Super governance is broken

MONGOLIA

Organics: Australia’s non-resource boom

Cybercrime

PROFILE

MICHAEL JOVICIC, CEO, Patrick Container Terminals

LIFE ON MARS

AUSTRALIAN SHIPPING POLICY

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Front Cover:
Genghis Khan statue in stainless steel. Two hours drive from Ulaan Baatar it stands 50 metres high and was built by a local entrepreneur for $5 million in 2008.
Now that the dust has settled from the Federal election it is certainly time to re-ignite the debate on how to reinvigorate the use of coastal shipping. It might feel like going around the buoy again but it is something that we as Australian’s can’t afford to ignore. To leave the majority of interstate freight on our roads and rail when there is the opportunity for a cleaner, greener and potentially cheaper option (which is currently being incapacitated by regulation) is pretty close to criminal. There is free, unused capacity for domestic cargo on container ships already travelling between our capital cities, that is not being used because of the cost of regulatory compliance. There are opportunities for break bulk movements by sea, which are lost because there is only one cargo, and coastal licences require applications in blocks of five. So instead we see oversized escorted cargo’s clogging up the high ways, why?

Back in 2013 Shipping Australia was vocal in advocating that changes be made to the coastal shipping regime to reduce the regulatory burden and thus reduce barriers to entry to participation in that market. In our response to the Governments Coastal Shipping Options Paper in 2014 we highlighted that shipping was a long-term commitment and that the shipping industry needed regulatory stability that could only come from a bipartisan solution.

We have to accept that the Shipping Legislation Amendment Bill tabled in the last Parliament went too far, it did not receive bipartisan support and did not pass the Upper House. So, it might be around the buoy again, but that’s a journey that we need to take for the benefits of Australian manufacturers and primary producers, in order to give them economic access to Australia’s domestic markets. How can they compete with imports if it
costs up to four times as much to move their product from Gladstone to Melbourne, as from China to Melbourne?

It’s a journey we need to take if we are serious about reducing green-house gas emissions from long haul transport – shipping is four times as efficient as rail and 20 times more efficient than road, but the ships are travelling the route anyway with international cargo, so there is virtually zero additional CO2 to move coastal containerised freight or vehicles – it beats me why at least the Greens aren’t screaming for shipping reform. Recent initiatives by the International Chamber of Shipping are putting pressure on the IMO to adopt firm targets for further CO2 reductions for commercial vessels. These keep shipping well ahead of any emission reductions in surface transport.

I urge the 45th Parliament to work together on this and make meaningful changes to coastal shipping legislation that remove barriers to participation. Get rid of the five-licence requirement, ease the limitations on cargo volume variations for unit type cargoes, exempt those sectors of the shipping industry where there is no Australian flag competition and remove the application of the Fair Work Act to international shipping. The Fair Work Act was extended to shipping to protect foreign seafarers’ conditions when they were working on the Australian coast, but it is no longer necessary since the Maritime Labour Convention has been implemented world-wide. The MLC has the benefit of being a global standard, enforceable by Australian Port State Control and has substantial deterrent penalties attached.

The IMO compulsory verified gross mass declaration requirement came into force on 1 July, with little fanfare and a big dose of business as usual. Of course, there have been some teething problems, but all in all, the hard work that Shipping Australia has had going on behind the scenes since March last year has certainly paid off. We are still working with AMSA on the most appropriate methods of verification and enforcement but I expect this to resolve within weeks, if not months. The aim here is of course to provide minimum interference while ensuring full compliance with the intent of the regulation. The audit and enforcement protocols need to utilise existing business systems, just as these systems have been used to provide a smooth implementation. The best outcome will see the good operators unimpeded (those who prove to consistently meet the requirement), while the enforcement regime identifies and penalises the shonky shippers who ignore the strict weighing protocols and put their name on a rough estimate of container weight. These operators need to be identified and forced to comply or get out of the business, if the intended safety improvements are to be achieved.

It is a tribute to the effective industry consultation by the Department of Agriculture and Water Resources that when the Biosecurity Act 2015 entered force on 16 June it didn’t cause much of a ripple from a shipping perspective. The Maritime Arrivals System has since completed successful pilot testing and the full rollout is described in the Life on MARS article on page 40. The Act already contains provisions which will allow implementation of the Ballast Water Convention, which finally received sufficient ratification tonnage in September and will enter force on 8 September 2017.

The Australian implementation must align fully with the international conventions. Ship owners need to have full confidence that the expensive treatment systems that they have, or will soon install, will effectively treat ballast water throughout worldwide operations and will be accepted as fully compliant by Australian Port State Control inspectors.

Port privatisation was put firmly back in the spotlight with the massive $9.7 billion headline price-tag for the Port of Melbourne. The sale rekindled commentary on the pros and cons of port privatisation and the impact of behaviour of State government’s leading to the transactions. At the recent Ports Australia Conference in Melbourne, chairman of the ACCC Rod Sims reiterated his advice that appropriate regulatory oversite of price is essential where there is a monopoly. Unfortunately, there has been a tendency for States to protect monopolies without sufficient price controls, in order to maximise the sale price.

Shipping Australia certainly supports Sims’ view, our members have been burnt by price increases related to the privatisation process. One such concern was the increase in navigation charges at Newcastle, closely following privatisation. An application by Glencore to have the channels declared under the national access regime was initially rejected by the National Competition Council. This decision was overturned by the but Australian Competition Tribunal, and industry quietly celebrated.
That decision has now been appealed by the Port and a hearing before the full bench of the Federal Court is scheduled for November. This whole process is imperfect; it is both costly and clumsy and arises from a lack of price regulation in the port lease arrangement. Governments should do better.

I must concede that the Melbourne privatisation process was better than most. The lack of an Upper House majority forced the privatisation bill to a Legislative Council inquiry. The inquiry sought public submissions and conducted public hearings, thus providing full transparency and scrutiny of the bill and leading to positive changes. It also showed how the parliamentary process can work effectively when a responsible Opposition is willing to negotiate in good faith. The resultant legislation provides strong price controls of prescribed services for 15 years, reduced the compensation for the port lessee if a new port is developed to the same period and locked in a reduction in export container wharfage until 2020. Disappointingly, it did allow the Government to bring forward 15 years of the Port Licence Fee into the purchase price, effectively giving a $1.5 billion loan to the Victorian Government that port users will pay for. I urge the Victorian Government to use this windfall wisely in port related infrastructure and connectivity improvements. But even with the price controls on prescribed services, the port user community remains pensive and remain concerned that there will be excessive cost increases on non-prescribed services such as port land rents. We will also be on the lookout for any innovative new charges.

Over the past year the Australian container trade has been in turmoil since and there is no quick fix. The problem for container lines is too much capacity and too little freight, and all these mergers have done little to reduce capacity, just changed the names of the owners. There are plenty of buyers for Hanjin’s cast off ship stock and plenty of interest in filling their slots in loops, so there is unlikely to be much loss of capacity in the fallout. Meanwhile, freight demand is showing little sign of improvement, so the longer-term outlook is still rather bleak and there are likely to be further stresses, rollouts and mergers in the global container industry. The only bright spot is that the forward ship build order book is at record lows, yes this is crippling the ship-building industries in Japan and Korea, but it does promise to reduce overcapacity from 2018 on... if companies can last that long.

The implementation phase of the Harper Review is now with us. In September, the Government provided the exposure draft for its proposed changes to the Competition and Consumer Act and there were no surprises. Among other things the proposed changes provide the ACCC with the power to grant class (or block exemptions). From a shipping perspective, the next and important phase is to work with the ACCC to see whether a suitable block exemption could be developed to replace the current Part X of the CCA. If and only if this is achieved, the Government will consider the repeal of Part X sometime in 2018.

In our last edition we published a tribute to Hart Krtschil as he stepped down from his role as chief executive officer of the Industry Working Group on Quarantine, after a career of more than 50 years. Sadly Hart passed away on 24 September after a tenacious battle with cancer.

There are some real risks in this process. The protections offered by Part X of the CCA are intended to enable shipping lines to get through challenging economic times, such as those we are currently experiencing, and to maintain service levels by agreeing reasonable and sustainable freight rates. But right now, many lines are not using the full protections of the Act. Some have withdrawn from agreements following several actions by Government anti-competition watch dogs around the world. This in turn has contributed to the failure of sustainable freight rates and widespread economic duress - as evidence, you only have to whisper “Hanjin”.

Shipping Australia’s elder statesman and gentleman, Victorian state secretary Phil Kelly OAM, retired in July due to ill health after 28 years of service to Shipping Australia. This on top of his impressive full-time shipping industry career, which commenced in 1947. I would like to put on the record the genuine thanks and best wishes to Phil from the Board and his colleagues at SAL. Phil is a genuine legend and as we go to print I can report that Phil has responded well to treatment and we plan to celebrate his retirement more formally and publicly soon.

So what have we got for you in this magazine? Have you heard of the wealth of coal deposits in Mongolia? In our feature story Archie Bayvel travels to Ulaan Baatar to find out if Mongolia’s massive reserves of high quality coal, on the doorstep of China, might provide a real threat to Australia’s black gold export earnings.

Among other things we take an alternate look at Sydney’s intermodal terminals, provide an insight into the political tensions of the South China Sea, look at the ways that AMSA is contributing to safer shipping around Australia’s coast and provide an independent perspective on shipping policy.

Enjoy the read and remember your comments are always welcome at: feedback@shippingaustralia.com.au
CRUISE INDUSTRY SET TO BREAK RECORDS

The Tasmanian Ports Corporation, Tasports, is continuing the significant investment in infrastructure upgrades across Tasmania to improve the berthing capacity of our major ports.

The upcoming cruise ship season will be the busiest Tasmania has experienced with more than 260,000 passengers and crew making 95 dockings, nearly a 64% increase since last year.

Not only is the State experiencing strong repeat visitation from key cruise lines but a record 12 maiden visits will also be welcomed this coming season.

A major project to enhance and upgrade the capacity of Macquarie Wharves 2 and 3 in Hobart has seen a $2.9 million investment including seabed maintenance, a new cruise ship gangway and installation of new fenders and bollards.

The new project will mean that vessels up to 348 metres will be able to berth alongside the Macquarie 2 Cruise Terminal in the coming 2016-2017 season.

This continues Tasports’ investment into cruise infrastructure in Hobart, in 2013 $7 million was spent redeveloping the Macquarie 2 Cruise Terminal into the state of the art facility it is today.

New mooring infrastructure is being installed at the Port of Burnie on Tasmania’s North West coast to cater for larger cruise vessels.

The $1.5 million mooring dolphin will allow cruise ships of up to 315 metres in length to berth at Burnie, a significant increase on the current limit of 280 meters.

For more information on Tasports please visit www.tasports.com.au
Super governance is broken, do fix

By MATTHEW WHITTLE

Both the 2010 Cooper Review (a Labor Government-initiated review of the superannuation system) and the 2014 Murray Review (a Coalition Government-initiated review of the financial system) recommended the mandating of minimum levels of independent directorship on company boards. Despite these independent findings, in December 2015, Senators Lambie, Lazarus, Madigan and Xenophon, with the Greens, supported Labor to scuttle the Government’s Superannuation Legislation Amendment (Trustee Governance) Bill 2015 claiming “if it ain't broken, don’t fix it”.

Had these senators or the Greens supported the bill, the boards of superannuation funds would now be required to comprise an independent chair and one-third independent directors.

The superannuation system is of central importance not only for the delivery of retirement incomes but also for funding the economy. While the Trustee Governance Bill’s requirement for independent representation on boards would appear innocuous, this subtle reform did have the potential to productively realign incentives and positively influence the competitiveness of Australian industries.

Take for example the Australian maritime industry. The national secretary of the Maritime Union of Australia (MUA) is also the Chairman of Maritime Super. Maritime Super is an industry superannuation fund managing over $4.7 billion in assets. Maritime Super, in its various iterations, has invested in the Australian economy for over 45 years — a point highlighted in its 2013 submission to the Australian Productivity Commission’s Infrastructure Inquiry. Infrastructure investments are an important asset class for the fund, as outlined in its Product Disclosure Statement Supplement published on 1 July 2016. Categorised as Growth Assets, Maritime Super offers a range of investment options in infrastructure: ‘Infrastructure investments are the utilities and facilities that provide essential services and help drive economic growth. Examples of infrastructure assets include transportation assets (bridges, toll roads, airports and rail), utility and energy (water, electricity and gas), communications infrastructure (such as transmission towers) and social infrastructure (healthcare facilities and education).’

Conspicuously absent in this list is any investment in shipping, seaports or stevedoring assets. It can only be concluded that investment options in maritime assets are not offered to Maritime Super members. This deprives maritime workers the opportunity to have a stake in the success of their industry and any incentive to perform beyond compensation for their labour. More broadly, the failure of Maritime Super to invest in maritime infrastructure reflects the maritime union’s indifference to port productivity and goes some way to explaining its opposition to coastal shipping.

As noted by the Australian Financial Review on June 29, 2015, prior to the introduction of the Trustee Governance Bill into Parliament, the MUA national secretary and chairman of Maritime Super commented that the reforms would be “counterproductive and counterintuitive to a proven functional and world-class retirement structure”. This is an understandable position for the national secretary of the MUA, because an independent chairman at Maritime Super would likely champion maritime infrastructure investments to enable fund members to benefit directly from the productivity of their workplace. This would be counterintuitive when ideology dictates that wage increases are to be gained under the threat of industrial action. It is also an understandable position...
for the chairman of Maritime Super, as incentivising port efficiencies and hence the competitiveness of coastal shipping would, as has been noted by the rail sector, cause a reduction in the market share of rail freight and damage the domestic land freight industry through a loss of revenue. Such an outcome would be counterproductive for the rail infrastructure investments of Maritime Super.

The absence of any maritime infrastructure investment options in the Maritime Super fund is at best a failure to incentivise productivity in this sector but at worst, a deliberate investment strategy to profit from competing sectors while causing dysfunction and hindering the potential of the Australian maritime industry.

Although the recommendations of two previous reviews have failed to be taken up, it can be hoped that the work currently undertaken by the Productivity Commission may convince members of the Senate, who are not ideologically welded to the unions, to progress with reform of superannuation. For example, the Productivity Commission has recently published an issues paper to examine the level of choice available to employers when allocating the super entitlement for an employee who has not nominated a specific fund. In the case of the Stevedoring Industry Award 2010 there is only one choice of default super fund: Maritime Super. Given a choice of ‘default super funds’ in the stevedoring award the employer may choose a fund which will deliver retirement incomes and a maritime infrastructure investment option.

Maritime infrastructure assets have enabled Australia’s prosperity since its inception. Maritime Super states that its investments are integral to delivering retirement incomes for members of Maritime Super but also benefit the wider economy and therefore all Australians’. While members are receiving good retirement incomes, the claim to benefit the wider economy and all Australians is pure hyperbole.

If Maritime Super had members’ funds invested in maritime infrastructure assets, these workers would have an additional incentive to maximise the productivity of their workplaces. This in turn, would support initiatives to reduce the cost of imports and increase the competitiveness of exports, reduce the construction and maintenance cost of landside transport infrastructure and increase the resilience of domestic supply chains, reduce the carbon emission intensity of freight, and reduce the number of heavy vehicles on roads and road fatalities. These outcomes would benefit the wider economy and therefore all Australians.

Contrary to the mantra of the independent senators responsible for stifling reform of superannuation governance in 2015 – it is broken, do fix it.
Now the NEWGEN broom sweeps into Patrick

By ARCHIE BAYVEL

Writing profiles over the past 12 years lets one meet enough high-ranking men and women to notice a generational change taking place among the people profiled.

For starters, they are much younger and more immediate – no starting their interviews with “What would you like to talk about?” They know what they want to say and don’t need to clear their throat to say it.

All are computer-literate to a very high degree and immersed in what they can do with that skill. Even their appearance, their shape is often different from many of their predecessors.

Michael Jovicic (pronounce it Yo-viss-ich) is 44 and one of this New Generation in industry; younger, more mentally and physically flexible people whose ideas are tuned to things of which many older executives wouldn’t even have dreamt about.

NewGenners we’ve already written about include Anthony Randell, 37, MD of Maersk Australia, profiled here last year (“I get up at 4.45am, drive an hour to Sydney, then go to the gym for another hour, and arrive invigorated at my desk by 7.15.”) Marika Caffas, 45, CEO of NSW Ports, profiled in our previous edition (“Time off? What would that mean? I go home, sort out the kids then on to my own homework”); Gloria Choy, 45, CEO of DP World’s Terminal 8 in Hong Kong, profile 2012 (“Time is running fast but my passion never fades”)

Here’s what Michael, the latest visible member of the NewGen breed has to say about it all, “Right now my task is to do my job at Patrick to the best of my ability. That means dealing with increased competition and driving new efficiencies.

“My philosophy is not to look too far ahead. Focus on the moment and the future often takes care of itself.

“When I left school I went to work in the accounts department of Steelmark, part of Australian National Industries. But I soon decided I’d rather be where the action was and transferred to being a trainee executive.

“On my first day in that role I swapped my accountant’s suit for King Gee shorts and steel toe-capped boots and reported to the warehouse. I was handed a broom and told to sweep the floor.

“It was 1993 and the beginning of a lifetime of respect for what happens on the floor of big businesses. A lot of the knowledge in a business sits at ground-level rather than in the ivory tower.”

“I learned a lot on that floor before moving into sales and being offered a job as an executive assistant to
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the CEO of Wesfarmers Industrial at Smithfield. That’s when I moved into a national role and became involved in setting up new branches, making acquisitions and launching new projects.

“Farmers was implementing a lot of new systems at the time but I was only 25 and had never run anything, when one day my boss said he had a tough new assignment for me. He said, ‘This will be your test but you have the mongrel in you, so off you go and do it.’

“The task was to implement a paperless warehouse. Commonplace today but new technology at the time.

“My approach then – and still is today – was to get among the action, to walk the floor 8-to-10 hours a day; to ask people for advice. It confirmed my belief that there’s a lot of collective wisdom on the floor of every business.

“That and simplifying the management will be part of my policy at Patrick now that it’s an independent business.

“The previous management team has moved on but we have retained a lot of people too. When Patrick was part of Asciano there were 250 in the team. Today as a stand-alone business we have a small and lean corporate team of only about 30.

“We have a lot of things on our plate with 1100 employees and a throughput of some 2 million TEU from terminals at East Swanson Dock, Melbourne; Port Botany, Sydney; Fisherman Islands, Brisbane, and at Fremantle.

“But I’m getting ahead of my story because when I was still at Wesfarmers I began to get lucky. The company was kicking goals and I was getting job offers from outside. The job I accepted was in Shanghai with AP Moller. It was 2000 and the start of a great adventure.

“My wife and I sold our house and all our furniture, packed-up our four-year-old daughter and 18-month-old son and headed off.

“We stayed in Shanghai for five years before moving to Singapore, where I became Maersk’s regional director for five years.

“When I arrived in Shanghai Maersk had about 30 employees and the trade boom was just about to begin. When I left the business had grown so much we had more than 3000.

“Maersk gives good ideas a good run and my task was to set up the infrastructure to handle it. Our strategy was to control the entire flow-through of our product and to present it as a competitive advantage. It’s still the holy grail of the shipping industry.

“Then came the day when I was sent to Fontainebleau, in France, on an advanced training course at INSEAD.

“Before the course began, students were warned that it was a big undertaking whose successful conclusion might compel us to reflect on the direction of our lives: Half of the graduates would leave their jobs within the following year and a high percentage of them would also decide to split with their partners.

“They teach a lot of self-reflection on these courses so Maersk wasn’t all that surprised when I walked away at the end of mine.

“I realised that I’m a family person, my wife Sharon was seriously ill, and the rest of my family was thousands of kilometres away in Newcastle, where they have lived since my mother and father arrived from Serbia in the 1970s.

“I decided that my career wasn’t the most important thing in our lives. So I put it on hold, pulled the pin on AP Moller, packed up in Singapore and returned to the Hunter Valley, where my family and heart belonged.

“Asia had been a huge experience for us and our children, meeting other kids of all nationalities and languages. I gained only a smattering of Mandarin but my daughter studied it seriously, became fluent and took it as part of her HSC.”

“In Shanghai, Michael’s role had been to identify and develop new investment and strategic partnership projects within the greater China area.

“When we arrived it was early days of the trade boom,” he recalls, “and there weren’t all that many other Australians there. We were a tight-knit, slightly isolated community.

“The result was that we formed lifelong friendships with Chinese people and the pleasure I got from seeing some of my employees go on to be very successful was tremendous. I never dreamed I’d do so much travel as I did in China.

“Singapore was a different experience. It was a very international place, almost like moving back to Sydney. The kids’ school was fantastic and I played a lot of rugby. I loved being in the middle of all the action.

“But we dropped everything and returned to Australia where Sharon recovered her health and I knew a bloke called Maurice James, who was managing director of Qube, and had once said to me that if I ever came back I should go see him.

“I was back so I went to see Maurice. It was 2010 … “

And so Michael joined Qube and became commercial director there … Then Qube acquired Patrick … And Michael moved in as CEO on August 18 this year.

Already he has introduced change by moving the company’s corporate HQ from North Sydney to the terminal site at Brotherson Dock, Botany.

It’s a move that puts him where he most likes to be – on the ground floor of his business. ▲
The port waters of Geelong are welcoming increasingly bigger ships after major capital upgrades to the vital channels network.

About 700 ships a year visit the busy port, which annually handles 13 million tonnes of cargo valued at about $8.4 billion. And the size of these visitors will grow even larger in the years to come.

The Victorian Regional Channels Authority is committed to providing safe access for all ships. The VRCA has spent more than $18 million over the past two years upgrading its channels network and has developed a long-term strategy of targeted channel improvements to ensure the shipping lanes remain efficient and the port productive in future decades.

While its multi-million dollar dredging projects are helping pave the way for bigger ships, the VRCA’s recent introduction of Dynamic Under Keel Clearance technology is also helping hone the port’s competitive edge by allowing a potential cargo increase of thousands of tonnes for those larger vessels in the world fleet. The sophisticated technology allows bulk carriers to navigate the channels safely while loaded to maximum draught.

Safe navigation is paramount in Geelong’s port waters. The port has a great safety record and the VRCA is working hard to ensure that continues in the years to come. High-visibility GPS/GSM controlled lights and beacons as well as virtual beacons clearly define the channels and a Smart Dock laser system boosts berthing safety.

The VRCA invests heavily in marine logistics and control systems. Its 24/7 marine traffic management system uses technology including automated ship identification (AIS), very high frequency radio (VHF), mobile telephony, satellite communications and real-time tide and wind sensors, which are available online.

The authority rigorously tests the capacity of its channels network using ‘full bridge’ ship simulation and its own sophisticated logistic modelling program. It also commissions annual hydrographic surveys.

It’s all part of the VRCA package — providing safe and efficient passage into Geelong’s port for visiting ships.
Mongolia’s capital of Ulaan Baatar sprawls among light green downs country that rolls east and west for thousands of kilometres. This is the great grasslands of the Mongolian Steppes and sits like a green cap atop the Gobi Desert some 500 kilometres south. In the east a sharp stab of light like sun off a swordblade marks a massive stainless-steel statute of that barbarian of barbarians Genghis Khan. It’s an impressive introduction to one of the most remote settlements on earth – a crowded town of unfinished skyscrapers amid acres of Russian-era tenements, narrow streets leading off majestic avenues. Thanks to its massive mineral resources the country has gained an El Dorado reputation for its wealth. That’s the High Life version but it comes with heaps of worries. Mongolia is in fact bankrupt! For people in Real Life the country is wonderful, the capital city a startling European-style outpost in the middle of Asia.
Land of fabled wealth but no lock on the cashbox. Just guess what happens next!!

From ARCHIE BAYVEL in Ulaan Baatar

This is a true-life fairytale city of Far Faraway, so far away that modern tourism has yet to find its wonders although backpackers and riders of the great Trans-Siberian railway are a common sight and miners fly in/fly out just like they do in WA.

Their mines are hundreds of kilometres south and north. Rio Tinto’s colossal Oyu Tolgoi copper and gold pit and the great Kavan Tolgoi coalfields lie to the south and the Mongolian-owned Edernet copper mine to the north.

But is the country safe, people ask? – Safer than Sydney by night and once you’ve learned how to pick your moment to cross UB’s wide boulevards even safer by day.

Not a ship in sight, of course, for thousands of kilometres in all directions but what happens here over the next 20 years could markedly affect trans-ocean coal, copper, gold and associated markets.

Why buy coal for the Shanghai steelworks, for example, from Gladstone when you can get it from just up the rail line in Mongolia? No ships required and in less time than a collier takes to put to sea.

And the world copper price has long been a prosperity benchmark in bourses around the world. Right now it’s down but predictions are that by the time the $8 billion Phase II of Rio Tinto’s Ayu Tolgoi mine is complete in 2020 the market will be booming. It’s a cycle, some say. Others think it will be a miracle.

Unfortunately there is no adequate rail link from Oyu Tolgoi to the outside world. Present output from the mine is packed in two-tonne plastic bags and trucked out over the Gobi Desert to China.

As for the coal! They have been talking about a rail line for that since 2011. So far no sign, although an ASX company, Aspire, appears to have high hope of getting the go-ahead to build a link to the Trans-Siberian Railway that passes not far away.

Its recently released report confirms that its flagship Ovoot project in northern Mongolia has 255 million tonnes of coal reserves and can sustain full scale production up to 10 mtpa of saleable coking coal over 21 years. The mine’s development, alas, depends on constructing a railway linking the mine to the TSR.

The company shares at time of writing stand at 4 cents and its executives have all taken drastic cuts in their remuneration.

Aspire aside, one can’t help feeling that for all the would-be rail link-builders it’s all rather like leaving the lights on for Harold Holt.

So is anything going to happen soon that will seriously affect our minerals trade? “Soon” doesn’t come early in Mongolia. Before “soon” comes “informal government” approvals i.e. Divvying up the budget among the various construction oligarchs, politicians, and their families. We would call this corruption.

And corruption is what rules those who enjoy the High Life, the corporate decision-making, homes in foreign parts, glamorous families and, for some, billions in overseas banks.

Informal policy-makers have no legal right to be involved at all. They are an un-named, invisible, and unspeakable elite who must first approve the effect on their personal businesses of any government contract. They are the mysterious perpetrators of the corruption that is ruining the country.

Just as Ulaan Baataar has far too many “A”s in its name, Mongolia, has far too many zeros in its currency. This has led to a certain disregard for money among the people entrusted with its care.

How can you care about money when the swag of notes in your pocket adds up to 100,000-tugriks (the national currency) but is worth only $50? The tugrik is currently trading at 2245 to the $US1. You’d need a lottery-truckload of notes to make a killing. Far easier to rip off tens of millions at source. And that’s what the kleptocrats have been doing for years.
The finance minister revealed last month that the Mongolia state is already bankrupt! Will it become a failed state? It’s only when you actually get here that one discovers how much of its fabled wealth is still deep underground and likely to stay there for a while.

What is not deep underground is deep under cover, held by wealthy and powerful families who have formed a kleptocracy with almost every government to date.

Where has all the wealth gone? The street answer is: Corruption in high places. Then the conversation tails away, no longer interesting to people in Real Life. But who are the people behind this massive pillaging of the nation’s wealth?

Not us, the new Prime Minister assures the nation. Nor us, says his predecessor. Another former PM is in jail so it can’t be him. And everyone shakes their head in bewilderment.

It is a world scandal that a group of people who could be easily identified and named in a country of only some 2.5 million people have succeeded in diverting almost the entire wealth of a nation into their own interests.

A brand new government has just swept into power with promises to change all that. Not, please note, to undo it.

To arrive at such a time in a country in the middle of nowhere and expect to talk to anyone influential would be na"ive. So one talks with one’s eyes and ears to ordinary people, and with business people who have achieved success by what passes in Mongolia for ethical means.

Among the new finance minister’s recent revelations are:

• As of the first half of 2016, Mongolia’s total foreign debt stood at $US23.5 billion, 210 per cent higher than the nation’s GDP.

• Foreign currency reserves fell to $US1.2 million. Since that figure was calculated new authorities at the Mongol Bank report that net foreign currency reserves are really -$US429 million. In tugriks (MNTs), the local currency, that is minus MNT828 trillion.

“Trillion” for chrissake? Yup, and preliminary budget performance reports that while Mongolia paid MNT37.2 billion in loan interest alone in 2011 that had grown to MNT1.8 trillion by 2016.

Are they worried? You gotta be joking! No ordinary person even knows what a trillion looks like. It’s 1,000,000,000,000,000. That’s a stack of $5 notes 25 kilometres high. On $80 grand a year it’d take you 12 million years to earn one trillion dollars. So nobody’s worried.

It’s all beyond Real Life Mongolians. Nomads – of which there are still almost a million - are grazing their herds right now on that vast green Siberian steppe and busy preparing for a minus 35 degree winter. They would tune out any figure not related to temperature and more than about minus 45, a level that sees them and their camels, goats, sheep and other beasties frozen to death. They call such a thunderbolt of chill a dzut.

So what can save Mongolia?

Firstly the Mongolian people: They are strong from hundreds of years on horseback as herders or as soldiers of the genocidal warrior we know as Genghis Khan. In the early 1200s he led his army on a wave of blood and semen to the frontiers of Europe.

Five hundred years later countries in his path were still struggling to regain population; even today one in every 10 Mongolians carries his army’s DNA. Today’s Mongolians are sturdy in body and mind.

Secondly, Rio Tinto has just begun developing Phase II of its Oyu Tolgoi copper and gold mine which will soon see mouth-watering quantities of new machinery and construction material roll into the country. Finessing the logistics of that will surely offer new business opportunities to people in, let us say, all walks of life.

Thirdly, a reformist government brave enough not to bullied or enlisted by the kleptocratic cliques.

Believe it when you see a few billions finding their way back from Switzerland or the Mayfair property market. Some 7000 Mongolians manage to live in the UK.

But don’t let any of that prevent you from thinking well of Mongolia as a go-see destination or even as a place to do business.

Back in Real Life the country is almost 100 per cent literate, largely thanks to Russian influence during the Soviet era. Ulaan Baatar itself was largely built by the soviets. Long rows of tenements are still doing a perfect job of keeping their tenants warm in the terrible winters and cool in the quite hot summers.

Grand Soviet-style public buildings include a massive Parliament, a decaying palace for the Department of Foreign Affairs and good news knows what others lurk in the invisible valleys of this city of 1.5 million people.

Since the end of soviet dominance, architecture has turned around and the city has many skyscrapers, notably the rival luxury hotels – Blue Sky and Shangri La - and impressive condominums. It even has an exclusive block in the CBD, The Star, that houses many diplomats whose palace embassies don’t include living quarters.

[The Australian Embassy is a dump, a disgrace even. Its elderly ambassador, His Excellency John Langtry, of Lily Langtry fame, lives at The Star. Asked if he is related to Lily he hastens to say “only by marriage” thereby denying himself the genes that made her London’s most beautiful woman, the world’s most famous actress until Marilyn Monroe, and mistress of the Prince of Wales and about 20 other members of the British aristocracy. She had only one child; a girl, father unknown but too long after husband Langtry had fallen by the wayside for him to have been involved.]

The Blue Sky Hotel, one of UB’s only two five-star hotels. The other is the Shangri-La. The city has many other perfectly comfortable and less expensive accommodations.
Providing safe, efficient and sustainable world-class port and marine services on our harbour
The steppe begins right at the city edge. In summer its green stretches thousands of driveable kilometres through Russia to the west and China to the east. It sits 600 kilometres north of the Gobi Desert that marches by its side for much of the way.

Summer tourism has barely been discovered but an increasing number of adventurers are bringing their families for astonishingly cheap drives across the Steppes, food, accommodation in luxury gers, and driver all included.

You can even get from London to UB by train – the Trans-Siberian Railway. It stops all along the way and takes about 10 days. Children talk about it for the rest of their lives.

In winter, just getting into its stride as you read this, all that changes as temperatures plunge below minus 30°C and Ulaan Baatar, is transformed into one of the world’s most polluted atmospheres.

So polluted that couples plan pregnancies so their babies are born in smog-free summer. Those unable to do that but that have money, fly out to smog-free areas.

The pollution comes partly from UB’s four ageing coal-fuelled power stations. It also comes from what are politely referred to as The Ger Suburbs. They are a must-see for visitors.

A ger, pronounced as in “Germany”, is a circular tent made of wooden framework covered in skins and with a single chimney in its roof and one door in its side. It’s what the nomads on the steppe live in. Semi-permanent but able to be easily dismantled and moved elsewhere.

The ger suburbs are where the nomads who moved into the city, pitched their tents before, hopefully, finding regular paid work for all their family and taking their next big step by buying a house.

Some of them achieve that very quickly and during the just past mining boom work was plentiful. Others have not quite made it yet and others again never will. Certainly the ger suburbs continue to grow and none of them are on the city’s electric grid.

So they burn coal in winter and their tiny stovepipe chimneys belch smoke, carbon monoxide, cooking fumes and a maelstrom of farts and aerosols into the city air.

And UB, protected by low mountains on all sides and therefore from cleansing winds, becomes a meteorological inversion with its stale air being disturbed not very often.

But Mongolians are easy going so they get on with life. And a great factor in many of their lives is the Turquoise Hill or Oyu Tolgoi on the fringe of The Gobi.

They call it OT and it is hailed as the rainbow at the end of all Mongolia’s current financial woes. In certain respects it resembles BHP’s Olympic Dam project in South Australia.

When visited four years ago, that was all the go. Dig a pit bigger in area that all Adelaide, transform the port, forget being the City of Churches and settle into being a red-hot mining town.

Then quite suddenly BHP Billiton announced a change of plan: No big pit, no this and not much of that, let’s dig a shaft instead. Roxby Downs, Olympic’s township, went into recession and many folk who had hoped to occupy Roxby’s empty graveyard have booked plots elsewhere. The end of that story is still obscure.

BHP Billiton’s annual report last month announced a record $6.4 billion loss and slashed its dividend to 30 cents from 62 cents.

Rio Tinto on the other hand issued a glowing interim report for its 2016 operations, including bullish forecasts for OT. Rio delivered $3.2 billion cash and an interim dividend of 45 US cents per share, and is committed to 110 US cents for the year.

The new $5.3 billion underground operation at Oyu Tolgoi is expected to be complete in 2020 with average copper production of 560 thousand tonnes between 2025 and 2030.

All that may be Mongolia’s saviour. Rio runs a tight ship and the thieves will be largely quarantined from OT.

That still doesn’t answer the question of whether or not one should look for business in Mongolia. For well-founded suppliers of skills and information there appear to be opportunities. The city is already awash with windmill fabricators and would-be mini-miners.

For outstanding small hands-on operators there are openings. One Londoner, a master motor mechanic for luxury cars, has founded an $8 million Porsche and Bentley sales and service operation.

And a young corporate lawyer from Los Angeles arrived in Ulaan Baatar a few years back to give it a try for one year. He brought with him a young Mongolian wife, a 20TUE container full of tampons, another 20TEUer contained two brand-new Mercedes, and a third stuffed with spare parts for UB’s decrepit fleet of automobiles.

He is a legend now with hundreds of employees, a portfolio of business activities ranging from a Mercedes dealership, through French wines, luxury watches and all the other things that wealthy people in a bankrupt environment can’t do without.

So if you’re out for a slightly adventurous holiday or the chance to change your life, then why not take a look at Mongolia? UB is a nice place to live albeit below freezing in winter and the Australian Chamber of Commerce is

Copper ore parcelled up in two-ton packs for trucking to China
well managed and successful. It should be your first stop if you have business in mind.

But for the High Rulers the rainbow is still a long way off. The newly elected Prime Minister, Mr J Erdenebat, said a few weeks back, “One of the biggest mistakes of Mongolia is that we just talk about progress. As of today there are five or six energy projects around Ulaan Baatar. Implementing just one of them would meet the city’s power consumption.

“Mongolia does not have any development projects with a completed feasibility study. For instance, although we have defined the country’s railway policy we don’t have any rail construction under way.

“We can never cheat foreign investors. Unfortunately many new, unregistered measures, concessional agreements, and projects are coming out of the Finance Ministry every day. We should not deviate from the global standard that a nation should have only one budget.”

Wow! “Many new, unregistered measures, concessional agreements, and projects” ... the very stuff of a kleptocracy in which the first third of any project is siphoned off in reports, research and surveys of the bleeding’ obvious by friends who know someone. The balance, not being sufficient for work to go ahead, is consumed by care and maintenance – carried out, of course, by your uncle – until new funding materialises.

No wonder they’re down the gurgler by MNT828 trillion. The more one researches, the less accurate that figure appears but when dealing with a worthless currency a trillion here and there doesn’t alter a thing.

In the meantime Mr Erdenebat has made his contribution to economy by announcing a 30 per cent cut in his own and all other MPs’ salaries. Senior public servants will take a 20 per cent cut. Savings are predicted to be MNT3 billion for 2016 and MNT8 billion next year.

Wealthy private individuals are also making economies and are no longer prepared to pay $50,000 for lucky 9911 phone numbers that were once so fashionable that some people wouldn’t pick up for any other caller. $20,000 car plates have also gone out of fashion. Just a couple of the sacrifices a patriot has to make.

Birth of an oligarch may have miscarried but giant mine sale goes through

While Rio Tinto’s enormous Oyu Tolgoi steals the limelight, the world’s fourth-biggest copper mine, the unsung Erdenet, is experiencing interesting times.

In the past few weeks it has become the elephant in an increasingly restive room.

While Rio’s UB office mainly focuses its daily profile on assurances of how safe its mine is; Erdenet, 241 kilometres north, generally says nothing; just keeps sending trainloads of copper and molybdenum up the Trans-Siberian Railway to Russia, its main customer.

Until Mongolia’s recent general election it was owned 51 per cent by Mongolia and 49 per cent by Russia.

The day before the July election the then Prime Minister, Mr Chimed Saikhanbileg, announced triumphantly that Mongolia had bought out Russia for the amazingly cheap price of $400 million. On the open market it would have cost billons and the PM must have felt it would clinch his victory next day at the polls.

The cash had already been wired to Moscow.

In fact his ruling Democratic Party suffered the thrashing of its life next day from the Mongolian People’s Party; 65 of the 76 seats in Parliament went to the MPP and Saikhanbileg lost his own seat in parliament to boot.

Suddenly questions arose: Had Mongolia really bought Erdenet, would the deal stick, how and why? An internet article by Lkhagva Erden, a prominent Ulaan Baatar journalist, and Sergey Radchenko, a Cardiff University professor, sparked a mild rustle in the undergrowth of UB society. This amounted to nothing much and both writers appear to be still at large.

Anywhere else in the world their carefully researched and delicately treading story about such a large company would have caused a sensation.

But Erdenet is not just a mine; with 90,000 people, it’s Mongolia’s third largest city, it’s a Broken Hill or a Mt Isa.

Erdenet mines 22.23 million tons of ore per year, producing 126,700 tons of copper and 1954 tons of molybdenum. It accounts for 13.5 per cent of Mongolia’s GDP and 7 per cent of its revenue. About 8000 people work there.

It is a national treasure!

Not many newspaper stories get read past the nipples these days so few Mongolians would have read the article in full and missed its real punch:

It was not Mongolia at all that had bought the mine. It was a private group of Mongolians. A quite different deal.

Putin himself, so the story ran, had agreed to dispose of a not very profitable operation whose Mongolian managers were a lot more bloody in protecting their rights than he really liked.

Conjecture is that he made up his mind as long ago as September 2014 when he visited Ulaan Baatar in person and no doubt met a personable young stockbroker called Tsooj Puretvuuvshin – known to his friends as Tush.

Pictures taken at the 2014 meeting show Putin, bright-eyed and bushy tailed as befits a former Olympian, paying acute critical attention to whatever line a well-fed and complacent-looking Mr Saikhanbileg was selling him.

Eighteen months later Tush, now 28, has emerged as the head of the real purchaser of Ardenet’s 49 per cent, The
Mongolian Copper Corporation – an entity registered at a private apartment in Ulaan Baatar.

According to the Erdene-Radchenco research MGC borrowed $200 million from the Trade and Development Bank, and racked up the other $200 million from its own sources.

People began to wonder if the deal included secret benefits to Russia. Had young Tush become an instant oligarch?

Within days of the deal being signed Erdenet’s board was sacked (it’s CEO was already in prison and a recent application for his release was refused on the grounds that he would benefit from longer in the slammer).

To the few interested Real Life Mongolians it seemed as if they had actually witnessed a cosmic event in which a star or in this case an oligarch was born.

Tush Puretvuushin is well-enough known around town as a diligent operator who studied International Law at Mongolian National University before joining the Trade and Development Bank. The purleurs of any big bank in Sydney or Melbourne would have at least one similar young man hovering, his hour – as Yeats would have put it – come round at last.

There is, of course, no suggestion or intention by this magazine or this writer to suggest that either Tush or his former Prime Minster and their associates did anything illegal in their transactions.

But it seems fair to say that a similar deal in Australia would be explosive news and critically examined.

A few Mongolians must have been thinking along similar lines. In a private conversation one of them explained “the true situation.” Secrecy obviously had to be of the essence just like any other similar deal. Agreed? – Yuss.

What has really happened, he explained, was that the Putin government had wanted out of Erdenet; they had better use for the billions invested in this friendly but stubborn and faraway country.

Tumbling copper prices since 2011 have hit Erdenet hard and 2015 profits have been reported as a mere $4.6 million.

So Putin decided to secretly put it on the market.

Then WHAM! The Ukraine blew up and has kept blowing up. Subsequent trade sanctions had made it impossible to find a $multi-billion buyer on the open market.

So the Russian Government had agreed to find a friend who would buy the business, look after it for a while then quietly put it on an open market where nobody would connect it with Russia. This friendly seller would, of course, remit the lion’s share of the proceeds to their rightful, albeit sub rosa, owner, Russia. Plus of course, an appropriate fee to the holding/selling company.

It’s really very ingenious and quite proper, the man on the phone explained, and the new incoming government’s leaders must have known it was in the works and approved of it otherwise they’d be screaming blue murder now. Right? Simples.

Simples indeed but heart-breaking. Only perhaps once in a lifetime does one see a star, a young oligarch born. To see him turn out to be just another managing director is disappointing.

The elephant is whether any of all that is true. Tush himself is out of sight. The only person who really and truly knows will be somebody’s uncle.

Fortunately Mongolia has yet another industrial trump in its pack of real or imagined aces – the coalmine of all coalmines. It could become a real threat to Australia’s exports from Newcastle and Gladstone, the world’s biggest and third-biggest coal ports …
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Find it a railway and coal could some day impact our Asia trade

Tavan Tolgoi is the world’s largest untapped coalfield with an estimated 6.4 billion tonnes, one quarter of which is high quality coking coal. In the south about 240 kilometres north of the Chinese border, it is just 150 kilometres from the OT copper colossus.

BHP gained the original exploratory rights in the early 1990s but soon relinquished them. Short-term, they had a narrow escape from years of obstruction by local wheelers and dealers delaying every stage, while they fine-tune it to their best-possible advantage.

Long-term it has the potential to solve all Mongolia’s financial problems. But for that to happen, reputable companies must be contracted to mine it, industrial-grade railways need to be built connecting Mongolia to the outside world, and at least one new power station built to drive all that.

To date agreement has been reached on none of these nor does it seem probable in the near future.

No matter where the project is or who owns it, observers are sceptical of a new railway or any other infrastructure project being commissioned before 2019 when metallurgical coal export volumes are predicted of around 11 million tonnes per annum.

Way back in 2011 Mongolia’s National Security Council struck a deal to mine Tavan Tolgoi with US giant Peabody Energy, China’s Shenhua and a Russian-Mongolian consortium.

It was cancelled two months later.

All were outraged by the outcome and losing bidders from Brazil, India and South Korea raised serious concerns, while Japan described the bidding process as “extremely regrettable.”

Very many others share this view.

Today Tavan Tolgoi is considered crucial to Mongolia converting its mineral wealth into economic gains. The country needs money from coal sales and it needs fuel to power the mines’ industrial machinery. All OT’s massive power consumption is currently fed in from China.

All talk about millions of tonnes of coal already zooming their way to the Shanghai steelworks is just so much nonsense.

While neighbouring China can and does build dual-track 300 kilometre per hour railways all over its vast terrain, Mongolia has yet to start work on two comparatively short stretches of rail – one of 240 kilometres, another about 50 kilometres - to the southern border with China. As you read this, negotiations are supposed to be concluding to borrow $1.3 billion from the Export-Import Bank of China to complete a railway connecting Tavan Tolgoi with that border.

Several Mongolian companies are making fortunes from small mining operations at Tavan Tolgoi.

Their coal is being transported by hundreds of 100-tonne trucks a day. Hurting across the Gobi Desert, they are far from the sweet green steppe of Ulaan Baatar but the dust created is so thick that local herdsmen claim it is poisoning their animals’ pasture.

Coal trucks like this carry up to 100 tonnes per trip across the Gobi Desert to China, while the mines wait in vain for a rail link. The nomads complain that the dust created ruins their pastures.

Hard to see the informals changing their ways, so Tavan Tolgoi will remain pie in the sky unless the new government can route its shadow decision-benders. Everything is valueless unless it can be brought to market.
Years of peace plus Russia and the Will of Heaven

Some 2179 years ago the concept of Mongolia as an independent power north of China was expressed in a letter sent by Emperor Wen of Han to Laoshang Shan Yu. He wrote:

“The Emperor of China respectfully salutes the great Shan Yu. When my imperial predecessor erected the Great Wall, all the bowmen nations on the north were subject to the Shan Yu; while the residents inside the wall were under our government.

“The two nations being now at peace, and the two princes living in harmony, military operations may cease and prosperity and happiness prevail from age to age, commencing a new era of contentment and peace. That is extremely gratifying to me.

“Should I, in concert with the Shan Yu, follow this course, complying with the will of heaven, then compassion for the people will be transmitted from age to age, and extended to unending generations, while the universe will be moved with admiration.

“After the conclusion of the treaty of peace throughout the world, take notice, the Han will not be the first to transgress.”

That worked well for 2080 years until Mongolia was hugely influenced by the 1917 Russian Soviet revolution and became a communist country.

In 1921 it established de facto independence from the Republic of China and by 1924 had established itself as the Mongolian Peoples’ Republic and remained a Soviet satellite state until 1992.

During the 68 years of Russian influence Cyrillic script completely replaced the cumbersome traditional writing, for example, and Russian became a second language for many.

All references to its national hero, the genocidal warlord we know as Genghis Khan but known there as Chinggis Khaan were banned. With his legacy of pyramids of human skulls he was seen as a rebellious influence.

Tens of thousands of Mongolians lived as monks in hundreds of monasteries. Stalin closed the lot of them and while a couple have revived, monks are few and far between.

But Shamans, folk of Mongolia’s traditional ethnic religion are commonplace. One sees little brightly flagged groups of them by the Sunday roadsides staggering about in smokey fires, chanting and, banging on drums.

Schooling was made compulsory and today almost all Mongolians are literate and study English from primary school. Nomad children move into town as boarders during term time.

The USSR finally withdrew in 1992 when a popular uprising established full independence from its two suitors. This led to a multi-party system, a new constitution of 1992, and transition to a market economy.

Subsequently the Mongolian political scene changed dramatically and the country became a western-style democracy having successful relations with its two surrounding neighbours.

In fact there is considerable bickering between the three friends. But China hit the headlines recently by writing off a 30 billion MNT ($US18.83 million) debt by Mongolia. It follows, although unconnected with, Russia writing off a $US172 million debt when Mr Putin visited UB.

Mere drops in the bucket of Mongolia’s overall debt but continuing evidence of goodwill between the three neighbours.

It would be hard to deny the long-term benefits of Russian influence.

Shamanism with its spirit worship is still popular throughout Mongolia. Here a family prepare their shaman for a fire dance.
Brisbane Marine Pilots - more than just pilotage?

By BRISBANE MARINE PILOTS

Modern Pilotage today focusses heavily on Safety Management Systems that underpin the task of Piloting ships safely and efficiently to their final destination to facilitate trade. Whether this be port pilotage, reef or deep sea pilotage, the fundamental goal of protecting the ship, its’ crew, the environment and surrounding infrastructure remains the same.

At Brisbane Marine Pilots Pty Ltd (BMP) safety is paramount in all that we do.

Across all areas of our operations we are unwavering in delivering safety and confidence to our customers, the community and the environment, within a commercially realistic framework.

While Pilotage is what we specialise in, our corporate social responsibilities extend beyond the bridge of a ship into the local port community and the surrounding areas of the Moreton Bay Marine Park.

As custodians of Moreton Bay, BMP seeks to engage within the port and local communities to ensure that their role adds value to the supply chain and the local community is aware and supportive of the function a marine pilot provides.

Over the years BMP has been engaged in a number of activities in the community that enhance the primary protection pilotage provides. Some of our more recent activities include:

- Engaging in local marine environment projects through AUSMEPA (www.ausmepa.org.au)
- Becoming accredited to EcoBiz to reduce the companies environmental footprint
- Using infra red technology and developing guidelines for pilot transfers during whale season to minimise the chance of whale strike
- Partnering with LifeFlight (formerly CareFlight) to improve and facilitate emergency training for both Organizations
- Presenting to local community groups and even a children’s TV show on the role and value of a marine pilot
- Communicating with boating clubs and recreational craft users through our website and presentations regarding the safe interaction with commercial shipping in Moreton Bay

Today BMP is proud to have established another critical partnership in the port of Brisbane community by establishing an MoU with the Mission to Seafarers.(www.mts.org.au)

The Mission to Seafarers is an organisation that is solely focussed on the pastoral care and welfare services to the near 70,000 foreign seafarers that transit our port in any one year. The MoU is the first formal agreement between a Pilotage organisation and the Mission to Seafarers anywhere in the world.

This agreement forms a partnership between our two organisations to work collaboratively to provide assistance in what ever form to facilitate the work of the Mission. Since establishing the MoU, BMP has provided assistance in purchasing a new seafarers bus and has provided Pilots (past and present) to work as volunteers in the Mission and on local projects such as a garden makeover and the construction and installation of a separate site hut.

With the globalisation of the seagoing workforce, the demand for providing welfare services to todays seafarer is growing at a significant rate across the world. As the number of long term volunteers reduce due to retirements, BMP are proud to “answer the call” in assisting the local seafarer centre meet their daily challenges. Further information on this important subject is available under the Port information tab on our website

Piloted ships come and go 24/7 without fuss. This is a vital imperative of a major port and requires unwavering commitment and dedication. Engaging within the port and local community is a part of our culture and just what we do. It’s more than just Pilotage.
Proven | Collaborative | Safe
Organics: Australia’s other non-resource boom

By BERNARD GRESSER, director, Infinitas Asset Management Limited

Do you eat organic foods?
No?
Well a growing proportion of the Australian population do.
And more importantly, a growing proportion of global consumers are eating certified organic foods produced right here in Australia.

This growing industry is yet another example of how the often used term “The Food Bowl of Asia” is slightly off target. A more accurate description of Australia is “The Super Premium Buffet of the World”.

It is expected that by the end of 2016, sales of organic foods in Australia will exceed $A2billion.

To put how big this industry is into perspective, if all of these sales were exported, it would be Australia’s tenth largest export industry.

This would put organic foods on par with the amount of copper Australia exports every year.

Consumers choose organic foods for many reasons.

Primarily, health benefits are the overriding reason that consumers choose organic foods.

In the 2014 Australian Organic Market Report, the key reasons for consumers purchasing organic foods were:

1) Chemical free;

2) Additive free;

3) Hormone and antibiotic free (in regards to meat product).

A less important factor was the impact on the environment.

This puts the stereotype that organic food consumers are ideology-driven into perspective.

The ongoing demand for organic products is a global theme.

In the year ending December 2015, organic food sales topped
US$43.3 billion.
This was up 11 per cent on 2014 figures.
This is just under half of the global organic food market of over $A100 billion.
As at the end of 2014, Asia made up less than 6 per cent of the global organics market.
This is where the real export opportunity lies for Australia.
Australia is expected to export approximately $A400 million of organic foods in 2016.
This is less than 1 per cent of the global organics market.
As the wealth effect from Asia continues to drive demand for premium foods, it is expected that
the demand for organics will outstrip overall supply.
The opportunity for Australia is to supply this demand, otherwise other markets will meet these supply needs.
There are not too many industries in Australia, or globally, that exhibit the strong, underlying growth the organic
food industry does.
There are not too many industries where producers get paid 100 per cent premiums – in some cases – for the
organic offering over the conventional offering.
That’s right. There are some premium organic grains that are sold for a 100 per cent premium to the conventional
offering.
With this pricing dynamic, with this ongoing demand, the question we
should be asking is, why are we only producing less than 1 per cent of the
world’s organic food supply.
It truly is an opportunity for Australia to take advantage of. 

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Spring / Summer 2016 | Shipping Australia Limited
Cybercrime

By STUART HETHERINGTON, partner, Colin Biggers and Paisley, President Comité Maritime International

“As Davy Van De Moere steered his Subaru along a back road to the Port of Antwerp, he was sure he was being followed. It was a warm day in August 2012, and the city’s industrial skyline stretched into the distance, mile after mile of towering dockside cranes. Unable to find his tail amid the rail lines and mountains of shipping containers, Van De Moere continued to his target: a squat office building whose parking lot was half filled with workers taking cigarette breaks and napping in their cars....” (Bloomberg: The Mob’s IT Department/Bloomberg Business)

So begins the Bloomberg article published on its website (www.bloomberg.com) beneath the heading “The Mobs IT Department”. It reads like the start of a novel but is in fact the story of how two IT geeks, according to their version, became enmeshed in a web of underworld crime involving drug syndicates based in South America and Europe. By all accounts Van De Moere, and his friend Filip Maertens were doing well for themselves in the IT world, when Van de Moere was introduced to a Turk who was running an import/export company. He was then introduced by him to another Turk who ran a store full of eavesdropping gear in the Dutch town of Arnhem.

Cybercrime is not a new phenomenon, but it has certainly attracted the interest of governments and international bodies, which has gathered pace in recent times.

The Attorney-General’s Department issued a 33 page document entitled “National Plan to Combat Cybercrime” in 2013, which noted that Australia had acceded to the Council of Europe Convention on Cybercrime 2001 (the Budapest Convention). That Convention required parties to “adopt such legislative measures as may be necessary to ensure that the criminal offences established in accordance with Articles 2 through 11 are punishable by effective, proportionate and dissuasive sanctions, which include deprivation of liberty”. Articles 2 to 11 include offences such as: illegal access to computer systems, illegal interception of computer data, interference with computer data, computer related forgery and fraud, and infringement of copyright.

One of the priorities of the National Plan was: “Ensuring the criminal justice framework is effective”. The National Plan identified, at the Commonwealth level, offences under the Criminal Code Act 1995 and the Telecommunications (Interception and Access) Act 1979 as being directed at computers and ICTs. The statement is made in the National Plan that: “Each State and Territory also maintains the legal framework for its agencies to detect, disrupt and investigate offences.”

Earlier this year the Department of the Prime Minister and Cabinet issued a 68 page paper: “Australia’s Cyber Security Strategy”. It contained the following:

“The Government is committed to equipping the Australian Cyber Security Centre (ACSC) with the resources and tools it needs to fight the rising tide of malicious cyber activity and keep our cyberspace safe. The Government will boost the capacity of the ACSC agencies to tackle cyber security threats by: increasing the capacity of the national Computer Emergency Response Team; funding new specialist officers for the Australian Crime Commission and the Australian Federal Police to tackle cybercrime; new training... and eLearning for existing personnel, which will boost the digital investigation skills of specialist officers to create a cyber smart law enforcement and criminal intelligence workforce”.

Also, earlier this year the Baltic and International Maritime Council (BIMCO) issued Cyber Security Guidelines for Ships, which had been compiled by it and a number of shipping organisations, including the International Chamber of Shipping, Intercargo, Intertanko, IUMI, Maersk Line, and others.

As stated in the Introduction to the Guidelines, the measures to lower cyber
security risks included:

- “how to raise awareness of the safety, security and commercial risks for shipping companies if no cyber security measures are in place;
- how to protect ship board OT and IT infrastructure and connected equipment;
- how to manage users, ensuring appropriate access to necessary information;
- how to protect data used on board ships, according to its level of sensitivity;
- how to authorise administrator privileges for users, including during maintenance and support on board or via remote link; and
- how to protect data being communicated between the ship and shore side.”

The Guidelines identified different groups of organisations who might seek to exploit cyber vulnerabilities. They are: activists (including disgruntled employees); criminals; opportunists; states (state sponsored organisations); and terrorists. Their methods used are said to include the following: social engineering, phishing, water holing, ransomware and scanning. More sophisticated methods were described as: spear-phishing, deploying botnets and subverting the supply chain. The on board systems that they might attack were identified as: cargo management systems, bridge systems, propulsion and machinery management and power control systems, access control systems, passenger servicing and management systems, passenger facing public networks, administrative and crew welfare systems and communication systems. The Guidelines offer practical suggestions as to how to address cyber security vulnerabilities.

- On 17 June 2016 the UK P&I Club sent out a bulletin in relation to fraudulent activity in relation to bogus cargo, emanating from Turkey. These involved criminals purporting to be shipbrokers and port agents and non-existent cargoes offered to shipowners’ managers at attractive rates on the general market. They included cement, boilers and phosphate. The terms are always “liner in” meaning that the owner must pay upfront for any stowed and berthing costs and requires that the broker’s own port agents must be used. The money is then paid into the agent’s Turkish bank account and is immediately withdrawn from the bank and a new account opened for the next victim. When the vessel arrives there is not only no cargo but the agent does not exist. The fraudsters use the names of reputable companies as the charterer but they have no knowledge that their details are being used.

In light of the gathering interest of governments in this topic, the CMI, at its New York Conference in May this year, devoted a couple of sessions to cybercrime and we secured the services of the Bloomberg journalist, Michael Riley, who told the fascinating story concerning the Port of Antwerp referred to in the opening passage quoted above. The keynote speaker was Peter Singer, Strategist and Senior Fellow at the New America Foundation, author of “Cyber Security and Cyber War - What everyone needs to know”. His main theme is “we will all get hacked at some time, it’s how you deal with the problem that is so critical”.

It is necessary for shipping companies and their contractors to be aware of the modus operandi (and the increasingly sophisticated nature of the operations) of the villains. In that context the story, as recounted by Michael Riley about the Antwerp hacking is worth repeating. The Port of Antwerp handles 200 million metric tonnes of cargo a year. It is the number one transit point for South American fruit. It is Europe’s largest port of entry for Colombian cocaine. Port officials had been the subject of bribes which enabled the drug dealers to get access to those containers. A crackdown had minimised those activities. The smugglers then found a way around the Port’s security system, which assigned each container a unique code available only to the shipper and consignee. MSC then started to have problems with their computers which, on investigation, found that computer hackers were intercepting network traffic to steal the pin codes and thereby hijack the containers. Other port companies, CSAV and DP World, suffered the same fate.

Having obtained the pin codes, drivers were notified to collect the particular containers. Sometimes the communications were somewhat lacking. In one case, cocaine was hidden inside two containers of artichokes from Peru that were picked up by the rightful owner before the smugglers could get there with their stolen pin. The truck driver was chased down the highway by attackers in Audi shooting Kalashnikovs.

The operation to hack the port companies, it is said, took place in a number of phases, starting with malicious software being emailed to staff, allowing the organised crime crew to access data remotely. When that breach was discovered and fire walls installed to prevent further attacks, the hackers broke into the premises and fitted key-logging devices onto computers which enabled them to gain wireless access to key strokes typed by staff as well as screen grabs from their monitors.

My own recent personal experiences of cybercrime and dealings with my local police station relating to two cross border incidents in which funds had been paid into hacked accounts did not fill me with optimism that our police force is ready, willing and able to fight this scourge. The ACSC’s website suggests that its priorities are likely to be “cyber security issues affecting major Australian businesses” and “cybercrime of national significance”. This leaves a gaping hole at the local level and individuals and small businesses may not have access to much assistance. The National Plan recognised the need to balance “security, freedom and privacy”. My experiences suggest that “privacy” considerations may trump all attempts to ascertain the whereabouts of funds when an account has been hacked.

The issue of the privacy of the bank accounts that had been utilised by the fraudsters in this country and overseas made it seemingly impossible to follow the money trail.

Until banks (both locally and overseas) are able to share their knowledge with law enforcement officers and the public, the laudable desire to “detect, disrupt and investigate offences” could remain a mirage.

As Michael Singer said at the CMI Conference when he posed the question and answered it himself: “Why do robbers rob banks? Because that’s where the money is”. Ships are, as we know, valuable assets and the cargoes they carry have considerable worth also. The cargoes were described by Singer as “low hanging fruit”. ▲
The new biosecurity laws

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On 16.6.16 the Biosecurity Act 2015 (Cth) came into effect across Australia. It replaces the Quarantine Act 1908 (Cth) which had struggled to keep pace with modern day risks to the nation’s health, agricultural industry and the environment. Indeed, at the time the Quarantine Act was enacted, only 2 Australians had passports. These days, federal authorities deal with approximately:

- 16m arriving international passengers;
- 186m international mail items;
- 1.7m sea cargo consignments; and
- 26m air cargo consignments

Despite containing 645 sections and 119 regulations, the Act does not precisely define “biosecurity.” It has been defined elsewhere as “procedures or measures designed to protect the population against harmful biological or biochemical substances.”

The Act is divided into 11 Chapters covering the management of biosecurity risks (human health, goods and conveyances), compliance and enforcement, ballast water, ‘approved arrangements’ (replacing Quarantine Approved Premises and Compliance Agreements) and biosecurity emergencies.

Of note, the Act substantially redefines ‘international’ waters as those beyond 12NM from Australia’s shoreline (whereas it was previously 200NM) and makes it clear that all goods and conveyances arriving in Australian territory are subject to biosecurity control. ‘Goods’ and ‘conveyances’ are given extraordinarily wide definitions.

The Act is administered by the Commonwealth departmental heads of agriculture and health. Substantial powers are given to these directors to ‘determine’ a plethora of matters from time to time. Previously, often cumbersome parliamentary processes were needed for relatively minor changes. It is inevitable that numerous “Determinations” will be issued in the future, substantially affecting stakeholders’ rights and obligations. These ‘determinations’ have the force of law as delegated/subordinate legislation. It is trite to say that ignorance of the law will afford no excuse for non-compliance.

Both departments have a plethora of information about the new Act on their websites but like nearly all commonwealth government websites, navigation can be difficult. NEVER rely wholly and solely on any governmental website or publication in relation to legal matters. While they are generally a good source of departmental policy, it is not unheard of for government departments to misstate the actual law; where absolute certainty is required, CHECK THE ACTUAL LAW. Note that it is NO DEFENCE to a charge, infringement etc if you rely on a departmental publication, verbal advice etc which turns out to be in fact wrong and thus unlawful. In the case of Ostrowski v Palmer a commercial fisherman, Mr Palmer, was verbally told by fisheries officials that he could fish in a particular area. In reliance on this he fished as advised. As it turns out, the officials were wrong. Ultimately, the High Court of Australia held that Mr Palmer had no defence to a charge of fishing in the unlawful area.

ALL incoming vessels must provide a Quarantine Pre-Arrival Report (QPAR). Vessels with a good compliance history or deemed to be low risk may qualify for Pratique Documentary Clearance (PDC). The Department of Agriculture and Water Resources is also developing a Vessel Compliance Scheme (VCS) in conjunction with the Maritime Arrivals Reporting System (MARS) platform.

Of significance is the changes to reporting requirements for vessels arriving from overseas. No longer are vessels classified by length. They are now classified as commercial or non-commercial. A non-commercial vessel is defined as “a vessel that is used, or is intended to be used, wholly for recreational purposes (whether or not crew are employed on the vessel).”

The Act replaces ‘proclaimed ports’ with ‘first points of entry.’ Numerous ports are defined as such and a list of such ports at time of writing can be found at http://www.agriculture.gov.au/biosecurity/avn/vessels/ports/seaport-locations. Importantly, approval is required to enter a port that is not a ‘first point of entry’. It is a criminal offence to ‘moor’ at a non-first point of entry (curiously, ‘moored’ is not defined in the Act and terms such as ‘berthed’, ‘anchored’, ‘make fast’ etc are not used anywhere in the Act).

One of the most significant developments that the Act ushers in is a national framework for regulating the biosecurity risks posed by ballast water. The legislation has been drafted to move Australian legislation towards consistency with the International Maritime Organization’s (IMO) International Convention for the Control and Management of Ships’ Ballast Water and Sediments 2004. Under the Act, it is a offence to discharge ballast water in Australian seas. A person does not commit an offence if an exception applies (as defined) but records must be kept of the same.

There are a plethora of criminal and civil offences under the Act. Some carry terms of imprisonment. The authorities reassure that they will be taking an ‘educative’ rather than rather than ‘punishment and punitive’ responses during the initial period. Stakeholders would be well-advised though not to rely on this.

In general, the Act is a welcome addition to the protection of Australia’s health, environment and industry, especially in relation to regulating ballast water. Yet it will be many years before it could be confidently said that it has achieved these ends.
Advice and representation in all maritime matters including:

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

This article will briefly discuss:
(a) The historical context and nature of the dispute;
(b) The legal source of The Philippines’ claims and the legal framework within which they were asserted;
(c) The issues;
(d) The determination;
(e) The implications.

Historical context and nature of the dispute
China (in its various political manifestations over the centuries) has long asserted various rights to territory and resources in the South China Sea.

The assertion of those rights was partly formalised when, in 1947 the Kuomintang Government of the Republic of China published a map of the South China Sea, marked by eleven dotted lines, or dashes, purporting to demarcate Chinese sovereign and territorial interests in the region.

Some years later, following the defeat of nationalists by the communist forces, two of the dashes in the Gulf of Tonkin were removed (in an apparent expression of communist fraternal solidarity between China and North Vietnam), resulting in the contemporary manifestation of the “Nine-Dash Line”.

The Line encompasses a number of contentious maritime zones, including Scarborough Shoal (claimed by the Philippines and PRC), the Paracel Islands (claimed by PRC, Taiwan and Vietnam) and the Spratly Islands (claimed by Vietnam, PRC and Taiwan).

Since around 2008-9 China has been increasingly assertive within the Nine-Dash Line and has not only conducted military activities and undertaken substantial land reclamation and military based construction activities, but has sponsored economic exploitation of resources, including seabed drilling and fishing.

In 2015, for example, US officials claimed the Chinese had built up an extra 800 hectares (2,000 acres) on their occupied outposts across the South China Sea over the previous 18 months. The main focus of activity has been on Mischief Reef, where satellite images reveal the island is growing bigger, and is surrounded by fleets of dredgers and tankers.

The military and reclamation activities in the Spratly region were of particular concern to The Philippines.

Legal Background and Framework
UNCLOS was concluded in 1982 and came into force in 1994 (the same year that Australia ratified the Convention).

Sometimes described as the “constitution for the oceans”, UNCLOS has been ratified by 168 parties including China and The Philippines. Importantly, the Convention does not address the sovereignty of States over land territory. Rather, the Convention addresses the rights and obligations of coastal States by establishing a system for the drawing of coastal base lines, the establishment of territorial seas, and the vesting of exclusive economic zones lying within the 200 nautical mile limit from those base lines (subject to extension for a protruding continental shelf). Coastal states enjoy the rights of exclusive economic exploitation to the maritime resources within the EEZ, while being obliged to respect rights of innocent passage through those waters, and fulfil certain environmental obligations.

Under UNCLOS, it is not only continental land masses which can support a territorial sea and EEZ. The Convention contains provisions dealing with the treatment of islands and archipelagic features, including definitions of what constitutes an “island” as opposed to a rock or a low-tide elevation.

Significantly, as has been widely reported in the international press, China has undertaken a programme of land reclamation and construction of a number of reefs and rocks in the South China Sea, predominantly for the establishment of military facilities. It now claims that each of these “islands” is capable of supporting its own territorial sea and EEZ, thereby very substantially increasing its asserted zone for exclusive economic interest in the South China Sea.

It was this activity which largely prompted the commencement of proceedings by The Philippines against China under UNCLOS. The Philippines made four claims:

(a) A declaration that entitlements in the South China Sea must be based on UNCLOS and not any claim to historic rights. Specifically, The Philippines sought a declaration that China’s claims to rights within the Nine-Dash Line are without lawful effect to the extent that they exceed the entitlements that China would be permitted by the Convention.
(b) The Philippines asked the Tribunal to determine its entitlements under the Convention to maritime zones supported by Scarborough Shoal and certain maritime features in the Spratly Islands. The Convention provides that submerged banks and low tide elevations are incapable on their own of generating any entitlements to maritime areas and that “rocks which cannot sustain human habitation or economic life of their own” do not generate an entitlement to an EEZ but merely a territorial sea. The Philippines sought a declaration that all of the features claimed by China in the Spratly Islands and Scarborough Shoal fall within one or other of these categories and that none of the features generates an entitlement to an EEZ.

(c) The Philippines sought declarations that China had violated the Convention by:

(i) Interfering with the exercise of The Philippines’ rights under the Convention including with respect to fishing, oil exploration, navigation and the construction of artificial islands and installations;

(ii) Failing to protect and preserve the marine environment by tolerating and actively supporting Chinese fishermen in the harvesting of endangered species and the use of harmful fishing methods that damage the fragile coral reef ecosystem in the South China Sea; and

(iii) Inflicting severe harm on the marine environment by constructing artificial islands and engaging in intensive land reclamation at seven reefs in the Spratly Islands.

(d) The Philippines sought a declaration that China had aggravated and extended the dispute between the parties during the course of the arbitration by restricting access to a detachment of Philippine marines stationed at Second Thomas Shoal and by engaging in the large scale construction of artificial islands and land reclamation at seven reefs in the Spratly Islands.

China consistently rejected the Tribunal’s authority and denied that the proceedings were a valid exercise of jurisdiction under the dispute resolution provisions of UNCLOS. China did not participate in the proceedings, although made its position clear through the publication of various statements outside the context of the arbitration proceedings, and through other diplomatic channels.

Given China’s refusal to participate or recognise the Tribunal’s authority, the Tribunal was obliged, under the dispute resolution provisions of UNCLOS, to hold a preliminary hearing, and publish a preliminary award, on the question of jurisdiction. The Tribunal published an award in late 2015, finding (unsurprisingly) that it had jurisdiction to determine The Philippines’ claims, and then proceeded to hear those claims in detail.

The Determination
The Tribunal found in favour of the Philippines in respect of all of its claims.

Historic rights v UNCLOS
The Tribunal found that the Convention comprehensively allocates rights to maritime areas and that protections for pre-existing rights to resources were considered, but not adopted in the Convention. Accordingly, the Tribunal concluded that, to the extent China had historic rights to resources in the waters of the South China Sea, such rights were extinguished to the extent they were incompatible with the exclusive economic zones provided for in the Convention. The Tribunal also noted that, although Chinese navigators and fishermen, as well as those of other States, had historically made use of the islands in the South China Sea, there was no evidence that China had historically exercised exclusive control over the waters or their resources. The Tribunal concluded that there was no legal basis for China to claim historic rights to resources within the sea areas falling within the “Nine Dash Line”.

Status of Features
The Tribunal next considered entitlements to maritime areas and the status of features. The Tribunal first undertook an evaluation of whether certain reefs claimed by China are
above water at high tide. Features that are above water at high tide generate an entitlement to at least a 12 nautical mile territorial sea, whereas features that are submerged at high tide do not. The Tribunal noted that the reefs have been heavily modified by land reclamation and construction, recalled that the Convention classifies features on their natural condition, and relied on historical materials in evaluating the features.

The Tribunal then considered whether any of the features claimed by China could generate maritime zones beyond 12 nautical miles. Under the Convention, islands generate an exclusive economic zone of 200 nautical miles and a continental shelf, but “[f]eatures which cannot sustain human habitation or economic life of their own shall have no exclusive economic zone or continental shelf.” The Tribunal concluded that this provision depends upon the objective capacity of a feature, in its natural condition, to sustain either a stable community of people or economic activity that is not dependent on outside resources or purely extractive in nature. The Tribunal noted that the current presence of official personnel on many of the features is dependent on outside support and not reflective of the capacity of the features. The Tribunal found historical evidence to be more relevant and noted that the Spratly Islands were historically used by small groups of fishermen and that several Japanese fishing and guano mining enterprises were attempted. The Tribunal concluded that such transient use does not constitute inhabitation by a stable community and that all of the historical economic activity had been extractive. Accordingly, the Tribunal concluded that none of the Spratly Islands is capable of generating extended maritime zones. The Tribunal also held that the Spratly Islands cannot generate maritime zones collectively as a unit. Having found that none of the features claimed by China was capable of generating an exclusive economic zone, the Tribunal found that it could — without delimiting a boundary — declare that certain sea areas are within the exclusive economic zone of The Philippines, because those areas are not overlapped by any possible entitlement of China.

**Lawfulness of Chinese Actions**

The Tribunal next considered the lawfulness of Chinese actions in the South China Sea. Having found that certain areas are within the exclusive economic zone of The Philippines, the Tribunal found that China had violated The Philippines’ sovereign rights in its exclusive economic zone by (a) interfering with Philippine fishing and petroleum exploration, (b) constructing artificial islands and (c) failing to prevent Chinese fishermen from fishing in the zone. The Tribunal also held that fishermen from The Philippines (like those from China) had traditional fishing rights at Scarborough Shoal and that China had interfered with these rights in restricting access. The Tribunal further held that Chinese law enforcement vessels had unlawfully created a serious risk of collision when they physically obstructed Philippine vessels.

**Harm to Marine Environment**

The Tribunal considered the effect on the marine environment of China’s recent large-scale land reclamation and construction of artificial islands at seven features in the Spratly Islands and found that China had caused severe harm to the coral reef environment and violated its obligation to preserve and protect fragile ecosystems and the habitat of depleted, threatened, or endangered species. The Tribunal also found that Chinese authorities were aware that Chinese fishermen have harvested endangered sea turtles, coral, and giant clams on a substantial scale in the South China Sea (using methods that inflict severe damage on the coral reef environment) and had not fulfilled their obligations to stop such activities.

**Aggravation of Dispute**

Finally, the Tribunal considered whether China’s actions since the commencement of the arbitration had aggravated the dispute between the Parties. The Tribunal found that it lacked jurisdiction to consider the implications of a stand-off between Philippine mariners and Chinese naval and law enforcement vessels at Second Thomas Shoal, holding that this dispute involved military activities and was therefore excluded from compulsory settlement. The Tribunal found, however, that China’s recent large-scale land reclamation and construction of artificial islands was incompatible with the obligations on a State during dispute resolution proceedings, insofar as China has inflicted irreparable harm to the marine environment, built a large artificial island in The Philippines’ exclusive economic zone, and destroyed evidence of the natural
condition of features in the South China Sea that formed part of the Parties’ dispute.

Implications
China has rejected the ruling, with President Xi Jinping saying that China’s “territorial sovereignty and marine rights” in the seas would not be affected by the ruling. The country’s official media outlets have been more strident, with Xinhua declaring the decision “ill founded” and “naturally null and void”. The People’s Daily wrote that the Tribunal had ignored “basic truths” and “trampled on” international law and norms.

China’s ambassador to the United States, Cui Tian Kai, warned the ruling “will certainly intensify conflicts and even confrontation. In the end, it will undermine the authority and effectiveness of international law,” he added, speaking at the Centre for Strategic and International Studies.

The envoy also warned that the Permanent Court of Arbitration’s ruling “will probably open the door of abusing arbitration procedures”.

In the ten or so years leading up to this decision, China has been strident in its assertions of sovereignty within the nine-dash line, both internationally and domestically. As a result the Communist Party is likely to come under considerable domestic pressure to maintain that position, and defy the Tribunal’s decision.

In contrast, other nations - notably The Philippines but also other western nations supportive of the rule of law and the integrity of UNCLOS (for example, the USA, although it is not a party to UNCLOS) - have been equally vocal in expressing the need for China to adhere to the ruling.

Both the US and China continue to conduct military and freedom of navigation operations (FONOPs) in the region. Australia, as a party to the ANZUS treaty and host to US military resources, may in the longer term find it difficult to resist being drawn into the dispute. Indeed as recently as 15 August 2016 a former top intelligence adviser to President Barack Obama, David Gompert, contemplates the possibility of war between the US and China, and predicts Australia could play a “very consequential” role if such a war were to break out.

Australia has a strong national interest in supporting the international rule of law generally, and UNCLOS in particular - with our large coastline we enjoy one of the largest EEZs in the world. For those reasons the Foreign Affairs Minister has called on China and The Philippines to abide by the ruling and for all claimants in the South China Sea to resolve their disputes through peaceful means. Whether that will occur, and what role Australia will play if it doesn’t, remains to be seen.

ADVERTORIAL

Keep progressing when the unexpected happens

By STEPHEN RUDMAN, National Practice Leader – Marine, Arthur J. Gallagher

With the economy forging ahead at breakneck speed, Australian growth pioneers are becoming increasingly dependent on the smooth transit of goods and precious cargo to keep things progressing. Delays in project completion and the unexpected loss of critical components can be a costly experience. That’s where Delayed Start-up Insurance (DSU) comes in.

Stephen Rudman, the Marine National Practice Leader at Gallagher explains, “DSU insurance provides protection to project owners, principals and stakeholders with a financial interest in a project, from the financial consequences of delays in completion. For those who have been affected by this issue, it is a tricky often complex business that requires an expert pair of hands.”

“With an increasing number of build own operate (BOO) projects and Public Private Partnerships (PPP), we are seeing more people come to us for advice and an understanding of the potential pitfalls where DSU insurance plays an important role.”

“When the unexpected happens, having a claims advisor who is a technical specialist in marine insurance including cargo & carriage requirements can be a lifesaver. Claims generally require both a retrospective and a current view and they’re a lot of moving parts to the process.”

“Having a specialist insurance broker and the ability to tailor product wording to your specific circumstances rather than taking an off the shelf product at face value, is often the best way forward. This is one example of where having a specialist broker with deep experience in the marine and cargo space can off a distinct advantage and value add.” Stephen concludes.
Explosion and fire risk: the handling of dangerous goods in global trade

By PEREGRINE STORRS-FOX, TT Club, risk management director

A lack of emphasis on the safe handling of dangerous goods, epitomised by the dramatic explosion in the Chinese port of Tianjin last year, is leading to increased risk in global trade.

There have inevitably been a number of differing assessments of the impact of the explosions at Tianjin last August, but a sound and thorough analysis has recently been provided within a Swiss Re ‘sigma’ report (No 1/2016). That report states that Tianjin was the biggest insured loss of the year, with property loss estimated at between US$2.5 billion and 3.5 billion, and approaching 200 fatalities. The official Chinese report of the destruction of over 12,000 vehicles and 7,500 freight containers, together with significant further damage up to 5 kilometres away. However, TT Club would argue that these blasts should primarily be seen as a spectacular example of why those operating throughout the global supply chains should examine their work practices and risk procedures more thoroughly.

However the damage is estimated, the incident should become a focal point, drawing attention to underlying vulnerabilities within global supply chain processes. It underlines how cargo in transit, potentially mis-declared, or packed or handled incorrectly, can cause widespread damage and loss of life.

Understanding the causes of cargo related fires

TT Club’s analysis of its claims history reveals that incident causation is concentrated within just five classifications. Approximately two thirds, by both value and number, relate to the sum of vehicle accidents, including both road traffic and cargo handling equipment collisions, fire, theft and poor cargo packing. This rolling five year analysis takes in over 7,500 insurance claims, with a total insured claim value of around US$500 million. While there is substantial consistency in the relative significance of each major causation year-on-year, it is notable that the costs related to fire are almost invariably disproportionate to the number of incidents.

In this regard, TT Club highlights that the total economic costs incurred by the industry, as well as individual entities, should take account also for those elements that fall outside the ambit of insurance, and particularly headings that are frequently hidden losses, such as management time and distraction, and reputational damage. The Swiss Re ‘sigma’ report (mentioned above) identifies the disparity between ‘insured’ and ‘total economic’ losses; earlier studies have concluded that any entity may expect to suffer many multiples of the insured losses in the overall economic impact following an incident. And this is particularly relevant in relation to fire, which by nature is a most destructive and intrusive type of incident, more directly threatening the survival of an entity.

While Tianjin was undoubtedly a substantial and tragic incident, a key issue that needs to be understood in the context of both maritime and land-based transport is that cargo-related fires and explosions are too common in the containerised supply chain. In addition to port-based incidents over the last year in Vancouver, Canada, and Santos, Brazil, there is a lengthening list of container ship explosions and fires in recent years. There are numerous examples of catastrophic cargo-related ship fire incidents, perhaps an ideal one being MSC Flaminia, occurring in July 2012. Furthermore, there is generally perceived to be a worsening trend with regard to cargo-related shipboard fires. At sea, each incident, regardless of ultimate size, is horrific for crew, who are not primarily trained as firefighters, being presented with unknown hazards in the ship’s stow and hardly adequate firefighting techniques.

The nature of most of these cargo-related fires, in port areas and at sea, amply demonstrates what TT Club describes as ‘adjacency’. This is the risk arising from one package within one transport unit amongst some kind of storage area. Where such a package is or becomes dangerous, whether or not accurately packaged, declared, packed and secured in the transport unit, the proximity to other cargo and units may lead to a catastrophic consequence.

It is clear that cocktails of chemicals can be extremely potent, individually and in combination; it is equally true that...
that many inert cargoes are capable of burning fiercely. Thus, while the
ignition, intensity and longevity of a
fire may be directly influenced by the
type of cargo concerned, the totality
of the devastation and consequent
economic loss, in risk assessment
terms, needs to take account of
the uncertainties inherent in the
unit load industry. Huge benefits
have been derived, particularly in
containerisation, through the concept
of utilising standard sized units to
enclose diverse cargoes and move
them in close proximity to one
another. However, the contents of any
given box and their current condition,
is largely a matter of speculation.

TT Club has repeatedly publicised
the generic risks arising from poor and
incorrect packing practices, finding
consistently that about two thirds
of insured cargo damage claims can
be attributed to such issues. This
general statement is corroborated
from the container shipping lines' Cargo Incident Notification System
Organisation (CINS) data, which
shows an overwhelming 75 per cent
of the incidents reported, as being
due to packing issues. The general
importance of the CTU Code (IMO/ ILO/UNEC Code of Practice for
Packaging of Cargo Transport Units),
published at the end of 2014, cannot
be stressed too highly.

However, matters relating to
cargoes that are inherently defined
as dangerous, inevitably lead to
greater concern. There are well
established international standards
relating to the transport of dangerous
goods by any mode, derived from
the recommendations of the UN
Committee of Experts, contained
in the UN Recommendations on
the Transport of Dangerous Goods
(known as the ‘orange book’). This
forms the basis of a series of codes
covering the classification, packaging
and labelling of dangerous goods
for transport by road, rail, inland
waterway, sea and air.

Relevant guidance for activity within
the port area, dovetailed into this
intermodal regime at international
level, is the International Maritime
Organization's (IMO) document
‘Recommendations on the Safe
Transport of Dangerous Cargoes
and Related Activities in Port
Areas’ (MSC.1/Circ.1216 (2007)).
Aspirationally, the contents of
these recommendations would be
implemented, modified or otherwise
covered in national guidance or
regulations.

The concern has to be that the level
of compliance with the mandatory
international law is insufficient
to preclude incidents. Inherent
in such regulations are many,
necessary, detailed requirements.
However, perhaps greater focus
should be addressed to training
and competence, together with
gendering behavioural change.
It is sobering to recognise that the
supply chain industry includes many
substantial entities, with considerable
asset-based interests – including
port and ship operators – counter-
balanced by entities for whom the
entry barriers to trade are nigh non-
existent.

Seeking to address the issues of
behaviour and culture, the IMO
recently issued MSC.1/Circ.1531
in relation to the CTU Code. In
this Circular, national governments
are encouraged to promote due
diligence checks between supply
chain stakeholders, and guidance is
provided as to the characteristics of
service providers. More importantly,
a broad set of stakeholders is
identified, setting out their roles and
how they can effect a culture change,
promoting the safety of workers
and third parties while maintaining
the integrity of the cargo. The
recognition that all stakeholders have
an ownership in the success of the
supply chain venture rings very true
with maritime tradition; crucially,
it is consistent with the reality that
most stakeholders have no actual
knowledge of what is in the box and
how it is packed and secured.

Nevertheless, the ‘elephant in the
room’ remains that implementation
and enforcement of international law
is practically reliant on processes
and controls at individual, corporate
and national levels. For every known
incident, there will almost inevitably
be a plethora of ‘near miss’ events.
By way of example, CINS report that
the investigated cause for a third of
the liner operators’ records relate to
‘mis-declaration’, while Hapag-Lloyd
noted a sharp rise in their ‘Watchdog’
findings following Tianjin, commenting
that ‘many ports drastically tightened
their dangerous goods guidelines
in the wake of the incident or
even prohibited dangerous goods
from being processed at all’. This
demonstrates both the risks and a
capability, through intelligent software,
to implement mitigation.

At their heart, trade facilitation and
efficient global supply chains rely
on the operation of good faith. In
the same vein, carefully constructed
ternational standards rely on the
competence of each stakeholder.
The CTU Code falls short of requiring
accredited packers and most maritime
administrations choose not to report
container inspections annually to
the IMO. There is continuing need
through the supply chain, not only
to review regulation and guidance,
but also to promote sound corporate
culture. It is perhaps time that
quality management principles
(‘plan, do, check, act’) are applied to
ensure that good faith genuinely can
replace speculate. This requires
international and national stakeholder
engagement in order to improve
the safety of workers and third parties,
as well as maintaining the integrity
of cargo and transport infrastructure,
whether at sea or on land. Let the
explosions at Tianjin be a rallying
call.
Learning from success

By PHIL POTTERTON, director of transport economics and policy, Economic Connections

With coastal shipping policy mired in partisanship, at least in its pre-election version, and with the Australian flag shipping registry continuing to shrink (Figure 1), what can the successes of Australian shipping policy tell us about a possible solution?

Leaving aside Australia’s world-class maritime safety administration, there have been two main long-term successes: liner shipping regulation and Tasmania shipping subsidies. In each, the keys to success are, firstly, a transport policy that engages with multiple and sometimes competing objectives and, secondly, a link between that policy and some widely accepted (non-transport) higher-level goal of government. For liner regulation, the goal or rationale is ‘trade and the economy’ and for Tasmania shipping subsidies, it is ‘the Australian federation’.

The hard truth is that shipping, like other areas of transport, is rarely important enough on its own to command the attention of governments of both political sides consistently over decades. Yet that is what success requires, so there is sufficient time for public and private investment in infrastructure and services to be planned, delivered and to yield returns, financially, economically, socially and environmentally. A higher-level purpose to which the transport policy contributes is what provides the mandate for transport policy stability.

In liner regulation, Australia has had 50 years of policy continuity, successfully balancing the interests of shippers and shipping lines, all in service of growth of trade and the economy.

In the 1960s the Menzies Coalition Government enacted Australia’s first Trade Practices Act. Since a 1966 amendment, a shipper representative body designated by the minister has had legislative backing in negotiating minimum levels of service with shipping lines. In return for mandatory negotiation and for filing agreements, shipping lines have been eligible for exemptions under competition law. Since 1989, under Part X of the Competition and Consumer Act, the agreements have been available to shippers. In 2000 similar arrangements were extended to imports.

In 2002, amid partial deregulation in the northern hemisphere, the OECD urged member countries to consider removing anti-trust exemptions for any remaining price fixing agreements and also for freight rate discussion agreements among shipping lines. In 2005, the Productivity Commission recommended repeal of Part X. With its New Zealand counterpart, it repeated the recommendation in 2012, as did the Harper Competition Policy Review in 2015.

With both sides of industry partly,

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1 This year is also the twentieth anniversary of the Bass Strait Passenger Vehicle Equalisation Scheme, which has a similar ‘federalism’ policy rationale.

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Figure 1 The Australian flag fleet, 1980 to 2015
If not wholly, opposed, government has, each time, hesitated to act on the recommendation. Shippers don’t want to lose the benefit of minimum service level agreements, despite concern about lack of transparency in the ‘sundry surcharges’ that shipping lines apply to freight rates, and that fall outside the current Part X negotiating space. Shipping lines see the freedom to discuss rates among themselves as a quid pro quo for minimum service level agreements, whatever the exact content of these. And if Part X is to go, they seek equivalent regulatory certainty from a replacement regime.

The government’s cautious response to Harper appears to acknowledge this complexity and nuance. The government would investigate “how a class exemption could be applied to liner shipping, to ensure that routes continue to be reliably and competitively serviced and that the costs to obtain an exemption are not burdensome”. Let’s hope that what emerges in due course builds on past success. If it doesn’t, expect our trade and economy to be affected.

2016 is the fortieth anniversary of the Tasmanian Freight Equalisation Scheme, established by the Fraser Coalition Government, on recommendation of a commission appointed by the preceding Whittlam Labor Government.

The scheme, which reduces the cost of eligible Bass Strait freight by about two-thirds, exists to address a freight cost disadvantage which is unique among the six states and two territories. This is that the 400-kilometre distance between northern Tasmania and the mainland is too short – bulk mineral products aside – for sea freight to be competitive with road freight, due to sea freight’s higher unit terminal handling costs. Yet, by definition, road freight cannot be used, resulting in a relative cost burden for Tasmanian producers.

It’s true that other parts of the country are also largely, if not wholly, dependent on sea freight. The islands and remote coastal communities of the north and Kangaroo Island in the south are the main ones. But the freight cost disadvantage of these locations is a ‘regional’ or ‘intra-state’ policy matter, not a ‘whole state’ one. So, whether fairly or otherwise, their situation doesn’t engage the federation and the Federal Government in the way that Tasmania’s does.

As well as a robust higher-level policy rationale, design features underpin the scheme’s longevity. Payments go to individual shippers, not shipping lines, and are channelled through the Department of Human Services and Centrelink, accessing the scale and professionalism of Australia’s social welfare administration. While debate about under compensation and over-compensation of disadvantage is endemic, this has never threatened the scheme, as it might if payments were instead made to shipping lines. Issues of fraud, another potential threat, are well managed and a capped maximum rate of assistance is in place to encourage shippers to seek out the most competitive freight rates.

In contrast to the continuity in both liner regulation and Tasmania shipping subsidy policy, coastal and international shipping policy has experienced sharp breaks. And in recent times there has been no accepted higher-level rationale to affirm why policy in this area is important for national wellbeing.

In coastal and international shipping policy, there are, or should be, three enduring objectives: regulatory certainty and simplicity; cost-competitiveness for shippers; and shipping industry viability – for which a level playing field between eligible operators is a prerequisite. There are tensions between these objectives and since the 1990s we’ve struggled to find a policy that acknowledges and balances all of them.

In the 1980s, the Hawke Labor Government implemented a strategy to improve industry efficiency that had been recommended by Sir John Crawford in a report to the preceding Fraser Government. This centred on government tax incentives and investment funding, to modernise the fleet, conditional on union cooperation and workplace reform. The strategy was successful, with the fleet’s tonnage two thirds higher in 1994 than in 1980 (Figure 1) and with average crew sizes reduced to a globally competitive 18 by 1996, in contrast to the low 30s earlier.

The regulatory playing field of the time was level by virtue of being effectively closed to foreign flag ships. But in 1989, the government decided to expand the foreign flag ‘voyage permit’ arrangements of the Navigation Act, predecessor of today’s Coastal Trading Act. As well as single voyage permits, continuing, or multiple voyage permits became available. By the late 1980s, European nations had begun to join the so-called ‘flag of convenience’ nations in setting up ‘second registries’ to employ low-cost international labour and offer more favourable shipping taxation settings than were available in Australia. In the government’s thinking, allowing these vessels access to the coast could provide an additional source of competition in the coastal shipping market and could ensure that the benefits of the efficiency reforms were passed on to shippers. The permit share of the task was small at first (Figure 2) and did not immediately threaten the growth of the Australian flag fleet (Figure 1).

Things changed in the 1990s, in post-recession budget conditions. First, the Keating Labor Government moved

![Figure 2 Australian coastal freight, 1992 to 2014](image-url)
unsuccessfully to partially privatise ANL, the industry’s government-owned and recently loss-making centrepiece. The Howard Coalition Government completed the task, with a full sale to French shipping line CMA CGM in 1998. The Government also discontinued all shipping investment tax incentives and further liberalised the foreign flag voyage permit guidelines. Continuing voyage permits, which previously were limited to three years, became renewable indefinitely.

With these changes, policy came to prioritise cost-competitiveness for shippers over shipping industry viability. As vessels aged, Australian ship owners opted to ‘flag out’ to overseas registries and access permits for coastal operations. By the mid 2000s, the voyage permit task had reached a quarter of the total (Figure 2), with several of Australia’s largest interstate bulk routes using a mix of licensed and permit vessels.

From the late 2000s, the Rudd and Gillard Labor governments sought to reverse the trend and shore up priority for Australian flag ships, with the objective of industry revitalisation. But rather than adopting a level playing field approach, the Coastal Trading Act that took effect in January 2013 put in place offsetting regulatory advantages for Australian flag shipping, with the intention of counter balancing foreign flag shipping’s cost advantages. It was mostly, although not wholly, unsuccessful.

One problem was the ‘red tape’ in the arrangements for foreign flag ships to access the new temporary licences that replaced voyage permits. Particularly for bulk shippers, without a ‘liner style’ schedule of voyages to inform future plans, the temporary licence application arrangements, involving the prospect of challenge by a ‘general licence’ operator, added to both uncertainty and cost. This concern may have lessened more recently, with challenge fatigue among industry players and with the falling number of general licence ships, i.e. those entitled to challenge – caused by a second problem.

This was the continued availability of the ‘flagging out’ option, with temporary licences renewable on application, much as voyage permits had been. As a result, the Australian flag fleet continued to decline, in both number and size of vessels and the temporary licence share remained at about a quarter of the task in 2013 14. It may be higher now, with flagging out of petroleum tankers and other vessels over the past two years.

More positively, however, the Gillard Government reformed shipping taxation, including introducing a zero company tax rate. The measures were criticised as not going far enough to match international competition. A particular issue was the situation where dividend withholding tax negates the benefits of a zero company income tax rate for foreign investors, unless they are undertaking capital investment. Nevertheless, the new tax arrangements are now underpinning extensive new vessel acquisitions for the Bass Strait services.

The Government also established a Maritime Workforce Development Forum. Echoing the successful ‘hands-on’ approach of the 1980s, this brought together industry, unions and government to consider how to build a sustainable industry skills base.

The 2015 legislative amendment proposals of the Abbott and Turnbull Coalition governments, which the Senate rejected, offered a system of annual permits, with up to six months for foreign flag vessels and greater than six months for Australian flag ones. The proposals would have brought regulatory simplicity and, while the cruise line industry considered the one-year permit period too short for adequate planning, a degree of certainty. The proposals also offered maximum cost competitiveness for shippers, with simpler foreign flag access to the coast and with an end to a requirement for crews on these ships to be paid minimum award wages during their first six months.

But the industry’s already fragile future would have become even more tenuous. There was some movement towards a level playing field between Australian and foreign flag ships, with Australian International Shipping Register vessels, comprising a minimum Australian crew contingent of two officers and with remaining positions potentially foreign-crewed, envisaged as being able to operate predominantly on the coast. However, outstanding shipping taxation level playing field issues, for companies and seafarers, were not addressed. In addition, with the Maritime Workforce Development Forum disbanded, there was no transition plan for Australian seafarers, particularly ratings, who would be displaced, regardless of whether or not a revamped Australian flag fleet eventuated.

Viewing this history from the perspective of higher-level government goals, the 1980s policy of modernising the industry and improving its efficiency was part of a national policy agenda of the time to reform the economy’s major industries, as they were opened to international competition. But this approach did not survive the ‘hands off’ policy mood of the 1990s, with its signature themes of privatisation and labour market deregulation. Since then uncertainty about where shipping should sit in the national policy conversation has prevailed, with low priority and reversals the result.

What this has also meant is that one policy objective, cost competitiveness, has dominated another objective, industry viability. This is now resulting in a threat to the longer-term continuation of a materially sized Australian shipping industry. It, like all the transport industries, provides essential infrastructure services for a functioning economy.

Potential higher-level policy rationales that involve a viable industry include: addressing skills gaps in marine-related sectors, including ports, towage, shipping contract management and off-shore resources; the economic opportunities from fostering a maritime industry ‘cluster’ for a nation that generates a remarkable 12 per cent of world trade by weight; the related matter of Australia’s shipping services current account deficit; and a supporting contribution to national defence.

None of these rationales has quite gained traction and it is difficult to know what else might.

But part of the problem is a perceived all or nothing opposition between shipping industry viability on the one hand and cost-competitiveness for shippers on the other, and the idea that there can only be one winner.

This is where policy design should play a role, looking for an approach that, as with liner regulation and Tasmanian freight, acknowledges multiple objectives and recognises that no one interest can be wholly satisfied, for the national good. ▲

Phil Potterton will present a paper on 50 years of Australian shipping policy at the 2016 Australasian Transport Research Forum, 16-18 November, Melbourne. Forum papers are available subsequently at http://atrf.info/
Providing safe, efficient and sustainable world-class port and marine services on our harbour
Life on MARS

By SANJAY BOOTHALINGAM, national director, Strategic Projects, Compliance, Department of Agriculture and Water Resources

Well, it’s taken a few years of hard work but now, in 2016, we know that there really is life on MARS!

MARS of course is the Maritime Arrivals Reporting System, a new IT system developed by the Department of Agriculture and Water Resources to manage commercial vessels seeking Australian biosecurity clearance.

In a close partnership since 2012, industry members, vessel operators, shipping agents and department officers have worked together to see MARS cleared for launch in September, following the pilot of the new system in Gladstone and Mackay between July and September.

The Department regulates biosecurity clearance and surveillance of approximately 16,000 commercial vessels in a world where trade volumes are steadily increasing. Previously these services were delivered using highly manual processes. MARS provides an intelligence-led and evidence-based system to manage the biosecurity risks that are posed by incoming vessels.

Partnership

The Department works closely with other governments, agencies, industry and the community to manage Australia’s biosecurity system and reduce the risk of pests and diseases entering and establishing in this country.

Australia’s borders are not impenetrable. Biosecurity is a big job and we rely on partnerships with industry to manage this risk from exotic pests and diseases entering and establishing here in Australia.

The Department’s deputy secretary, Lyn O’Connell, highlighted the benefits that MARS provides to both vessel operators and shipping agents.

“MARS is just one of the Department’s service delivery modernisation projects designed to make it easier for clients to do business with us,” Ms O’Connell said. “This project has been in the making for several years, and a great deal of innovative thinking has led to its development. I’m pleased to see the results of hard work by staff from many different areas, as well as the significant effort from our industry partners, coming to fruition.”

MARS Pilot in Mackay and Gladstone

Following three rounds of successful industry testing, MARS was implemented in the port of Mackay, Dalrymple Bay and Hay Point in July, followed by Gladstone in August. The pilot focused on lodgement of pre-arrival information (Pre-Arrival Reporting (PAR) and ballast water reporting) and was used to inform the Department’s change management and operational readiness activities prior to MARS’ national rollout.

Shipping agents adapted to MARS very quickly and were impressed with its functionality.

“We’ve found the MARS platform very user friendly. The site is easy to navigate and we are able to lodge service requests with ease”, Wilhelmson Ships Service Pty Limited, Mackay.

“MARS has been a welcome improvement to shipping agents, creating easier lodgement of required information and providing a simplified reference hub for monitoring vessel progress within the new biosecurity guidelines”. James Flaskas, Area Manager, Monson Agencies Australia Pty Ltd, Mackay.

Agents and masters were particularly impressed with the Biosecurity Status Document (BSD), a single source of information containing information on the vessel biosecurity status, biosecurity directions and advice for each voyage that replaces a number of disparate documents previously issued by the Department during a vessel’s voyage to Australia.

“We have been involved locally, firstly as the trial port and now live in MARS requesting vessels calling at the port of Hay Point to use the new forms. Generally speaking, we have noted that the majority of masters like the idea of seeing traffic lights to indicate their biosecurity status and agree it is a simple visual representation understood by all, crossing cultural barriers of different nationalities”, Jason Drury, LBH Australia, Mackay.

Vessel compliance

One of the key highlights of the
### Key Statistics (as at 22 September 2016)

MARS system, is the introduction of a new Vessel Compliance Scheme (VCS). VCS is expected to deliver benefits for the shipping industry.

Most non-compliance occurs due to vessel masters, crew and shipping agents being unaware of Australia’s biosecurity requirements. VCS was developed in collaboration with industry members and improves the transparency of the risks biosecurity officers will focus on as part of the inspections, and the consequences of non-compliance. Through this improved knowledge, vessel masters and crew will be able to better prepare their vessel to reduce the likelihood of non-compliance and take advantage of reduced intervention and associated cost savings.

**MARS Implementation Timeline**

The broad implementation timeline for the MARS rollout is as follows:

*Confirmation of the timeline and detailed information on ports affected will be periodically published via Industry notices and on the Department’s Vessels and MARS webpages.*

Visit agriculture.gov.au/biosecurity/avm/vessels

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<th>Activity</th>
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<td>Mackay</td>
<td>From 18 July</td>
</tr>
<tr>
<td>Pilot</td>
<td>Gladstone</td>
<td>From 22 August</td>
</tr>
<tr>
<td>Stage 1 Rollout</td>
<td>Dampier, Port Hedland, Port Walcott, Cape Preston and Onslow</td>
<td>From 26 September</td>
</tr>
<tr>
<td>Stage 2 Rollout</td>
<td>All other locations</td>
<td>From 24 October</td>
</tr>
<tr>
<td>Implementation Complete</td>
<td></td>
<td>2 December</td>
</tr>
</tbody>
</table>

**Surviving on MARS**

Locally based biosecurity officers will be the key contacts at each of the rollout locations. These officers will provide personalised registration and MARS training support to agencies and masters. The Maritime National Coordination Centre (MNCC) in Adelaide will also be providing support through the MARS national rollout. You can contact them on 1300 004 605 or +61 8 8201 6185 (outside Australia).

The Department launched a range of support tools to help clients through the national rollout of MARS, and to comply with Australia’s biosecurity requirements.

These include the MARS and What It Means For You brochure, which showcases the various benefits of MARS. There is also an eLearning tool specifically developed for the shipping industry to learn about Australia’s biosecurity vessel clearance process, the VCS, and to gain an overview of MARS.

Additionally, the Department has developed a biosecurity checklist to help vessel operators get ready for arrival in Australia (available in different languages), a number of MARS user guides and a selection of short Quick Reference Guides designed to assist vessel masters and shipping agents.

You can download copies of these support tools from the Department’s website at: www.agriculture.gov.au/biosecurity/avm/vessels/mars/communications-training-materials or talk to your local biosecurity officer about obtaining a MARS information pack.
Improving navigation on the Great Barrier Reef

By MICK KINLEY, chief executive officer, Australian Maritime Safety Authority (AMSA)

My early years at sea were spent in the engine room for BHP Transport, often on ships transiting the Great Barrier Reef (GBR) and Torres Strait. In those days, Australia’s protection efforts for this unique marine environment were still just developing. Since my first day at AMSA as a Marine Surveyor in 1994, I’ve seen 22 years of further ceaseless efforts to protect the GBR and the Torres Strait from the risk of maritime casualties. As a result, today, the risk of maritime incidents has reduced tenfold, while our ability to respond to maritime casualties has continually improved. This remarkable achievement is a credit to our entire industry and it’s worth celebrating.

One of the first key milestones in work to safeguard the GBR came in 1990 when AMSA lobbied the International Maritime Organization (IMO) to designate the world’s first Particularly Sensitive Sea Area (PSSA). These IMO-recognised areas help protect unique marine environments from shipping related activities, with the reef PSSA allowing AMSA to develop a range of associated protective measures to safeguard the GBR.

One of the first protective measures was the introduction of compulsory pilotage in 1991. This applies in some of the more difficult areas of the reef, meaning masters rely on the knowledge and expertise of local pilots when it matters most.

In 1994 when I joined AMSA, we could only identify non-compliance with compulsory pilotage by boarding ships during port State control inspections and asking the Master to see the pilotage certificate that pilots would leave on-board. Any ship that was identified was prosecuted with the assistance of the Australian Federal Police, which helped to ensure good compliance rates. As the statistics below show, grounds were occurring at a rate which would never be acceptable today.

In 1997, an IMO-adopted ship reporting system, the world’s first mandatory system, was introduced for shipping in the GBR, known as REEFREP. REEFREP gave us a fuller picture of ships transiting the area, but the real breakthrough came a few years later with the introduction of the coastal Vessel Traffic Service.

The Great Barrier Reef and Torres Strait Vessel Traffic Service (REEFVTS) began operating in 2004 as a partnership between AMSA and Maritime Safety Queensland. The service builds on the vessel information gained from mandatory ship reporting, through enhanced monitoring and surveillance of ship movements. Skilled operators monitor position data provided via INMARSAT C satellite communications, radar and shipboard Automatic Identification Systems (AIS) to create a comprehensive, real-time picture of shipping in the reef. REEFVTS operators are not only able to communicate with and provide the latest information to navigators in the reef, but they also have automatic systems to identify ships that stray from typical or usual tracks.

REEFVTS makes monitoring of compulsory pilotage compliance easy and rates throughout the GBR and Torres Strait are very close to 100 per cent. Additionally, if there is a problem with the manoeuvring of a ship in the
GBR, REEFVTS ensures that we are aware as quickly as possible. Given the time pressures and significant risks in any maritime casualty, this early warning provides the best chance of preventing a potentially damaging grounding.

Another initiative has been the introduction of an Under Keel Clearance Management (UKCM) system in Torres Strait. UKCM systems are often used in ports, however this is the first time the technology has been implemented in a coastal environment in Australia.

In 2011, AMSA contracted OMC International to provide a UKCM system in Torres Strait. Coastal pilots use it to scientifically plan for and pilot deep-draught ships whilst maintaining at least a minimum under keel clearance. This is a clear example of where information and communications technology (ICT) is being applied for safer navigation.

The statistics speak for themselves when evaluating the reef protection measures in the last twenty years. In 1996, we had an average of 2.5 ship groundings per year. Since 2004, the incidence of groundings has been just 0.3 per year. This significant reduction in risk to the environment is a credit to the dedicated operators at REEFVTS. We can also thank the rapid technological advances in navigational safety and the seafarers putting new technology into practice.

Recent years have seen rapid development of ICT at sea. The world fleet has largely transitioned to using Electronic Chart Display and Information Systems (ECDIS), and this has its challenges. As with the introduction of any new technology, a focus on training is the key to a successful transition. Seafarers need to be convinced of the value of new technology if they are going commit to new systems. Human-centred design should be the priority, as these technologies continue to develop. As an industry, we need to be aiming to have navigation systems on the bridge that are as user-friendly and intuitive as the smart phones and tablets so many of us now use in our everyday lives.

Much of this new navigation technology is being developed overseas and the ships visiting our coast will always come from all over the world. In a global industry, protecting Australia’s marine environment means ensuring we can influence the development of the world fleet and its use of new technology. At AMSA, we are ensuring Australia has a voice in the international shipping community by actively engaging on these issues with our counterparts at the IMO and the International Association of Marine Aids to Navigation and Lighthouse Authorities (IALA).

In the last few decades, industry and government have worked hard and worked together to protect our globally significant marine environments, but the work is not done. There is no doubt that the next decade will be characterised by further development of e-navigation and other ICT systems in our industry. This will present exciting opportunities for integrated communications in the maritime environment. Whether it is communicating data on hazards from ship to ship, or staying in touch with safety authorities and commercial parties on shore, the seafarers of the future will have a far greater ability to share data than their predecessors.

We will also see technology develop exponentially, as data transmission via satellites creates new possibilities for on-board systems. Not only will charts receive real-time updates on local conditions, but the software of the future is likely to be remotely updated.

Better communications and navigation technology will undoubtedly bring commercial benefits, but it will also allow us to build on our achievements in protecting the reef. To realise the potential of new technology, industry and government will have to adapt quickly to changing systems. We will all need to invest in training our people for a maritime future increasingly driven by sophisticated electronic systems and internet communication.

I’m proud to say that ships in the GBR and Torres Strait are safer and of far less risk to the marine environment than those of my first years at sea. To maintain this progress in protecting the reef, my team at AMSA has its part to play, along with our colleagues at the Great Barrier Reef Marine Park Authority and Maritime Safety Queensland. Safeguarding this World Heritage Area will also need mariners trading in our reef to keep up their good work in protecting the marine environment.
MAIIF/IMPA Joint Education Project

Commit to Safe Navigation

Safe Navigation in Pilotage Waters is a Shared Task of the Bridge Team and the Pilot
- Share Navigation Information
- Respect Each Other
- Communicate Throughout the Voyage
- Work Together
- Stay Alert

The Marine Accident Investigators International Forum (MAIIF) has completed numerous studies and investigations on the operational relationship between marine pilots and ship masters/watchkeeping officers. For its part, the International Maritime Pilots’ Association (IMPA) has completed a number of surveys regarding operational practices on the bridge of vessels under pilotage, including matters such as the initial master/pilot exchange and the nature and extent of support received from bridge teams throughout pilotage assignments. Safety deficiencies associated with teamwork on the bridge, including communication between marine pilots and masters/officers of the watch, is a shared concern for our two organisations.

It is well established that the pilot and the bridge team should develop a shared mental model of how a voyage will unfold. The initial master-pilot exchange is an important part of the process by which the master and the pilot can develop such a model and resolve uncertainties about how intended manoeuvres are to be carried out. It is also important that adequate communication between the pilot and the bridge team continues throughout the voyage. When the pilot and bridge officers share a similar mental model of the voyage, they are able to individually monitor the progress of manoeuvres from their different vantage points on the vessel, thereby reducing the possibility of single point failure.

While the IMO and Member States have demonstrated due diligence and have implemented mandatory training for ships’ crews and pilots, the number of accidents in which the cause or a finding as to risk is related to the pilot/bridge team relationship continues to be an object of concern. MAIIF and IMPA have found that, in the absence of effective monitoring, the pilot has little support in the navigation of the vessel.

In marine pilotage operations, effective situational awareness involves: 1) perceiving critical factors in the environment, 2) understanding what those factors mean with respect to controlling the vessel, and 3) projecting what will happen in the near future and taking appropriate action. Situational awareness is enhanced by good communication and, since the bridge team and the pilot work together towards a common goal, ongoing sharing of information is necessary for both parties to be fully effective.

The respective obligations of pilots and bridge teams are well established in various international instruments. The Standards of Training, Certification, and Watchkeeping Code emphasize the importance of an ongoing exchange of information between the master and the pilot and state that “despite the duties and obligations of pilots, their presence on board does not relieve the master or officer in charge of the navigational watch from their duties and obligations for the safety of the ship.” At the same time, IMO’s Resolution A960 states that: “Masters and bridge officers have a duty to support the pilot and to ensure that his/her actions are monitored at all times” and “The master, bridge officers and pilot share a responsibility for good communications and understanding of each other’s role for the safe conduct of the vessel in pilotage waters.” (A960, Annex 2, paragraphs 2.3 and 2.2).
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2016 summary of port tariff variations

This year the ports of Darwin and Port Hedland did not increase any rates, with Port Hedland extending the 2014 tariffs for a second year. Elsewhere in Western Australia the Mid-West Ports Geraldton withdrew the Port Enhancement Project container but other charges were increased significantly; ship loading up 32 per cent, wharfage up 50 per cent and ship charges up by 80 per cent.

The commodity-based Port Access Charge at the Port of Brisbane has seen the $0.01 per cubic metre increase for motor vehicles progressively raise the charge by over 6 per cent each year since its inception in 2011. Harbour Dues for reefer containers were increased by 20.4 per cent to align with the dues paid on dry containers.

Port Botany recorded the single biggest increase to an individual charge with the wharfage for the transhipment of a container increased by 155 per cent (admittedly on a low base). The increase was introduced to raise the charge from 16 per cent to 40 per cent of the import full container wharfage, surrendering its competitiveness with the Port of Melbourne, which applies transhipment at 35 per cent of the respective cargo wharfage. In terms of the export full container wharfage, the new transhipment charge represents an increase from 25 per cent to 62 per cent of the export full container wharfage. A further loss of competitiveness for transhipments is demonstrated when the allowable duration for the container to reside at the respective ports is considered, with the Port of Melbourne providing 90 days, while Port Botany only 14 days.

To increase its competitiveness Port of Melbourne applied a reduction of 2.5 per cent to export container wharfage and other rate increases at the Port were between 1.4 to 1.6 per cent.

The level of rate increases for ship services such as towage and pilotage are generally higher than all other ports charges. A notable exception for towage was the decrease at the Port of Mackay, where the change of operator to Smit Lamnalco in 2015 resulted in a 17 per cent reduction from the previous tariff. While the scale of Melbourne pilotage rate increases was similar to the port increases, the introduction of additional minimum notice charges and surcharges has increased the scope of applicable charges if these conditions are not met. The objective of the new pilotage charges is stated to be to incentivise customers to place orders and requests for variations with reasonable notice to improve operational efficiency, and to ensure that the associated costs are borne by the customers who are responsible for them.

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THE SCENE

NSW Lunch at Parliament House

The first SAL NSW Parliamentary Luncheon for 2016 was held on Friday 17 June at Parliament House. The luncheon was proudly sponsored by NSW Ports and our guest speaker was the Hon Duncan Gay, Minister for Roads, Maritime and Freight.

Ken Fitzpatrick, SAL; The Hon Duncan Gay, Minister for Roads, Maritime and Freight

Falko Van Geurin, VOPAK; Marika Calfas, NSW Ports; David Barnsde, Port Kembla Gateway

Olga Harrington, Judy Khenman, Jocelyn Ilagain and Cathlyn Hillery, Manildra

Rod Nairn, SAL; Deanna Varga and Gail De Raadt, Australian National Maritime Museum

Michael Gallacher, Member of Legislative Council Australian Labor Party

John Donnell, Transport for NSW; Michael Dorrion, Intermodal Terminals Aurizon; Matthew Fahey and Viral Shah, NSW Ports
Our Biennial Port Kembla Luncheon was held on Friday 26 August and was proudly sponsored by AAT Port Kembla, NSW Ports and Port Authority of New South Wales (support sponsor).

Guest speakers included Craig Faulkner, chief executive officer, Australian Amalgamated Terminals, who provided Reflections on the first 10 years at ATT Port Kembla, and Marika Calfas, chief executive officer, NSW Ports, who provided an overview of the long-term plan for Port Kembla.
BOOK REVIEW

When terrible nights at sea are a pilot’s fondest dreams


“It must be a terrible night at sea”, my grandmother used to say when the sou’west gales swept in and her sons and brothers were far from land.

As a daughter of The Grand Banks fishing fleet she would have marvelled that this book’s author served almost 31 years piloting 6100 vessels across the treacherous bar guarding San Francisco Bay. Terrible nights at sea not withstanding!

“I ended my career without getting seriously hurt and with only a few incidents. I was one lucky son-of-a-bitch!” Paul Lobo says. She’d have said “Amen” to that.

A successful book needs drama or sex or terror. No sex in this one, alas, but the most memorable hours in Lobo’s long career make up for that in drama and terror on the wild seas west of The Golden Gate and the stifling fog, plus eager rocks of Alcatraz to its east.

“Change over the past 30 years has increased in leaps and bounds,” Lobo writes. “Huge diesel engines replacing steam plants, the total transformation of containerisation, and the increase in size of most ships.

“Since I retired the MSC Fabiola (140,259 gross register tonnage) became the largest container vessel turned around in the Port of Oakland. It’s 150 feet longer than the longest ships I moved only a few years ago.”

Throughout this story the weather retains its terrifying threat of being able to snatch even the biggest ships from the most skilful hands.

Lobo wasn’t on the container ship Cosco Busan when it had its 2007 collision with the Oakland Bay Bridge and its subsequent oil spill of 53,569 gallons but he writes about it and its consequences – including those to its pilot – in expert detail.

“I didn’t like the way its now infamous Captain John Cota was treated by the Press and others,” he writes. “At the time of the accident I was looking forward to retiring. Not John, he’s still fighting like hell to get back his Coast Guard licenses.”

Lobo describes the Cosco Busan incident as comparatively minor compared to what befell the Amoco Cadiz or the Torrey Canyon, which broke apart spilling hundreds of thousands of barrels of oil and resulting in environmental catastrophes.

But the Press had a field day, and as readers who remember Swire’s Pacific Adventurer in 2009 when it docked at Brisbane after surviving Cyclone Hamish with a punctured fuel tank, it’s what the Press thinks that often establishes the incident’s importance.

“Prosecutors want to make names for themselves by making human error grounds for serious prison time, so mariners are criminalised as a result,” Captain Lobo writes. “Captain Cota lost his mariner’s licences, his career and his marriage. His criminal defence cost $2.8 million and he still went to prison for 10 months for making a piloting error.

“Ship happens!”

“Here’s what it’s like docking a large ship at night: It’s raining and the wind is howling. You are standing on the 10th floor of a building that’s 1100 feet long. Everything looks small from that height. You are wearing foul weather gear, peering through the driving rain trying to locate a white pickup truck on the dock a city block away. It has its flashers blinking and its headlight pointed at a 3 foot sign that reads “BRIDGE” in red letters. That’s what it’s like conning a ship into a berth at Oakland!”

Captain Lobo likens it to moving a floating object as big as the Empire State Building and compares post-panamax vessels to the Liberty ships of WWII. At 441 feet long, 56 feet wide and weighing only 10,900 GRT, six of them could sit on the foredeck of a modern ship, he says.

“When I retired the largest containerships were 1094 feet long and 150 feet wide but have increased in size again.”

On the subject of the Golden Gate Bridge that he steamed under every day for so many years, Captain Lobo writes, “It was something I loved. On fogless days the sunsets are stunning. Few cities have such a spectacular and welcoming entrance. Sydney, Australia, might be the exception.

“Being in total control and making all the decisions moving the world’s biggest moveable objects into tight spaces with tricky currents really filled me with pride. I even miss moving ships in zero visibility.”

“I miss piloting because being on a ship’s bridge was where I was happiest. I will miss it until I no longer dream.”

- ARCHIE BAYVEL ▲
What does this mean?

- Your perpetual certificates will now expire on 31 December 2016
- Your certificate of competency may expire on 31 December 2016
- You must revalidate your certificates by;
  - Sea time and AMSA approved refresher training
  OR
  - If you do not have the minimum sea service, you must complete the full STCW courses relevant to your certificate.

For more information see:
Face-to-face or online training

By OLENA TAN, senior human resources officer, Mediterranean Shipping Company (Aust) Pty Ltd

What suits you and what suits the company

Learning is a natural part of our lives. We can learn something new every day, even when we don’t realise it. It might be as simple as discovering a new route to work, or as complex as finding a cure for cancer. It may be finding a new way of doing things or learning some additional skills to advance our careers.

In the context of work, initial induction training for new employees is no longer enough in the environment of fast global growth, technology progress and increased competition. It can be said that in this age of speed you need to run very fast just to stay where you are. Additionally, more employees are looking to develop diverse skills to further enhance their careers. Organisational learning and development programmes have multiple benefits not only to individuals, but to the business as well, helping companies to stay effective and to face the challenges of the modern competitive world.

As such programmes represent significant financial investment, organisations want to see the return on their investment. Some of the benefits of workplace training to consider, before shying away from the potential costs, include the following:

- increasing job satisfaction and employee morale
- increasing motivation and productivity
- reducing employee turn over
- keeping in touch with the industry changes
- being in touch with latest technology developments
- staying ahead of competitors
- timely identification and covering of skills gaps
- advancement of employees’ skills
- maintaining and transferring existing knowledge
- providing internal promotion opportunities
- attracting new talent.

Each of them can bring either direct or indirect profit to the company, so it’s no wonder that employee learning and development should become an integral part of overall organisational development.

Assuming management is on board with the importance of training and development and the scope of requirements, we are now facing the challenge of HOW? Online versus face-to-face.

When looking at training and development within a workplace setting, there are many questions to contemplate, for example, what approach is most effective and efficient for the organisation, how to target different audiences and how to maintain the consistency of content delivered. Do we need to engage external providers or can the training be delivered in-house?

Another item to consider – what is the purpose for our employees? Is it a brand new concept, new way of doing work in an organisation or a new system that we are introducing? Is it a refresher course? Is it the training of the employees in standard processes and procedures? Is it a knowledge sharing session? Is the training likely to spark a discussion beneficial to the audience? Do we anticipate questions to be raised? Do we want questions to be raised and answered? The content and the purpose of the training will help to determine the delivery approach.

It can be a cost effective option to deliver a few sessions face-to-face with video and/or web recordings, capturing the course materials, demonstrations, and live discussions, including Q&A sessions and then converting these into online modules. This alternative will be available for all employees regardless of the geographical locations, at their own convenient time, with options to pause and continue later. At the same time, audio and video components will bring this online training as close to face-to-face reality as technologically possible.

Online training

Online environment represents a great opportunity for learning. Online education is getting increasingly more popular as it is fast, convenient and cheap. No wonder it is considered more often by organisations for employee development.

In fact, the majority of traditional universities nowadays are offering courses online, share materials online for free, or participate in Open Universities programmes. These are great alternatives for those who can’t afford the time or money to undertake traditional learning. Employees have the chance to study in their own time, from anywhere, finish and submit assignments faster, and reduce costs. This also helps people to develop self-discipline and self-motivation. It is very important though to discover how to learn using all available communication channels, and choosing the ones that best suit a person’s style of filtering and absorbing the information.
But, if online learning is so great, what are the disadvantages?

Online courses can be unsuitable for the disciplines that require practice or physical presence. For example, demonstration of the live systems, practising skills for customer service or contact officers, experiments when students must be present in specially equipped laboratories, or other hands-on experiences.

We also need to keep in mind that technology can fail, especially when thousands of participants are trying to join the discussion.

Face-to-face training

Let’s not forget that humans are social beings. Face-to-face physical interaction is a great way to learn, communicate, transfer knowledge and retain information. It is a fact that most meaningful relations are developed through personal collaboration. The more time people spend together, the stronger the connections they make. According to Ray Williams, a contributing writer for Psychology Today, human interaction is fundamental to one’s life and is one of the defining human characteristics that separate us from the rest of the species in the animal kingdom.

In a group a person can develop and advance proper skills. From the day we are born and throughout our lives we learn from others and with others how to make friends, resolve conflicts, deal with disappointment, be patient and understanding, and how to compete.

Employees learn from others through a variety of activities that include social learning, coaching, mentoring, collaborative learning and other methods of interaction with peers. Encouragement and feedback are prime benefits of this valuable learning approach. That is something that cannot be done online. But it still remains consistent with the developmental experiences of many individuals.

Online learning cannot offer that human interaction.

But then again, what do we do if the company is on a tight budget and needs to cover a large number of employees in geographically diverse locations? Do we send trainers to run them personally in different places? This involves costs of flights, accommodation, venues and equipment booking. All of a sudden the budget is potentially blowing out of proportion. Add to the fact that it may be deemed even more unreasonable if we are talking about two or three hour training sessions only.

That brings us back to the initial question – what delivery methods should we choose that will work best for employees and for the organisation? Should it be face-to-face or online? … or maybe a combination of both?

Blended learning

The solution to that dilemma may be a combination of both delivery methods, ‘blended learning’, which presents a mix of online and face-to-face activities. It can be very efficient and is definitely very innovative. This type of learning improves communication between trainer/tutor and employees and encourages individuals to take control of their own development.

Blended learning, when applied to a workplace setting, offers organisations flexibility in how to engage learners and deliver training in ways that are efficient and effective. The ability to customise training; adapting content to the work environment, inserting organisational policies, values and code of conduct as well as developing new modules to integrate with existing training provisions, makes the blended learning approach appealing.

Mediterranean Shipping Company Australia

With the challenge of a workforce that is geographically spread around the country, a blended approach has been utilised to achieve optimum results for MSC in Australia. The use of online inductions, electronic delivery and acknowledgement of policy information, an intranet hub for communication and repository of valuable procedural information are some of the ways that technology is utilised for our online approach. Mediterranean Shipping Company’s commitment to customer service is demonstrated by a face-to-face approach with training delivery to all employees. Another example of face-to-face delivery is with Mediterranean Shipping Company’s internal management training course, designed and delivered to enhance and improve managers’ techniques and skills.

Summary

In conclusion it appears that there is not necessarily a definitive answer or universal solution to whether online or face-to-face training is more effective. Of course after considering the available training options, an organisation should first perform a training needs analysis to determine potential gaps. They need to consider what they want to achieve, what content to deliver, who is their audience, the available budget and only then can they determine the solution that will best deliver the desired organisational expectations. One thing is for sure – no one solution will fit every organisation. ▲
Human error is a symptom; failing to consider human behaviour is the cause

By Professor MARGARETA LUTZHOFT, Australian Maritime College, a specialist institute of the University of Tasmania

Over the last decades, the divide between humans and systems is widening as technology—which now intrudes on almost all aspects of our lives—frequently fails to be designed for the person who will be using it.

Those who report not being able to get technology to work, or who feel demotivated and frustrated as a result of interaction with a tool they reply upon to do their job, are often blamed for not using it ‘in the right way’ or for making ‘mistakes’. If they are lucky, they are perhaps offered (more) training.

But efforts to get humans to use tools in the ‘right’ way are tackling a symptom and not a cause. People make vastly more ‘errors’ when the tool, system or process they use has not been designed with them in mind—and how they do actually act, think and even feel rather than how the designer wants them to behave.

This is nowhere truer than in the maritime world, where the user is almost entirely neglected from the design of tools, systems, vessels, training and education. Correcting this is the focus of a maritime research theme called human factors, which attempts to demonstrate that insufficient consideration of designing for human behaviour translates into poorer operations, higher training costs and an increased risk of failing at the task.

An estimated 60-80 per cent of accidents at sea are ascribed to human error, with countless lives lost and the maritime industry forced to cover the cost of accidents to the tune of $541 million a year. And this is before the negative impact of those quitting ships for the shore because of miserable working conditions is factored in, or the number of hours lost to frustration in dealing with troublesome technology.

Rather than blaming individuals, the root cause of so-called operator errors can often be traced back to the design and construction stages of a ship; primarily the operator’s exclusion from the design process.

In 1997 the Panamanian ship Royal Majesty grounded and the National Transportation Safety Board reported at the time that ‘there have not been unifying efforts to integrate this ‘human factors’ concept into the marine engineering and manufacturing sector’.

Almost two decades later, their findings are yet to be addressed: there have been no significant changes to either the mandatory regulations or to maritime design culture and practice. Examples of de facto inclusion of human factors in maritime design are few and far between (despite the contrary often being claimed).
Human factors researchers show via their studies, data and feedback that applying human factors knowledge can lead to better design, and facilitate the understanding of practical problems and their solutions. This helps to improve countless aspects of maritime tools and processes including habitability, maintainability, workability, controllability, manoeuvrability, survivability, safety, occupational health and emergency response, security, usability, reliability, supportability, acceptability, and affordability of a ship.

Improvements in any one of the above could lead to astonishing benefits in the maritime domain: the wellbeing of workers would improve, meaning they would undoubtedly do a better and more effective job. Employers also benefit from improved work performance of individuals and groups in the organisation—including crew retention. With an estimated global shortfall of 13,000 ship officers—predicted by some to rise to 60,000 by 2030—preventing attrition is critical to the future of the industry.

What should we be doing differently?

Accidents could decrease significantly and attrition of seafarers would reduce if industry, education and research could conspire to put the user at the front and centre of everything they design.

Most urgent is a need to establish a feedback loop between users — be they officers, port operators or ship cooks — and those designing their environments and tools. This is not easy: it takes time, money and, with some users that are often at sea for months at a time, is logistically challenging.

But it can’t afford to be ignored. Problems retaining seafarers and escalating costs covering ‘human error’ mistakes will only grow as technology takes over ever more maritime work and exacerbates existing issues.

Comité International Radio-Maritime (CIRM), the principal international association for marine electronics companies, is one of the few organisations taking measurable action. By establishing a user forum, it intends to put designers and manufacturers of marine navigation and communication systems directly in touch with users during product development. Exactly this should be encouraged in every aspect of our industry.

Next, training in non-technical skills is urgently needed for all maritime careers. The designer’s fallacy — “everyone is like me and if I understand it then they will too” — is responsible for a significant proportion of the ‘human error’
problem. Those with (vital) technical skills must be able to empathise with an average user and view their tool from their perspective. This means understanding their job roles and the context of their use of tools, as well as learning about basic design principles and general user involvement.

Third, procedures must be designed, reviewed and updated in collaboration with users. This requires involving users in reviewing existing procedures and designing new ones. It should be observed how they carry out a task; which issues they have, and where their discomfort could be minimised.

**Beginnings of a transformation**

The Australian Maritime College (AMC) in Tasmania is a centre of excellence for maritime training, education and research. It is one of the few places globally that brings together researchers, students and seafarers, and it has a truly holistic view of the maritime world. As such, it is the perfect place for promotion of the human factors agenda.

AMC’s human factors research is beginning to tackle some of the key challenges already mentioned: how to train people so they actually learn, how to weave an understanding of designing for users into undergraduate naval architecture courses and how to design ships and tools that help rather than hinder.

A number of research projects underway could ultimately have a significant impact on the industry by improving the way designers are taught and seafarers trained.

**Integrating human centred design into degree programmes**

PhD student Apsara Abeyseriwardhane is working with naval architecture undergraduates to research how to integrate users into their studies.

“Although I had worked as a naval architect for five years, at no stage as a design team did we consult users, nor did we seek out their feedback on our designs,” explained Apsara.

“Because maritime design practice today doesn’t explicitly involve end users and how they actually live and work on ships, bad design can make the lives of seafarers uncomfortable, inefficient and even dangerous.”

Having introduced human factors to students via lectures and practical workshops, Apsara had to create a methodology for measuring the results. Her research is beginning to pay off, with the results showing that most of the students made a noticeable effort to adopt human centred design considerations into their design process. Critically, they were also inspired by what they had learnt.

“Human centred design will be a strong aspect of my design in future. Now I know that if I need to satisfy the users of my design, I must include human centred design from the beginning of the project,” wrote one student.

**How effective is simulated training?**

With simulated training increasingly relied upon for cost and efficiency reasons, researchers at AMC wanted to find out how effective it is.

A pilot study was carried out comparing simulation to on-board training, with nine undergraduate students who had no formal seafaring experience. The students were briefed together on a man-overboard scenario and then split into three groups to undertake training on how to respond: one on a training vessel, another in a full mission simulator and a third in a computer-based training lab.

Assessed post-training, the results showed that in certain practical tasks such as manoeuvring and positioning the simulator-trained students performed just as well as those on the vessel. This suggests that practical tasks can indeed be trained in full-mission simulators without affecting the quality of the results. Further research is needed to understand how other skills such as teamwork, which the simulator trained students scored poorly on, should be taught.

**Tiredness on ships**

Third, a fatigue study is currently being carried out in collaboration with AMSA to understand and mitigate fatigue on-board ships. The study has collected data on board an Australian ship, observing the sleep length and quality of watch keepers and identifying aspects that disturbed their sleep. Further data is being collected on another two ships.

Collecting data on how design aspects can mitigate fatigue, including the detailed design of cabin/sleep area, we intend to contribute to ship design guidelines. All of the above data will be used to develop a fatigue risk management system, to be trialled within the next six months.

**Looking ahead**

These are small but significant steps towards a more user-focused future for the maritime industry, but as a group of academics, educators and industry representatives, we must do more to promote it. There are great benefits, such as staff health, wellbeing and retention. With its heritage of occupational health and safety, Australia is a good place to start.
Newcastle Stevedores, through its extensive service provider relationships and sub-contractor management plan can provide clients with a total logistics package, and is happy to arrange the complete door to door movement of project freight.

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Shipping containers - chemical safety

By DR PAUL TAYLOR, director of occupational hygiene, Safe Work Australia

Several million shipping containers pass through Australia’s ports annually. The physical dangers presented by their transportation, packing and unpacking are well known. However, less apparent are the dangers posed by hazardous chemicals within shipping containers.

Workers may be exposed to dangerous chemicals like fumigants and solvents when working with shipping containers. Our research shows that health risks might not only affect workers involved in physically unpacking containers, but also might apply to supervisors and site managers who gain long-term exposure by constantly being in the vicinity of the containers.

As part of routine biosecurity measures, many shipping containers are fumigated and then sealed for transport. Sometimes treatment is with fumigants that are banned in Australia.

Common fumigants used in international trade include methyl bromide, phosphine, chloropicrin, carbonyl sulphide, and sulphuryl fluoride.

These fumigants are known to be rapidly absorbed and highly toxic to humans, potentially giving rise to respiratory and skin diseases.

Evidence also suggests that some fumigants cause significant adverse health effects including cancer. Methyl bromide in particular is known to be neurotoxic and suspected of causing genetic defects.

Residual fumigant in containers can present severe health risks to workers opening, inspecting or handling the contents. And while containers which have been fumigated should be labelled in accordance with International Maritime Dangerous Goods Code, this does not always occur and employees opening containers may not have sufficient warning to avoid acute exposures.

In addition to fumigants, some products packed in containers may give off hazardous chemical gases used during production processes, such as solvents found in paints, glues and resins. Aromatic hydrocarbons such as benzene, toluene, xylene, and aldehydes such as formaldehyde are frequently identified as chemicals released from consumer products while packaged for transport. Some of these chemicals are known or suspected carcinogens and many have the potential to cause serious, irreversible health effects. Solvents are also often highly flammable, and in an enclosed space may even present an explosion hazard.

The potential concentration of hazardous chemicals in sealed containers should be considered before unpacking.

Under normal circumstances, diffusion into the surrounding air results in low to undetectable concentrations of these substances. However, a 40-foot shipping container packed full of products may have a very low volume of airspace.

As such, even small chemical emissions can result in significantly elevated concentrations in the container’s atmosphere which could exceed occupational exposure limits. This is exacerbated by low air-exchange rates characteristic of sealed containers.

Our research suggests that workers exposed to residual hazardous chemicals in shipping containers may suffer memory loss, respiratory irritation and asthma more frequently than non-exposed workers.

Following several European studies and Australian Customs and Border Protection testing that reported high concentrations of residual chemicals in sealed shipping containers, Safe Work Australia commissioned research from the Centre for Public Health Research at Massey University, Hazard Surveillance: Residual Chemicals in Shipping Containers.

Although most workers surveyed had received work health and safety training, there was still a large degree of uncertainty regarding the risks associated with fumigated containers and worker’s ability to identify fumigated containers.

We found that inadequate training and a lack of awareness were the key reasons safety precautions were not always used by workers, like ensuring the container was in a designated area with good ventilation, mechanically extracting fumes, testing the air for chemical contaminants, or wearing personal protective equipment.

There are a number of approaches that businesses can take to mitigate the risks of exposure to hazardous chemicals when unpacking shipping containers.

Businesses should aim to systematically identify goods they import which are routinely fumigated or loaded with products which may give off gases during transport and contaminate the air in the container.

Identification may involve discussing the contained products with the supplier and requesting information.
on any fumigation process if there is no signage. It is also good practice to review the safety data sheet of products in the container and check whether there is a workplace exposure standard. This will provide an indication of the maximum permissible airborne concentration to which workers can be exposed.

Where it can’t be determined whether residual hazardous chemicals, including fumigants, are likely to be present, businesses should employ a precautionary approach. This involves preventing unauthorised access to containers using barriers and warning signs and prohibiting smoking and naked flames in or near containers to avoid risks of fire or explosion.

Safe work practices may need to be modified if hazardous chemicals are suspected of being present. While containers are often left to vent naturally, those with, or suspected to have, high concentrations of hazardous chemicals should be force-vented to reduce the chemicals to acceptable concentrations for unpacking.

Venting should be repeated until the unpacking is completed to prevent concentrations from rising again.

In addition to this approach it may be useful to set a time limit – for example, two hours – after which unloading should be stopped and the container would have to be ventilated again.

Workers may need to be provided with air monitoring equipment. One method for detecting common organic gases and vapours, including methyl bromide, is using a photo ionisation detector, though other options are available, such as flame ionisation detectors and combustible gas indicators.

Businesses should also be aware that air monitoring equipment varies in sensitivity, user-friendliness and cost, and is often specific to one or a few hazardous chemicals. As such, it is worthwhile consulting an occupational hygienist.

Suitable personal protective equipment (PPE), including respirators and air monitoring equipment should be employed where hazardous chemical residues cannot be eliminated. The following Standards provide information for selecting appropriate PPE:

AS/NZS 1715:2009: Selection, use and maintenance of respiratory protective equipment

AS/NZS 1716:2012: Respiratory protective devices, and


Safe Work Australia has developed a series of information sheets for businesses and workers about managing the health and safety risks associated with shipping containers. In addition to hazardous chemicals, these information sheets provide guidance on holistic management of working with shipping containers.

Businesses must take all practical measures to control the exposure of workers to hazardous chemicals. Those seeking further guidance on managing the risks associated with shipping containers should contact Safe Work Australia or their local safety regulator for advice and resources.

SAFETY BULLETIN:

Inappropriate heaving line weighting, frequently used and commonly abused

Working in the maritime industry brings with it very real risks and we all have a responsibility to look out for each other. Above all, none of us can afford to become complacent or take unnecessary risks.

But unfortunately, there is one particular activity where too many seafarers are cutting corners — and that is when it comes to the use of heaving lines. Specifically, in an effort to make it easier to throw their heaving line onto the deck of a tug, a line running boat or even a wharf. It is becoming increasingly common for a ship’s crew to attach inappropriate weights to the end of it, and this causes serious risk of injury.

The weights used have included scrap metal, nuts and bolts, and shackles.

Common sense tells you that throwing such projectiles from the equivalent of three floors up poses a serious threat to the safety of not only tug crews, but also linesmen and shore workers. Already this dangerous practice has resulted in serious injuries — and if nothing is done to stamp it out, there’s a very real chance that there will soon be a fatality.

That’s why Svitzer has been actively working with vessel owners and other industry stakeholders to raise awareness about the danger and to bring about the required change in attitude amongst seafarers. Svitzer is committed to playing our part in making sure everyone returns home safe at the end of their work day.

After trialling some different types of safer and effective heaving line weight prototypes Svitzer has come up with a practical, inexpensive solution: Svitzer’s sand pouches.

These heaving line weights are simple to attach, easy to throw and virtually eliminate the risk of injury to the seafarers on the receiving end of the line. Certainly this is something that all shipping lines should consider using for the safety of the seafarer.
Evolution of the Port Botany landside supply chain

By a Special Correspondent

In the 2016 Autumn/Winter edition of Shipping Australia magazine, Allan Flynn’s article on Challenges in the Sydney port supply chain, asserts that empty container returns to the port for export from metro intermodals is ‘an impossible task for rail to accommodate or even make an impact on’ and ‘if an empty container needs to be returned to the port precinct the value of hubbing via these (sic: metro) intermodals is diminished, if not totally eradicated’. The article raises some questions and there may just be more to think about as the market responds to competition.

It is obvious that ‘containers from distant depots will incur far higher transport cost than those at facilities located in the greater port precinct’. Costs incurred by operators for individual legs versus pricing to customers, are two distinct variables and are often not relative. This article appears to be focusing on only half of the cycle of the import shipping container. All viable transport operators will tell you that pricing in the landside container supply chain to end customers, is for the complete cycle. That is, full container delivered to the end customer and empty back to the de-hire point, be that at a designated stand-alone empty container park, an intermodal facility or direct back to the terminal for export. When these savvy transport operators provide pricing to their customers they do at times, show the full leg price separate to the empty leg price but this is seldom a reflection of the true costs. It is the full cycle pricing they rely on to make the overall movements provide their critical bottom line margin. There could well be a shipping line cost to reposition the empty from a container park or intermodal to the port for export but there is no reason to expect that what is actually charged to the shipping line should be any different from a metro intermodal by rail or road, versus the charge from the port precinct empty park to the terminal.

Costs and associated pricing will be market driven, and already we are witnessing the success of metropolitan rail and their intermodal terminals being cost-competitive with road. For those that have been around long enough, the memory might take you back to the dim past and recall Seaton’s at Camelia ran port shuttles successfully for years, with empty containers moving back to the port in drip-fed lots and bulk(ish) repositioning. It is purely and simply a matter of having the right business model, which means not looking at each leg in the cycle in isolation to the others. A substantial volume of Sydney metropolitan import boxes are currently being delivered through intermodals and rail, and it is reasonable to surmise that it must be cost competitive to remain sustainable and grow.

Repositioning of empty containers to the port is, in the main, being accommodated with the traditional method of ‘bulk empty stack runs’ but currents of change are materialising. Most stevedores are now receiving more empties direct into their terminals than ever, with either the prerequisite lodged Pre Receipt Advice (PRA) for open export vessels, or as a direct return empty, much the same as any existing empty park receives an empty. It appears that the frequency of this occurring is on the up and the empty volume entering terminals directly, by both road and rail and bypassing container parks, is substantial. This is what happens in most overseas ports – take DP World’s London Gateway as just one example, where empties are returned direct to the terminal. This common world-wide practice delivers savings to shipping lines and their customers, and effective two-way carriage for their logistics providers.

A fully functional Moorabbin, Enfield, Cooks River, Yennora, Minto, Chullora, St. Mary’s and Villawood with possibly a minimum of ten trains a day, each, with a capacity of repositioning 60 containers or 90 TEU, amounts to about 900 TEU per day and 6300 TEU per week.

Admittedly, current practice of stack run movements sees large volumes of empties over short periods but as stated earlier, handling of the empty task is evolving with the market responding to competition, responding to higher road congestion factors and responding to the investment in these intermodal hubs.

Metropolitan intermodal hubs and their integral rail services, is the way of the future. People and their organisations need to view the evolution to rail as the economical solution to keep freight moving within the greater Sydney basin, as the population and their freight demand increases. Improvements at the Port Botany end of the rail container supply chain will manifest themselves in delivery of containers off the terminal at day zero and a reduced cost to shipping lines and their beneficial cargo owners. Be quick to board the train, as ultimately, capacity will be the constraint on unlimited rail freight and intermodal terminals. It will be sad and costly to miss the train. ▲
What does this mean?

- Your perpetual certificates will now expire on 31 December 2016
- Your certificate of competency may expire on 31 December 2016
- You must revalidate your certificates by;
  - Sea time and AMSA approved refresher training
  OR
  - If you do not have the minimum sea service, you must complete the full STCW courses relevant to your certificate.

For more information see:
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