2019 PILOTAGE & PORT LOGISTICS conference Embracing the Future

REGISTER NOW!

28 OCT – 1 NOV 2019
Doltone House, Jones Bay Wharf
Sydney, Australia

CONFERENCE THEMES INCLUDE:
• Future of Shipping presented by Wartsila
• Preparing for Pilotage in the age of big data
• Cruise Ships, Pilotage
• Towage
• Training
• Smartports presented by Trelleborg
• Managing Human Factors and Performance
• Safety Management Systems
• Safe Pilot Transfer
• New and Emerging Technology and PPs

For more information and to register visit www.ampi.org.au/AMPI2019
Opinions expressed may not be those of NZMPA

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The Hue & Cry

The cover photo of Pilot Launch Potiki was taken by Andy Thompson, a man of many parts whose website is andythompsonphotographynz.co.nz

With yet another pilot falling from the ladder, it is appropriate to revisit the whole pilot boarding operation (p.11). It is also essential that any lessons learned from investigations into such incidents – wherever in the world they happen – are shared widely for the common good.

Both maritime and airline industries are served by the CHIRP Charitable Trust (Confidential Hazardous Incident Reporting Programme) designed to circumvent obfuscation by vested interests in the pursuit of safety. However, CHIRP warns of ‘dark holes’ in our industry.

On a brighter note, I was greatly heartened by Ports of Auckland’s leadership in ordering the world’s first ever all-electric tug (p.8). Rudolf Diesel developed his engine at the end of the 19th Century; we are overdue some technical evolution. Apart from cretinous Trump’s starting WWIII and nuclear Armageddon, then Climate Change is the inescapable existential challenge. Capitalism has become a cancer of the mind, soul and intellect, destroying the best home that Nature has provided. We cannot keep extracting profits from a finite planet. Even die-hard money-grubbers admit the logic of renewable energy: why pay exorbitant amounts for fuel, when Nature gives it for free? NZ is uniquely blessed with a super-abundance of clean energy in the forms of tide, wind, solar, hydro and geo-thermal. Ports of Auckland have risen to the challenge and chosen a technology which will save them money: the cost of oil can only increase. Australian film “2040’ shows that the technologies to keep the planet safe for future generations is already proven; politicians and businessmen need acquire leadership and learning - qualities which are mutually indispensable

How do we learn? One of the best shortcuts to learning is to attend industry conferences where the best and brightest debate ideas in a public forum, where group-thinking is challenged and where no-one has a monopoly on good ideas. Pilots’ Professional bodies share one common goal: to raise the standards of our profession whose sole raison d’etre is to protect ships, lives, port infrastructure and the environment. Though we may not be eco-warriors, we are eco-defenders.

Napier (and Gisborne) will host the 2019 NZMPA Conference and Port Otago (and Bluff) will host the 2020 Conference in Dunedin (Sep 28th-29th). There are also international conferences which enhance the bigger picture thinking: Australasian Pilots (AMPI) will be in Sydney end of October, whilst International Pilots (IMPA) will be in Cancun, Mexico in May 2020. Vamos a Napier!
Napier 2019
AGM & Seminars
11 & 12 November 2019
Napier Conference Centre
(Welcome Function Sunday evening 10 Nov.)

Safe outcomes through Good Practice and Effective Planning

Principal Sponsor and Host Port
# Timetable & Presentations

## Pre-Arrival drinks Sunday 10th - Emporium Eatery & Bar 1700 - 1900

## Conference Monday 11th November 2019

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<tr>
<td>0830</td>
<td>Registration, Coffee</td>
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<tr>
<td>0900</td>
<td>Opening address - Steve Banks, President NZMPA</td>
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<tr>
<td>0910</td>
<td>Welcome to Napier - Todd Dawson, Napier Port CEO</td>
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<td>0940</td>
<td>Navicom Dynamics, Dale Marsh</td>
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<td>Q&amp;A</td>
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<td>Morning Tea</td>
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<tr>
<td>1045</td>
<td>NZMPA - Presentation of draft 'Good Practice Guide to Pilotage Planning', Working Group</td>
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<tr>
<td>1115</td>
<td>POAL - eMPX, John Barker</td>
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<td>P&amp;O Cruises Australia - Cruise Perspective on Pilotage Passage Plans, Mike Drake &amp; Tony</td>
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<td>LINZ, Speaker TBC</td>
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<td>POAL - Advancements in Pilot Training, Speaker TBC</td>
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<td>Interisland Line - Proficieny &amp; Training Plans for PEC Masters, Roy Webb &amp; James Harvey</td>
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<td>MetOcean Solutions, Speaker TBC</td>
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<td>Q&amp;A</td>
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## Function Dinner - Emporium Eatery & Bar from 1800

## Workshop Tuesday 12th November 2019

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<td>0845</td>
<td>Workshop scene setting, Speaker TBC</td>
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<tr>
<td>0900</td>
<td>Workshop - Feedback &amp; Development, NZMPA 'Good Practice Guide to Pilotage Planning'</td>
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<td>Morning Tea</td>
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<td>1100</td>
<td>Open workshop</td>
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<td>Lunch</td>
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<tr>
<td>1315</td>
<td>Conclusions, Wrap up, Next steps, Speaker TBC</td>
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<td>Afternoon Tea</td>
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<td>NZMPA AGM - Closed Session</td>
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Delegate registration booking form

Preferred booking method: Try Booking
https://www.trybooking.co.nz/BTM

If using Try Booking to book event, there is no need to fill out the below form. Please note that all Try Booking ticket purchases will incur a $0.30 booking fee

DELEGATE INFORMATION

Name - 
Company - 
Mobile number - 
Address - 
Occupation/Title - 
Port - 
Contact email - 

DELEGATE ACTIVITIES

Conference & seminars

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Function Dinner is included with Conference options. Partners are welcome to the Function Dinner but will require the purchase of a Function Dinner Ticket

Direct transfer to - 12-3125-0294579-00 Reference: (Include name as reference)

** Scenic Hotel Te Pania special offer of $225.00 per night offered to delegates, for this offer please complete hotel booking form on NZMPA website, www.nzmpa.org

Booking confirmation -
Amount transferred -
Signature -
Date -

Please fill in details, scan and return to conf2019@nzmpa.org

Please note that NZMPA is a non-profit organisation which will endeavour to run this event with a minimal registration fee. This has been made possible by the generous support of many sponsors, who enable us to host our event which is focused on professional development, and improving safety and operational standards.
What I have read, heard and seen over the last couple of years has brought me to the conclusion that pilotage as I experienced it over the last two decades could be described as "the way it was". It is a sad fact that the Obsolescence of Pilotage is a reality of the future, just as demise of celestial navigation has become. It may not happen tomorrow, but I suspect that those currently embarking on a career in pilotage will see the end of climbing wooden ladders, and even the need not to have the pilot aboard the ship may become commonplace by the end of the next decade. This is not to say however that there will not be a need for maritime professionals to be closely involved with the process of redefining the role of the maritime pilot, and also ensuring that those conducting pilotage receive the training to understand new technologies and concepts.

Recent engagement with MNZ regarding CPD has enabled me to see research on the subject, which indicates that pilots in NZ need only meet levels that are half of those expected in Australia and the US. We still find many ports choosing to opt for the minimum compliance levels that tick all the boxes by attending an AMPT course once every 5 years. I am pleased to see however that the regulator is supportive of our view that CPD is exactly that, continuous. The Age of Big Data has already engulfed us, yet so many are unaware of what is available to us, how to utilise it and how it can be used against us if we fail to operate to a level appropriate for the risk involved. Traditionally intuition had been at the heart of how pilots conducted business and whilst this is still important, it cannot be the sole driver for decision-making anymore. This particularly applies to maritime pilots, when compared to aviators and surgeons for example, as we still often find ourselves making decisions where the wrong one we will more often than not go unchallenged.

Over the last decade we have become very familiar with Human Factors, and the need to accept that our own fallibility has been driven home to us on many courses. We are aware of the various biases and cultures for example, with all of us likely to have been guilty of continuation bias at some stage. We may also have been influenced in our decision-making as a result of working within a blame culture. One weakness that we probably don’t take into consideration as much as we should, is our memory. Whilst aviation readily accepts that pilots will forget things, we have for as long as I can remember assumed that what is in our heads will provide the correct information and the appropriate time. Hence the reluctance of so many to use checklists, even though guidance from organisations such as the WHO has seen a massive decrease in patient fatalities once checklists were adopted as the norm in the health sector. Checklists are not new to us, yet many still dismiss them. Electronic support from sources such as PPUs are relatively new to us, yet many still choose not to use them. These two tools are readily available to us, and as mentioned before a memory lapse by a pilot is very likely to go unchallenged until it is very likely too late.

While captive on a ship between Wellington and Napier today, due to being over-carried as a result of heavy swells putting a transfer outside of our transfer parameters, I finally got a chance to finish a book I’d been gifted by Ravi Nijjer. It was titled "Better", A Surgeon’s Notes on Performance by Atul Gawande, an American surgeon, lecturer and award-winning author. He is well known for his Ted Talks and also one of his books, which is very relevant to us, The Checklist Manifesto. In the final chapter of Better he discusses 5 suggestions he makes to medical students if they wish to really make a difference, and the last one I feel is very appropriate to us and that relates to dealing with Change. He suggests individuals respond to new ideas in one of 3 ways. A few become early adopters, most become late adopters and some remain persistent skeptics who never stop resisting. I had to admit that I fell into the late adopter category when PPU’s arrived on the scene, however now that it is clear that incidents are significantly less likely to happen if we use checklists and new technologies, I am keen to fall under the early adopters category. What did become clear to me from reading the book was that medical professionals may be more similar to us than the airline pilots we often compare ourselves with. The variety of challenges they meet in patients and illnesses is very similar to the multitude of different ships, nationalities and levels of training we encounter, with a greater need to think on the run as we daily step onto an unfamiliar bridge with an unfamiliar crew, unlike those experienced by type-rated aviators in their highly-managed industry.

Our adoption of new passage planning practices and standards fall under the new ideas mentioned, and I look forward to hearing from practitioners who will very likely represent each of the three categories above when we meet in Napier for our annual seminar in just 9 weeks from now. The reactions and responses to our working groups proposals will be the final step in developing our draft to go out to stakeholders post-seminar.

Steve Banks,

President NZMPA
PORTS OF AUCKLAND BUYS WORLD FIRST ELECTRIC TUG

A response to the urgent need to tackle climate change.

Ports of Auckland has signed a contract with Dutch company Damen Shipyards to buy the world’s first full-size, fully electric port tug. The new tug, a Damen RSD-E Tug 2513 to be delivered in 2021, will have a 70 tonne bollard pull, the same as the port's strongest diesel tug Hauraki, also built by Damen.

"In 2016 we set ourselves the goal of being zero emission by 2040," says Tony Gibson, CEO of Ports of Auckland. "We set this goal because we recognise that urgent action is needed on climate change, and we wanted to be part of the solution. However, setting that goal created a tough challenge. We have a lot of heavy equipment, like tugs, and in 2016 there were no zero emission options."

"When we first looked into buying an electric tug in 2016, there was nothing on the market," says Allan D'Souza, Ports of Auckland's General Manager Marine, Engineering and General Wharf Operations. "We talked to several manufacturers about building a battery powered tug. They told us we were dreaming. Hybrid tugs were possible, they said, but not battery. No way."

"Luckily for us," said Mr Gibson "Allan doesn't give up. He and Marine Technical Superintendent Rob Willighagen kept talking to manufacturers, kept suggesting ways to solve problems, and they found a partner willing to take on the challenge: Damen Shipyards. I would like to acknowledge Damen for their work on this project since 2016. They have invested a significant amount of time and money to develop this innovative vessel. In the fight against climate change, partnerships are important, and Damen have been a great partner," he added.

James Shaw, Minister for Climate Change said, "People who say we have to wait for the technology to emerge before we can set ourselves bold goals have got it round the wrong way. Many of the challenges we face with climate change will require solutions that aren't yet on the market. Ports of Auckland and an increasing number of other businesses across New Zealand are showing that won't stop them finding ways to meet our goals on greenhouse gas emission reductions."

Auckland Mayor Phil Goff said, "Commissioning the world's first fully electric large tug represents a strong commitment by Auckland and its port to reducing carbon emissions and achieving our carbon zero target. "It's great for the environment, reducing pollution in the city centre and cutting back carbon emissions. The life of the tug is around 25 years. By going electric now, we save 25 years of diesel pollution and a net reduction in costs of around $2.5 million because it is so much cheaper to operate."

Mr Gibson said "It was important to us that a new electric tug should be able to carry out normal port operations, just like our existing diesel tugs. Our new e-tug will be able to do three to four shipping moves on a full charge, or around three to four hours work (one shipping move takes an hour on average). A fast charge will take about two hours. This is just what we need. One of the other hurdles we had to get over was cost. The purchase price of this tug is significant, at roughly double that of a diesel tug, and that is an important consideration for a business that needs to make a profit. However, we are prepared to wear that up-front cost because our commitment to reduce emissions has to be more than just words."
Fortunately, the cost of operating an electric tug is less than a third of the cost of running a diesel tug. So while we pay more up front, over the life of the tug we’ll save around $12 million in operating costs, making our electric tug cheaper in the long term," he added.

**When did Ports of Auckland first start looking for a battery-powered tug?**

*We started in 2016, as soon as we made the commitment to be Zero Emission by 2040.*

**What other battery tugs are there in the world?**

*This will be the world’s first full-sized electric tug, and it is designed for normal port operations. There is an electric tug under construction for use in Turkey, but it is small (18.7m), is designed with a conventional twin screw propulsion line (as opposed to the Azimuth propulsion in the RSD-E 2513) and will work in a very narrow and tight environment.*

**Will this tug be used for normal operations, or restricted in what it can do?**

*This tug will perform the same tasks at the same level as our strongest diesel tug. When ordering electric, we wanted something that we could use for normal operations, and that is what we’ve got.*

**This is new technology, what happens if something goes wrong?**

*Damen builds standard vessels in series, which means that the vessel has also been designed using techniques and equipment that have proven themselves over and over again. With this philosophy Damen is able to guarantee fast lead times, reliable performance and low total cost of ownership. The new tug is an electric version of the existing Damen RSD Tug 2513, which is the company’s greenest diesel tug and is the next generation of harbour tugs. This made an ideal candidate for conversion to the world’s first full size, fully electric port tug. There are also high levels of redundancy built into its power systems. The batteries arranged in strings; if one battery in a string fails, the others would simply carry on the work.*

To ensure absolute safety – of utmost importance in shipping – the tug also has two 1000kW back-up generator sets. They provide enough power for the tug to operate at 40 tonnes bollard pull in the event of an electrical system failure or if the vessel needs to operate for a longer duration. The generators are fully IMO Tier III compliant engines and therefore the greenest option currently available. To be clear though, this is not a hybrid system. In normal circumstances, we will not use the generators.

**How often would the back-up generators be used?**

*Very rarely. In working with Damen to design this tug, we wanted a vessel that could operate normally in a port environment. Our new e-tug can do up to four shipping moves on a charge of batteries and can go in for quick charge if required. We will only use the generators in cases of emergency or some fault that is not part of business as usual. We expect to use them at most, once or twice a year.*

**What will it cost?**

*Our e-tug will cost about twice as much as a diesel tug, and this price includes the cost of charging infrastructure. However, because the operating cost is so low, over the 25-year life of the e-tug we expect to save money overall. This purchase is a triple bottom line winner, good for profit, the environment and the community. Lower cost, fewer carbon emissions, less noise and less air pollution.*
DATA

Our current 70 tonne bollard pull tug Hauraki uses around 120 litres of diesel per hour. In 2019 it consumed 190,926 litres of diesel equating to 514.33 tCO2e (figures for 2019, using MFE May 2019 emission factors). The energy rating of the e-tug's batteries is 2800 kWh – that’s the same as 70 Nissan Leafs (based on a 40kW Leaf battery). Based on the Hauraki 2019 diesel consumption / number of ship pulls it is expected the electric tug will use approximately 501,685 kWh to operate in the same way, this equates to 49.02 tCO2e which would mean an annual saving of 465.31 tCO2e.

In future, we hope to be able to use 100% renewable energy, which would reduce emissions to zero. As our tugs account for approximately 10% of our total scope 1 emissions and approximately 8% of our total gross scope 1,2 & 3 emissions, replacing all our tugs represents a significant reduction in our carbon footprint.

Tug dimensions: 6-metre draft, 24.73 Length

Propeller diameter:

It will have two azimuth thrusters with 3-metre diameter propellers

CLIMATE LEADERS COALITION

Ports of Auckland is a founding member of the Climate Leaders Coalition, a group formed to promote business leadership and collective action on the issue of climate change. As signatories to the Climate Leaders Coalition, we are acting on climate change now, to create a future that is low-emissions, positive for our businesses and the economy, and inclusive for all New Zealanders. We are committed to the Paris Agreement target to keep warming below 2 degrees and to further pursue efforts to limit the temperature increase to 1.5 degrees.

Potiki – A Potted History

The pilot launch (see cover photo) Potiki was built as Victoria II by Chivers in 1986 for Port Phillips Sea Pilots from whom Port Otago bought her in 1991. Potiki is still doing good service and is sea-kindly. “The Thornycroft [Nelson] hull design has hollow buttocks which provide a very flat run giving lift for full planing speeds, and it also gives a soft ride at semi-planing speeds which makes it considerably more comfortable. Thornycroft designed slack bilges forward with a deep entry and bilges that turn tightly towards the stern for a comfortable ride in head seas”. The original Nelson design was by Peter Thornycroft: “he built the first real Nelson in 1959 for Baron de Rothschild who wanted to get to The Royal Yacht Squadron at Cowes quickly from his home on the River Beaulieu”.

The name Potiki recalls the first Otago Pilot, William Potiki, who served from 1830-1847, retiring the year before the first Scottish settlers arrived on the John Wickliffe on 23rd March 1848. Their pilot then was Richard Driver (Pilot 1839-1860). Driver had been 2nd Mate on a whaler in 1839 when he was attacked whilst ashore for Fresh Water; he was saved from the pot when Motoitoi, chief Kahutii’s daughter, claimed him as her own. Driver and Motoitoi had 3 daughters, the 2nd of whom was named Emma Paerata (N.B. our sister launch to Potiki is Paerata).

The pilot station was out at Taiaroa Heads and the pilot boat manned by 5 Maori oarsmen. In 1863, Pilot Ralph Gunn and five boat crew were drowned when their boat was swamped whilst attempting to go alongside the barque “Mary & Edith”. Though we cannot speculate on the causes, the one thing that can be said is that putting a small boat alongside a ship in a seaway is a hazardous operation. These hazards remain, but we can mitigate their effects.
Pilot Boarding – The Bigger Picture

There are many factors to consider when considering the whole process of how to embark pilots onto ships. There remains an excellent focus on ships’ rigging of pilot ladders, to minimise their movement and to improve their integrity. However, the fact that pilots are still falling (even when ladders are legally compliant) suggests that we may need to broaden our perspectives. Recent fatalities in the Baltic, London, Lisbon and Bombay pose many questions: wise pilots learn from the misfortunes of others, and there will be lessons in every incident, whether fatal or near-miss. This paper does not seek to provide answers, but will attempt to raise some issues for consideration: no system is ever so good that it cannot be improved. There will doubtless be many alternative opinions – but debate is healthy. There is no one-size-fits-all solution (different ships, different long splices?) and increased spending does not always equate to better safety; smarter thinking always does, and its free!

1. **Pilot Boat Self-Righting**
   Pilot boats must be fit-for-purpose i.e. seaworthy, stable, strong, powerful, comfortable, and manoeuvrable. Two pilot boats were sunk in the Baltic recently: whether operator error or design, self-righting would seem one obvious factor. There will be others.

2. **Fendering**
   Pilot boats are intended for hard usage their entire lives: going alongside a ship at speed in a seaway entails major stresses. Fendering must also produce sufficient friction to hold the boat in both horizontal and vertical planes. Strapping an old tyre overside would appear to be an admission of failure.

3. **Ergonomics**
   Seat shock-absorbers to minimise skeletal injury. Coxswain’s overview of whole pilot ladder i.e. window arrangement; user-friendly instrumentation; Auto-pilot (discussed later); Intercom between cabin and foredeck. Hadrian’s rail; embarkation area to be as clear as possible if pilot falls back to deck. Cameras to record operations for training. FLIR for S&R.

4. **Propellers vs. Water Jet**
   There are pros and cons for both. Jets are more fuel-efficient above 25 knots (can reach 40kts), more manoeuvrable, safer for MOB and less vulnerable to damage. More expensive to buy and maintain etc.

5. **Attitudes & Culture of Boat Crew**
   Whilst boat designs have evolved, coxswains are cast in the heroic mould, and have kept me safe throughout my career. But it is possible that tried-and-tested traditions limit our thinking: is there a culture supportive of new ideas? Does the coxswain have autonomy? Does he receive his due respect? Is he master of his own craft? Is there a culture of taking risks - whether from internal bias or expectations of ship, port or pilot? Is there a better way? Visiting other ports to compare operations can yield fresh thinking; likewise, meeting other coxswains at conferences (See No.16) and analysis of previous incidents.
6. **Boat-handling techniques**

It seems obvious to avoid one’s own wash and to keep well clear of the stern, being aware of how the ship moves when altering course. Yet one of the Baltic capsizes suggests otherwise. Pilot boat cabins being struck by the stern of a ship does occur. One coxswain in the Thames Estuary was notorious for getting caught and near-capsizing.

7. **Making a lee**

So obvious, why mention it? Ideally, put the wind and/or swell abaft the weather beam. Is there sufficient sea room? Is the pilot station best located for sea and traffic conditions? Consider the Columbia Bar method: the helm is put over towards the pilot launch. The stern-sweep creates a smoothed sea. If the pilot falls in, then the stern is already moving away from him and there is also less chance of the launch getting stuck alongside the ship.

8. **Getting alongside the ship**

Speed is essential for steering both ship and launch (8-10kts?). Once the boat crew and pilot have sighted and approved both ladder and sea conditions, the boat closes alongside. The ship will have been asked to set the bottom of the ladder to match the freeboard of the launch, but this is an inexact science and often the ladder is too long or too short. If too long, then the ladder may be damaged between the two hulls. If too short, then it will be difficult to embark. It can be very time-consuming adjusting the ladder height. Is there a different technique?

9. **Creating a Vee**

I heard of this technique from Taranaki who operate the Camarc-design jet-boat *Mikotahi*. The boat comes alongside forward of the ladder, pivots on her shoulder to about 20 degrees, and then slowly drops astern to put the ladder into the apex of the Vee wedge. Even if the pilot ladder touches the sea, it cannot be crushed between the hulls, nor pile-up on deck creating a trip hazard. It is an easy step across for the pilot who likewise has no fear of being crushed if the pilot boat lifts on a wave (I am told that fender friction can be an issue). This technique can be used by other designs, if broad shouldered and with sufficient power. Parallel-bodied boats may not be suitable, and too much power on the outboard prop may cause that side to dive, heeling the boat.

10. **Grabbing the Ladder (or Trapeze)**

Taranaki also pioneered the “I Surrender” vs. “Statue of Liberty” pose. From analysis of past incidents, Taranaki pilots observed that just before they fell, they were hanging on by one hand, with their back to the ship. The instant of grabbing the ladder is the crucial moment of transition from boat to ladder; if the boat should drop before the pilot has his foot on the ladder, then his hands must take all his weight. Though photographic evidence is rare, there is old footage from an incident in the Baltic, which supports this theory.
Consider 'those magnificent men on their flying trapeze': where a trained acrobat must take all his weight on his arms, he keeps his hands level. This technique might make a crucial difference in those marginal conditions when the boat's movement can be unpredictably lively. (*I will stay with what I have always done* Vs. *Though few of us have fallen in the water, yet we all wear PFD*). It is often the most experienced pilots who fall.

11. **Pilot Jackets & PFD**

Once again, these must be fit-for-purpose. PFD must be capable of keeping an unconscious wearer's airways clear of the water. One cannot take this for granted: some years ago, we tested various jackets and PFD in the water and 2 of the 3 jacket designs we tested failed. One turned the wearer face-down, the other smothered him between bladders. Crotch straps keep the bladders tight to the chest and stop them riding up past the face.

12. **Wearing of Backpacks**

Most pilot professional bodies advise against wearing of backpacks. Several reasons spring to mind: extra weight behind upsets balance; extra weight adds to the shock loading in a fall; straps might impair inflation of the PFD; a Norwegian pilot's backpack created buoyancy behind, turning him face-down. Even conscious, he was in difficulty.

13. **Wearing of Helmets**

Helmet design ought to be specific to the hazards. Does the helmet protect the pilot from falling objects? From a fall onto the deck? From hitting the ship's side? How does it perform when falling from a height into the water? Does it choke the pilot or break his neck (as the cork lifejackets did on Titanic)? Does it keep his head buoyant and airways clear? Is it highly visible? Non-slip shoes and gloves.

14. **Search & Rescue of Man Overboard**

Despite all of the above, the pilot can still fall into the water. How well is the boat equipped and how well-trained are the pilot and crew. In the Lisbon incident, there were many holes in their systems. Regular drills in realistic conditions ought to be an easy argument. How do we locate the casualty, then bring the boat to him. How do we recover him on board? Is there a case to be made for Auto-Pilot to free up the coxswain for some precious minutes?

15. **Emergency 1st Aid & Golden Hour**

What do we do with a shocked and hypothermic pilot? What if he has sustained crush injuries or is bleeding severely. Are there any simple techniques? How best to get the casualty to an ambulance? Is the berth accessible for stretcher transfer ashore?

16. **Further Discussion**

The AMPI 2019 Conference will focus on some of the above. We hope to continue the debate at the NZ Pilots Conference (Dunedin 2020) and include pilot boat crews from around NZ in those discussions. One possible area of research in the interim is photographic analysis of how pilots actually climb ladders; it is such an automatic response, that we are often unaware of how we perform this critical part of our daily lives.

Hugh O'Neill (2nd Sept 2019).
Whilst working in Brisbane I took extended leave in 2017 to travel with my family around Scandinavia. As part of this I had the opportunity to accompany a Finnish pilot working out of the port of Oulu. This is the story of that trip…

Oulu is a port town and is almost at the top of the Gulf of Bothnia between Sweden and Finland. It has a population of just under 200,000 and is a centre for forest products and stainless steel manufacturing. It is well known in Europe as the home of the annual World Air Guitar Championships. Last year Matt "Aristotle" Burns (USA) deposed former champion Kereel "Your Daddy" Blumenkrants (RUS) in a tight competition…

Scandinavia has long been the centre of some of the most aggressive forms of Heavy Metal and Death Metal music. Personally, I wouldn’t be able to tell the difference between the two. The Norwegians really got into the swing of it with a spate of church burnings a few years back. I digress…

Like most of the Baltic region, the area has a rich history and it is worth checking out the Wikipedia pages as I won’t be able to do it justice here.

When we arrived in early spring the first of the thaws had started and the streets were awash with ankle deep slush, until night fall when the whole city dropped to minus 10 C and the pavements became ankle breakers. It was exhausting just walking around permanently expecting to go arse up at any moment.

I made contact with the local pilots soon after we arrived and was immediately invited to join the local Chief Pilot, Capt. Pekka Hanni the next morning for a departure. I’d seen the photos on the website which were all summer views. The next morning Pekka met me at our hotel and took me down to the wharf where we were to board a 100m LOA cement carrier. Bow thruster, no tug, starboard side to, head in.

The ship was a regular caller and so they knew him quite well. The passage plan is tablet based and includes a cost for the pilotage that the master must sign before the departure. After calling in to harbour control, in English (and not for my benefit), we single up without use of a radio. As soon as the lines were slacked they were let go. The master hung in the background whilst Pekka took the controls at the enclosed bridge wing position. We hung onto the forward spring and then kicked ahead with the CPP and the rudder on hard to
starboard. The dock was chock full with broken ice and it took a while for the pack to jostle to let us gain some space on the stern. When he had sufficient room he let go the spring and the vessel moved astern into the loose pack ice in the small turning basin. A flock of ducks sat on the unbroken ice floe at the edge of the basin watching nervously. Once out into the basin he swung the ship to port and we moved off into the channel.

Almost immediately the engine was put to full ahead to gain momentum as the pack closed in around the ship. A large block of ice became briefly wedged between the prop and the hull and the whole ship shuddered as a loud boom thundered in the wheelhouse. Pekka looked at me and said nonchalantly, “Ice”. A mile outside the harbour entrance sat the icebreaker that would escort us to the pilot boarding ground. We were now up to about 9 knots and the noise of the ice churning and bumping down the hull was constantly in the background. We closed to within a hundred metres or so of the icebreaker and she matched our speed to stay that distance.

The channel was marked by specially shaped buoys that lay over as the ice moves and then submerge if it gets too solid. This stops them being carried away and incorrectly marking the channel. The ice was now about 500mm thick and the lead was filled with mixture of broken pieces ranging from football size to washing machine but all were rounded by the constant battering from the ships passing every few hours.

Once away from the mainland we started to pass ice fishermen on their skidoos, sometimes towing small trailers. We passed small islands dotted with small holiday homes and it made me think about how lovely this must be in the summer months with no nighttime and good fishing. These huts are handed down through the generations and become the centre for family gatherings.

Pekka showed me on the radar how he pilots in zero vis using the radar. By zooming in to 0.5nm range the flat floes of ice around the vessel return no echoes whilst the broken ice, with its multifaceted shapes returns good targets, painting a track through the ice ahead. Getting the turns right requires concentration and speed must be kept up as as soon as the vessel slows too much in the close ice the vessel will quickly stop and require breaking free. If the pack gets too close or the speed drops too much the breaker closes in to within a few meters and a towline is passed to the ship and she is then towed to the more open ice at the edge of the pack.
As we progressed the helmsman, well practised, followed the lead through the ice and needed little input. Occasionally the breaker would call but communications with her were in Finnish and that language is a total mystery to all except the Fins. All the while the ice closed in and the speed dropped. Pekka said that he expected we would need a tow before long.

On his tablet he showed me the AIS targets of 6 vessels outside the port limits who had declined the services of an icebreaker escort, trying to save money. They were all stuck. For how long I asked? “Until the summer” said Pekka. Wow! The icebreaker apparently teaches them a lesson the hard way.

We passed one of the outer spar beacons that was getting a hard time of its own from the moving floe around it. Hard into the seabed the beacon was carving a long line into the ice. I could see why they like the buoys better.

After three hours of meandering through the expanse of white we suddenly started to reduce speed and I could see away fine on our port side what looked like a lone tree sticking up through the ice. It became clear that two long branches had been secured into the flow 20m from the lead. I asked Pekka why they were there. “So we know where to get off!”

Stupid question. By the time we were nearing the ice shrubbery a strange vehicle appeared. The closest description I can give is that it was the love child of a Florida air boat and Santa's sleigh. It was articulated with a cabin forward and a huge fan and V6 engine aft. Underneath each section were two large pontoons on which it rode on the ice and floated on the open water sections. I'd never seen anything like it.
We started to slow and the ice breaker moved off half a mile away. Pekka said they usually kept moving for the transfer but as I was a newbie they would stop. We said our farewells, safe voyage and then made for the ladder. With the vessel now stopped our driver pushed a 6 metre gangway across the broken ice close to the ship so that we could make it ‘safely’ onto the solid floe. As soon as we were off the vessel I watched the propeller rotating wildly in an attempt to regain some headway.

Ominously I was given a pair of earmuffs and placed in the back seat, the cabin doors were pulled down tight and dogged and the big fan set a spinning. What a racket!!!

We moved off surprisingly swiftly across the smooth floes near the channel but as soon as we came within a couple of miles of the shore where early season ice had been rucked up by the wind the ride got decidedly more bumpy. Soon we came across a large fissure between two floes revealing 10 metres or so of ominous looking dark water. The whole craft dropped into the water and the craft then floated across the gap before struggling to get up the otherside with its extra passenger in the back.

Soon the sea ice made way for the snow covered shore but where one stopped and the other began it was hard to tell. Either way we didn't stop but carried on up the slope to park outside the pilot house.

From here we had another 90 minutes travel back into town but as we were now on an island we had to traverse the wet bit on the ice road. This is surveyed at the start of every winter season and opened when the ice reaches a thickness of 400mm. That will hold an axle weight of 3 tonnes (I'm glad we didn't have to test that!!).

The next evening we were invited to Pekka's house to meet his wife Anne and enjoy a traditional Finnish meal of smoked reindeer, followed by roasted wild duck in a blue cheese sauce, and for dessert a fried farmers cheese with cream and cloudberries. We had a great time hearing lots of tales of piloting the near arctic.

They both were hoping to visit Brisbane in November and I was keen to reciprocate the warm welcome we received. I made sure to make them aware of the dangers we faced on a daily basis of working without sunscreen.

(Capt. Pekka Hanni in Photo)
Port Health & Safety Plan – Request For Pilot Feedback

Richard Barton, Maritime NZ, Project Manager Port Health and Safety

The health and safety performance of the port sector is in need of improvement. As joint regulators in the health and safety space, Maritime NZ and WorkSafe NZ are working together to develop a shared Maritime NZ/WorkSafe NZ port industry health and safety plan. The plan will be aligned with the government’s Workplace Health and Safety Strategy initiative. The aim is to reverse the current injury rate trend and improve health and safety performance across the sector.

Accident Compensation Corporation (ACC) data shows that between July 2013 and June 2018 the Week Away From Work (WAFW) injury rate significantly increased for Stevedoring and Port Operating companies¹.

In addition, although not directly considered health and safety issues, many of the port sector issues below, if not effectively managed, could have a detrimental effect on the health and safety of port workers:
- A significant increase in goods flowing through ports (particularly in low value products such as logs); skills shortages, an aging workforce combined with difficulty attracting and retaining employees;
- A complex supply chain coupled with a lack of collaboration between key parties in the industry;
- Adversarial pricing, contract and risk models;
- The introduction of industry 4.0 (smart ports), against a backdrop of lack of historic investment in port infrastructure, R&D and innovation.

The project takes a tripartite approach by inviting industry and workers to work collaboratively with the regulators on identifying and developing solutions to improve the sector’s health and safety performance. Working with leaders across the ports’ supply chain is critical to the success of this initiative. This will enable issues that have historically not been able to be addressed by one organisation, or one part of the supply chain, to be addressed more effectively (example of a simplified export supply chain below).

Maritime NZ and WorkSafe NZ have established and resourced a project team to lead this piece of work. The focus is to continue to support existing work streams within Maritime NZ

¹ WAFW injury claims are accepted ACC claims where the worker receives weekly compensation wage replacement following more than a week away from work due to a work-related injury.
and WorkSafe NZ, while also developing an evidenced-based combined strategic plan. The project scope includes:

All H&S related issues in the NZ port environment including;

Activities related to all vessels (ships and boats) within the port environment. Including: transfers between pilot vessels and ships, mooring, lifting and stacking and storage and fastening down operations both on the vessel and on the dock.
The operation of vehicles and plant and other operations both on the ship / vessel and on the dock associated with loading and unloading operations.
Activities related to the maintenance of vessels whilst moored at the dock.
The health and safety of foreign workers on foreign flagged vessels whilst in the port environment.

The port industry health and safety plan will build on the successes of existing initiatives whilst incorporating a risk based systems view to driving future improvements. The diagram below provides a high level timeline for development of the plan.

When completed, the plan will provide a sector-wide strategic focus to ensure critical risks throughout the supply chain are being addressed. The plan will also help align existing efforts to improve health and safety, reduce overlap, improve efficiency and provide the cross-sector mechanism for the industry to tackle large scale future challenges.

Pilots are one of a number of industry stakeholders who we’d like to engage with as part of the development of the plan. A brief questionnaire has been developed as an initial means to gather individual stakeholder sentiment. If you would like to be involved in the discussion, please contact the Maritime NZ Project Manager, Richard Barton by email: Richard.barton@maritimenz.govt.nz

The maritime industry in numbers

The maritime industry is a major contributor to, and enabler of, the national economy. As an island nation distant from its markets, New Zealand is almost totally reliant on efficient international shipping to carry our trade.

Each year, around 945 foreign vessels make over 2750 visits to New Zealand shores and around 5,000-6,000 calls into New Zealand ports.

Ships transport 99% of New Zealand’s trade by volume.

The New Zealand domestic sector carries approximately 4 million tonnes of freight per annum (15% of New Zealand’s total freight).

There are eleven NZ-flagged vessels (ferries, bulk cement carriers, tankers, dredgers, container ships) and coastal shipping is more cost & environmentally effective than other modes of transport.

There are approximately 7,000 Cook Strait ferries crossings carrying 1 million passengers and 230,000 cars per annum and over 6 million passenger boarding’s per year, predominantly Auckland commuter ferries.
PORT OTAGO

An email from the Marine and Infrastructure manager the other week reminded us of the requirement of Rule 90 and urged us to complete our peer reviews in a timely manner. And a good reminder it was too for those of us (…probably just me, actually) that, having had what we thought was a peer review from the Chief Pilot naively assumed that the requirements of Rule 90 had been addressed. But no alas, as the more enlightened of you will already know, the run out on the ‘oggin’ with the Chief Pilot is an annual assessment as opposed to a peer review; a different beast. However, by way of mitigating my ignorance of the full requirement of Rule 90, the form completed here for both sorties is called the ‘Port Otago Pilot Assessment Peer Review’ and has been named as such since well before Rule 90 existed. Re-butting that mitigation remains the fact that I seem to be the only one who thought that the annual assessment was sufficient.

Applying a bit of deeper thought of course, it becomes clear that assessments and peer reviews are indeed different. The Chief Pilot is assessing on-going competence set against the myriad requirements of the principles, processes and parameters that the port has in place to indicate the standard to which its pilotage should be conducted. The peer review on the other hand is an opportunity to learn how other pilots do the job within the limits of those port standards. Ideally, armed with any new bit of knowledge gleaned from reviewing a peer, an individual pilot may wish to adjust his methods accordingly, thus perhaps adding another tool to his box of tricks. Were this but true, peer reviews would be excellent use of a second pilots time spent observing his peer. What happens in practice of course is that a reviewed pilot will do nothing out of the ordinary for fear of putting a foot wrong and having it written down on an official form. The end result is that it is unlikely that any innovation will come to light that the reviewer can consider and perhaps learn from. This is unsurprising since ‘innovation’ smacks of a ‘can do’ attitude and we can’t have that creeping into our BRM can we?

Thus long-term peer-reviewing should logically mean the moulding of the most homogenous pilotage practice possible, that in turn makes a lot of practitioners and overseers very comfortable. The inexorable shift towards a Holy Grail of homogenous pilotage is very much in vogue these days, despite the ‘in yer face’ fact that every pilotage job is different, as every practising pilot will agree. Will it then become more common in the future that faced with a novel situation in a port pilotage, the master of a ship will look to the pilot for inspiration only to be informed that it is not covered in the procedures, therefore outside both the remit and wit of the equally bewildered pilot.

On a lighter note, notwithstanding the philosophical side of peer reviews, the practical side means that given the length of pilotage in Otago and hence the smaller number of jobs, then between assessments, peer reviews, training runs and miscellaneous trips, the number of acts of pilotage that one does alone, and thus in my view undisturbed, will be reduced to a minimum. The possible introduction of a two-pilot system, the logic of which is regrettably becoming increasingly undeniable, envisages a veritable crowd arriving on board to greet the full-mission bridge team, soon to be surely established on all ships after the case of Molly Manx vs Australasian Pilotage. The MPX will then take the form of a committee meeting jointly chaired by the senior pilot and the master, before establishing a fine and efficient rapport whereby all subsequent manoeuvres are decided by a vote. Democratic pilotage is coming to a port near you very soon…just a few weeks before autonomous ships in fact.

(Craig Holmes)
GISBORNE

Quote from Gisborne Port Shorts Q3/2018: “As if on cue of course the swells vanished a soon as we got the I-Heave gear and the best part of 2 months since it is still comparatively flat calm on the East Coast and we have recorded very little in the way of vessel motions whilst charging around the mill pond”.

What a difference 12 months makes. From Q2/19: Recent weeks have seen the approaches more resembling a Queensland coal terminal rather than lil’-ole East Coast NZ with up to 8 ships at anchor awaiting berthing opportunities. A week of significant swell and IG didn’t help matters with operations suspended for several days.” Ultimately that was just the start of it however. The Port has been smashed by swell and IG for a big chunk of May, June & July with 375 hours of lost productive berth time in 10 weeks compared to 700 hours for the entire preceding 12 months. This has had a significant economic effect across the Tairawhiti community due to the fact that when logs cease to be exported from Gisborne a big chunk of the local business community needs to either scale back or shut down altogether. Things have been settling over the past couple of weeks, he writes as the IG crescendos over the top of the training wall across the other side of the harbour. The log ship currently alongside is clewing-up and will be sent to anchor for a couple days. At least now though we are getting a week or so of relative calm between the swell events and there are no queues of ships anchored in the Bay.

We undertook our external P&HSC SMS review last week. The review panel of Code Working Group Chair Tony Phipps, Scott Bernie from MNZ, and CentrePort’s Josh Rodgers spent 2 days on site and the process was thoroughly open, informative and productive. The collaborative nature of the Code allows for the development of safety processes and environments which are consistent with the local operating culture rather than prescribing one size fits all solutions.

I’ll take the opportunity while on the topic of Code assessments to acknowledge the significant amount of effort and time the review panel embarks put into each review process. These are generally busy people with full time jobs and responsibilities and their efforts must be applauded. I would urge any and all pilots with an interest in the risk management process within which they operate to put their hand up to get involved. Those marine managers with an overflowing stable of pilots could maybe allocate some pilots’ rostered time to involvement in assessments???

Next cab off the rank for EPL is the development of an Annual Pilot Assessment process. Like most we have had a requirement for the Assessment in our CPD plan for some time but been wondering what it is. The recent advice from MNZ regarding Proficiency Plans et al presents a pathway in a similar vein to the Code SMS requirements. Some general requirements are backed up by suggestions towards various well-known courses and the like but by and large it is up to the Pilotage Operator to develop a fit for purpose CPD regime which is consistent with the local operating culture. One of the few mandatory processes required is the Annual Assessment which is separate from the annual Peer Review and is probably about the only contentious requirement. I say contentious because the mandatory separation of Peer Review and Annual Assessment does not appear to enjoy support across the Industry and could be argued to lack logic and reason. Having said that however, it is what it is, so we’ll get on with it. Perhaps an item to add to the list of ‘Stuff to Change’ when MR is eventually reviewed. Cheers. (Chris Kaye)

TAURANGA

Quite an uneventful 6 months here. Donyin Lin who started in March is progressing extremely well and well on track to have his B licence in October. He is off to Port Ash in September with a few pilots from Napier. Another addition to our ranks in October, Tim Johnson is our newest recruit. He is currently serving as Staff Captain with Holland America. He will fit in to the new roster when one of our older gentry retires next year.

We have reached agreement with the company to increase our numbers from a 3-pilot roster to a 4-pilot roster. This is ready to roll on 1st October. The log trade has taken a dip lately as the price of logs has taken a bit of a hit hence a few less log ships, otherwise its the same old same old until things big and white (and Blue) start turning up in October. No more pilot ladder incidents to report. Thats all from the port of Tauranga. (Tony Hepburn)
AUCKLAND

With your regular correspondent suddenly hors de combat - something to do with a Frenchman’s inability to wage war apparently. Not sure it describes Kiwi Craig as he writhes in flu-ridden ague on his sweat-sodden palliasse, but sufficient reason for me to be coining the overtime and scribbling furiously from the trenches.

Top of the list, a world first: the world’s first battery powered full size Tonka toy. Our GM and our fleet engineer have been in serious and successful discussion with the inscrutable Orientals and direct Dutchmen of the Damen family until all have emerged very satisfied that Damen will deliver to us a fully battery-powered 70-tonne ASD tug in 2021. Another step in the journey of Auckland port’s partnership with the Science-based Targets Initiative towards the goal of “Zero Emissions by 2040”. While it is probably true that your part-time reporter may have dipped his mast truck below the western horizon in a coruscation of setting sunlight by that stage, one can only marvel and salute the intrepidity of the endeavour.

Back here in the real world, Holly Clayton, our newest acolyte to the religion that sees the pilot as second-unto-God on most ships - and an inconvenient accoutrement on some others - has completed a thoroughly enjoyable and entirely useful course at Port Ash manned model facility as well as at Smartship. In her words, the first offered practical ship-handling in real-world situations with the trainer actually in the same boat for immediate feedback and with whatever the weather might throw up at any moment. Emergencies such as rudder failure, anchoring, passing and overtaking were all very realistic and valuable. The second offered more technical learning about hydrodynamics and bridge resource management scenarios. Holly is now tucking ship movements under her belt as rapidly as commercial opportunity will allow. With that in mind, a recent conversation with the master of Spirit of Canterbury elicited the information that, “every port in New Zealand uses Canterbury for pilot training”. Given that she is shortly to be replaced by a much larger ship, and remembering my own training in a time before the oceans were denuded of all piscatorial life, when fifty to sixty metre Japanese long-liners were moored row upon row on their journeys between Japan and the Falkland Islands, so that I had no sooner made an embarrassing mistake on one than I could immediately jump on the next and learn a correction, it behoves us all to engage seriously with our own managers, with our harbour masters and with MNZ because our traditional training method of suck-it-and-see until we get it right is no longer sustainable. There are no small ships!

Jumping way back in time now, the most recent visit to New Zealand of the good ship Esmereilda gave me the opportunity to reacquaint myself with the serried ranks of very smartly dressed Chilean navy barquentine sailors resplendent in gold braid bedecked uniforms adorned with rows of brightly beribboned gongs as we sailed (motored with furled sails) past Devonport navy base, as a twenty-one gun salute bellowed out from both sides and shrouded our world in great gouts of grey smoke with the smell of burnt cordite permeating the atmosphere. All the while Chile’s famous navy band brassed their way in a symphony which tried its best to pierce through the strident cacophony.

Finally a little homily on the subject of winter weather. It isn’t over until it’s over and it certainly isn’t over just because the fat lady sings (Brunnhilde from the Wagner opera). It’s all about the end of the world for Norse Gods. It seemed almost like that at our container terminal a couple of weeks ago. The wind was such that not only empty boxes but even loaded containers tumbled from their stacks like so many fallen dominoes. Hope none contained a consignment of Noritake’s best bone china!

NAPIER

So the biggest thing to happen since I last went into print is Napier Port’s IPO. For those of you that are not share-savvy (I’m not!) it means ‘Initial Public Offer’. Basically 45% of the port has been floated on the NZX with port employees and Napier residents getting a priority 20% share. It’s a good deal for us employees and has initiated a new interest in the NZX for a whole bunch of people. Various screens throughout the port have been converted from day-to-day ops activities over to the port listing on the NZX: good for morale as long as the price keeps increasing!

The shareholders are not the only bunch who are celebrating: Napier’s famous Blue Penguins who have been slumming it in the rocks in the vicinity of the proposed new 6 berth, are having some very comfy nesting
boxes made for them, which are probably equivalent to the Ritz in the Penguin world. These cute little fellas made a show at the IPO launch in the form of cuddly toy replicas with a recorded voice box in each one generating the natural sound of what sounded like a mating Blue Penguin (I thought!). The cries of these happy guys reverberated throughout the office all afternoon; the activation of one appeared to set off the cries of most of the others in the office at the same time. We welcome our new pilot Olexandre Golovonov to our team who arrived a short while ago. Some of you may have seen the advert for our next recruitment recently. Some interesting facts, but there are not many of us out there at the moment! These are exciting times for the team with the new recruitments and more to come, but it also requires us to be more vigilant as there are multiple new guys in the team. The whole of Marine from Mooring, Pilot Launch, Tugs and the Office have new members; it’s hard to keep up with the names and sometimes ‘mate’ is the easiest thing to say! Three of us have just come back from Smartship having completed more runs on the new 6 Berth, 3-Tug ops and of course more wind! Very intensive stuff which requires a very welcome beer at the end of the day.

Our Trelleborg CAT 111 PPU units are now old hat and we have been successfully trialling the Trelleborg ROT and the CAT Max systems. Both very good units and we will be using both in the port now and in the future. IT and the Engineers are installing a backup RTK transmitter in the port as our initial RTK transmitter on the hill seems to keep letting us down at those crucial ‘oh shit’ moments.

Planning for this year’s conference progresses: Art Deco on the beach with Blue Penguins perhaps? See you in November.

(John Pagler)

PORTS OF MARLBOROUGH

It’s been a long time since Ports of Call has heard from the Marlborough Sounds. Potentially, though, there may be other voices that also wish to be heard from this quarter who can offer a different perspective – exempt Masters?

Having just completed PISC and advanced firefighting for the first time in a long while, it struck me that people (seafarers) haven’t changed in all that time. When I first did my lifeboat ticket in 1989 at pre sea training, I found it hugely amusing when the class clown put the sea anchor on his head and cast a spell on us all. We all dunked the lifeboat rations in our tea at smoko and had a jolly old time. 30 years later, and a sea anchor still looks remarkably like a wizard’s hat and the class clown dutifully put it on his head and cast a spell on us all, and lifeboat rations still taste like shite.

What was really inspiring though, amongst the heat and smoke of a burning stack of 40 ft containers, was the ability of complete strangers from completely different backgrounds to gel in a very short time into a cohesive team. Parallels in piloting, I think.

Not many sleeps until the first cruise ship of the season. Log prices are well down as we all know, so our off-season traffic has fallen below average. The positive spin is that we have had time to take a tug and pilot launch out of service for major planned maintenance projects during the quiet time. Although much time is spent planning for the next cruise season, there is plenty more to think about. The prospects of new ferry tonnage and infrastructure improvements loom large, as do the ever-increasing cruise vessel proportions (does anyone in NZ have 200t bollards?). See you in Napier!

(Matt Conyers)

WELLINGTON

A new pilot has joined our ranks. Dylan completed his training and is now awaiting MNZ to issue the licence. Our preferred method of promoting suitable tug masters has resulted in another locally trained pilot and also means a new tug master starting. It is great to see local young mariners follow this path and I hope it inspires those cadets starting at the Nav School in Auckland to see piloting as an achievable goal. We are about to start this year's round of Conferences and Seminars. I believe there will be a contingent from NZMPA at the Aussie conference followed only a couple of weeks later by our own Seminar in Napier. It's always a great chance to catch up with fellow pilots and hear what developments or challenges lie before us. It's also the time of year when our tug assessments come about with a visit by Arie from Seaways. It makes for a fairly stressful day but it does help keep everyone's standards up. Half our pilots remain current as tug masters which retains flexibility in our rosters.

Spring has arrived which means the cruise ships will be along shortly. This causes a sizable increase in our shipping plus the challenge of squeezing them in with other cargos still needing attention. And of course finding enough unlimited pilots to handle them frequently two at a time. This year will be the busiest (and biggest) so far and the roster will be challenged yet again. Keep safe, and remember to report those non-compliant ladders as it seems the only way to force both regulators and ship operators to take our safety seriously.

(Lew Henderson)
DIFFERENT STROKES
Craig Holmes

The relatively recent assimilation of advanced electronic navigation technology into marine navigation in general - and pilotage in particular - has unsurprisingly thrown up a few purely technical problems. These are generally sorted by the designer heading back to the drawing board, making a few modifications and then banging out version 2.0 to the market. However, another issue that maritime pilots seem to be following their airborne peers into addressing is the Out-of-the-window Visual versus Instrument piloting dilemma. This is not solely a design issue, but bores deep into human factors in the workplace, specifically the psychology of human interaction with the machines we have created. Visual Flight Rules and Instrument Flight Rules, as the names suggest, deal in the main with the human sense of sight and its psychological derivatives of attention and perception.

The United States Navy, prior to having conducted an investigation into the recent propensity of their ships to bump into other ships with consequent loss of life, came to the knee-jerking conclusions, not only that the other ships involved in the collision were to blame, but some USN senior officers should be charged with “negligent homicide” and others dismissed the service. Post-investigation, some acute reasoning was evident in the finding that both accidents, for that is what they were, involving the Arleigh Burke class guided-missile destroyers USS Fitzgerald and USS John S. McCain were partly attributable to touch screen controls and their unfamiliarity to operators. https://www.bbc.com/news/technology-49319450

Military ships of the same class in all navies are not the same, of course. Each newbuild is updated as newer and more advanced versions of hardware and software come to hand. It follows that a navigating officer quite conversant with, for example, USS Arleigh Burke, will find if he is posted to USS John S. McCain, that he is not familiar with the more up to date kit he is presented with on the bridge. He will need a modicum of re-training. Drawing from personal experience with military ships, it would seem highly unlikely that all personnel get all the training that they need. In the case of an accident or incident, “operator error” is almost always used to cover, inadvertently or otherwise, a combination of poor design and lack of training. Legally, it’s just easier to nail an operator rather than a computerware designer or company, since the latter always has a slack handful of liability mitigation clauses to hand that the customer gets free of charge with the purchase of their inherently faulty equipment.

To their credit, and further to their investigation, the US Navy conducted a survey on the subject of touch screen displays and the overwhelming response was a preference for dials, knobs and levers, when the user-friendliness of control equipment was scrutinised. All of which brings us closer to home and the use of PPU’s in pilotage; and the hazards we have introduced in our understandable enthusiasm for their introduction and use. From the start, it should be recognised that PPU use has been a veritable boon, and that any hazards that they may allegedly introduce have been more than offset by those which they have addressed and solved. However, that will be no use to an operator who falls victim to one of the new hazards that has Maritime New Zealand investigators clapping him/her in irons at the earliest opportunity.

With Toughpad/tablets - probably more so than Toughbook/laptops - the former being more touchscreen than keyboard, there is a propensity through inadvertent digital application by, yes I’m going to say it, ham-fisted pilots, in critical situations to dive into a
menu or produce an unplanned pop-up on the screen, which takes precious seconds to get rid of. Other anomalies such as the sudden reduction in size and orientation of the screen, tidal windows expanding, intermittent Bluetooth connections and toolbars reinstating themselves leading to the risk of further digital (finger and thumb) error, are all the bane of the operator, especially the unskilled. Hello!

Most of the issues listed above are an easy fix for those pilots better versed in, and more dextrous with computerware, but still positively dangerous for all if, due to distraction (…and that’s what screens are fundamentally designed to do) occurs at a critical moment and maritime pilotage, as readers of this publication will be aware, does have its critical moments. Neatly, this sort of occasion, often initiated by the sense of touch going slightly awry, then morphs into a sight sense issue when the “look at (and sort out) the screen or look out of the window” dilemma suddenly arises.

Lack of training in use of marine computerware in general and PPU s in particular is a significant factor. In Otago we have had a day of training; it was excellent, but it doesn’t seem to be anywhere near enough. We probably ought to be going down the same road as the ‘wonderful men in their flying machines’, leading to stricter standards around training examination of competence. Some legal liability foisted on the designers, builders and suppliers of computerware might be useful too, but such is the stuff of dreams. No computer hardware or software designers or companies appear to have been prosecuted, accused or even had the charge of “negligent homicide” alluded to them over the USS Fitzgerald and John S. McCain accidents and it is even less clear whether the leg irons have yet been removed from the US Navy officers accused of the same.
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