Dr Terry O'Brien AM (centre) with Victorian Trade and Investment Minister Philip Dalidakis and the Governor of Victoria, the Hon Linda Dessau AC, after being presented with a Governor of Victoria Export Award on September 14

into the process of improving this long-neglected component of the Australian freight and supply chain logistics. One recent proposal by the private sector is the proposed coastal shipping service between Brisbane and Townsville (DCN, July 2018).

More such examples of private sector risk taking are sorely needed for our nascent coastal shipping industry to reach critical mass; such initiatives need to be supported by governments at all levels and by the maritime union.

A focus on safety and efficienty - using helicopter winching for marine pilot transfer

By Captain STEPHEN RABIE, Australian Pilotage Group

It's been a big year for the Australian Pilotage Group (APG), having commenced operations in the port of Melbourne on 16 February this year. Instead of using pilot boats we chose the safe and innovative approach of using helicopters to winch our marine pilots onto the ship. This method was developed in Le Havre in the 1980's and is widely used by the military for personnel transfers. Some pilotage services in Australia trialled winching in the early 2000's, but did not continue. Helicopter safety has improved immensely since then. At APG we decided it was about time that this practice, recognised globally for safety and efficiency in marine pilot transfer, was introduced in Australia.

Approaching for transfer

APG own and operate two MBB-BK117C1 twin engine helicopters. They are located at the APG helicopter base at the recently upgraded Avalon International Airport. This type of helicopter has been used to transport personnel to and from ships at sea at other ports around the world. They are the first choice for the New South Wales fire service, with thousands of winching's undertaken each year in more hazardous conditions than at sea.

Many bulk ports in Australia transfer marine pilots by helicopter, landing on large bulk ships. However, APG is currently the only pilotage company to operate winching in a major general cargo port, such as Melbourne.

Pilot boats were for centuries the only way of getting a pilot to a ship. Marine pilots traditionally spent many hours of their duty time on long land transits then being ferried around in slow boats. This was expensive (in pilot's time), fatiguing and hazardous to the pilots. We are not saying there is no place for pilot boats, on the contrary, there are some combinations of ship type and visibility where they are needed, however on the whole, we believe that helicopter winch transfer is the best way for a pilot to board a vessel.

With the steady increase in tonnage, ships have higher freeboards, requiring the pilot to climb up to nine metres on a pilot ladder, followed by a climb of 105 stairs to the bridge. It's no wonder some pilots feel fatigued and suffer knee and other physical issues. Not so for winching. In the first week of December, APG did their 100th ship movement. The average time "on the wire" being around 19 seconds! With no sign of body stress. One of the pilots timed from start of winching to front of bridge shaking the master's hand at 1 minute 20 seconds!

Captain William (Bill) Worth, senior pilot on the Columbia River Bar (retired), commented in an interview with Archer Aviation, "few things in the maritime industry have remained the same for the past 200 years, other than the methods used by pilots for boarding ship. Boarding ships by rope ladder comes from a time of wooden ships and iron men, a time when men were sent aloft to furl sails in storms, and when injury and death were considered part of the job for seamen.

"Boarding ships using the system that is still used by most pilot groups, is a leap of faith — faith in the knots tied by unknown crewmen, faith in the strength of the pilot ladder, faith in the ability of the pilot boat operator to match the speed of the ship and to rescue the pilot should he miss the jump and fall into the sea. And faith in the strength and agility of the pilot undertaking this dangerous practice".

Captain Worth recounted that in one year 20 pilots died on the job worldwide, and five in the US alone, making the profession of pilot an unnecessarily dangerous one. He pointed out that none of the deaths would have happened if the pilots had just used the helicopter boarding system.

"This system [helicopter winching] puts a pilot safely on the deck of a ship without the need to put absolute trust in crew that may or may not know what they are doing," he said.

APG have some of the most highly trained helicopter pilots in Australia, and a long-serving professional marine pilot in the management team. We also have search and rescue capabilities, registered with AMSA, and we are also able to carry out personnel evacuation in the event of severe weather events.

What we especially like, is the extra time the marine pilots have to conduct the master/pilot exchange, because we can board a couple of miles further off the heads, which gives them more time to conduct their passage plans and bridge resource management procedures. Additionally, multiple transfers can happen in minutes, not hours. The shipowner likes this transfer method because the ship doesn't have to slow down and the ship's crew don't have to lash ladders, by hanging over the side of the ship, while its rolling at 0200 in the dark. It is a 'win-win' for the marine pilots, harbour authorities and ship owners.

Safe piloting to all pilots everywhere and god bless you all.

Continuing safety and service

By Captain PETER COURT, managing director, Port Phillip Sea Pilots

2018 has been a year of continuous improvement initiatives for Port Phillip Sea Pilots (PPSP) in servicing the ports of Melbourne, Geelong, Westernport and Portland.

In October, East Webb Dock welcomed the *Cosco Thailand*. At 334 metres in length, she was the largest ever container vessel into Melbourne. PPSP were proud to be involved with this important step in ongoing capacity expansion for the port. Simulation activities at the AMC in Tasmania resulted in the placing of strict environmental and tug parameters for the operation, while PPSPs direct input in the design of the swing basin and navigational aids ensured that the facility can accommodate larger ships well into the future.

PPSP pilots also participated in simulating 325 metre Post-Panamax headline towing (along with tug masters) to assess the viability of expanding Swanson Dock vessel sizes. PPSP additionally collaborated with the ports and OMC using the latest DUKC technology to see draft increases on Suezmax tankers into Melbourne to 14.7 metres and Geelong bound vessels to 11.9 metres.

Recognising that receiving larger vessels within existing tight confines would become increasingly difficult utilising traditional navigational aids, PPSP recently commenced utilisation of a High Fidelity Navigational Suite. Developed through in-house research and development activities, this system has proven essential in facilitating ongoing capacity expansion, where safe to do so. PPSP continues to invest in this system, in ongoing support of the ports' and clients' needs.

In addition to investing in technology to facilitate capacity expansion in the ports, PPSP continues to invest in state-of-the-art pilot launches to ensure maximum service reliability. In 2018 PPSP ordered a 6th ORC designed vessel, to be utilised for bay anchorage operations. The ORC Pantocarene design was first brought to Australia by PPSP in 2010, and is locally built at Hart Marine on the Mornington Peninsular. Now utilised by multiple pilotages nationally, the vessels continue to impress, offering exceptional safety and reliability, no matter the size or configuration of vessels, in all weather.

While PPSP remains more than satisfied with the ORC launches, in 2018 the company invested in an assessment of helicopter transfers, including a three-month trial (limited

Pilot launch

Pilot disembarking

to daylight hours and replacement of road transfers) to ensure that the current business model is the optimum solution for clients. Three key criteria were analysed:

a) Safety: Helicopter operations, with enough investment, can meet the safety 'bar' set by PPSP. However, with no serious injury or fatality in launch operations in the past 27 years, an aviation solution will not exceed the current launch safety record.

b) Reliability: This suffers with helicopter transfers. During fog and very high winds, safety considerations limit or cease helicopter operations, when launch transfers continue.

c) Efficiency: Given the reliability constraints of helicopters, the only solution incorporating aviation which enables PPSP to offer a reliable on-demand service involves the retention of a launch transfer option. Operating both helicopters and launches (with associated capital and operational costs) is a less efficient solution overall.

PPSP will continue to look at the relative merits of launches and helicopters with customer's interests of primary importance in any decision-making.

In early 2018, PPSP initiated a review of internal training to ensure the business was optimising its training investment. While this review continues, pilots will continue to be trained to stringent internal requirements, beyond regulatory standards, including regular attendance at industry leading facilities at Port Ash Ship Handling Training Centre in Newcastle, New South Wales, and Warsash Maritime Academy in Southampton, UK. In late 2018, the Victorian regulator, MSV, initiated a review into pilot licencing, training, and safety. PPSP is participating in this review and looks forward to upholding the strong safety and training focus for which it is known.

Further this year, a Safety Management System review was undertaken in consideration of the introduction of an additional pilotage operation in Port Phillip. Utilising a risk management approach, this ongoing review looks at any operational changes required to safely account for multiple operators in the bay, including current and potential impacts on shared channels, shared pilot boarding grounds, passage planning, sharing of tug resources etc.

2018 continued PPSP's 179 year history of focusing on safe and reliable on-demand services for customers, and the organisation looks forward to continual improvement in 2019 and beyond.

It has been a big year for Svitzer Australia

Not only have we welcomed two new vessels to our fleet, but we've seen a change in leadership, with Nicolaj Noes taking up the position of Managing Director in July 2018. Market changes mean the Australian towage industry is more competitive than ever.

As the largest employer of Australian seafarers and a critical part of the Australian maritime and shipping industry, it is incumbent on Svitzer to meet new challenges with a sharp service offering, an open ear and a willingness to improve.

The humble tug is responsible, in part, for making the port safer and more efficient. We like to see ourselves at Svitzer as the connective tissue in ports right across the world, safely bringing vessels into and out of harbours, as we have done for more than 185 years, doing our small part to facilitate global trade. To do that, we work closely with customers and stakeholders to ensure that we upgrade our fleet with the right vessels.

We make use of a global network of expertise. Every boat in the Australian fleet accesses global systems and processes, tested across Svitzer's global fleet of 430 vessels, in operations all around the world.

We also like to think of ourselves as a global company with a local touch. In Australia alone, we're in 24 ports around the coast. Each port has its own quirks and idiosyncrasies. It all comes down to our people in those ports — to those who know best about their community.

This was beautifully illustrated by the naming of *Svitzer Newton* in Fremantle. The Svitzer team in Fremantle named '*Svitzer Newton*' after Steve Newton, a respected member of our team, who has worked for the company for over 46 years.

Steve is the 'go-to' guy in Fremantle: he knows how to get things done. Our business doesn't operate without people like Steve. He's at the heart of what we do. We were thrilled to recognise Steve's commitment, passion and professionalism with the very special honour of naming a vessel after him.

Svitzer Newton is a 2412 Damen built tractor tug, meaning its propellers are situated below the forward deck of the tug. Unlike the other tugs in the inner harbour, *Svitzer Newton* has its main winch on its aft (rear) deck and operates in 'reverse' when completing vessel movements. *Svitzer Newton*'s entry to the port of Fremantle brings power and flexibility to the harbour.

'Svitzer Newton' is named after respected staff member, Steve Newton, who has been working for Svitzer over 46 years.

Svitzer also welcomed *Svitzer Glenrock* to Newcastle Harbour this year, heralding the start of active escort in the port of Newcastle. The power and manoeuvrability of the 3212 Damen tug, combined with our existing fleet, will allow the port to accommodate the future demand for larger ships to call at Newcastle.

Svitzer Glenrock will handle cape-class bulk carriers and large petroleum tankers, as they enter and leave the harbour. More than seven years of hard work and preparation went into making active escort in the port of Newcastle possible.

Svitzer Glenrock has been committed to Svitzer's AMSA obligation and will be available for emergency assists for any vessel with problems outside the harbour. *Svitzer Glenrock* is a powerful addition to the world's largest coal-loading port and is Svitzer's contribution to making Newcastle Harbour safer and more efficient.

And to the north, Svitzer was alongside to assist with the first LNG cargo from the Ichthys LNG project exported from Darwin, for INPEX.

The Ichthys LNG project connects the Browse Basin and the Northern Territory. Exports will continue to leave from Bladin Point near Darwin in Australia, destined for the Asian market.

The first shipment in October signifies a major step forward for the project, which is expected will operate for 40 years to come. At peak, the Ichthys LNG Project is expected to produce up to 8.9 million tonnes of LNG per annum, up to 1.65 million tonnes of LPG per annum and up to 100,000 barrels of condensate per day. Svitzer is thrilled to play a crucial role in this ongoing trade from the Northern Territory.

Facilitating larger vessels with world class mariners and first-class fleet is how we're creating efficiencies in our ports. In our small way, we're lowering the price you pay for fuel at the pump. We're facilitating exports and new markets. And we're keeping our ports safe.

Smooth access ports with 1-Stop

By JEREMY CHEE, general manager, Strategy and Commercial, 1-Stop Connections

Containerisation rapidly changed the landscape of the supply chain and alongside its significant benefits, so came the respective impacts of the new supply chain. What started as infrequent and small vessels, quickly grew to the large vessels we see today and of course, the landside congestion increased with the associated need for infrastructure.

At the beginning and due to the short opening hours of container terminals, carriers/hauliers would often queue all day and when they didn't gain entry to a terminal, they would simply leave their trucks in the line and sleep - ready to try again the next day. It wasn't long before the industry needed to address the queues and the port congestion, but initial efforts were not very successful.

The introduction of the Vehicle Booking System

A common theme was the lack of communication between the ports and the carriers, with trucks arriving without any pre-warning to the port. This resulted in congestion, equipment demand exceeding supply during key parts of the day, and resulting in huge inefficiencies across the supply chain. Change was required, which came in the form of a capacity management and forward planning system now known as the vehicle booking system (VBS).

The VBS to Australia was introduced in the mid-80s by Patrick Melbourne. A manual paper process allowed carriers/hauliers to book ahead for the hour they wished to pick up their goods, which was eventually

enhanced with the introduction of dial-up internet.

The next iteration of the VBS eliminated calls to the terminals but containerised volumes grew rapidly, requiring further innovation. The next big step then came through online systems connected to the Terminal Operating System (TOS).

Whilst this was a big step, the industry still lacked validation, visibility and smooth access into a port.

Paperless and automated: the introduction of 1-Stop

1-Stop was born to provide the necessary digital infrastructure that could transform the containerised supply chain and make life easier. Alongside our continuous innovation and development of the VBS to remove congestion, 1-Stop became a hub of Business-to-Business (B2B) messages that connected the supply chain in invaluable ways.

Efficiency and optimisation became apparent in all terminals connected to the VBS and across the supply chain, with implementation occurring in all Australian ports.

"By the industry, for the industry" https://www.1-stop.biz/customer-stories/

Standard paper documents such as Export Receive Advice and Import Delivery Orders, quickly became paperless, and with paperless documentation came information that was sent faster, validated, and error free.

The paperless solution was quickly implemented and adopted across all major container ports within Australia.

Efficient and optimised

The birth of 1-Stop in 2002 also created what is known today as a port community system (PCS).

The VBS solved the main problem, reducing port congestion and eliminating truck queues. With its forward planning, ports and carriers/hauliers could better plan, manage, and optimise their own assets resulting in higher utilisation. Truck turnaround times went from 91 mins to 15 mins in some terminals, while the number of truck trips per day increased from one to as many as four or five a day – up to a 500 per cent increase in utilisation.

The VBS with paperless and standardised documentation generated further benefits. With a standard now established, data could now be validated and rejected if incorrect, which resulted in the elimination of futile trips.

Further, Beneficial Cargo Owners (BCO) could now automatically generate the paperless documentation from their system, which would be validated and passed through to the terminal if correct; effectively reducing the time consuming manual documentation process and the associated errors that may arise.

Greater connectivity arrives

Whilst step changes were made in the efficiency of the supply chain through digital transformation, our progress and innovation did not stop.

Today, further connectivity has occurred with payment systems and security card interaction – all separate systems. Through our VBS, links are made to cashless payment systems for the immediate receipt of goods, allowing containers to be picked up immediately.

Secure identification cards were also established, validating the driver with the arrival at the terminal gate. This ensures that the correct driver has arrived at the same time as their appointment in the VBS, for the correct container, with all fees paid, on the correct truck, and that they know the safety requirements of the terminal.

The technology we were able to implement has led to connectivity; leading to efficiency; and in turn leading to optimisation of the supply chain: Smooth, error-free entry and exit access between trucks and the port - a smooth access port.

Many applications, many technologies – one platform

Rather than a single system to encompass all functionality, 1-Stop's approach is to use best of breed systems connected to one another. This provides the advantage of being able to utilise new and emerging technologies where appropriate, to deliver improved efficiencies for the community.

Our PCS aims to create this eco-system which has been formulated to provide industry with connectivity, leading to a collaborative and efficient supply chain. Following on from what we have been able to achieve, 1-Stop follows the credo that our platform will create a smooth experience for each sector in the supply chain through a connected port community.

But our work is not over…

1-Stop continues to innovate as we have done for the last 16 years (Est. 2002) by working with the port community. New technologies and digitalisation continues to challenge and enhance the supply chain, whether that is through new methods of connectivity such as BlockChain, or emergent technologies such as autonomous vehicles… however, throughout this change, our principle of a connected port community to improve business outcomes remains.

For more information on how to implement smooth access for your terminal or our drive towards a connected community, visit us at 1-Stop.com or email info@1-stop.com

Courage to shape the future

By PAUL SCURRAH, chief executive officer, DP World Australia

Courage is the currency of achievement in all endeavours, including stevedoring. Our industry must be bold enough to continually reform to keep pace with an evolving and dynamic competitive market. Generally, we do this well. But collectively we could be much braver in two other areas - embracing diversity in the workforce and contributing to the campaign against men's violence.

Rebalancing revenue recovery

DP World Australia is leading the industry in undertaking an overdue rebalance of revenue recovery. In September, we announced increases in the Infrastructure Access Charge to road and rail operators for access to our three east coast terminals, to take effect from 1 January 2019. In doing so, we are continuing the journey of recovering rapidly-increasing costs and rebalancing the revenue we receive from landside and quayside operators. We want to ensure that cost recovery is more equitable, and that our business remains competitive and sustainable into the future.

When you take the lead on an issue like this, you can expect to be front and centre of the ensuing debate. We anticipated, and have seen, some concern and criticism over this latest increase. The Victorian Government has announced it will bring forward a review into regulating pricing and charges, as well as access to and from the port of Melbourne. The ACCC's Container stevedoring monitoring report for 2017-18 expressed concerns about the *potential* impacts of the charges on the supply chain, should they be used inappropriately. They also concluded there is no evidence of this and that stevedoring profit levels continue to be challenged. Some self-interested lobby groups have generated much heat but little light with their unfounded claims about the charges.

We are prepared to weather the criticism and make our case in any forum because we believe this rebalance is essential for the future of our company and, frankly, the future of our industry and the national economy. The fact is that the Infrastructure Access Charge helped fuel the recent investments we have made in our business. Such investments increase capacity across the nation's ports, contribute to the healthiest industry growth rates we have seen for decades and help secure the long-term economic well-being of Australia.

Industry leading investment

On the topic of courage, it takes just that for a leadership team to front up to their board with a proposal for an unprecedented $180 million investment in new equipment in one year. Especially when returns across the industry have been declining for years. Nonetheless, that's what the DPWA team did. With determination to control our own financial destiny, we took a calculated bet on the future. A major component of our investment was in nine Super Post-Panamax ZPMC quay cranes, some of the largest in the world. Using the latest technology and with greater height clearance and outreach, the cranes mean we can work more efficiently, especially with larger vessels which increasingly call Australian ports. We took delivery of the first of the new cranes at

Five new cranes arriving at DP World Australia's Fremantle Terminal

our Brisbane terminal in April, and within months it was proving its worth, working the first of the 8,500 TEU vessels introduced by the A3C consortium on their weekly service. The extra productivity delivered by the cranes helped power our growth of more than 8 per cent in the past 12 months, four times CPI.

Diversifying the docks

At DPWA, we're literally changing the face of the waterfront. Currently, women make up eight per cent of our workforce. While still far too low, that's double the number from five years ago and we're determined to keep improving. We're working to break down the physical and entry level impediments for women, which hold back our industry.

We are pioneering innovative ways to build diversity, including recruiting from female sports. As part-time athletes, they are well prepared for the physical elements of the job and can work flexible hours around their sporting and family commitments, which we can offer. It's a good match all round. In an industry-first, DPWA established a relationship with the Brisbane Lions team in the first season for the Australian Football League Women's in 2017. Our Brisbane Terminal employed three women as Supplementary Stevedores, who relocated to play for the Brisbane Lions in the Australian Football League Women's competition. Brisbane raised the bar for our company and our industry. Since then, we've been in discussions with other female sporting competitions, including rugby league at a national level and basketball in Western Australia.

Promoting respect

We promote respect in our workplace through Our Compass, which is transforming our company's culture. We help promote respect more broadly by partnering with White Ribbon Australia, which works to end men's violence against women. As a male-dominated industry, DPWA believes that stevedoring has a role, and more than that, a responsibility to step up to support this life-changing, life-saving work. DPWA was one of the first organisations in Australia to become a White Ribbon accredited workplace in 2015, and became a Silver Corporate Supporter in 2018. We are proud to be part of the change needed to build greater equality and respect between men and women, and the work to reduce attitudes in society that support violence.

With courage and commitment, Australian stevedores can continue to kick goals, not just for our own businesses, but also for our people and our communities.

Future ports

By JOHN WILLY, chief executive officer, Hutchison Ports Australia

The maritime industry

The major shift in the industry in recent years towards greater consolidation in the container shipping sector has led to changes in port calls by the alliances. As a result, and as the demand for terminal capacity and berth windows increase, Hutchison Ports will take into account prospects and consider investing further in its terminals in Sydney (Port Botany) and Brisbane, to provide the necessary space and capability to service shipping lines and landside customers.

Trends in Australia and overseas

Australia, like many other maritime nations is seeing a trend towards bigger vessels phasing into trades servicing the capital ports. As ships increase in size, container exchanges and throughput will grow. This also means container terminals and stevedores will upsize its equipment, such as quay cranes and yard machinery, to enable operations to handle larger ships and complete vessel exchanges within an acceptable period of time. A container terminal is a complex facility with simultaneous interaction between ships, trucks, trains, heavy vehicles and people. The demands on stevedores from industry and stakeholders will continue to rise and so too will the costs if the conventional method of operations remains extant. Operating a major maritime infrastructure company in Australia is an expensive business. It's expensive because relative to revenue, the operating costs are high, the cost of compliance in a highly regulated environment is high, capital works to build and expand is costly, and power and fuel is rising significantly each year along with many other costs of sales and overheads.

For such a complicated and costly business it is vital to focus on efficiency and productivity to minimise and avoid waste. These are all important factors and considerations for Hutchison Ports when planning and designing for sustainable operations in Australia.

Changes that are taking place in the business

There is no doubt the future success of container terminal operations will be heavily reliant upon the use of advanced technology. Technology using computers that control equipment, removing the need for human muscle and intervention, already exists and has been for some time. Here in Australia Hutchison Ports has operated semi-automated terminals in Brisbane and Sydney since 2013. Within the Hutchison Ports global portfolio,

the company operates a number of high tech terminals in ports around the world, and each with a varying degree of mechanical and electrical sophistication.

An advanced designed container terminal is more than just hardware, it is also the inclusion of an operating system that is capable of communicating with many different machines within the facility to produce an accurate and rapid response to commands. Furthermore, and integral to the heart of a modern terminal is the IT smarts that connect the flow of information between all associated parties within the supply chain. Hutchison Ports in some of its overseas facilities has gained tremendous benefits from its high tech terminals through better productivity and reliability, as well as improved safety by removing risk. The company's operations development team and engineering is investing significant time and resources into all aspects of terminal design for new terminals and brown field sites, involving the retrofit of existing equipment to operate automatically or remotely. The group has led a number of innovative ideas in many of its terminals overseas, including the testing of remote controlled quay cranes that load and unload ships. It has also implemented one of the first remote and automated rubber tyred gantry crane terminals in the world. Computer control of yard machinery to provide optimum stacking capacity was one of the earliest innovative features at Hutchison Ports terminals in Europe, introduced over ten years ago. Similarly, automated guidance vehicles to transport containers between the yard and the wharf has also been in place for a decade or more.

Possibilities for future terminals

The future of the two Hutchison Ports terminals in Brisbane and Sydney, could well follow the lead of the group and take advantage of new technologies that have been successfully tried and implemented in other terminals. With a market share of around fifteen percent of the Australian container trade in its two east coast ports, there is potential for the business to grow, even within a highly competitive environment. But the road to success is to build a business that will be cost effective, that will deliver consistent productivity and will operate efficiently and be safe for all to work within. To be productive and efficient relies also on accuracy of information and quick actions that drive outputs. Along the water's edge at the ship to shore interface, it is well known that quay cranes that load and discharge container ships can now be operated remotely by persons located a safe distance away, in an air conditioned room, thereby providing a comfortable and ergonomic working environment. The computer systems that control these quay cranes have the intelligence to profile the stack of containers on deck and guide the load and unload process to take the most efficient path. The entire process is further enhanced by the use of optical character recognition (OCR) which scans the walls and the roof of a container looking for the alpha numeric numbers that uniquely identify the container. The information that is collected is of a high quality and the integrity of the data that is transmitted downstream remains accurate. Data captured by OCR technology is fast and reliable. OCR can also be used in many other areas within the terminal, anywhere that requires the location of a container to be confirmed, such as at the entry gate when a container arrives at the terminal, at the exit gate, within the yard stacking area and movement between the vessel and terminal. Data from a container terminal is used by numerous stakeholders - by the shipping lines (major customer), trucking companies, importers and exporters, the port, government departments and regulators and numerous other stakeholders.

Technology is already available to operate equipment with minimal downtime and maximum utilisation, whilst minimising the consumption of power and fuel. In some terminals overseas, there is a move towards electric powered equipment. Automated guided vehicles that transport containers between the wharf and yard are electrically powered and downtime is reduced through trickle charging the batteries when the unit is waiting for a container to be loaded.

In a container terminal of the future, the role of the traditional stevedore may need to change to adapt to the change in technology. Future waterside workers may need to have special skills such as IT specialists, programmers, engineers and technologists to manage, operate and keep the terminal running. Whilst there is currently still a place for conventional jobs in a high tech terminal, there are some creative inventions taking place which could change the way these manual roles are performed to make it easier, quicker and safer to carry out.

Terminals of the future

In an industry where there is tremendous pressure to deliver good productivity, consistently and safely, and faced with high costs to operate, in a fiercely competitive market, the conventional container terminal as we know it now will need to change to remain relevant.

The population clock impacts shipping

By ANDERS DØMMESTRUP, chief executive officer, Victoria International Container Terminal

In August this year, the Australian Bureau of Statistics (ABS) announced Australia's population clock ticked over 25 million people. There are a number of reasons for this, including our aging population with twice the number of births than deaths and immigration outweighing people moving out of Australia. As a consequence, Australia's population growth rate is predicted to hit 40 million by 2050.

Victoria is seeing the highest growth rate of all States and territories with a population of 6.4 million people[1], with the majority, 4.5 million, residing in Melbourne, with 350 new people moving to Melbourne every day.

Population growth rates impact many sectors, housing, education, infrastructure and healthcare but in addition it will result in a higher demand for goods and services in Australia. Australia is currently the 14th largest national economy in the world and its closest bilateral trading partners are: China, USA, Japan, South Korea and UK. The biggest exports for Australia include minerals such as iron ore, coal, gold and natural gas. The top imports are cars, refined petroleum and telco equipment[2].

Victorian exports account for 22 per cent of the national GDP[3] and mainly consist of dairy, wool and horticultural products.

With most of Australia's manufacturing now off-shore and growth rates of the population, it is no surprise that 2017-18 was the strongest trade year in six years for the port of Melbourne, with 95 million revenue tonnes throughput, with full import and export containers totalling over 2.3 million TEU.

These are significant numbers and we have to ensure the planning of infrastructure will support not only the population growth but the trade growth. A lot of work needs to be done to ensure infrastructure can manage the predicted growth figures. The first step is to accommodate the larger ships. This is now achieved by completing the Eastern Sea route - Brisbane, Sydney and Melbourne can all facilitate the next generation vessels, handling 8000-9000 TEU.

Shipping lines continue to build mega ships to drive economies of scale globally and so the largest ports in Australia need to be able to receive these larger vessels. The goal today is to optimise and maximise the efficiency of our ports, to handle the influx of cargo.

In September, Victoria International Container Terminal (VICT) made history by welcoming the A3 Central service. This comprises the *OOCL Seoul*, *COSCO Thailand* and *ANL Gippsland*, all between 8000-9000 TEU. VICT was developed as part of the port of Melbourne's, Port Capacity Project (PCP), a Victorian State Government initiative conceived to redevelop Webb Dock East, to deliver the extra capacity needed to support Melbourne's continued growth and to create more competition within the port. It is not restricted, with a 320 metre turning basin or the West Gate Bridge, as it is situated on the bay side. This means it can service even larger vessels, up to 12,000-14,000 TEU, as the economic demand continues grows.

With the additional third stevedore, the port of Melbourne is in a strong position to facilitate Victoria's trade. However, industry and Government need to work together to accommodate certain challenges that will arise from the increasing volumes of cargo in order to support the demand from the ticking population clock.

Cosco Thailand (8501TEU), maiden call at VICT, 8 September 2018

[1] ABS, *Population clock*, 2018, http://www.abs.gov.au
[2] SBS, 2018, https://www.sbs.com.au/yourlanguage/korean/en/audiotrack/australias-trade-explained-top-imports-exports-and-trading-partners
[3] Agriculture Victoria, *Victorian food and fibre export performance, 2017* http://agriculture.vic.gov.au/agriculture/food-and-fibre-industries/exports

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Blockchain enabled digital supply networks

By TOM WOOD, Deloitte APAC Digital Supply Networks lead; KANE TEMPLETON, Blockchain SME and STEVE DYSON, Consulting Operations Lead, Deloitte Blockchain Australia

Current state

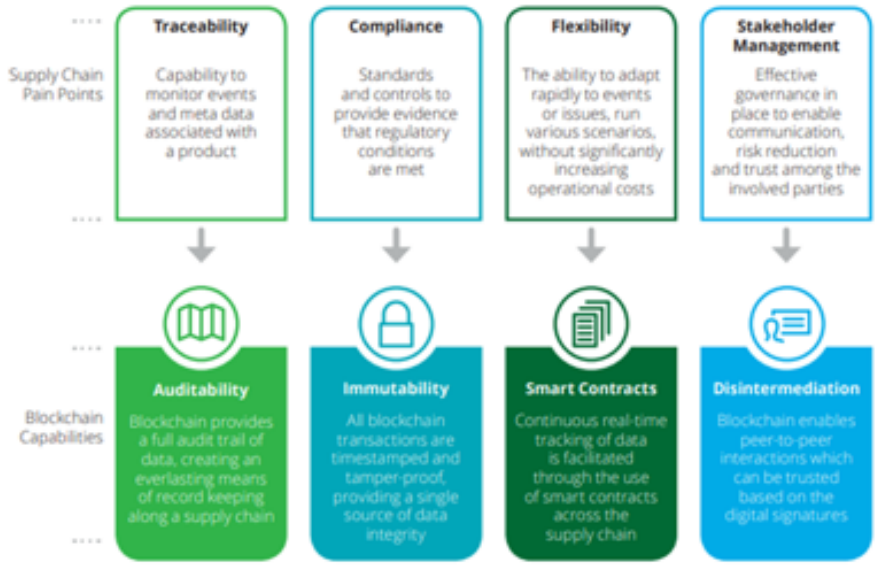
In a world deluged by a growing complexity of information, and a forecast over 20 billion connected devices by 2020[1]—compliance, traceability, governance and security, whilst remaining connected and flexible will be critical for the challenges facing the shipping industry from regulation and consumer trends to the more complex supply networks. Despite the US$12 trillion valuation[2], the 1.8 billion metric tonnes of goods transported in 2017[3] and the regulation scrutiny, the core data infrastructure for global shipping is currently unable to keep pace with digitisation trends.

A string of technologies and sensors leveraging blockchain technology is poised to save the global shipping and logistics market US$27 billion annually[4]—radically transforming current infrastructure and reimaging future applications for the next generation of digital supply networks (DSN).

Why blockchain makes sense

Blockchain technology can allow compliant, immutable, authenticated data communication between each stakeholder in the DSN without the intermediation of a trusted central organisation. Verified by consensus, each event added to a secured continuously growing list of records in near real time, increasing transparency and visibility. The outcome is a secured data platform with an immutable audit trail. Real-time tracking via smart contacts give DSN's participants the flexibility to make rapid decisions continuously and eliminate manual processes. Through encoded logic, it is possible to create agreements, which will execute when certain conditions are met. The ability for events and payments to automatically execute removes the need for trusted intermediaries to verify transactions.

[1] https://www.gartner.com/imagesrv/books/iot/iotEbook_digital.pdf
[2] https://www.statista.com/topics/1367/container-shipping/
[3] https://www.statista.com/topics/1367/container-shipping/
[4] https://www.hellenicshippingnews.com/blockchain-craze-in-shipping-industry-technology-can-cut-costs-by-27-billion-annually/



According to a Deloitte study, 35 per cent of respondents surveyed commenced aggressive deployments of blockchain in 2017. Additionally, 90 per cent of organisations feel they are not adequately prepared for the industry disruptions from these digital trends.[5]

The growing industry pressure to reconfigure and innovate is powering the deployment of new technologies to position an organisation as a global leader. Key drivers include:

Key drivers	Intangibles
Increase traceability of supply chain to ensure corporate and compliance standards are met	Strengthen corporate reputation by providing transparency of products giving more weight to quality checks
Increased security, both physical and digital coupled auto-ID verification	Improve credibility and public trust of data shared
Lower losses from reduced fraud	Reduced potential public relations risk from malpractice
Improve visibility, reducing communication or transfer data errors	Engage all stakeholders, including end users, driving consumer trends
Streamline administrative processes and reduce costs	Data ownership

David Dalton, Partner and Deloitte EMEA Blockchain Lab sponsor at Deloitte Ireland, believes that "Traceability across supply chains are one of the most compelling use cases for blockchain technology." Blockchain could be the enabler to allow organisations to more effectively tackle these problems.

Transparency use cases driving pilots

The opportunity to conduct billions of dollars in maritime fraud is due to a significant amount of manual transactions at each supply chain node. Goods in cross-border transit require review and approval from up to 30 parties before arrival. Our shipping and logistics clients, through collaboration with customs authorities, streamlined freight tracking processes, specifically the approvals process, by creating a secure record of transactions and approvals, and reduced the time to transport goods. Similar use cases in industry illustrated the potential to reduce administrative and logistics timelines in shipping by more than 85 per cent—from more than one week to less than one day.

Multiplying consortia

A recent Deloitte study counted some 61 blockchain consortia across a dozen industries[6]—driving adoption of a technology, that network increases in value with the number of users.

More recently a group of shipping lines and terminal operators, including COSCO, Evergreen, DP World and PSA International, announced their 'declaration of intent' to form a blockchain consortium as the Global Shipping Business Network (GSBN)[7]. This new blockchain consortium is set to rival IBM-Maersk's TradeLens.

Policy makers, regulators, and central banks are beginning to join, or found and lead blockchain consortia. Growing participation by businesses, regulators, Government and technology providers will have a direct impact on the increase adoption of technology.

Deloitte contacts in blockchain and digital supply networks

Broader adoption is evident in 2018, as company's advance steadily working toward integration, technology vendors provide cloud-based technology as a service, emerging regulatory frameworks, impending interoperability and the reduction of complexity and cost—is bringing the technology close to its breakout moment every day.

For next steps or more information, talk to us.

www.deloitte.com.au

[5] Deloitte blockchain survey 2017: Blockchain reaching beyond financial services.
[6] Deloitte blockchain survey 2017: Blockchain reaching beyond financial services.
[7] http://www.thedcn.com.au/lines-and-stevedores-reach-blockchain-agreement/

Coastal container shipping

By RICHARD STEVENS, associate - senior consultant, Thompson Clarke Shipping Pty Ltd

Despite the introduction of the *Coastal Trading (Revitalising Australian Shipping)* Act 2012 (the Act), the performance of Australian domestic shipping has continued its long-term decline. According to the latest Department of Infrastructure, Regional Development and Cities (DIRDC) report *Australian sea freight 2015-16,* the number of Australian registered vessels holding coastal or general licences reached an all time low of 18, a decline of 40 per cent from 2006/7. In the same period there was a similar decline reported by Bureau of Infrastructure, Transport and Regional Economics (BITRE) in maritime shipping's share of the total domestic freight market in terms of tonne-kilometres from 25 per cent to just 15 per cent.

BITRE data also indicates the same trend is evident in the non-bulk or general cargo domestic freight sector, with a drop in maritime tonne-kilometres market share since 2010/11 from 6.5 per cent to 4.3 per cent. In the latest reported year (2015-16), road and rail held market shares of 77 per cent and just under 19 per cent respectively, in a sector whose compound growth rate per annum has been just under 1.7 per cent in tonne-kilometres terms since 2006/7. In this sector, in 2015-16 coastal shipping accounted for 7.1 million tonnes of freight (a compound decline since 2010/11 of 3.5 per cent p.a) versus its most direct competitor, rail, which accounted for 25.4 million tonnes (a compound growth rate in the same period of 6.2 per cent p.a). The latest BITRE 2015-16 report provides no road tonnage data, but did report a doubling over the previous two decades of the number of registered articulated trucks to 176,000. In short, if the Act was intended to protect and stimulate domestic cargo shipping, it has clearly failed to do so.

A year ago the Federal Government proposed *Coastal Trading Amendment Bill* addressed two of the most important failings of the Act, namely:

1. The requirement to apply for temporary coastal licences in batches of five voyages; and

2. The delays in processing such applications and any variations of the same.

However, it signally failed to address the requirement for foreign flag vessels and their crew to comply with the *Fair Work Act* and the *Seagoing Industry Award, Part B Wages*, from first port of loading domestic cargo to last port of discharge, irrespective of the volume of cargo involved, even when there is no Australian flag vessel available to provide the required service. As emphasised by Maritime Industry Australia Ltd at the time, foreign flag carriers have consistently focussed primarily on these three features of the Act, as the prime administrative and cost factors militating against the provision of domestic cargo services by foreign flag vessels.

Despite these impediments, there is a notable success story in the domestic general cargo/container sector. The latest BITRE data (2015-16) reports the top ten domestic maritime routes handled 75,625 twenty-foot equivalent units (TEUs) of general cargo under temporary licenses, of which the top two routes (Sydney and Melbourne to Fremantle) accounted for 71 per cent of the total, or 53,896 TEUs. If the third largest route, Brisbane to Fremantle, is added, these three westbound sectors accounted for 59,465 TEUs or close to 80 per cent of the ten top routes' total cargo. Based on Fremantle Ports' Annual Report data, at least this segment of the market (inbound domestic containers) is showing growth – from 65,066 TEUs in 2011/12 to 79,794 in 2015/16 and to 88,154 in 2017/18 - or just over 5 per cent CPA. It is worth noting, 16 per cent of the latest year's volume were MTs. Latest Fremantle Ports data for 2018/19 first quarter, reports the top six commodities carried (paper and board, beer, construction

materials, iron and steel, food preparations and plastic) accounted for just over 50 per cent of the total, but equally MT TEUs were nearly 25 per cent. Over the same six year period since 2011/12, Fremantle's outbound domestic TEU numbers remained virtually unchanged, and in 2017/18 were just over 10 per cent of the inbound.

There are four vessel operators offering weekly domestic container services between Eastern Australia and Western Australia – ANL, Maersk, OOCL and PIL. These services have the following profile:

- Effectively, three sailings weekly ex Sydney and Melbourne to Fremantle (PIL and OOCL operate in a slot sharing consortium).
- The Maersk service also uplifts cargo weekly ex Brisbane, and along with ANL also serves Adelaide weekly.
- All services are based on outbound international services ex south-east Australia to south-east Asia.
- PIL/OOCL offer an effective port to port transit time to Western Australia of five days ex Melbourne and seven ex Sydney, compared with seven and ten days respectively, for both Maersk and ANL ex these two ports.
- The vessels deployed all have a capacity in the 5,500 to 6,000 TEU range – i.e. almost double the size of those operated when the current Act was introduced in 2012, since then the annual volume of full inbound domestic TEUs at Fremantle has grown 25 per cent.
- It is estimated that in 2017/18 on average, each vessel on this route carried some 470 full domestic TEUs and 90 MTs, which together accounted for about 10 per cent of vessel slot capacity.
- Typical TEUs ocean rates are understood to be about 50 per cent of equivalent rail and 25 per cent of equivalent road rates ex eastern Australia to Western Australia.

However, in addition to the failure to use the domestic MT volumes moving on these services, it is worth noting a number of significant operators on the same international route do not offer coastal container services, namely MSC, Hapag Lloyd/UASC and Cosco – it is believed this is due primarily to the three features of the Act outlined above, which are particularly onerous when no dedicated coastal container service exists needing competitive protection (and will always be highly unlikely in a trade where the maritime cargo flows are almost exclusively one way, i.e. westbound).

There is another potentially critical issue with coastal shipping in Australia, which was highlighted in the recent Boulton Lecture given by the non-executive chairman of ANL Ltd, John Lines, to the Company of Master Mariners Australia. This lecture raised the question as to why in a country of such geographic size, with key population centres so far apart, and over 85 per cent of the population living within 50 kilometres of the coast, shipping has such a miserly role in domestic transport and supply chains. In this context his lecture referenced the Federal Government's $75 billion investment commitment over the next ten years, to transport infrastructure, none of which is earmarked for enhancing domestic maritime services. There are only two significant references to the maritime sector in the Discussion Paper released by the Federal Department of Infrastructure on the Inquiry into National Freight and Supply Chain Priorities in May 2017:

1. Section 3.2 on port capability to handle larger international vessels; and
2. Section 3.3 on effective management of MT containers.

Such an omission is very hard to comprehend, as is NSW Ports recent decision to double its wharfage tariff on domestic container shipments at a time when both interstate road and rail supply chain alternatives face serious growth challenges.

It would seem Australian coastal shipping is apparently a victim of sins of omission, as well as those of commission – or as one observer put it "action without vision risks being wholly ineffective, while vision without action is a mere hallucination".

Serco Australia

Supporting Australia's marine operations

By JACK MANNING, assistant contract director, Marine Operations and Innovation, Serco Australia Pty Ltd

Serco Australia was contracted by the Australian Antarctic Division (AAD) in April 2016 to undertake the design, build, operations and maintenance of a new Antarctic Supply and Research Vessel (ASRV) to replace the existing capability provided by the current icebreaker *Aurora Australis*.

A $1.91 billion investment by the Australian Government, the RSV *Nuyina* will act as a scientific research platform, icebreaker and resupply ship in one. Meeting these incongruent needs – a ship that is quiet enough to allow scientists to use acoustic instruments, and powerful enough to break 1.65 metres of ice at a continuous speed of three knots – was the challenge faced by prime contractor Serco Australia. The solution: a Silent-R noise radiation specification powered by a hybrid propulsion system, which includes diesel generators on flexible mounting systems (to absorb vibrations). This, combined with a moon pool to deploy autonomous vehicles and oceanographic equipment and a wet well sampling space, will allow scientists to sample live animals and map the sea floor, while the vessel is breaking ice.

Serco Australia chief executive officer, Mark Irwin, said the design of the vessel was carefully considered.

"Through our role in the design and build of the vessel, Serco worked with scientists and specialists in the Australian Antarctic Division to consider what the future for scientific research in the Southern Ocean will look like, and how this vessel can best meet the research and operational needs required over its 30 year lifetime. The result is a vessel that offers unrivalled scientific, logistics and icebreaking capabilities."

At 160.3 metres long, the *Nuyina* will be more than one-and-a-half times longer than the current icebreaker, the *Aurora Australis*, and around three-times heavier. It will have a 1200 tonne capacity, enabling it to carry 96 20 foot shipping containers. This will enable the vessel to conduct longer and more extensive voyages to the Southern Ocean and Antarctica, and resupply Australia's four Antarctic stations.

Construction of the vessel is being undertaken in Galati, Romania, by shipbuilder Damen. In September, the *Nuyina* was successfully floated and transferred to the wet dock where construction will continue on the superstructure. When complete, the *Nuyina* will rise to 10 decks at navigation bridge level, measure 50.2 metres from the keel to the top of the weather radar, and displace 26,000 tonnes.

Serco Australia is also a specialist defence supplier, service integrator, and complex project management provider, and have been delivering performance managed contracts continuously in Australia, since 1997. We are one of Australia's largest maritime service operators, providing commercial crews to operate Navy support vessels. Aside from the daily operational tasks, there are key military exercises held that require intensive support to ensure their success. One recent exercise was 'Kakadu'.

Held every two years, Exercise Kakadu is a joint exercise hosted by the Royal Australian Navy. In 2018, it took place from 30 August to 15 September, and included 23 ships, 21 aircraft, a submarine and more than 3,000 personnel from 27 nations. The aim of Exercise Kakadu is to generate active and effective security and humanitarian partnerships with fellow nations of the region. Kakadu 2018 was the largest RAN fleet exercise, and one of the largest maritime exercises, ever held in the Indo-Asia Pacific region.

Serco Australia is proud to have played a significant role supporting the RAN and other participating nations' naval vessels during Kakadu. Thirty one Serco staff were dedicated to Kakadu, including personnel flown in from locations outside of Darwin, to meet the logistical needs of the exercise. To give an understanding of the support required, the ships spent more than 3500 hours at sea and travelled 42,000 nautical miles. Serco Australia delivered hundreds of thousands of litres of water, over 2 million litres of fuel, hundreds of pallets of stores, and transferred approximately 10,000 personnel from ship to shore. This required precision coordination of tugs, self-propelled water fuel lighters, crew vessels, crane store lighter and flat top lighters.

Serco Australia plays a significant role in the development and training of Royal Australian Navy personnel at our simulator warfare training facility at HMAS *Watson* on Sydney Harbour. Our training support for Kakadu provided another opportunity for the RAN to prepare and simulate real events.

Australian Government
Australian Maritime Safety Authority

Increase productivity Reduce incidents

Working on a vessel can be extremely high-risk, with seafarers reportedly up to 27.8 times more likely to suffer work-related fatal injuries compared to the general shore-based workforce.

A recent study uncovered new insights into seafarer safety and wellbeing and found that looking after your crew results in less incidents and better productivity.

Manage fatigue

One in five seafarers experience acute and chronic fatigue. Implement a fatigue risk management system to manage fatigue and ensure crew get enough sleep.

Rules and procedures

Make sure rules and procedures are clear, practical and up-to-date. When information is easy to understand and relevant, crew are more likely to follow rules and procedures. Including seafarers in the development of rules and procedures improves compliance, performance and wellbeing.

Work demands and support

Seafarers are required to quickly switch between monotonous tasks and extremely demanding tasks. Buffer the negative effects of these work demands by promoting positive and open interaction between crew and people in higher-level roles. As the leader, set high safety standards and show your crew that their safety is just as important as operational cost.

Co-worker support

Crew that have emotional support and are equipped to deal with work pressures perform better. Employing the same crew on the same vessel helps by allowing them to develop support networks and enjoy job security. These things increase wellbeing and reduce the rate of mental health issues.

The final report *Assessing the determinants and consequences of safety culture in the maritime industry* is available at amsa.gov.au

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