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“Promoting Industry Understanding of Human Factors and Just Culture”

NZ MARITIME PILOTS ASSOCIATION
“Peace & Goodwill to all men” underpins the application of BRM philosophy (though BRM isn’t just for Christmas). All philosophies are subject to a degree of interpretation; attempts to modify Human behaviour e.g. law or religion, often get lost in translation i.e. the gulf between the spirit and the letter. One recent experience of BRM on a passenger ship gave me the impression that engaged critical-thinking Humans had been replaced by robots - thus a complete absence of humour. So, where does humour fit into BRM? Perhaps humour is the ability to temporarily examine oneself and others: it challenges fixed trains of thought and behaviours, thus performing a checking function. Not taking oneself too seriously is healthy defence against arrogance and prejudiced assumptions; humour can also provide a gentle way of pointing out others’ errors, without causing them hurt or embarrassment. Humour helps reduce hierarchies: it de-stresses people to create a positive and enjoyable atmosphere. It’s a universal truth that a happy crew is an efficient crew. (A robot went into a bar, and told the barman he needed something to loosen him up; the barman served him a screw-driver). I saw an empty bar aboard ship where the barmen were robots! Perhaps in attempting to eliminate Human Error, one can excise too much of the Human. Alexander Pope’s “To err is Human, to forgive Divine” has deeper theological layers, whereas the Human act of forgiving has positive effects for both parties, but it does require mutual honesty, trust and respect. There may be lessons that can be shared more widely. Just Culture is ultimately an acknowledgement of our Common Humanity - surely the message of Christmas? I hope Alexander Pope’s humour can forgive the following: To err is Human, but to really stuff-up requires a computer. To err is Human, but to blame it on others shows management potential. To err is Human, but to persevere in error is folly (Julius Caesar). To err is Human, but it feels divine (Mae West). To err is Human, but to Arrrgh is Pirate (Captain Kidding).

Before the centenary of the “War to end Wars” it is hard to ignore global events (sorry, Nigel). Our “Five Eyes” partners (not Canada) are flailing around like wounded Cyclopes, blindly following insane agenda, risking global nuclear war - which would be the war to end all wars. New Zealand’s proud history of standing up to bullies (good BRM) would once again set a powerful example.

STOP PRESS: Finnish Pilot Boat L242 capsized East of Porvoo Light near Helsinki, then sank during recovery operations. Divers have recovered the bodies of the two crew. RIP.
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The recent 30th Anniversary of the Association gave me an opportunity to reflect on events in NZ pilotage during that period. It didn’t take long to realise that we’ve had many avoidable incidents caused by pilots, when looking back with the benefit of hindsight. A common factor involved in many incidents is the failure to make routine turns, where either the turn is commenced at the wrong point, the required rate of turn is not achieved, or the vessel has deviated from the planned track during the manoeuvre. If we take away the benefit of knowing the outcome of an event (hindsight bias), and put ourselves in the shoes of the pilot who has the conduct of the vessel, it gives us - as fellow pilots - an opportunity to look at things differently. Of course, we wouldn’t give a certain order or manage the turning manoeuvre in the same way, if we knew of the undesirable outcome. If we were one of the bridge team, we may be doing a good job of monitoring the progress of the vessel, but are not expecting the pilot to do the unexpected until the vessel has deviated appreciably from the passage plan.

The case of the A320, which crash-landed on the Hudson River in 2009, following a bird-strike when taking off from New York is very interesting: it demonstrated how the Human Factor plays a major role in our actions, beyond simply following plans, procedures and using our skills. As shown in the movie “Sully”, humans don’t normally react instantly to an event, particularly if the situation isn’t as expected, or the person monitoring isn’t initially aware that things are not as they should be. The movie demonstrated how if the pilots reacted instantly following the strike, they could have [potentially] reached a runway and landed safely; however, this was with the benefit of hindsight, where the failure was understood and the outcome known. When the human factor was taken into account, time was required for the pilots to assess the situation, establish what was wrong, and then devise a plan. In that case, it was shown that approximately 30 seconds was required before a plan of action could be implemented. In a narrow channel, as common in many NZ ports, much less than 30 seconds is the difference between being afloat or aground.

At our recent seminar in Christchurch, I had the opportunity to discuss another aspect of the Human Factor with Ravi Nijjer. The suggestion that intuition is a common way for pilots to conduct their business explains a lot of our actions. During my training, I remember situations where I would ask the trainer: “When do you decide it’s time to apply helm or slow the engine?” and often the response would be “When it feels right”. Unlike in aviation, where pilots train in a way that a shared mental model is the norm, we develop our own unique styles, and this must be a challenge for any engaged bridge team. No matter how good the BRM training for all concerned, I feel we have a long way to go.

I was interested to read this week the newly released report on the grounding of the Molly Manx in Otago last year: whilst a relatively minor grounding, with no damage to the ship or environment, it is a very interesting case. The TAIC report looks deeply into the failures in BRM, Passage Planning and use of the ECDIS, however lightly refers to Loss of Situational Awareness. The pilot involved was very experienced and has completed this passage many times before, and very likely with similar standards of BRM and Passage Planning on similar ships. I therefore suggest that this supports our call for improved standards in training for all pilots, with particular emphasis on simulator assessments with a focus on Threat & Error Management, and also generic and type-specific training in the use of PPUs.

Although not all pilots feel there is a need to improve our current training regime, we should not relax our guard as the next serious incident may be just around the corner. Whilst some dismiss a need to look towards the aviation model, maritime disasters have the potential to cost more in lives and environmental damage. A vessel aground due to pilot error or a shipboard failure, which subsequently breaks its back across a channel before it can be re-floated, could be catastrophic. If this happened in ports such as Marsden Point, Auckland, Tauranga or Wellington, it could have unimaginable national consequences. I am very aware that a blocked channel in my port of Wellington, which could stop ferry operations between the islands is not unrealistic. With retirement looming, I would much prefer to be the forgotten pilot, rather than the one whose name lives in infamy.
NZMPA PRESIDENT’S 2017 REPORT

The year since our last AGM in Auckland has seen many of our members involved in association related activities, and I am pleased to see that in our 30th year, our association continues to be positively involved in all matters relating to pilotage. Engagement with interested parties, both nationally and internationally, has enabled us to strive for the highest standards in pilotage operations, and I don’t anticipate this waning - going by interest expressed by many of our members.

Careful budgeting at our last conference, and surpluses from BRM courses run during the year, has found us in a stronger financial position than usual. This has enabled us to support both an increase in attendance by members at conferences and workshops, plus also covering costs relating to our training review working group attending meetings in Wellington.

Engagement with the regulator through quarterly meetings has enabled us to raise concerns about industry-related matters, and also gain support from MNZ for proposals to review our Training & Assessments practices. We have been working closely with them and other industry stakeholders during the year, and this has culminated in the workshop held in Christchurch on 22nd November. In addition to myself, members of NZMPA involved in this initiative include Lew Henderson, Colin Sellars, John Barker, Dave Duncan, Phil Julian and John Clarke.

On a personal note, I was very fortunate to be able to attend the UK Maritime Pilots Association Conference in Middlesbrough in September. This - by chance - coincided with leave I had planned to attend the 100-Year Commemorations for the Battle of Passchendaele in Belgium on 12th October. It was a great opportunity to engage with our UK counterparts, and I’m hoping a number of them will attend our biennial conference in Wellington next year. Whilst in London, I arranged to meet with the team at IMPA, and also the new CEO at the Nautical Institute, John Lloyd, and their IMO representative, John Dickinson. On my last evening, I had dinner with the CHIRP team, where I fare-welled outgoing Director, John Rose, and met his replacement, Jeff Parfitt, and their advisor, Ian Shield. A 4-day stopover in Vancouver on the way home also coincided with BC Coast Pilots holding oral examinations of applicants for training positions, where I was invited to sit-in as an observer. Observing two candidates undergo a very thorough 3-hour examination was a very insightful experience, in light of our current review of training.

During a meeting of regional representatives at the last IMPA Conference in Seoul last year, a forum of Asia-Pacific pilotage organisations was established. Subsequently this group - which included Australia and New Zealand - held its inaugural conference in Bali from 28-30 August. Our Vice-President, Lew Henderson, attended on our behalf, where he found training practices varied greatly to ours, with Singapore standing-out for him. (Ed: Lew’s report follows on p.7)

In response to concerns being raised in Australia about pilotage practices and training following the “Navios Northern Star” incident, we were invited to send an observer to a workshop in Brisbane. This was hosted by Australian Reef Pilots (ARP), and was also attended by AMSA, ATSB and Captain Ravi Nijjer. Our representative was our secretary Steve Gilkison, whose report (written with Ravi) follows (see p.11).

Work has continued through the year with the Safe Pilots Guide working group. As it was decided to seek endorsement from Maritime NZ, there has been much work on the original draft to meet certain criteria. The group of Neil McKean, Hugh O’Neill, Trevor Morrison, Josh Osbourne, Peter Willyams, Lars Sorensen and Chris Davies
devoted many hours into this project, with the last also engaging directly with MNZ on many occasions due to his location in Wellington.

A survey of pilots, Marine Operations Managers and Harbour Masters was conducted during the year: this was done to ascertain the views of those involved closely with pilotage operations, regarding the current training standards and practices. The findings were significantly in favour of the proposal by NZMPA to review our current situation, and this supported the need for the workshop to be held prior to our AGM. Members Colin Sellars and Troy Evans devoted a lot of time into running and analysing this survey.

Our organisation coordinated another 5 BRM courses this year in conjunction with Captain Ravi Nijjer, with the final course seeing a total of 50% of our pilots attending these courses since the first one was run in May 2015. A positive spin-off from coordinating these courses was the involvement of port operations staff, administrators, shipping company staff from both ships and ashore, Harbour Masters and staff from Maritime New Zealand.

Recognition should also be given to sponsors of activities during the year. We gratefully acknowledge Maritime NZ, LINZ, Navicom, Q-west Boat Builders, Hamilton Jet NZ, Port ASH, LWA Solutions, and port companies Lyttelton Port of Christchurch, PrimePort Timaru, CenterPort Wellington and Ports of Auckland.

Acknowledgement should finally go to the Lyttelton pilots who have organised our AGM and seminars for 2017, with particular thanks to Robert Kerr and Chris Coleman’s wife Gwen, who have tirelessly laboured over recent months to bring us this year’s event.

The New Year promises to be full of challenges, with my own port of Wellington at full ahead with its rebuild following last year’s earthquake, and the association also facing its own challenges with our proposal to review our training standards. The support from members and the industry has been promising and I look forward to the year ahead.

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The Asia Pacific Maritime Pilots Forum

The Road to Bali - 28-30 August 2017.

During the IMPA conference, Seoul 2016, a group of Asian pilot organisations floated the concept of a regional forum. This conversation was championed by Capt. Na Jong-Pal, President of the Korea Maritime Pilots Association and a Vice President of IMPA. This was in response to the voice of several other well-established regional Pilot groups around the world and the lack of such a forum in this region. The Indonesian Maritime Pilots Association accepted the challenge to organise and host the inaugural meeting.

The NZMPA was approached to attend and give our voice to the regional group. Although we have been more involved in the Oceania Pilots Forum it was decided that this also offered us the chance to interact with Pilots from the main trading partners of most of our ports. Throughout the Forum I was aware that there was a strong political presence. This is somewhat expected since many Pilot organisations in the region are Government controlled (Vietnam) or singular state operations (Singapore, Hong Kong) or heavily state regulated (Indonesia). Others such as Japan, Korea, Philippines, Australia, and PNG operate under regulations but with little political interference - as we do in New Zealand.

The Forum commenced with the traditional welcome and local ceremony. The President of the Indonesian Maritime Pilots Association, Pasoroan Herman Harianja, gave an address on
behalf of the local politicians and Transport Ministry. He described how the Indonesian Ministry of Transport had created a plan for coastal highways for commercial traffic and stressed the importance this is to island nations. The ports of Indonesia had been partitioned into four organisations operating under Government guidance, but separately, to manage the vast number of small commercial ports around the coast. These organisations are known as Port Corporations 1, 2, 3, & 4 and were main sponsors of the forum.

Simon Pelletier, IMPA President, addressed the forum promoting well-regulated, well-resourced, and well-trained, highly professional pilot organisations. He reminded us that ship owners, cargo interests, and the public rely on our quality of service and that service should be safety-oriented and independent of commercial influences. He also described the success of regional forums in dealing with local matters away from IMO and IMPA. He wished the forum well, and offered IMPA's support in moving forward. Attending countries were asked to report on Pilotage in their regions. Some used this time to discuss problems or developments. Some reported on the practices in their areas. Reports were given by Indonesia, Malaysia, Singapore, Hong Kong, China, Japan, Korea, Vietnam, Taiwan, Philippines, Australia, NZ, and PNG.

The following topics were of particular interest:

**Indonesia** - Introducing Malacca Strait Pilotage to deal with the VLCC market and routing of deep containerships. The challenge will be integrating this service with alternative organisations under development from Malaysia and Singapore. There would be a need to have these three systems work together especially if it became compulsory in the future.

**Japan** - Touched on the challenges of recruiting suitable experienced mariners as pilots and the skills needed for pilots of the future.

**Hong Kong** - Also looking to pilots in the future with the advent of automated and eventually autonomous ships using the latest AI systems. To be prepared...

**Singapore** - Discussed the pure volume of shipping in their already congested waters. Over 500 tasks per day using more than 150 pilots for each 24 hours resulting in each pilot performing more than 800 tasks per year. They commented on the expectation of zero incidents and due to 1 incident in 2014 had introduced a MRM course to enhance the soft skills of their pilots (similar to our recent Next Generation BRM courses run recently). They commented on the relative ease to train for the hard-skills, but the need to enhance the soft-skills of modern pilots.

**Vietnam** - Not currently a member of IMPA, but pushing their Government to confirm membership before the next IMPA conference in Senegal. Currently over 300 pilots with 75,000 ship movements per year.

**Philippines** - They are presently challenging their government who are enabling competition in Pilotage, especially in Manila where their concern that this will only result in lessening of standards and safety in the region.

**Korea** - Gave a demonstration on tug capacities and needs for ever-larger vessels sometimes requiring up to 4 tugs per vessel (a challenge for most NZ ports who may only have 2 tugs).

**Taiwan** - Discussed Pilot safety in transfers and noted that 2/3rds of incidents are when disembarking vessels believed to be due to less time to address unsafe ladders and the inability to turn a vessel away if not safe to transfer. They also raised the practice of carrying a second radio on a separate channel for restricted visibility (sounds like Ch:16 ?? but that's always bogged-down with other traffic).
Australia - Peter Liley discussed their points-based CPD system, which is now fully-accepted by Queensland Transport and spreading to other States.

PNG - Discussed new technologies and their applications in the area.

NZ - I gave a run down on our work with ports and the regulator to enhance CPE.

My presentation was well-received and I had feedback from several organisations keen to learn what we achieve and how it can be pushed-out to the wider area - possibly at the next forum, or with visits to ports. It would appear, that many of the ports have extensive training programs, but once a pilot is fully-licensed, there is little done to ensure professional standards or compliance. A formal dinner concluded the day: as Peter, Simon and myself were the only Westerners present we dined together and sorted out many nautical problems, while avoiding the karaoke led by the Korean delegation.

The second day was used for networking and involved a bus-tour of some local sights in Bali. The traffic in Bali - and especially the Kuta area - was staggering: it could take an hour to travel a couple of miles. Luckily the Ministry of Transport provided a Police escort car complete with flashing lights and armed officers to get us around smoothly. Dinner was held on a beach in the open, at a sloping table seating 60 people. Not something easily planned in New Zealand.

Day three commenced with presentations from the three sponsoring Port Corporations and a software supplier (MarineM) with app based products for pilots, tugs, and port operations. The day ended with a "Final Declaration" from the combined forum to promote cooperation in the region. Australia has agreed to host the next meeting, to be held bi-annually between IMPA conferences, which will be in Sydney in 2019. The 160 attendees then congregated for a group photo with the addition of our local Bali shirts and hats. I have to say the event was slightly different to what I expected. I always find such meetings interesting, as there is always much to be learnt from fellow pilots. However, although we may be a small operation, in comparison to the big Asian ports, we are certainly up there with standards of safety, training and CPD. I think many of the delegates quizzed me more than I did them, and our presence was well-received and appreciated.

In order to have our organisation viewed as an international one, we need to be represented at these meetings, and I hope we will be able to attend the next forum in Sydney.

Post-Conference

While in Singapore, I was invited by Jimmy Koh, the Chief Pilot, to see the Singapore PSA Marine Command Centre. The Singapore Pilots operate from a base in the new terminal on the West Shore. The facility is amazing, with extensive use of electronics to monitor the AIS targets in their waters. They have 50-60 pilots per 8-hour shift performing over 500 tasks a day. About half the tasks are to or from anchorages, the others to berths. The pilots spend the entire 8 hours out the office, moving from vessel to vessel. It takes a fleet of 20 pilot boats, a dozen mini-buses and many cars to get the pilots from ship to ship. The centre is manned by 8 people around the clock, with a senior pilot in charge. The computer program uses AI to enable the allocation of tasks, as no single person can manage it - truly an amazing and sophisticated operation. Out the window was a 399m-container vessel. I made a comment about this and was informed they get 8 such ships per day! Training takes 700 tasks and a 3-day exam before issue of a license. Very professional.

I also visited the MarineM software office and can supply a slide-show of their pilot app and marine operation control programs (if anyone is interested). This software is used by Singapore and several large British Ports.

Lew Henderson, NZMPA Vice-President & Industry Liaison Officer (15 Sept 17)
Report on AMPI Spring Workshop 2017, Fremantle WA.

Around 60 pilots and 15 presenters/sponsors met in Fremantle on 28 November for the twice-yearly AMPI 2-day workshop. The day started with a welcome from Rob Buck (AMPI President), the local Mayor, and a cultural welcome. The Fremantle Harbour Master also outlined the local port and its relevance to the area. As a first and last port, it regularly handles container vessels over 14 m draft. The majority of import general goods for the state pass through the port.

The first session focused on tug operations. The concept of a shared mental model was emphasised by both pilots and tug masters. The private towing model in Australia makes this a greater challenge than our system; although they are often more pro-active than us in ensuring the two parties meet and work as a team, even if covered by different employers. Tug rides for pilots, and vessel rides for tug masters, are part of a structured team relationship.

After lunch, the topic of tug operations in the large offshore and bulk ports was discussed. Using 3 or more tugs and large horsepower standby rotor tugs was explained. The topic moved to LNG-fuelled tugs, the development of hybrid-powered vessels and eventually, crewless tugs were proposed as being not that far over the horizon.

A very interesting paper on bollard, fairleads, and SWLs was delivered. All is not as simple as expected. The need to ask and be limited by the answer was clearly reinforced. What is stamped on the bits may not be what you expect. A short discussion on the Standard UK Towage agreement was expanded to show consumer law also has a strong part to play especially with levels of quality, training and suitability being considered in court settlements after an incident.

The last session was on simulator training; it looked at the need to create purposeful training modules and scenarios with assessment and feedback as a core part of a full training and development package for pilots. Navicom gave a rundown on their products and future development.

Day two started with a paper from the pilots in Geraldton on alternative pathways for pilots. This was remarkably topical due to recent moves here in NZ. The difference was the method they undertook. They explained the full and comprehensive training given to the two pilots profiled. This included a year's sea-time on large vessels for one candidate, completing the entire watch-keeper and mate/master syllabus before commencing training as parts of each individually developed training plan. These plans spanned several years and were carefully monitored by the employer and the Harbour Master as the regulator. The reason for the pathway was due to poor retention and limited applicants for the jobs in that port. This is not normally a problem in NZ. Although endorsed by AMPI, this was still considered a very contentious issue.

John Barker gave a presentation on the virtual reality package as seen in our own workshop in Christchurch. This was of much interest to many pilot groups some seeing its potential for interactive bridge simulation. A paper was delivered on pilotage assistance by drone photography being trialled in Fremantle. This was most interesting, as it gave a real-time view from above the vessel as the berthing progressed. Although in its early stages, it was amazing for the pilot to have a view
from above displayed on his iPad. It resulted in a very good image of tug locations and forces, and positioning in relation to the berth and other targets. It may be an excellent tool in training and development of standard manoeuvres

After smoko, Trelleborg gave a view of PPUs into the future. They see the expansion of parties to include the tugs in real-time access to the same data as the pilot.

AMSA presented their Pilot App to the industry after some months of trial. It is primarily used to collect data on pilot ladders and boarding arrangements, but was easily downloaded and very simple to use. It would be great to see our regulator make moves in a similar direction. (It can be downloaded for iPhone or Android and is open to any user.)

The final paper was on Risk and its legal ramifications, a subject we are all grappling with under our new Work-Safe rules.

The last session of the day was the AMPI AGM and resulted in Neil Farmer from Sydney becoming the new President. Overall, it was a very good and worthwhile workshop, well-attended by many pilots as an essential part of their on-going professional development.

Lew Henderson
VP NZMPA

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“Navios Northern Star” - Incident Workshop

~ Never Waste an Accident ~

Conducted at the Australian Reef Pilots Boardroom, Brisbane on 08/09 August 2017

(Steve Gilkison)

Australian Reef Pilots (ARP) ran a workshop on the 8th and 9th of August 2017 to discuss the Australian Transport Safety Board (ATSB) report into contact between the bulk carrier Navios Northern Star (https://www.atsb.gov.au/media/5773048/mo-2016-003-final.pdf) and a buoy in the Prince of Wales Channel. The NZMPA was invited to send an observer to the workshop. NZMPA accepted the invitation with the aim of taking on board the lessons learned and see if they could be applied to two similar incidents involving cruise vessels losing control during turns in confined water ways in New Zealand.

The incident in question concerned a vessel under the conduct of a Senior ARP Pilot who became distracted in the approach and during the execution of a relatively small course alteration to starboard. By the time he recovered his situational awareness, it was too late for his corrective actions to prevent the port quarter of the vessel making contact with the buoy. There was essentially no damage to the vessel or buoy, minimal paint transfer was the only evidence of the contact. Still, following procedure, the pilot reported it to REEFVTS and the ATSB subsequently decided to investigate.

Because of the potential for harm in a highly sensitive area, the ATSB chose to investigate the incident. In this case the very high quality of the data recorded on the vessels Voyage Data Recorder (VDR) enabled the ATSB to conduct a very detailed and thorough investigation. The level of fidelity in the recorded data and the clarity of the voice recordings allowed the investigators to build a highly accurate picture of the events on the bridge of the vessel leading up to the occurrence. Clear voice recordings removed the doubt that normally exists when interviewing people post-event. Six different people will recall the same thing six different ways leading to clouding of the
facts. There was no clouding here. Down to the split second, the investigators knew when the conversation was social, to the murmured mutterings in Ukranian of a Master unhappy with the developing situation. By studying the data, the ATSB could clearly identify a break-down of BRM.

The report concluded that the pilot lost **situational awareness** because he became fixated on using the radar to regain the buoy's lost echo; the passage plan was insufficient; the vessel's crew did not share the same mental model; and the challenge to the pilot's actions was not robust enough to be effective. The results of the investigation were unremarkable, almost predictable. The strength of this workshop lies not in analysing the report, but in the safety outcomes it generated.

It is because of the robustness of the data and the quality of the ATSB's report that enabled ARP to hold the workshop to discuss it's findings. The workshop was facilitated by Ravi Nijjer Marine Consultancy Group. The theme of the workshop was *'Never Waste an Accident'* and the aim was to use the the workshop as an opportunity to extract as much safety information as possible.

Those who attended included the report's author, the Principal Advisor for Coastal Pilotage on behalf of Australian Maritime Safety Authority (the regulator), the pilot involved, senior ARP pilots and Check-Pilots and the CEO of ARP. According to those present, there had never been such an event after an incident. These distinct groups never normally mix.

The event is the best display of true Just Culture I have ever seen; the different parties were granted a rare insight into how each operated, to discover the different emphasis each put into the separate elements and even why each group acted in the way it did. ARP have a very robust Pilotage Operations Safety Management System (POSMS) document, which may have remained unchanged if there had not be a decision to delve as deep as they could into this incident. The document uses phrases such as "**Good Practice**"; the ATSB were able to give an insight into their understanding of what those words mean and what they are looking for when investigating. The ATSB were looking for evidence of "Good Practice" in their examination of the **Passage Plan (PP)**. Without a clear statement on "Good Practice" in the POSMS document, it is difficult to demonstrate its use.

The POSMS had prescribed tracks and limits: Pilots felt these limits were making transits in areas such as OG Rock and Alert Patch’s more difficult then they needed to be. The physical navigation aids were not well suited to complying with POSMS and AMSA Under Keel Clearance Management (UKCM) – requirements which appeared almost at odds with each other. This made the alteration around OG Rock more challenging than it should have been.

The **Passage Plan (PP)** as delivered was functional, and considered to comply with Good Practice, but additional information was required to be added, such as cues to ensure the engagement of the Bridge Team in the **Shared Mental Model**. These cues will also help overcome limitations and create a shared mental model. An example discussed was setting radar ranges to wheel overs at 7 cables and a further check at 4 cables (from the Alert Patch's buoy in this case).

Good Practice can then be demonstrated by providing tasks, checks and opportunities for confident challenges should the turn (or passage, as a whole) not be progressing as planned and briefed. To enable this, a far higher standard of planning - than many of us on our sheet of A4 paper - will be required. This higher level of detail, and assignment of tasks, also helps to protect the Pilot in demonstrating his attempts to demonstrate **Due Diligence** in ensuring the safe navigation of the vessel.
By the application of Human Factors, a systems approach and Just Culture, the assembled group were able to build a clearer picture of what happened and why. By following the Queensland Coastal Passage Plan (QCPP), vessels are brought into a close quarters situation with a charted hazard (OG Rock) and deep draft vessels run the risk of triggering an alert with REEFVTS for potentially breaching their AMSA UKCM tolerance. The solution is to sail north of the QCPP to give the vessel room above OG Rock and allow a smaller alteration of course south of the Alert Patches Buoy, causing concern to some as it leaves a Green Buoy on the Starboard bow for an extended time.

The QCPP was laid down by the regulator well before there seemed to develop an obsession with OG Rock, by pilotage providers, hydrographers and others. It is a known obstruction, made larger by the attention paid to it. The defined corridor provides plenty of room to the North of the QCPP. However, because of the way the physical navigation aids are set-up, pilots are finding themselves forced into a situation of unnecessarily increased navigational challenges.

AMSA, by being in attendance, was able to definitively inform ARP, that if they work out a new Passage Plan that conforms to the same standards set by AMSA for development of Passage Planning, and that both the Pilot and the Vessel are using the same plan, then they could use it and deviate from the QCPP. This was a revelation to the pilots attending who thought that the QCPP was set in stone.

The AMSA representative was also able to clarify the use of the sector lights on Horn Island, where the lights change from White to Red on approaching to the QCPP Wheel Over Point (WOP) around OG Rock. It was presumed by some that the change from White to Red signalled the start of the turn, whereas it was designed to indicate the turn should have already been commenced - a bit confusing, in that its real purpose is a warning of last resort, not a trigger.

ATSB classified the incident as a ‘Serious Incident’; when pressed by ARP about why this was the case, and also that it may have an economic impact for them, ATSB were not able to say with certainty just what made this a ‘Serious Incident’, and agreed that it could be changed on the website, if requested, to an ‘Incident’. A satisfactory outcome, but again, one that only came-about by having everyone in the room together.

The Human Factors aspect pertaining to the incident cannot be ignored: the Pilot stated he was tired, whilst the visibility was good; it was dark, and depth perception of the
human eye is adversely affected in such conditions; there was also a trainee present, which the Pilot stated he found a distraction, but would not go so far as to suggest it was a factor.

By taking time to point out navigation marks, listen to questions and describe his own plan, the Pilot neglected to include the Bridge Team in his mental model, even to the point of dismissing a weak challenge from the Master. The Pilot’s mental resources were spread thinly over too wide an area. When under pressure, it is not uncommon for an individual to focus solely on one task to the detriment of the operation, as a whole.

The pilot lost his **Situational Awareness.** A lack of good BRM combined with a PP which did not adequately outline the proposed course alteration, set-checks for position & speed, and invite challenges from the Bridge Team, led to the Pilot acting alone without support. Instead of setting tasks for the Crew and the Trainee, he become fixated on one item - finding the Alert Patch's Buoy and getting a 7-cable range to start the turn.

The pilot completely forgot to refer to other navigational aids he had with him - namely his PPU. Because of the time taken to find the buoy’s echo, the planned alteration at the WOP was delayed, resulting in his mental model becoming distorted. This prevented him from properly assessing the situation and responding to the Master’s questions. Simply switching to the PPU, or even better, having the Trainee monitor it in the approach to the turn, would have introduced barriers and may have prevented the delay in issuing the helm order. Certainly, studying its predictor would have shown that the Rate of Turn needed to be increased.

ARP ensures that their Pilots comply with the AMSA default **Fatigue Management Plan.** This plan was developed before the introduction of the UKCM which all reef Pilots say has massively increased their work-load. Commercial pressure between competing pilotage providers acts to dampen requests for a second pilot to be assigned for deep-draft vessels. Fatigue remains an unresolved issue, with Pilots caught in the middle. Six hours flying, 3 hours in the launch and then 4 hours challenging pilotage before being able to leave the bridge, is not the best start to anyone’s day. Pilots’ becoming the meat in the commercial sandwich between competing providers serves no one and leaves the individual Pilot exposed. A similar situation exists in New Zealand.

The standard ARP Master/Pilot Exchange **MPX** was not sufficiently detailed with regard to responsibilities and expectations over responses to challenges. Consequently, it may prove difficult to satisfy the demands of demonstrating **Due Diligence.** The Passage Plan could be improved, with the addition of marked critical points and designated duties leading-up to and during these phases.

Another solution considered, was to strengthen current ARP requirements for use of the PPU; currently it must be “carried”. Mandating that it be **consulted** would help to prevent another incident in similar circumstances. It might be argued by an authority, that if a PPU is carried but not referenced, then the Pilot may be in breach of Rule 5 of the Col. Regs. Also, BRM (as presently understood) is the coordination of **all the skills and resources** (**people, procedures and equipment**) available to the bridge team to achieve the established goal of optimum safety and efficiency.

There will be a sea-change within ARP over the use of the PPU from this incident: a professional judgement change, led from the top, to acknowledge the higher accuracy of modern PPUs. A change in company policy may well develop for the PPU to be the primary navigational aid, and as an enabler for implementing Bridge Resource Management at all stages of the pilotage. The change will need to be reflected in policy.

The way the workshop was planned and conducted is the clearest and most useful application of **Just Culture** I have ever seen: it has enabled not only the Pilotage Provider, but also the Regulator and the Accident Investigators, to get a much clearer understanding of just what happened, and - far more importantly - enabled each to take steps to prevent it from happening again. Simply knowing that ARP can develop an
alternative route for approval, allows them to make giant strides in improving their own POSMS document. Development of duties, tasks, check points, new tracks, guidelines about PPU and the carriage of trainees, will all serve to develop a document which will ensure ARP comply with both Good Practice and demonstrated Due Diligence in its legal sense. It will also ensure that company’s Pilots execute the company’s policies, as they will have a much clearer idea of what is expected of them.

This process came about because an organisation was willing to open itself up to discussion and scrutiny, which - whilst potentially painful - allowed far greater gains to be had for them and the industry than just accepting the findings of an accident report. The implications for NZMPA could be substantial; we have had two very similar incidents in the past 18 months here in New Zealand. It could be argued that if a similar workshop had been held after the first interim report was issued by TAIC, then the second in such similar circumstances may not have occurred.

The burden to prove an organisation or individual must display to satisfy the demands of Due Diligence, is far heavier then we may have assumed, and it is only through these sorts of exercises can we as a profession start to decide what our risks are, what reasonable steps to mitigate them are, and then implement them that we will start to protect ourselves.

It is not right to comment on cases that haven't been concluded, yet I am sure we can all agree that we as Pilots have completed jobs and thought "that could've gone better". The challenge now is to prove that - despite everything - the only things which could've gone better are those that can pass the reasonable person test. As an ARP Pilot noted, if AMSA had decided to prosecute, then by his ignoring the PPU, the individual involved didn’t have a leg to stand on.

“Never waste an accident”

The above is an adage from the aviation industry. Implied in the adage is the window of opportunity that exists after an accident event for overcoming the inertia of the status quo and addressing latent safety issues.

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**NZMPA Seminar 22nd November 2017**

**MNZ Rule 90. 107 Requirements for Proficiency Plans for Pilots**

“Legislating the Jungle” - Hugh O’Neill

NZMPA’s raison d’être since its founding 30 years ago, has always been to raise professional standards; this noble aim was powered by a handful of wise men, whose integrity and leadership still inspire. NZMPA were early adopters of BRM, when it was a new philosophy pioneered by the Scandinavian Ferries, then championed in Australasia by Ravi Nijjer. Despite Ravi’s 57 years in the industry, he has never lost his passion and commitment to the safety of navigation. Ravi has long-enjoyed guru-status at the highest-levels of the industry, where he continues to provide a leading light, a moral compass and a chart into the unknown. Ever-higher levels of professionalism are required to meet the threefold challenges of:

- Technology (Track Pilot, Ecdis, PPU, bENC, Azipods)
- Bigger ships (less margin for error) and more powerful and complex tugs
- Criminalisation of individuals (to deflect attention from systemic flaws).
Ports, Pilots and Regulators are united in their desire not to experience accidents like 
*Rena* or *Costa Concordia* within pilotage waters. For this reason, we all have a vested 
interest in raising and maintaining the highest levels of professionalism. Although 
training is a vital part of the solution, it ought to be flexible, focussed, relevant and 
examinable, not a “tick-in-the box” compliance exercise. Since most accidents will 
ultimately be blamed on Human Error, it behoves us all to pay attention to Human 
Factors, which is why BRM is fundamental and universally applicable to all 
professions. Some NZ ports have got this message (e.g. Napier) and have embraced 
BRM throughout the port’s activities.

Following a presentation by AMPI at 2016 NZMPA Conference, of an online data-
base which keeps track of pilots’ CPE (Continuous Professional Education) using a 
points-based scoring system, a working group from MNZ, NZMPA and marine 
managers has been considering the value of such a scheme in NZ. MNZ supported a 
concerted agreement, hence this seminar.

Pre-Seminar, a group of Marine Managers from most NZ ports took part in a 
workshop facilitated by John Wright (WrightWay Training) who has a proven track 
record in both BC Ferries and Canadian Steamship Lines (CSL) for changing cultures 
(See this link: [http://www.wrightway.co.uk/archives/bc-ferries-2016](http://www.wrightway.co.uk/archives/bc-ferries-2016)). However, because of the diverse safety cultures in NZ ports, achieving a national consensus was 
always going to be a challenge, and despite all the BRM that pilots have adopted, 
there is clearly a disappointing lack of transparency and trust within some of our 
ports. For example, the main source of information about incidents often comes 
indirectly through the grapevine, long after the event in question. The legislative 
changes to invoke a greater corporate responsibility (post-*Pike River*) ought to be a 
call for fresh thinking, and a more robust safety culture within and between ports. 
John’s session, and then our seminar certainly took steps to address this call.

The first day of the seminar put us in groups arranged for maximum diversity; we 
were all tasked with discussing specific aspects, the results of which were then 
delivered by a spokesperson (a duty that all but one group shared). Although there 
was much fruitful discussion – tempered somewhat by some very negative alpha male 
behaviour (see Robert Sapolsky) - the day ended prematurely without reaching its 
tended conclusion i.e. “action list, mandate and accountability”. The hot house of 
ideas was in danger of becoming hot air.

A convivial dinner in the evening was a chance to reflect on the day’s brain-storming 
with a different group of delegates (including a few NZMPA founder-members) and 
an opportunity to discuss the bigger picture. Sitting to my left was Jon Mayson, who 
had started as a tugmaster in Tauranga, then pilot, Marine Manager, CEO and finally 
Board Director. It soon became apparent that Jon’s wisdom, insight, passion and 
intelligence remain powerful driving forces. After dinner, and without warning, Jon 
was asked by NZMPA President Steve Banks to say a few words: his impromptu 
speech about believing in positive change and holding fast to one’s dreams was 
resplendent with pearls of wisdom. Perhaps it was the effect of Jon’s speech, but 
delegates were distinctly more confident next day, and successfully challenged the 
source of all the previous day’s negativity. Time was found to finish the previous 
day’s unfinished business, with action proposed (by PoAL Marine Manager) to get all 
ports to join the consensus within 2 weeks. Changing cultures takes time, but -
according to Lao Tzu - the journey of a thousand miles begins with one small step. Ports have a choice to be leaders, or reluctant followers; legal wolves will devour stragglers. Certainly, the hope is that this seminar has stimulated a fresh determination to work together in pursuit of a ‘One Team, One Goal, One Shared Success’ philosophy that delivers safer and more efficient ports. It was interesting to hear John Wright’s thoughts that if this were to be done well, it could provide a model for the world and demonstrate how things can be done if we join hands and work together.

In conclusion, as MNZ desired, both NZMPA and the more progressive of the Marine Managers have agreed to adopt/adapt AMPI’s lead, to create an NZ tool for monitoring pilots’ CPE which will greatly assist all concerned to raise and maintain professional standards of pilotage for the assured benefit of all stakeholders. This significant step by our industry has the potential to take the NZ pilotage profession to the highest level, because of the unique rapport that exists between ports, pilots, trainers and the regulator. "All truth passes through three stages. First, it is ridiculed. Second, it is violently opposed. Third, it is accepted as being self-evident."

On the Friday after the conference, I visited the Botanic Gardens and spent some time in the Cunningham House “jungle”. A lady gardener was extolling the virtues of the “Peace Lily” which allegedly helps create positivity. We must have been downwind of those lilies, because the conference had ended on a very positive note of cooperation and respect. In that hot house, they have tamed the jungle.

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PORT OTAGO
(Maintaining High Professional Standards)

Unfortunately, despite the title, this is not an article about West Ham United Football Club as we seem destined for another dire season in the relegation zone; likewise, if we are not careful, professionalism in NZ pilotage.

Most readers will be aware that our Marine Manager, posing a simple question stemming from purely altruistic reasons, asked the powers that be whether or not a Foreign-Going Master’s (FGM) certificate was required in order to start training as a pilot in a New Zealand port. He was apparently informed that it was not a requirement, which turned out to be news to the rest of the New Zealand pilotage - and indeed marine community as a whole, almost all of whom, reading Rule 90, concluded that it was indeed a requirement. The simple question has now been raised to a legal one, and since the wording of Rule 90 is seemingly a lawyer's delight of ambiguity, it is only right that it should be questioned.

Certainly, in many parts of the world, it is not a requirement to hold FGM before embarking upon pilot training, and even in New Zealand, once qualified as a pilot, rather oddly there is no need to maintain the licence for the purposes of doing the
job. This FGM level entry requirement indicates, but certainly does not guarantee, a high base-level of maritime competence prior to a candidate embarking upon such a training regime as port pilotage. The training regime can then be pitched accordingly to reflect this apparent higher base-level. Where no specific entry requirement is made, many foreign ports with a high professional training ethic reflect this with training regimes that are consequently far more onerous than those requiring a MFG entry. Most often, they have a bolt-on academic qualification, the acquisition of which acts as a safety net in cases where candidates fail to meet the required practical standards.

Older pilots seem rarely to have considered pilotage until late in their careers, maybe because life at sea a couple of decades ago was more rewarding socially and financially; it wasn’t where I was but who knows? Nowadays, anecdotally at least, it seems that young New Zealand seafarers aspire to the pilotage profession from very early on or at the start of their careers and by this latest interpretation of Rule 90, are at once disenfranchised, which may well have repercussions for the recruitment of New Zealand Merchant Navy officers in the future.

By way of a spanner in the works of the professional argument for maintaining the apparent MFG ticket status quo, it seems that some New Zealand port pilots accept that a FGM certificate is not a requirement, highlighting the fact that the profession is not united in its view... not that has it ever been - and why indeed should it be? It can be easy to divide & rule diverse and free-thinking groups - of which maritime pilots are but one – however, maybe this issue can serve as a catalyst to unite professionalism within New Zealand pilotage in a way that the Hammers never seem to have achieved in the East End of London. (Craig Holmes)

GISBORNE
The relatively benign winter has now morphed into a rather benign spring. Only the one blow of any note which saw no ships alongside for a couple days and one of the 3 vessels at anchor doing a bit of damage to her port windlass.

Early September we were treated to Tsunami warnings post the Mexico earthquake. Late on the 8th the warnings were cancelled. A couple hours later they were reinstated and the vessel alongside the berth departed just after midnight – tsunami activity forecast for 0700hrs.

During 9th we had some erratic tide gauge activity around 15-20cm sort of range, and one very long period wave (34 seconds) at a height of 30cm late morning. The barometer was fairly low at the time around the 995 level so the tides were already running 15cm above prediction. Ultimately the ship came back alongside at 1600hrs and completed loading without incident.

The Albatross was completing a dredging campaign in Napier early November and then headed for Tauranga so we got her to pop in for a couple of days on her way past. She removed 25,000 cubes from the channel in 31 hours of dredging giving us a useful leg up after the missed months while the Pukunui was on the slip in Nelson earlier in the year. We received (further) outstanding service from MNZ in the pursuit of this campaign with the dredge master’s PEC application being turned around in a couple of hours. Yes, plenty of early prep’ work had been done with MNZ but an outstanding effort on their part regardless, reducing what can be a 20-day process to a couple of hours.

We’ve now got the GPK back-hoe due in the port early December to do a small job on a bit of hard stuff in the berth pocket. The plant is currently at the Chathams but coming to us after that campaign is complete. We’ll use Pukunui as the dumb barge after we’ve done some modifications to protect the door seals from any larger rocks or debris.

Right now, we’re donkey-deep in revision of SOP’s, preparation for impending MOSS audit, and getting a computerised planned maintenance system up and running. Also in pre-planning for the first docking of the ATD Waimata due 2019 – we’re looking to appoint a yard early and liaise with MNZ on a couple of related matters well in advance.
And no surprises, we’re still breaking monthly tonnage and shipping records. Cheers for now.  

(Chris Kaye)

BLUFF

“Bluff Pilot, this is motor vessel Professor Khromov...we are priority vessel!” It must be summer, and from the look of things, a real one at that. I’m not sure if it’s the uptick in dairy prices that have the farmers smothering fields in fert and stuffing their cows with PKE, but at one point in October we had six bulk carriers anchored off Stewart Island. The Korean flagged trawler Southern Ocean made an unscheduled call to repatriate a deceased crew-member. Despite warnings to the possibility of crew desertions, three swam ashore only to be picked up the next morning heading north along the train tracks.

Both Steve and I are likewise heading North, with me being paroled to Port Otago and Steve to Timaru. While Steve served a full seven years, I’ve been released after five in recognition of good behaviour. It’s been challenging yet rewarding, and I’ll always be grateful to South Port for taking a chance on me via Skype interview from a heavy-lift ship in Houston. Those of you who have ever said goodbye to their young children for months at a time can certainly relate. With our contingent reduced from a recent high of five down to two, management’s catch phrase ‘value for money’ may soon be countered by a polite suggestion of ‘money for value’. So we welcome new hires Paul James (Inter-Islander) and Mark Saunders (Swire) starting in February. Here’s to hoping that the port will benefit from new blood and fresh eyes, and the review and examination of existing practices inherent in the training process. All ideas are on the table to facilitate (expedite) training, and I’m personally in favour chartering the ( wee-handly) Anatoki for a few days; she handles great and I doubt anyone will notice a few more hull deflections.

We wish you good health and may the New Year find you achieving the ideal balance between professional obligation and time spent doing what you like with the people that you love. (Josh Osborne)

WELLINGTON

Centreport’s Thorndon Container terminal resumed operations in September with the arrival of Jens Maersk. Most services calling prior to the earthquake have returned, which is pleasing. As described previously, the operation is confined to 125m of wharf, which has doubtless proved a headache for stowage planners. However, they have managed this well, and we have had had to shift very few ships. Containers are exchanged in the gantry back-reach resulting in reduced productivity from pre-earthquake levels; nevertheless trade is again moving. Work is now underway to de-construct the 240m to the south of the gantries in the next phase of the repair/rebuild programme.

From a piloting perspective, it has been good to have containerships back; big, powerful and generally tidy ships they are enjoyable to handle. Berthing with gantries amidships has not been a problem.

Our new pilot launch, (Ye Ha, Tea Har or TR even) is settling in well despite some ongoing electrical and navigational equipment issues. Transit times have reduced despite a Harbourmaster’s directive to follow the inward and outward pilotage tracks rather than the previously used inshore routes. Over a year, this will result in significantly more consumption and emissions. The ride is certainly Premium Economy and it is now possible
to hold a conversation with the launch deck hand seated on the opposite side of the vessel.

The older of our two Damen ASD tugs Tiaki recently undertook her 10-year docking in Lyttelton under the guidance of the Assistant Marine Manager, Josh Rodgers. One pod was extracted for survey; as expected in Wellington's low-hour & low-power towage environment, all was found to be generally well. In her absence we had the pleasure of Port Nelson’s veteran Huria Matenga; now that's a proper name for a ship!

*Season’s Greetings* (Roy Skucek)

LYTTELTON

Paddy Mathews has followed in Tom Vietch’s footsteps and has moved to Timaru. He will be filling a half-position in the roster in what is variously known as job-sharing, graduated-retirement or leading the good life. Jamie Welford has been promoted from his present role of TugMaster/Pilot to fill the vacant Pilot’s position. With John Rendle thinking of retirement in the near future, we will have to get a replacement trained-up quickly. We haven't had a high turnover of Pilots compared to some Ports, with a few of us passing noteworthy milestones: Joanne and myself recently celebrated twenty years at LPC, and John Rendle will celebrate his twenty years shortly. The NZMPA Seminar and AGM proceeded without incident - thanks to the good work put in by Robert. There was a wide representation of interested parties and the topic of CPD was well kicked-around, dissected and then re-packaged. Although we are all talking from the same page, nothing was set in concrete to work on going-forward. At our Port, getting six Pilots to agree on something is a major achievement; getting a consensus from Pilots over the whole country would be a miracle. The views expressed covered the whole spectrum: let's see how this evolves in the next few years. (Finlay Laird)

BAY OF ISLANDS

Cruise ship season well under way here, with busiest summer yet and 65 booked. We have upgraded facilities at the tender dock now, an extended jetty pushed out into deeper water, which is proving popular. The local yacht club, which serves as a passenger rest-area, is benefiting from the cash-flow and looks better each year. There is always plenty of data flowing around about how much cruise passengers bring to the local economy which always seems to be inflated; (there is not too much for them to spend their dollars on in the Far North!). However, we have now reached a level where the benefits are starting to be seen. 20th of December will be an interesting day, squeezing in the *Ovation of the Seas*, *Maasdam*, and the *Caledonian Sky* all at the same time. 6000-plus passengers flooding a town with a total population of 2000 should be interesting, on top of the dozens of full motels at that time of year. The 2 public toilets may be well used...Season's greetings to everyone, and hope you manage to get breaks somewhere.

(Jim Lyle)

NAPIER

We have had a pretty manic last quarter with the team trying to cram in this year’s training at Smartship’ before the start of the silly season. Our Trainer, Trev, has been topping-up his Air Miles with numerous trips across the ditch leading a mixed bag of pilots for ‘Class’, Bi-annual familiarisation, emergency training and assessments. A couple of weeks ago, the pilots were accompanied by two of our Tug Masters who were hands-on in the tug
simulator in conjunction with the Pilot’s exercises. This enabled the simulations to have a realistic tug effect, with our Voith tug Te Mata modelled at Smartship. It also resulted in good team-bonding discussing the manoeuvres in the pub afterwards!

Trev and I also went across to Almere in the Netherlands to take part in the Napier Port Study for the Majestic Princess at Carnival’s CSmart. This amazing facility, with 4 full-mission bridge simulators and engine rooms, runs with the efficiency of a six-star cruise vessel, with cuisine and accommodation to match. Our slot was 1500hrs to Midnight, Monday to Friday, with classroom sessions to set parameters and evaluate the risks.

We were accompanied part of the time by our CEO Garth Cowie, Port Service Manager Bruce Lochhead and our well-known Marine Officer, Colin Sellars. They were on a whirlwind tour of Damen, Voith and NovaTug, and a visit to our Cat3 PPU provider Trelleborg. Garth and Bruce also got in some useful ‘hands-on’ ECDIS and BRM training whilst watching their boys at work. Useful comments like ‘I thought you said piloting was hard’ were part of the end of day conversations!

With the team now handling more and more max-size vessels, the purchase of a third tug to support Ahuriri and Te Mata has reached the ‘consent’ and evaluation stage. A working group consisting of Marine Supervisor, Tug Master, Pilot, Marine Officer and Port Service Manager has been set up. This week sees the departure of the team to Smartship for simulations of the Nova Carrousel-Rave tug from Novatug, followed by a visit to Port Ash manned model facility, where a Carrousel-Rave model is being demonstrated by Novatug. For a port that’s in love with its grunty Voith tractors, you would be right in thinking that this one is a bit outside-the-box in the thought process, but we have to do due diligence on everything that is out there. Next on the list (working from the bottom) is the Damen RSD, which deserves a serious look before we get back to the tried-and-tested ATD’s and Voith Tractors.

At the same time, another working group has been formed to look at replacing our trusty ‘Pania’ Pilot launch. She’s still going strong, but it’s the only launch we have and it is getting slightly long in the tooth. With a fair selection of new Pilot Launches around the NZ coast, we hope to be getting around the various ports soon. Look out for Napier Pilots in the undergrowth with long-distance zoom lenses!

Really good NZMPA conference the other week: the Lyttelton guys did themselves proud, with a good venue and well-organized agenda. We hope to reciprocate in two years’ time.

The Cruise season for Napier is well and truly upon us, with the Sun Princess and Noordam in together last Sunday. The clockwork-watch never had more significance, as we had to sail two vessels first-thing. Mooring had to clean and prepare two berths, for us to bring in Cruise ships one after the other, sail two more cargo vessels, and then sail the Cruise ships later. Napier was buzzing all day, with an extra 5,500 people in town or being bussed around enjoying the Hawke Bay sunshine. This weekend is similar, and the following week has much the same level; good fatigue-planning will be paramount. We can all see its going to be a long summer!

There is more to say, but Ed the Christmas Scrooge is breathing down our necks: if it doesn’t get sent today, it will be just be a load of old Humbug. Merry Christmas and a prosperous and safe New Year from Team Napier. (John Pagler)

AUCKLAND

We had a newly-appointed Board member spend a day with us. He concluded that the highest risk activity in the port was Pilots embarking and disembarking, resulting in a directive to establish practical and online training modules for anyone who boards or disembarks by ladder.

An added safety feature is the compulsory wearing of helmets: we are all now rocking bright yellow Gecko custom cutaways.

A few people have asked me how we are progressing with the looming America’s Cup: I will be surprised if they have time to build a sandcastle on Takapuna Beach.

On behalf of Team Auckland, Good Christmas & New Year. (Craig Colven)
Report on Port Revel Manned Model Course
(16th-20th October 2017)
Hugh O'Neill

Introduction:
Firstly, my immense thanks to Port Otago for sending my fellow pilot, Tony Lawrence and me on this course. Since my first Manned Model course at Marchwood in 1999, I always considered such training as essential for pilots; my opinions have been confirmed, and the skills added to the pilot's arsenal could one day prevent an incident becoming a serious event. This report was written for fellow pilots - and Port Revel - because I feel very strongly that the course – though fantastic – needs some minor adjustments to maximise the value of the experience.

1. Course Attendees:
HO and TL; 1 junior Tampa pilot; 1 junior master (French tankers); 2 senior Dunkirk pilots; 1 senior Bretagne Pilot. (Total 7, of whom 4 Francophone). The first 4 attended the basic course, the last 3 were on a senior course. We only shared meals together, but we all got on famously. The 4 instructors assigned us were 1 very senior, 2 at their peak, and one very junior instructor. All were retired pilots, and each had his own style.

2. Kit to Bring? Sunglasses!
The weather in France this Autumn was perfect Indian Summer; I had prepared for cold and packed thermals, scarves, gloves etc. Although Port Revel is at 1000m elevation, the temperature ranged from 16°C-26°C. But whatever the weather, Port Revel has all the kit you require: from straw hats to woolly hats, Musto snugs, oilskins and seaboots. They even supply the sunblock; knowing this will greatly reduce your luggage. The weather in Lyon was hot, so shorts and sandals should be included.

3. Hotel Accommodation (and wifi):
We stayed 6 nights at the Hotel de France in Côte de Sainte André. The rooms were simple, and serviced every day. The Hotel wifi was poor and the best signal was in the entrance foyer. Breakfast was Continental buffet-style, but dinner was a gastronomic event: several courses of nouvelle cuisine meant dinner lasted from 1930 to 2130.

4. Daily Routine:
0700 – Breakfast
0730 – Minibus to Port Revel (30 minutes)
0800 – Bonjour & Coffee
0810 – Lecture on Theory & Day’s Activities
0900 – On the water
1300 – Lunch for whole team i.e. technical, admin, instructors and pilots.
1400 – On the water
1800 – Minibus to Hotel

5. Course Content
Maximising use of anchors, rudders, and RH pitch propellers. The revelation that using full stb’d rudder whilst going astern decreases the sternway to make better use of transverse thrust.
We had one day with tug and learned how to balance the combined forces of tug vs. rudder & RPM whilst maintaining a leading line, and then as escort in the canal with the helm jammed. We then turned the ship in the canal basin, and reversed the ship, dredging anchors to control the bow with tug controlling the stern. On the final day (in the canal) we attempted the “Texas Chicken” and overtaking; the latter is more difficult, but the former more spectacular – especially when it goes wrong!
The first 2 days were without current, though the wind could be problematic in the afternoons (since scaled-up by factor of 5).

6. **Good Points of Port Revel:**
   a. Brilliant design and lay-out e.g. depths, currents, and adaptability.
   b. Choice of ship model – small & simple to large & complex
   c. Level of supervision i.e. instructor to trainee ratio
   d. Outstanding natural beauty of the forest park
   e. Lunch is another gastronomic event. The inclusivity and humour is indicative of a well-run ship, which respects the whole team.

7. **Areas for improvement at Port Revel:**
   a. The morning briefing for the entire day is too much and too fast! Where 6/7 scenarios are laid out, one has forgotten the beginning. It needs to be broken into morning and afternoon sessions, with no loss of time incurred by splitting. Theory was mentioned *en passant*, but not overly stressed.
   b. No debriefing: despite all the observing and measuring tools available, there was no attempt (or no ‘culture’) at analysis and suggested improvements. This is not good BRM.
   c. Autumn leaves! Too many times, the ships lost power due to leaves adhering to the propeller, spoiling an entire evolution. We only realized by about Day 4, that the simplest solution was to alternate from full-astern to full-ahead to clear the obstruction. This insight ought to have been made explicit from Day 1, and the pilots advised to clear the prop as required.
   d. Too much emphasis on anchors and not enough tug-work. Although anchors are a wonderful resource for manoeuvring ships, current PHSC risk analysis would never allow us to dispense with tugs. Although useful as an emergency resource, it is the wrong emphasis.
   e. No space for experiment. The timetable was non-negotiable. For a port to get greater benefit, better liaison is required between the pilots and Port Revel in order to identify which evolutions have most value.
   f. Because everything is 5 times faster, 8 hours of piloting per day is equivalent to 40 hours of concentration - every day! This is a very demanding course mentally - for both pilots and instructors. Because it was the end of the season, it was obvious that one of the instructors had depleted his reserves of patience. Sadly, this resulted in my last afternoon attempting too many times a task which proved impossible i.e. turning a large ship stern-first across a stern-tide using only anchors. Spending too long on this fruitless effort ate into the next task, which was perforce rushed, and thus also resulted in failures – to everyone’s frustration. This was a low note with which to end what had been a superb week.
News from Port Ash  
December 2017

Last week signalled the end of our spring and the first day of summer with the weather warming, but a relief to the dry spring with some welcome rain. Having completed a busy November, the Christmas season approaches rapidly. Our final course for the year is scheduled the week prior to Christmas with a mix of pilots from the United States, in addition to local Australian ship masters. It was great to meet Thejs Pedersen and Peter Brown from Timaru during their course in October, followed by a group of four RNZN Navigators during November 2017.

Novatug BV are to conduct a demonstration day on the 11th December of the new Carrousel - RAVE Tug (CRT). A working radio controlled model of this revolutionary tug was shipped from Port Revel in France to Port Ash Australia last month. The demonstration day at Port Ash will complement the simulator demonstrations of this new tug design at Smartship, Brisbane, during December 2017. I was very privileged to attend the NZMPA seminar and presentation days “Reviewing CPD to achieve excellence in pilotage operations” in Christchurch on the 22nd and 23rd November 2017. Special thanks to Steve Banks, NZMPA, and the Lyttelton Pilots who hosted the two-day event.

It was my first visit to Christchurch since my product tanker seagoing days back in 1984, and very sobering to see the re-building efforts currently underway after the earthquakes that have left their mark on such a lovely city. The first day involved work-shopping the future direction of CPE for New Zealand Pilots: the process involved all relevant stakeholders with the regulator Maritime New Zealand, port managers and pilots in attendance. Marine Pilot CPD is a very important facet of the on-going risk management of pilotage and maintaining critical skills for licensed pilots. From my observation of the proceedings, New Zealand ports and pilots - along with Maritime New Zealand - agree that CPE for pilots in New Zealand is of great importance. No doubt this will ensure the best of safety culture in pilotage operations, and that the training for pilots in New Zealand is relevant, cost-effective and ultimately serves your ports, pilots and country well in protecting your spectacular harbours and waterways.

Andrew Beazley - General Manager, Port Ash (andrew.beazley@portash.com.au)
Port Ash Australia utilises manned ship models to provide real feel, real world training on its purpose built 2 Ha (5 acre) lake, and employs experienced Marine Pilots to provide world class training.

Providing specialised training for:

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- Officers
- Marine Pilots
- Naval Officers

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The New Zealand Maritime School’s (NZMS) professional development programmes 2018.

**Advanced Marine Pilotage training**

In response to industry feedback, pilots and marine managers can enrol on single or multiple days at their choice, or receive a discount for enrolling in the full five days. The course will deliver a range of topics with the detailed scheduled announced a minimum of four weeks prior to the course dates to allow late enrolment. Topics include navigation and bridge management, based on the SSAs cockpit management, and updated with the latest research on ergonomics and master-pilot relationship. It will address issues of concern to pilots such as the application of new technologies, legal aspects of piloting, and the development of RISk management strategies. This course contributes to the pilot’s CPD requirements as per Maritime NZ’s regulations (MR 80115). The course may be recognised as upgrade course to renew an expired STCW 95 CoC or Master.

**Seaways: Module 1 – Certificate in ASD and ATD Vessel Handling**

This is a challenging course but also an extremely rewarding one. Driving an ASD/ATD tug at the required standard can only be achieved with repeated practice over and over again. There are 21 individual exercises followed by a final competency assessment. You will complete each of these to a satisfactory standard before moving onto the next. At the beginning of each days training session you will also repeat all previous exercises. The course is a foundation course and prerequisite for the module 2 training.

**Duration** Five days

**Dates** 12-16 February 2018

**Cost** NZ$41,000

**Quote** Maximum of four students

**Advanced Portable Pilot Unit (PPU) training**

Developed by Ports of Auckland and now proudly offered by the NZMS for all current and trainee pilots. The training is delivered by senior POA pilots using the latest Nevis Dynamics PPU in the full motion Pennant 6000C bridge simulator.

**Duration** Two days

**Dates** On request

**Cost** Enquire on application

**Seaways: Module 2 – Certificate in Undertaking Harbour Towing Operations**

In this module we shall take the high level of tug control you learnt in Module 1 and apply it to servicing a ship whilst under pilot orders. There are 19 individual exercises that must be completed in the simulator plus six supplemental exercises and a final competency assessment.

**Duration** Five days

**Dates** 19-23 February 2018

**Cost** NZ$41,000

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**Generic ECDIS training**

This Maritime NZ approved training programme is based on IMO model course 127 and STCW Reg 1/1 and table A-1/1. Successful participants of this course will also receive a type-specific familiarisation certificate for the Transas 4000 ECDIS System.

**Duration** Five days

**Dates** Enquire on application

**Cost** Enquire on application

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**Wrightway Ltd**

A series of 1 and 2 day Human Element and BRM Introduction courses are planned for March 2018 – please register your interest.
Smartship is a state-of-the-art facility that provides world-class maritime training and simulation services.

Amongst many services, Smartship facilities can be used for testing ship handling skills and behavioural patterns for recruitment or for enabling pilotage organisations to check pilot proficiency across a number of environmental conditions. Port development services also continue to be a major element of Smartship’s operations.

Pilot Training and Professional Development

- **Advanced Marine Pilot Training:**
  The AMPT course is approved by AMSA as an ‘approved pilotage training course’ for coastal pilot licensing purposes and is equivalent to the Deck Revalidation Course (Part A).

- **Ship Handling and Bridge Team Work:**
  This new offering from Smartship for 2016 has been developed in accord with IMO model course 1.22 (Ship Simulator and Bridge Team Work).

- **Bridge Resource Management:**
  Captain Ravi Nijjer will conduct this AMSA approved 4 day course at Smartship. The present BRM course is referred to as 2nd generation course and was fully developed in late 2010.

- **ECDIS Course:**
  Smartship has designed this course to meet the increasing demand for instrumental pilotage training. Trainees who complete the course will receive both generic and type specific certificates, with the type specific offering the integrated navigation system NACOS Platinum.

- **Port and Ship Specific Emergency Training:**
  The 3 day course exposes pilots to abnormal scenarios using the Full Mission Bridge with feedback used to update company emergency procedures.

We offer

- **Five simulators – operated independently or integrated in any arrangement**
  - Two full mission bridges
  - Tug simulator
  - Two part task bridges

- **Port and ship models**
  - More than 70 port models plus in-house model building
  - 100 ship and tug models readily available

- **Pilot training and professional development**
  - ECDIS including Platinum
  - Ship handling and bridge team work
  - Port and ship specific emergency training
  - Bridge resource management
  - Advanced Marine Pilot training

- **Tug training**
  - Tug handling
  - Contingency training

- **Port development simulations**
  - Infrastructure modelling
  - Testing operational limits

- **Pilot assessment**
  - Proficiency checks
  - Recruitment evaluations.

Contact us

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Smartship Australia is operated by Maritime Safety Queensland, a branch of the Department of Transport and Main Roads.
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**Introducing the Next Generation**

**GyroPilot v3**
- Transmits the ship’s AIS position while adding independent rate of turn (ROT) from its gyro & smoothed heading (HDG) data.

**GyroPilot Plus**
- Fully independent add-on position sensor for the GyroPilot v3 (GPv3).
- L1 enabled, mGNSS device that receives SBAS corrections.
- Combined with the GPv3, the system provides independent position (from the GP Plus) and independent ROT and smoothed HDG (from the GPv3 plugged to the AIS plug).
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