The Australasian Marine Pilots Institute

- Suite 2 Argyle Place
  14 Argyle Street Albion
  QLD. 4010 Australia
- PO Box 576 Albion
  QLD 4010 Australia
- Tel: 61 (0)7 38622238
- Fax: 61 (0)7 3862 2240
- Web: www.ampi.net.au

Safe Passage

Serving the professional interests of Pilots and Pilotage throughout Australasia

In this issue

WINTER 2009

Man Overboard –New Product Highlights Location for Rescue Operation

SOS Marine continues to set high industry standards by introducing SOS Inflatable Marker Dan Buoy
Patent #2009.9001508

This latest evolutionary development in man overboard equipment, "it`s a safety necessity for all crafts, big or small, sail or power".

- SOS Inflatable Marker Dan Buoy is easier to locate visually reducing search and rescue operations time frames.
- The Dan Buoy stands 2 metres above the water level. Has definite advantages during difficult conditions with the use of high visibility flying pennant.

SOS Inflatable Marker Dan Buoy

Product # SOS-6373 is portable and compact in design, easily handled by one person. "Just add water"

Features include:

- Tests show that the SOS Dan Buoy can be seen from 1700 metres away.
- Simply throw in water and the SOS Dan Buoy activates automatically on contact with water, sits 2 metres above water level.
- SOS Dan Buoy has a sea anchor/drogue, which reduces downwind drift.
- Designed with grab handles to assist supporting the person in the water, a *pea- less* whistle is attached for use in water.
- The SOS Dan Buoy may be reused by repacking and replacing the CO2 cylinder and inflator bobbin.
- It can also be used as a maker by unclipping the sea anchor and replacing it with a conventional anchor and chain.

We enjoy positive and rewarding feedback from NSW Police Air Wing, and Fremantle Port Authority who are now using this new patent technology in search and rescue operations.

The Royal New Zealand Navy is also using the SOS Inflatable Marker Dan Buoy for Coxstain training. There also has been a great interest from Dive Schools for use in their dive sites, making an ideal temporary marker.

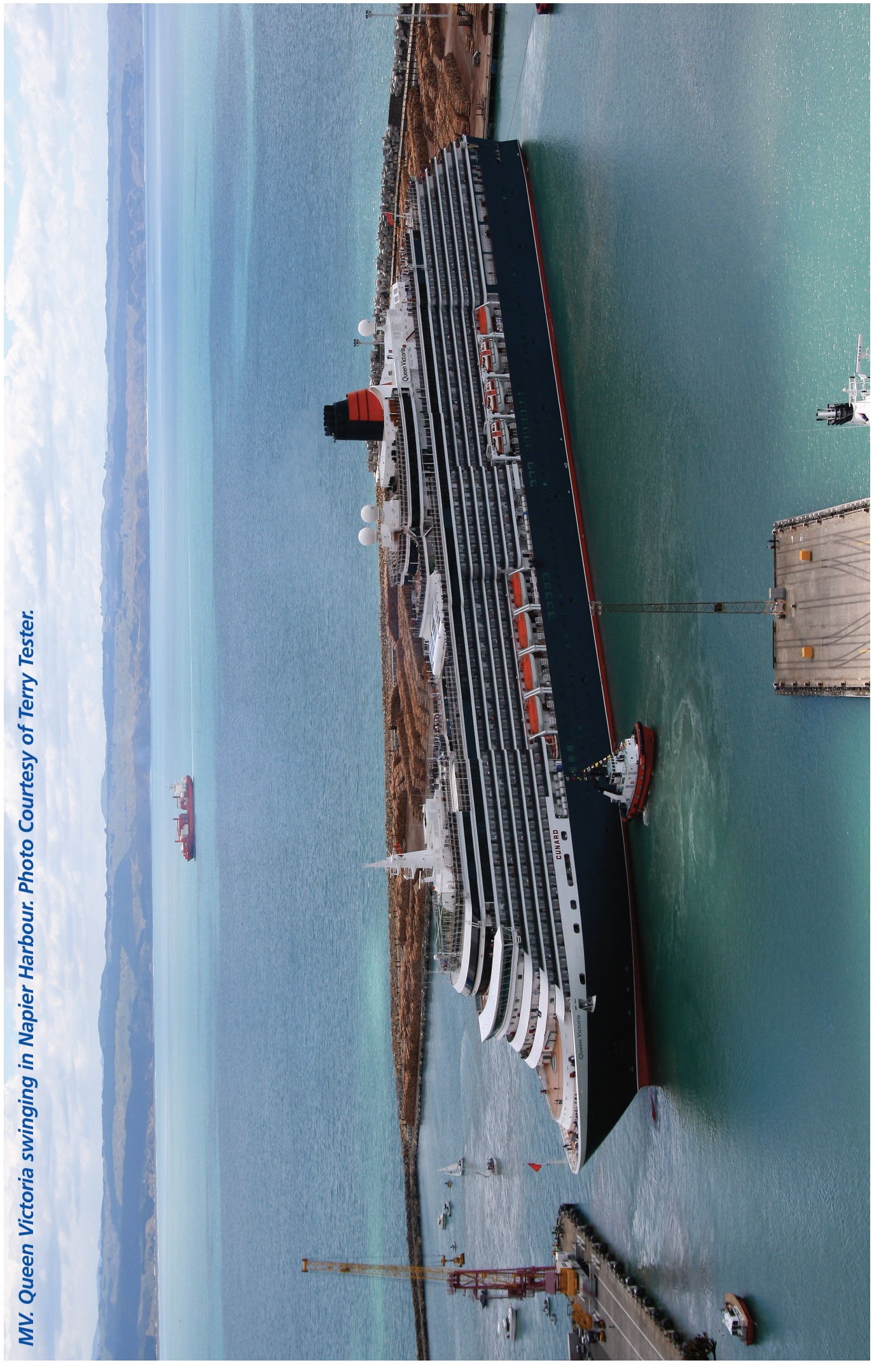
SOS Marine brand has won an International Awards of Excellence in Safety and Protection as well as, 2009 Australian Business Award for Product Innovation

2008 IFAI Award of Excellence International Achievement Awards

S.O.S. Marine - a proud winner of an IFAI Award of Excellence in Safety and Protection.

2009 WINNER AUSTRALIAN BUSINESS AWARDS SOS MARINE Diver Recovery Vest Product Innovation

SOS Marine
23a Rochester Street, Botany NSW 2019 Australia
Tel + 61 2 97000233Fax +61 2 97000277
For more information please contact Ron Smith ron@sosmarine.com.au
www.sosmarine.com or www.sosdanbuoy.com



MV. Queen Victoria swinging in Napier Harbour. Photo Courtesy of Terry Tester.

AMPI Executive

President: Peter Liley
Deputy President & Treasurer: Welwyn Gamble
Vice Presidents: Mathew Close & Bryce Bathe

Vice President & Secretary: Matthew Close
Website Manager: Chris Haley

EXECUTIVE & COUNCIL

Area	Name	Location	Mobile	Email
Peter Liley	President/Qld	Brisbane	0407 655 926	president@ampi.org.au
Wel Gamble	Deputy President/Treasurer/GBR	GBR	0412 226 822	treasurer@ampi.org.au
Matt Close	Vice President/Secretary/Vic/Tas	Melbourne	0418 373 938	secretary@ampi.org.au
Bryce Bathe	Vice President/Qld	Mackay	0419 764 458	profperf@ampi.org.au
Greg Tonnison	Vice President/WA	Fremantle	0419 937 281	greg@tonnison.net
Cor de Waard	GBR	Brisbane	0401 438 100	reefpilot@bigpond.com
Kim MacPherson	Qld	Townsville	0427 968 247	kim.c.mac@bigpond.com
Martin White	NSW	Sydney	0418 259 673	marsan1@bigpond.net.au
Darren Cousins	NSW	Port Kembla	0448 948 477	capt_darren@yahoo.com
Ian Polglase	Vic/Tas	Hobart		ian.polglase@tasports.com.au
Doug Dow	SA/NT	Adelaide	0417 834 910	dow.douglas@flindersports.com.au
Mark Slater	WA		0414 233 255	markslater@aapt.net.au
Peter Dann	WA/HF & Fatigue		0448 842 218	HFfatigue@ampi.org.au

COMMITTEES

Alex Amos	Pilot Ladders/IMO	Sydney	0418 259 575	alexamos@bigpond.net.au
Steve Pelecanos	IMPA/Training	Brisbane	0403 347 757	training@ampi.org.au
Chris Haley	Environment	Port Kembla	0400 358 250	environ@ampi.org.au
Robert Choppin	Safe Passage	Port Kembla	0414 960 792	robertchoppin@optusnet.com.au
Carly Harris	Administration	Brisbane		admin@ampi.org.au

If any of the above information is incorrect or if details change please forward amended information to the editor.

Advertising in Safe Passage

Safe Passage offers a unique advertising opportunity for suppliers of goods and services to the pilotage and Marine industry. Safe Passage reaches a targeted selection of the industry and more than 300 copies are distributed to pilots, pilot companies both private and government, port Authorities and associated industry groups. Copies are now also being distributed to pilotage groups overseas. There can be significant benefits advertising industry related activities in this magazine. Listed below are the advertising rates for 2009.

AMPI ADVERTISING RATES – 2009

Full Page Ad in Safe passage (Black and White)	$300.00
Full Page Ad in Safe passage (Colour, back page)	$500.00
Half Page Ad in Safe passage (Black and White)	$200.00
Half Page Ad in Safe passage (Colour, back page)	$350.00
Advertising Articles (per page)	$250.00
To insert pre-printed A4 sheets into Magazine (Up to 300 copies)	$200.00

AMPI can offer only limited space for advertising and some conditions apply.

For more information about advertising in Safe Passage please contact:
The Editor (Rob Choppin) robertchoppin@optusnet.com.au

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Suite 2 Argyle Place
14 Argyle Street
Albion QLD 4010
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July 2009

COVER PICTURE

Busy scene at Brisbane's Fisherman Island.

President's Report

Peter Liley

Immediate past President Rory Main handing over to Peter Liley.

It was with considerable awe and trepidation that I shook Rory Main's hand at the end of the AGM held in Fremantle last March. I was in awe of the great work that Rory had done in his time as president of AMPA, and indeed the tireless work all the presidents past. I felt that I was accepting a great honour in taking the helm of this Institute that Australian pilots have built. My feeling of trepidation came as I was in no doubt of the great responsibility of representing Australian pilots. The end of the AGM in Fremantle marked the beginning of my term as president. I have begun looking for my replacement already. A good succession plan is needed to keep this institution on track. Though I do intend seeing out my full terms should the membership allow that. In my time on the AMPA executive I have seen that the responsibility of presidency has the potential to come at a great personal expense. One of the matters that I will attend to early in my tenure is to build systems within the Institute to make it more robust and less reliant on the momentous effort of a few good men and women.

AMPI is a new Institute. In order that it should continue to be a meaningful and relevant professional body AMPI must have a properly resourced well defined management structure. How this translates to a tangible benefit to pilots will only become evident over time. There are a number of measures that must be taken to build that management structure. Monthly executive meetings have taken place already to facilitate this building program.

Administration

AMPI has contracted a bookkeeping and secretarial service to do the work of the AMPI secretariat. Flexible Business Accounting Services has been engaged to handle bookkeeping and administration for AMPI. There are already tangible benefits to the executive who are becoming less preoccupied with the time consuming administrative tasks, now more able to focus on the business of managing the Institute. One of the principles of engagement between FBA and AMPI is to build systems that are fully documented and therefore portable should the Institute need to move the secretariat to another port. This is one of those intangibles that will only become evident when the Institute needs to move the secretariat.

AMPI Website

One AMPI service that will be very evident in the next few months will be the new website. The AMPI executive chose Netway Business Solutions to build the Institute's website. The new website will have three levels. The first level will be for public access, where non-members may view the Institute and our work. The second level will be a secure members-only area where members will have login access to AMPI research, AMPI workshop presentations and other AMPI documentation as well as the membership register. Access to the membership register will allow members to review their own information and personal detail. This will be an interactive area so that members can make changes as and when their details require updating. The registration area will also handle registrations for AMPI run workshops. The third level will also be secure and access will be limited to the AMPI executive and appointed AMPI website manager so that the website can be managed by AMPI without compulsory referral to external bodies.

President's Report *continued.*

AMPI Workshops

An integral part of the Charter to members is the facilitation of two workshops annually. This becomes part of the Continuing Professional Development program of the Institute. The executive will strive to keep these workshops relevant and provide presentations on contemporary issues challenging pilots and pilotage.

The next workshop will be held in Sydney on Friday 23rd October 2009. The subject will be *Cosco Busan – A Watershed in Pilotage.* This will be open to industry. The presentations will be addressed to the issues affecting pilotage that have been raised by this unfortunate incident. The executive is currently finalising the list of presenters and venue.

This workshop will be held in conjunction the Korean Maritime Pilots Association as part of our MOU sharing of knowledge and experiences. Captain Song, newly elected president of the KMPA will accompany a delegation of about 10 other pilots from South Korea.

Pilot Safety Review Program

The AMPI managed Pilot Safety Review Program continues to gain momentum and supporters in industry. Regulators and some ports have greeted the introduction of this program and its benefits to the pilotage system with enthusiasm. The program is being managed by Chris Kline. Chris may be contacted through safetyreview@ampi.org.au.

Personal Liability Insurance

There are a number of products available today to provide Personal Liability Cover for Professionals. David Lowen has worked closely with AMPA to design a cover tailored for marine pilots. Included in this edition of Safe Passage is his Q&A by way of summary of his presentations to pilots on this important but perilously ignored subject. I would encourage all pilots to review their personal liability insurance cover and consider fully this very competitive insurance proposal from OAMPS Gault Armstrong. *Please see Page 11.*

Contents:

Editorial

I have to congratulate Capt Peter Liley on his nomination as the new AMPI president, and wish him all the best in his new position. I have already met with
Peter and we have discussed some new directives for your magazine, Safe Passage. I hope you enjoy this copy.

Most editors find it hard to compile a magazine if they are not provided with sufficient material and I would urge you all again to please send me news for promulgation, such as new members of your pilotage team and retirees. Also news from your port and other items, which could be of interest to your fellow readers. I don't think I have thought of that word "promulgation" much since I was a second mate!

Pictures, too, would be very much appreciated. If you would like to see a picture of your port on the front cover please send me some to choose from. I would prefer if they were in Portrait form with as much resolution as possible and of course in colour. I have included a great photo of the Queen Victoria swinging in Napier harbour prior to berthing, there doesn't seem to be much room, but no doubt the pilots have this all well in control. I have added a picture from New Zealand as the "A" in AMPI stands for Australasian and our friends across the ditch will be part of the Institute, so I want to include them from now on.

Once again I must thank Martin North for his interesting and regular articles and all the other contributors as well as our advertisers.

Editor.

Editor saw this ship in Greece recently.
Is it an Ex-Tasmanian Ferry?

R2A Newsletter *continued from Page 10.*

Due Diligence Not Risk

R2A has changed its functional description from *risk* engineers to *due diligence* engineers. The reasons for this can be explained in a number of ways. Two important arguments concern the inability of science to accurately measure risk and the compartmentalisation of risk services.

Risk as Science

When risk became popularised in the late 20th century, it was on the basis that risk was essentially scientific in nature. This new risk science meant that society's risk acceptability levels could be objectively determined and that technical people could repeatedly agree on the actual level of risk associated with a situation or circumstance. This would enable effective and fair risk allocation and control. Such a belief gave rise to the ideas of target levels-of-risk and safety. It enabled tripartite philosophies as owners, workers and government could easily agree on risk levels for all industry. It encouraged Australian parliaments to legislate to provide penalties to those who did not undertake such risk assessments.

As it turned out, it is simply not true that risk is wholly scientific in nature. Two risk experts seldom agree on the risk associated with identical scenarios. The reason seems to be that risk is not wholly a property of the natural-material time-space universe. There are elements of human values embedded throughout. The future uncertainty under consideration is a human one with all of the encoded value systems this implies. The global financial crises is a case in point.

The issue that now appears is that risk as a stand alone concept cannot arbitrate human futures. A broader concept is required.

The diagram below represents an R2A view of the domain breakdown in western philosophy, adapted from 19th century.

In the technological risk business for example, formal philosophy is being applied as formal methods in safety critical systems analysis, natural philosophy is being applied as Navier-Stokes equations in CFD modelling and moral philosophy as the musings of our courts as they determine with hindsight what ought to have been the case after it has all come to grief.

In this context, engineering due diligence is the predicted ethical performance of our material infrastructure. This means that infrastructure should be safe (not harmful) and useful (achieve what it sets out to do).

Compartmentalisation of Risk Services

A second aspect has been the compartmentalisation of risk services in the last few years. A great hope of the risk movement last century was that the unifying nature of the risk science would provide a homogeneity between different service provider domains.

The idea was that risk could be objectively used for safety analysis, finance risk analysis, security risk analysis, environmental risk analysis thereby enabling a meeting of the minds encompassing a wholistic, competent view of an enterprise. Such a view meant that a single risk register, for example, could present the entire risk profile of an enterprise and present senior decision makers with an complete and intuitively comprehensible list.

In practice, this has not been the case. Apart from the different risk profiles assumed by the primary risk advice providers (market upside/downside, safety/downside only, and project downside from an assumed upside position etc - see the February 2009 edition of the R2A newsletter) the individual silos of risk services have actually become stronger.

For technological risk, for example, there are major, robust compartmentisations, including, ergonomists (Ergonomics Society), OH&S (Safety Institute) , industrial hygienists (AIOH), building surveyors, fire engineers (SFS), MHF specialists, safety psychologists etc. Each group has its own risk analysis paradigm.

The only concept that R2A has seen that bridges these paradigms is the ethical position embodied in the common law. That is, ensuring prior to the event that all reasonable practicable precautions are in place. And, providing such insight is what R2A does. Hence the need to be due diligence engineers rather than risk engineers.

Safety Alert for EPIRBs

The United States Coast Guard Headquarters recently issued a safety alert regarding EPIRBs as a result of a fishing boat sinking.

One of the circumstances surrounding a recent major marine casualty involving an un-inspected commercial fishing vessel was the improper registration of the vessel's EPIRB. The Unique Identification Number (UIN) entered into NOAA's registration database was different from the actual UIN programmed into the EPIRB by the manufacturer and transmitted to the Search and Rescue Satellite System after the vessel sank. The improper registration of this vessel's EPIRB delayed the notification to Search and Rescue personnel, and subsequently delayed the launching of rescue assets.

The Search and Rescue Satellite-Aided Tracking (SARSAT) System is composed of stationary and orbiting satellites. For any given location (outside of the Polar Regions), there is continuous coverage by a stationary satellite, and coverage by an orbiting satellite every 60 to 75 minutes on average (which includes the Polar Regions). The stationary satellites can receive all of the information transmitted by an EPIRB or PLB, but they are not capable of determining the position of the beacon unless the beacon has an optional GPS receiver (not all models carry this option). Normally, position identification is accomplished by the orbiting satellites. So, if a beacon is not equipped with the optional GPS, it could take up to 100 minutes for the orbiting satellites to identify the location of the beacon.

In the case of this casualty, the first notification was received by a stationary satellite soon after the vessel sank, but the orbiting satellites were not within range and the improper registration prevented the identification of the vessel's name, homeport and emergency contact information from being forwarded to the Search and Rescue authorities.

In Australia, owners of EPIRBs should register their equipment at the AMSA site. http://beacons.amsa.gov.au/registration.asp

BHP SHIPPING REUNION

30th October -1st November 2009

Colleagues and Friends,

It is time for another Reunion with old shipmates and maritime acquaintances in Newcastle.

The events will commence, on Friday night at South Newcastle Rugby League Club Ltd., Llewellyn Street, Merewether.

This year the Saturday event will be a finger food Luncheon from NOON at the Newcastle Harbour Function Centre, which is situated on the Harbour near the popular Brewery, Queens Wharf.

The reunion will conclude with the usual luncheon at Broadmeadow Racecourse, on Sunday 1st November, 2009.

For those travelling from out of town, accommodation can be found at the

CROWNE PLAZA NEWCASTLE - 02 4907 5000 www.crowneplaza.com.au

Noah's on the Beach - 02 4929 5181 www.noahsonthebeach.com.au

Both are a comfortable walk to the Harbourside Function Centre. If you need transport to Broadmeadow Race Course, arrange it with a friend on Saturday.

Jeff Wakeham 02 4933 4526 *Iain Steverson 02 4957 7795*

Don Wilson 02 4963 1047 Ian Wright 02 4958 5343

Email: d.square@bigpond.net.au ianwright2@bigpond.net.au

Professional Forum – July 2009

By Martin North – Geraldton martin.north@gpa.wa.com.au

Thoughts here in Geraldton are focused on two main issues of late. The development of a new "Green Field" Cape sized iron ore port a little way up the coast at a site known as Oakajee and – remarkably - cruise ships. More on Oakajee a little further down.

Now whilst I am a loyal servant of the port here and a happy steadfast resident of this mid sized town visiting Captains of cruise ships ask the slightly awkward question when they safely anchor in the bay "What will two thousand Passengers do ashore today". The answer it seems is a little bit left field. The local community through the council and a cruise committee - of which I am part - looked around to see what could be done to make the visit memorable for passengers. It was accepted that the local attractions are limited in their ability to cope with thousands of visitors in a day. However a meet and great concept had been seen to work well elsewhere. So this is what was developed.

These ships are far bigger than our usual Panamax fare and without substantial simulator trials pilots were understandably reluctant to "have a go" into a tight and very windy swing basin. Also a suitable berth is difficult to book in advance since cargo ships queue and industry would not take kindly to big white ships leap frogging the stock in trade mineral ships. We therefore come through the reef via the 180 m wide main channel but carry on at the end of the straight to anchor outside the 10 m contour a mile or so off the Batavia Coast marina and museum complex. Ships then tender passengers ashore where they are treated to a wonderful esplanade over a sheltered yacht marina with a permanent coffee shop/café and museum, together with a market stall carnival set up for the day. Lots of local volunteers are on hand and ships passengers have so far been very generous in their praise and impressions.

And what do they do ashore? Well some go on organised tours to a nearby historic settlement at Greenough, some fly over to the Abrolhus Islands, site of the infamous wreck of the Batavia and most make their way up to the very moving "HMAS Sydney" memorial. Many however simply engage in domestic shopping, hair dressing, opticians, coffee shops etc. Invariably and most surprisingly they rate Geraldton as a favourite destination. This it seems is down to the ambiance and friendly reception put on by very enthusiastic locals.

So the marketing people listen and there are more and more ships being booked, 30 in the next 24 months. We have Princess Cruises, P&O, Holland America, and Cunard all showing interest. All these ships are part of the wider Carnival fleet but I have little doubt that if Carnival make a long term go of Geraldton other groups will consider us, being a convenient overnight steaming distance from Fremantle on the way north.

Now I like to regard myself as reasonably well experienced in Cruise ship pilotage and let there be no mistake - this is a different art to bulkies. To begin with they are often the biggest ships to visit a port and the perspective from the forward bridge takes some getting used to as does the windage. Then there is the number of officers in the wheelhouse and Captains who know how to manoeuvre and speak up, all of which to the uninitiated can be a little daunting. In addition there is the technology available on modern ships, thrusters with more power than a panamax main engine, twin screws, separate rudders (that can be moved in parallel or sometimes separated) instruments giving details of track compared to heading, predictors on the electronic chart, rate of turn indicators, helmsmen who will steer to a rate of turn, three way doppler logs and finally controls so inconspicuous as to seem more appropriate to a model ship, not one with 3000 or more souls aboard..

I have written in the past how Star Cruises had set the benchmark for professionalism in operating cruise vessels. Anyone fortunate enough to have been aboard one their ships in a professional capacity can probably attest to this. Well I'm very happy to report that "Sun Princess" has caught up and the Master told me here last week that all the Carnival ships should now be using the same concepts. Perhaps just as Australian Pilots are seen as progressive and inspire other pilot regimes to follow so "Star" has inspired Carnival. Interesting times.

On this recent occasion the Captain introduced me to two bridge officers and the Staff Captain, explained their roles, advised that each was monitoring the evolution in a different way and that they would provide commentary to whomever was conning, be that the Master or myself. We agreed to consider his passage plan first and established target speeds at certain points and that we would ask for speeds rather than engine settings. He very thoroughly showed and explained each instrument and recommended a maximum rate of turn above which the ship might roll "upsetting the guests".

We then looked at my plan which was almost identical, discussed the anchorage position, making it as close to the Marina landing as possible consistent with the days wind forecast and ships draft. We discussed local conditions, expected set and leeway, UKC and also the forecast wind for departure. Then we engaged in a little bit of levity, since it simply would not do to have wind in the evening such that we could not safely use the channel. And we also spoke about where we might pass outside the beacons at his draft, since this might prove a better option than hitting a beacon should she encounter sudden unexpected strong wind or set. Then we came to the nub of the matter, who was going to con the ship. As is my usual approach to such things I suggested I take the ship into and along the channel and out of the marked fairway into the anchorage where the Master would take over to stop and anchor. Everyone acknowledged the plan and agreed to speak up if unhappy, unsure or uncomfortable

This all worked very well indeed with everyone commenting in a most professional and constructive way about set, wheel over points, speed objectives, rates of turn etc. Great stuff and we got breakfast as well.

On the way out it was dark, and following the same procedure we went through everything again. This time the Staff Captain was to heave up the anchor, swing the vessel about 150 deg to starboard and proceed into the

channel between certain beacons where he would hand over to me with the speed at 6 knots. He seemed to be so enjoying himself and so careful to get things right that nearing the point of handover and with a relatively straightforward passage down a very well lit channel in good weather conditions I suggested to the Captain that I was quite happy to let "Staff" continue. The Captain was comfortable and "Staff" was very chuffed, if that can be said about a young modern Italian Staff Captain. We all look forward to the ships return next week.

It is being said by the Premier that Oakajee will be the Gladstone of West Australia. Now that is quite an ambition but the forces behind the development are gathering momentum. Federal and State Politicians are queuing up to share the limelight by committing to money and the preferred proponent Oakajee Port and Rail is pushing all the right buttons. For the time being my role is very much on the back burner but it is an exciting time to be a harbourmaster. One of the reasons I moved on from Tasmania to "have a more meaningful role". What's the old adage, be careful what you wish for. I think I'm about to live in interesting times.

We have had a couple of interesting ships masters visit the port in recent weeks. One, a Chinese Captain of a panamax coming to load iron ore was so helpful as to be a worry. The other, a smaller ship coming to load grain had an East European master who was so disinterested at times as to be almost invisible.

The channel here runs to seaward at 252 deg T passing through a rock reef at the end. I was outbound on a loaded ship at night and asked the inward Chinese Master to proceed to the fairway buoy a mile and half off the entrance, whilst I turned 270 T and then north abeam of the buoy to make a disembarkation lee in 25 k of freshening squally NW wind. On clearing my outbound ship we found the inward vessel midway between the buoy and the entrance, almost stopped, facing north and drifting alarmingly toward the reef only 5 cables or so away. I tried to board, but failed at the first attempt, needing the ship to speed up and turn more to Starboard onto about 030 T to make a suitable lee. At this point I had a flash of "Iron Barron" and asked the ship to turn to 300 T "Away from Reef". To my horror he replied "030 T - I make you good lee". Several attempts were necessary to have him go to port. Once on 300 T he constantly asked "may I come to 030 T now?"

Several miles out on boarding I asked the officer to have the master turn to Port, the channel being astern now. Instead the ship turned to Starboard. On breathlessly reaching the wheel house I was cheerfully greeted with "You like china tea".

"Yes Captain but why didn't you go to Port".

"I have been here last voyage, I know the way. How you like tea".

Trying to polite can be a bit tricky in such circumstances but I smiled and said "OK but maybe wind not so strong last time".

"Maybe, but I sail in many wind. This ship name mean Lucky Trader". Inscrutable? Perhaps. All the way in he kept "helping" by issuing orders in Chinese which I would then ask about. I do believe he thought he was contributing, and we got alongside safely in the end. At least this guy communicated, albeit in a misguided way.

With the second ship I boarded well offshore since he refused to come to the boarding station, although he seemingly acknowledged instructions to that effect. On arriving at the wheel house and introducing myself he shrugged and sat at the GMDS station busying himself with the keyboard. I made a show of looking for the fairway buoy and asked the officer and the master to assist. Both ignored me. Helm and Engine orders were acted on but the master remained at the GMDS.

I then asked him to come and look at my passage plan. Reluctantly he roused himself from the chair and came up next to me.

"Is the engine tested ahead and astern?"

"Yes everything OK". At which point he went to the engine room phone and spoke in his own language to the ER. Returning he stated "See I told you everything OK".

"How about the steering Captain, do we have two motors, was it tested OK".

"Yes, Yes, already I tell you everything fine. I was here last voyage, then everything working - now everything still working". At which point he returned to the phone, spoke and returned to confirm everything was working.

Every item on the list was the same reaction, an irritation at being asked, followed by checking with someone, and a reinforcement that things always worked. Anchors clear, Gyro error, communication fore and aft, mooring plan, all the same pantomime. Bizarre.

On finally completing the check list he again stated that he had been here only a few months previously and that he knew everything. One more trip he would be the pilot himself. He then sat down in the GMDS chair again leaving me to my imagination of how he might fit into a "Faulty Towers" episode and having fond memories of that fine helpful Chinese chap just a few days previously. At least he offered me Tea.

Only as we made the final approach to the wharf with 25 k wind on the offshore quarter did he speak again. This time he quizzed me as to why we were using more than one bollard.

"Sorry Captain, what do you mean, we need to safely spread the line load".

"But in Bunbury the lady harbourmaster says we must only use one bollard."

"You mean one bollard for one line?"

"No all lines go to same bollard. If safe there why not here?"

I needed to concentrate on my landing so rather than contort my imagination with Helen Cole running all 10 lines as some sort of spring to a single bollard the size of the "Eiffel Tower" across the berth I quipped:-

"Maybe you don't know everything Captain. Maybe next time you need a pilot". At this he looked crestfallen and returned to his post at the GMDS.

I'm really looking forward to a sensible "Sun Princess" returning and driving south to check the bollards and wharf access issues at Bunbury. Hum, maybe she's onto something…

20,000 helicopter transfers

A new milestone in the safe transfer of Marine Pilots to and from ships by helicopter was achieved at the Port of Newcastle in January with the service logging 20,000 flights.

Harbour Master, Captain Tim Turner, said Newcastle Port Corporation started using helicopter transfers in June 1999 to improve safety and also reduce fatigue of its Marine Pilots.

"The service logged its first 10,000 transfers by September 2004, or slightly more than five years," said Captain Turner.

"The second 10,000 transfers have taken a little more than four years which reflects increasing trade through the port and therefore an increase in the number of visiting ships."

Marine Pilots employed by Newcastle Port Corporation are highly trained and use their experience and knowledge of local conditions to conduct the navigation of vessels into and out of port.

Captain Turner was the Marine Pilot for the 20,000th transfer when *Ocean Master* sailed from Newcastle on Saturday, 17 January loaded with 124,100 tonnes of coal for Korea.

A total of 3,409 ship movements were registered in the Port of Newcastle last year. About 80% of transfers were completed by helicopter because of the number of vessels that now have helipads on their deck. The remaining transfers were performed by Newcastle Port Corporation cutter vessels.

Captain Turner said the port's Marine Pilots were based at the Newcastle Pilot Station near the entrance of the harbour.

"They are ferried to the Corporation's helicopter base on Dyke Point and then flown to the 'boarding ground' about 3.5 nautical miles off Nobbys Headland to board incoming ships," he said.

"For ships departing port, Marine Pilots are transferred by a small tender vessel from the Pilot Station to the ship and then picked up by helicopter or cutter vessel when the ship is off Newcastle." ◆

Captain Tim Turner with the Hughes 500 helicopter used for Marine Pilot transfers

Courtesy of Newcastle Port News.

Ultra Large Container Ship Design

by Gaute Storhaug

Larger container vessels have recently been designed and built, and this trend is continuing., ased on the existing damage experience of smaller vessels and several strength issues that tend to become more important for larger vessels, many concerns have been raised in recent years.

A brief summary of some important issues are:

- The torsional strength – more hatch opening distortions/deformations
- Welding of thick plates – higher possibility of brittle fracture
- Material factors for high tensile steel (HT40 and above) – more fatigue damage
- Wave-induced vibrations (whipping/ springing) due to more flexible hulls and lower natural frequencies – contributing to fatigue and extreme loading
- Location of fuel oil tanks due to new regulations – do not want to lose cargo capacity
- Stowing and lashing of higher container stacks – collapse of lower containers and loss of containers; different motion characteristics
- Shaft alignment and stern tube bearing loads – hull interaction due to long shafts, large engine and heavy propellers
- Effect of Panama Canal widening and harbour restrictions – opens in 2014 and allows larger and more vessels to pass, and possibly the introduction of new trades
- Single or double screw (twin skeg) – based on requested speed and future fuel price
- Bow and stern slamming – more bow flare and wide, flat sterns and greater possibilities of impact damage, etc.

A few ultra large container ships (ULCS > 10,000 teu) are already in service, e.g. the PS series (Emma Maersk and sisters) from Odense shipyard (Lindø) and the Cosco Asia (with the second sister soon ready) built by Hyundai Heavy Industries. These vessels already show some distinct differences. Samsung Heavy Industries recently presented its newest 16,000 teu design, and below some of its features will be mentioned in light of the challenges stated above and compared to the already existing ULCSs.

First of all, the main dimensions of the new vessel design are length 399m, breadth 57m and depth 30m. The vessel has 24 (40ft) bays, with 20 rows below deck and 22 above. The container stacks in the holds are up to 11 tiers, while on deck there are eight tiers using three-tier lashing bridges.

Samsung has decided to go for a twin-island superstructure concept with accommodation at 0.65L (from aft) and with engine room aft and funnel at 0.2L. The fuel oil tanks of the 16,000 teu vessel are placed below the accommodation, and placing the accommodation quarters forward increases visibility and the container capacity in the bow region by 5–6 per cent compared to placing the accommodation quarters above the engine room. The noise level and likelihood of engine-/propeller-excited vibrations in the accommodation quarters are also reduced by this design. The PS series has a single superstructure at abt. 0.4L. The location of the superstructure on these two vessels reduces the torsional response compared to a conventional more aft location of the superstructure (0.25L), used for instance on the Cosco vessel, which is abt. 50m shorter.

A single screw concept with a 14 cylinder, 108,640 horsepower and 104 rpm (at MCR) engine has been chosen, giving a service speed of 25 knots. This is similar to the PS series and Cosco Asia. The trade is currently intended to be from East Asia to Europe through the Suez Canal, as for other large container ships. Only the Cosco Asia can pass through the New Panama Canal, while these vessels will be post NPX (or rather Suezmax).

The hatch coaming will be designed to have a plate made of HT47 steel, which has not been used so far on existing container vessels, and it is unclear what material factor has been assumed in the design. The upper deck and shear strakes are designed to have plates made of HT40 steel.

The thickness is similar to that on existing 8,000+ teu vessels, but less than on the PS series. The height of the double bottom and width of the double side are otherwise conventional. The larger vessel has been chosen due to economies of scale. This is also illustrated by Samsung's comparison of the total costs for one 16,000 teu vessel with those for two 8,000 teu vessels, in which the larger vessel comes out significantly better. This is provided there is enough cargo volume and sufficient handling capacity at terminals. It should also be mentioned that one large vessel is considerably more environmentally friendly than two smaller ones, with a reduction of about 35–40 per cent in fuel consumption. One large vessel is thus the 'green' alternative.

PILOTS BURN THEIR EYES – Surrounded by Water

Ms. Patricia Paprocki B.Optom.

Most of us realize that the sun's rays can burn our skin, but our eyes are more sensitive to UV (ultraviolet) rays than our skin! Damage begins in childhood because clearer "juvenile" lenses allow up to 70% more UV radiation to reach the retina than the adult's eye. The damage is cumulative over our lifetime. Accumulated UV exposure can predispose and lead to cataracts, macular degeneration, cancer and pterygium (a fleshy growth on the conjunctiva and cornea of the eye). All exposure to UV radiation adds up in the long run.

Outdoor activities, such as water sports or in the case of pilots being out on the bridge wing results in double exposure, as water and shiny surfaces reflect sunlight back to the pilot. The surface on the exposed cornea on the eye becomes sunburned, leading to a condition called photokeratitis. Symptoms include sore, red, swollen and watery eyes. Cloudy, overcast days offer no protection as UV radiation can be strong enough to cause damage.

The best way of protecting your eyes is by wearing appropriate sunglasses, or clear lenses with a UV filter for low light conditions. Wrap around sunglasses give the best protection, preventing harmful UV rays from entering around the frame.

Some contact lenses have some inbuilt UV blocking agents but as they don't cover the whole eye, the use of sunglasses is still recommended. Photochromatic lenses (often advertised as transition lenses) adjust automatically to light and dark conditions and provide convenient UV and glare protection. However the time lag as the lenses change colour can be perceived to be too slow by the wearer. A recent lens release combines UV filter and changes from a light amber colour through to brown; this lens also has a time lag with colour change.

For prescription lens wearers, a wide variety of tints, photochromatic lenses, UV and polarizing filters are available to satisfy their requirements.

Wearing a hat or cap with a broad brim will also give some protection from sunburn and reduce the amount of UV reaching your eyes. Non-prescription sunglasses need to screen more than 95% of UVA and UVB light and can be easily identified by being labeled with an Australian Standards sticker marked with a Grade 1, 2, 3 or 4 rating.

It is recommended that you have your eyes examined every two years. The earlier UV related conditions are detected, the better chance of successful treatment. Explain to your eyecare practitioner the variety of lighting and glare conditions you are exposed to, so that appropriate advice can be given to you.
More information may be found at http://www.optometrists.asn.au/eyevision/consumers/uv

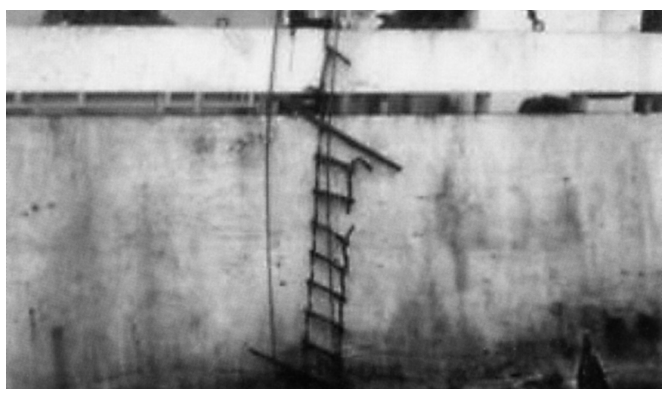
PROGRESS AT IMO WITH REVISION OF SOLAS CH 5 (R 23) AND RESOLUTION A889 – PILOT LADDER ARRANGEMENTS – by Nick Cutmore

I thought it might be helpful to summarise progress on this project so this represents the situation up to the time of writing (1st December 2008)

IMO's NAV sub-committee has given the US / Brazil / IMPA paper (see website for a copy) to a "correspondence group" chaired by a US Coast Guard Officer. He has used the text of the US / Brazil / IMPA paper as a basis for work and all IMO delegations are able to comment (has your country commented?)

There has been a lot of input, mostly good. The NAV committee know that the D&E (Design & Equipment) committee meeting on the 16-20 March 2009 have to consider the issue, so an interim report has been written (on the IMPA website) and this will be presented to IMO by me. A final report with recommendations will have to be ready for the next NAV meeting at the end of July 2009 so there is time in the New Year for you to comment.

We don't want to predict outcomes but whatever happens, the topic has to go back up to the Maritime Safety Committee and then Assembly before SOLAS can be amended and the new standards become binding.



Even in the balmy Caribbean IMPA members struggle with defective boarding arrangements. This gem on the 1900grt Guyana registered reefer "Barana" nearly deposited Trinidad and Tobago apprentice Cammancho in the sea on December 1st. Photo courtesy of Charles Lazzari.

WHAT WOULD THESTOR THINK? By John G. Denham

Reproduced from Pacific Maritime Magazine www.pacmar.com & courtesy of IMPA Magazine.

Some time ago, in another life, I wrote an article "The Care and feeding of Ship's Pilots" (U.S. Naval Institute Proceedings, August, 1993). In that lengthy and documented piece I summarized the Rules, procedures and some experiences as a pilot and discussed the masters' role when dealing with pilots. In my early maritime experience as a quartermaster, tug operator and ship's officer I was mostly an observer. Later I was more directly involved with pilots as a ship captain, investigator, vessel manager and educator. I believe I have been exposed to about every pilot relationship and situation that one can encounter: collisions, allisions, groundings and unskillfulness that includes ineptitude, incompetence, stupidity and reckless disregard. Those involvements were worldwide and with licensed pilots and a few captains that thought they were pilots. However, there were many times when I was fortunate to observe some truly professional displays of outstanding ability and skill that I later tried to emulate.

In 1975, after a career at sea I joined the ranks of pilot having served in a variety of vessels that I felt qualified me as a competent ship handler, only to learn that ship handling was only a part of the job. I had observed some of the best pilots and many others and determined there are three classes of pilots: great, good and those that think they are great. I soon learned that the latter were the ones that created concerns about all the others.

Piloting is the act of skillfully directing the navigation and movement of a vessel(s) safely from A to B. No more no less. A great pilot will accomplish all tasks with ease and confidence. HE is not exciting, hardly exceeds a normal voice inflection and seldom takes his eye off rudder and compass. It just looks easy.

A good pilot will explain any details involving some possible difficulty and will express concern about assistance and support, and with some excitement and vocal inflection accomplish the task with no adverse effect. Everyone is happy when it's over.

The self appointed great pilot is one's worst nightmare and is quickly recognized as things begin to happen. Tugs, tides, current, wind and lazy people are frequent problems, in their view. Skill is replaced by luck and time slows to a crawl. He usually brings a copy (used) of a daily newspaper.

In view of the recent Cosco Busan allision on San Francisco Bay public concern has surfaced questions as to the reliability (trustworthiness) of pilots. On the Pacific west coast there exists almost every operational pilotage system legally recognized; voluntary or compulsory; federal or state licensed.

Pilots have been around since man learned wood would float and boats could sail. In ancient literature, Thestor and Plainurus were acknowledged as great pilots, although not licensed. Most are aware there are ship's officers that are licensed to pilot their vessels and state licensed pilots that are taken on board to conduct a specific operation; some are bar or harbor or river pilots and there are coastal pilots and of course canal pilots. Regardless of title they are licensed, trained, educated, examined and found competent as expert in local knowledge.

Pilotage is considered so essential the federal government established within the Constitution exclusive provisions for admiralty and maritime jurisdiction in federal courts, but like all legal things, there are exceptions.

Since 1836 Uncle Sam has eyed pilotage and pilots. The federal government and the states have battled over jurisdiction of pilots and pilotage for years, and may soon be at it again. In 1874 the duties and responsibilities of pilots were well defined by then Justice Miller. The congress routinely updates Title 33 U.S. Code of Federal Regulations; in1984 amended Part 164 Navigation Safety Regulations, sub-section (k) specifically addressing pilots. There is an abundance of guidance, a plethora of historical data and regiments of nautical experts inhabiting maritime institutions preaching seamanship and practicing maritime law.

My experience and study of marine accidents indicates that as technology increases there continues to be a high number of mariners running into things including each other, fixed objects, rocks, shoals and hazards. Gadgets, to some degree, seem to have improved operations, but have also replaced the concept that proper seamanship is a system of equipment, nature and humans, coordinated and functioning together in an effort to safely accomplish a task. A basic principle of piloting is "Never get near anything, too quickly."

Master, mate, pilot and helmsman, the children of Thestor, must return to the ordinary practice of seaman, an axiom developed hundreds of years ago. Mariners, licensed or documented, at sea or in port must act in a proper, safe and effective workmanlike manner and obey Neptune's laws. An insidious process has infected the ordinary practice of seaman whereas it is felt that a gadget will do it better.

Therefore, it is considered acceptable to disregard the practiced "seaman's eye" distrust one's professional "gut-feeling," disregard acquired knowledge and common sense and blindly follow the gadget. All gadgets require an observer who must interpret data, use judgment and determine a proper action to avoid hazards and unexpected dangers.

Universally, management has determined that ship-handling training for pilots is a solution. Whereas in 2003 a survey indicated most marine accidents were the result of improper lookouts (54 percent) and 5 percent were related to inappropriate direction of supervision or work. In other words, in 59 percent of the cases, the quality of vessel management was lacking. California has declared that pilotage is necessary for the economic well being; provides essential transportation; encourages state control over pilot qualification; provides for safe transit; ensures safe and pollution free commerce and provides for the safety and physical well being of pilots. A dedication of purpose of commendable stature, if adhered to.

Pilotage is a stepchild of the political process; only heard when crying or in trouble, and then quickly silenced. If local government wants to retain jurisdiction it must act responsibly and enforce the Rules and manage pilotage as a business of public concern and safety. A collision at sea may ruin one's day, whereas an accident in a harbor can close a port for years. Pilot competency must include not only ship handling and local knowledge but also vessel operations as it relates to port operations, security, public safety and involvement in environmental protection. Harbor authorities, vessel managers and owners must share in the responsibility *for the consequences of any neglect to comply with these rules which may be required by the ordinary practice of seaman, or by the special circumstances of the case.*

Sven Gyldén combined the best of the traditional and modern in an exemplary manner. He was a direct mentor to Hans Hederstrom and Anders Andersson and indirectly through his publications a mentor to us all.

Ravi Nijjer
Honorary Member

Independent investigation into the grounding of the Antigua and Barbuda registered container ship Francoise Gilot in Port Phillip, Victoria on 9 May 2008

Occurrence Details

Occurrence Number: 254
Location: Port Phillip
Occurrence Date: 09 May 2008
State: VIC
Occurrence Time: UTC +10
Highest Injury Level:
Occurrence Category: Incident
Investigation Type: Occurrence Investigation
Occurrence Class:
Investigation Status: Completed
Occurrence Type: Grounding;
Release Date: 20 May 2009

Vessel Details

Vessel: Francoise Gilot
Flag: A & B
IMO: 9295517
Type of Operation: Container ship
Damage to Vessel: Nil
Departure Point: Melbourne, VIC
Departure Time: 0230
Destination: Port Botany, NSW

Abstract

At 0541 on 9 May 2008, the Antigua and Barbuda registered container ship Francoise Gilot grounded while transiting the South Channel, Port Phillip, Victoria. The ship had sailed from Melbourne earlier that morning and was departing Port Phillip bound for Sydney.

The ship grounded between beacons 18 and 20 of the South Channel during a starboard turn around the Hovell Pile beacon at the entrance to the Channel. The ship was refloated at 0755 using its main engine following a water ballast transfer operation and it then returned to Melbourne where an underwater inspection of its hull revealed that it had not been damaged during the grounding.

The ATSB investigation found that the helmsman had put the helm to starboard instead of port during the turn around the Hovell Pile beacon and that he was probably affected by fatigue at the time. The investigation also found that neither the Port Phillip pilot nor the ship's master discussed the allocation of roles and responsibilities of the bridge team before the ship left the berth. Consequently, no one was actively monitoring the helmsman's actions when he was executing the pilot's orders and as a result, the helmsman's error was not detected until it was too late to avoid the grounding.

The report identifies a number of safety issues and the ATSB acknowledges the safety actions which have been taken by Reederei Alnwick Harmstorf and the Port Phillip Sea Pilots to address them. The ATSB makes two recommendations associated with two outstanding safety issues.

STOP PRESS

Cosco Busan pilot gets 10 months prison

John Joseph Cota, the pilot who caused the Cosco Busan, a 900-foot long container ship, to collide with the San Francisco Bay Bridge and discharge approximately 53,000 gallons of oil into San Francisco Bay, was today sentenced to serve 10 months in federal prison by U.S. District Court Judge Susan Illston for the Northern District of California.

U.S. District Judge Susan Illston imposed the maximum term proposed in the plea agreement that Capt. John Cota accepted in March, but rejected a prosecution request for a $30,000 fine. She noted that Cota, along with the ship's owner and operator, are still defendants in multimillion-dollar lawsuits from the spill.

COMMODITY	JULY 08 - MAY 09	JUL 07 - MAY 08
	Thousands of Tonnes	Thousands of Tonnes
Coal	82,520,099	81,620,202
Alumina	1,258,485	1,187,803
Concentrates	379,579	360,841
Grains	690,380	105,054
Fertiliser Product	271,196	290,553
Woodchips	264,530	235,033
Other Bulk	1,343,126	1,181,684
Aluminium	101,384	118,118
Steel	283,507	261,306
Grinding Media	58,696	75,586
Other Gen. Cargo	226,709	154,784
Total All Trades	87,397,691	85,590,964

Newcastle Port News.

Goodness, They have been busy in Newcastle. 87 Billion Tonnes! Ed.

These recommendations are to be considered in particular against the background of what happens when these vessels are integrated in the rescue concept of the station vessel.

The BSU recommends that pilots should point out more intensively in advising vessels that the course and speed specified by the pilot should be retained until the pilot has transferred safely to the pilot transfer vessel and this has moved at least 2 to 3 boat's widths away from the ship's side.

Advice of a course always presumes sufficient sea area and sufficient distance from other vessels or navigational signals.

The BSU recommends that the manufacturer of the VDR device on board Delta St. Petersburg should optimise the hardware and software so that the data recorded are available in sufficient quality after marine casualties and can be analysed.

The full report on this incident can found in the BSU Investigation Report 415/06 http://www.bsu-bund.de/EN/Home/homepage__node.html?__nnn=true

Sven Gunnar Gyldén FNI & FRIN (1934 - 2009)

An appreciation

On 25 February 2009 following an accident Sven Gunnar Gylden died at his home in Southern Sweden.

Sven Gyldén was a Port of Gothenburg pilot and a North Sea Pilot from 1959 until his career was cruelly cut short by a series of strokes from 1992. He worked very hard to recover his mind and speech but never regained his full physical, strength and coordination.

Sven Gyldén belonged to a group of mariners that includes Benny Pettersson and Hans Hederstrom who were inspired by the pioneering work of Captain Kari Larjo in developing advanced equipment, bridge design and procedures for operating the large ferries between Sweden and Finland.

Both Benny Pettersson and Hans Hederstrom are well known to Australasian pilots through their active involvement in the BRM Programme that includes the Advanced Marine Pilots Training Course.

Though Sven Gyldén is personally not so well known because of his inability to travel after the stroke he had a very critical role in initiating the changes in thinking that have placed Australia in the forefront of advancements in pilotage from selection and training to operational practices.

In the late 1980's maritime thinking and culture in Australia was in a state that can best be described as a post-colonial stupor. {(I was then a lecturer in the marine section of the Royal Melbourne Institute of Technology (RMIT)}. Awakening from the post colonial stupor was brought about by an invitation in 1989 to observe bridge operations and systems on the Silja Line ferries.

After returning to Australia I was promoted to Head of the RMIT Marine Section and was able to make some very significant changes to certificate courses based on what had been learned on the Silja Line ferries. This included the introduction of Bridge Resource Management (BRM).

As no textbooks on the systems etc observed in the Silja Ferries were available we relied very heavily on relevant papers written by Captain Larjo, Benny Pettersson, Hans Hederstrom and Sven Gyldén. In this regard the papers written by Sven Gyldén were particularly useful. Sven was very thorough and methodical in his professional approach and this is also reflected in his papers.

Sven Gyldén was a very prolific author and his papers covered the widest range. His papers that were used included: A Structured Approach to Navigation and Shiphandling in Coastal and Confined Waters, Passage Planning for Coastal & Restricted Waters, Radar Monitored Shiphandling and Instrument Navigation in Restricted Waters.

Following success of the new approach in the certificate courses an official letter of appreciation was sent by the RMIT to Sven Gyldén for his special contribution.

Pilots who have attended the Advanced Marine Pilots course will be familiar with Constant Radius Turns which Sven Gyldén co-authored of with Benny Pettersson.

Sven Gyldén was very interested in professional development and along with Benny Pettersson and Hans Hederstrom was involved in training of Swedish and Norwegian pilots in 'Instrument Piloting' and 'Radar Navigation'.

There was a lot of the traditional sailor in Sven Gyldén. He had a wooden sailing boat "Spindrift" which he lovingly maintained and sailed around the Swedish coast and Baltic with his partner Birgit. He had a love for woodworking and carved numerous name boards. With pipe in his mouth he worked away at making knot boards and covering bottles with beautiful decorative rope work.

Sven Gyldén had a great interest in motor racing and had a pivotal role in bringing Formula 1 motor racing to Sweden.

As a pilot Sven Gyldén had an outstanding pedigree. Not only was his father a Gothenburg pilot but Sven's ancestors had filled that role for the port since 1645.

For his contributions to the profession Sven was elected to become a Fellow of both the Nautical Institute and Royal Institute of Navigation.

Continued from Page 8

A lifelong mariner, John Denham began his career in the merchant marine in 1942. After a career that included 20 years' active duty both ashore and at sea in the US Navy, Captain Denham served as a bar, bay and river pilot in the San Francisco Bay area, followed by seven years as a department head at California Maritime Academy and two years as the director of the marine department of American President Lines. His regular column, Vox Oceanus, can be found in Pacific Maritime Magazine (www.pacmar.com)

Pilots rely on ship and crew to meet…

Thanks to Lloyds List DCN.

Pilots rely on ship and crew to meet basic equipment and safety standards but current trends risk increased casualties, reports SAM COLLYER

THE PRACTICE of only employing one pilot for ships entering Australian ports would likely contribute to an increase in major shipping safety incidents, according to one of Australia's most respected harbour masters.

Port of Newcastle harbour master Tim Turner said the so-called "one man band pilot" should not be the norm for Australian ports.

He told the Regional Ports 2009 conference in Newcastle last month that there were fears the number of shipping incidents would increase if the competence of crews was not addressed.

Capt Turner said pilots relied upon the ship and crew to meet certain basic standards, including having the right equipment and safety systems.

But analysis in Newcastle, the world's largest coal port with more than 3,000 vessel movements a year, showed alarming deficiencies in ships and their crews.

"It is imperative that the bridge team, and in particular the master, has effective command of English," Capt Turner said, adding that a knowledgeable crew could point out cases of pilot error instead of waiting for the pilot to realise his or her mistake.

"It is not acceptable to have ships that visit our ports creating unnecessary risks to the port, port infrastructure, environment or other vessels," he said.

"The crew competency issue has been an area of concern for many years; the problem appears to be accelerating rapidly in the wrong direction.

"It is getting worse – this is not an isolated opinion; it is the common opinion throughout the industry.

"But little appears to being done to address the problem.

"As far as risk-management is concerned, such a situation is a dangerous condition and can only lead to major shipping incidents in the future."

Capt Turner referred specifically to the *Kirki* incident in 1991 that led to the *Ships of Shame* report, as well as the *Laura D'Amato* oil spill in Sydney in 1999 and the fierce storms that contributed to the grounding of *Pasha Bulker* in Newcastle in 2007.

He said Australia was not immune from shipping incidents and it was as important now as it ever was for continued scrutiny of the competence and quality of ship crews.

Capt Turner questioned the standard of skill of many seafarers now visiting Australian ports, arguing that the pilot's ability to handle a ship safely was dependent on how well the crew understood and followed his or her instructions when under pilotage.

But he said that the quality of crews could vary considerably depending on the type of vessel.

"Pilots are unique in the respect that they are probably the only independent professionally-qualified person who works with, and witnesses a crew in action on a vessel that is dynamically navigating underway and not in the static mode alongside a berth," he said.

"They witness the complete spectrum of competence and incompetence on ships, from the absolutely abysmal to the best practices that could be envisaged."

There were some ships "where the master can't wait to hand the controls to the pilot to avoid hitting another ship in the anchorage".

In these situations, "the effectiveness of the bridge team is minimal, the command of English is poor, the helmsman has trouble steering and if the pilot suddenly had a heart attack, the paramount pilotage objectives of a safe transit, protection of the environment and port infrastructure would be dashed in very quick time".

Capt Turner points to a lack of training and fatigue issues as contributing to the decline in safety.

But he said there were many steps that could be taken to address the problems.

He welcomed the involvement of the Australian Maritime Safety Authority and Ports Australia, which he indicated would help develop an overview of the situation nationally.

Contributing factors to ship incidents

AUSTRALIAN Transport Safety Bureau statistics show that 20% of the factors causing accidents relate to deck operation, navigation and knowledge skills and experience.

It confirms what Newcastle harbour master Tim Turner believes is proof that human and operational errors are just as prevalent in incidents as structural and equipment faults.

A survey conducted at the port of Newcastle last year found what Capt Turner described as "alarming" results:

- 15% of bridge teams could not operate equipment effectively.
- 82% of the time bridge team members did not attend the master/pilot exchange.
- 63% of bridge crews do not put positions on the chart during pilotage.
- 68% of bridge crews do not monitor the helm during pilotage.
- 8% of helmsmen have trouble steering.
- 15% of crews have difficulty mooring the vessel.
- 11% of bridge crews have English language difficulties.
- 41% of the time the pilot card is not given to the pilot.
- 85% of the time, the ships characteristics are not discussed with the pilot.
- 94% of the time the pilot was not inducted onto the vessel.
- 95% of the time there were no security checks of the pilot.
- 20% of masters did not understand the pilot exchange.
- 43% of masters did not focus on the passage plan.
- 8% of crews mishandled tugs' lines.
- 90% of times the bridge layout was not explained to the pilot.
- 14% of ships did not have the correct charts available.
- 10% of helicopter emergency parties were not properly stationed

R2A Newsletter

Continued on Page 25.

Welcome to the May 2009 edition of the R2A Newsletter.

Recent projects at R2A include Availability Profiling for the Gladstone Area Water Board, Availability Profiling for the S.T.a.P.S. Alliance for Melbourne Water's Eastern Treatment Plant, various risk reviews for trains in Victoria, a bushfire due diligence review as well as a flood due diligence review as a result of the bushfires.

R2A also recently commissioned an independent Client Satisfaction Survey completed by *Leading Matters* on R2A's behalf. The feedback from the survey was invaluable and will be used to continually improve our business and services we provide. The R2A Board would like to thank those Clients who took the time to willingly participate in the survey. It is greatly appreciated.

Upcoming R2A Conference Papers & Presentations

Dust Explosions 2009, Engineering Due Diligence & SIL Allocation for explosion control systems (10 June, Penrith)
This presentation emphasises that the courts are always right (after the event) and that this means that threat & criticality is logically prior to hazard & risk. It also outlines a SIL (safety and integrity level per IEC 61508) allocation process which has been used to satisfy relevant fire authorities, regulators and legal counsel in NSW and Queensland. (See www.informa.com.au/dustexplosions for further information)

QLD RES Technical Presentation - ISO 31000 - the new international risk management standard (10 June 2009, Brisbane)
Richard Robinson will provide a context by presenting a personal appreciation of the strengths and weakness of AS4360. This will be followed by Prof Jean Cross (a member of the drafting committee of ISO 31000) outlining key features of the new standard. (Contact: Lauren Moon at Lmoon@engineersaustralia.org.au for registration).

ITEE College (WA Group) Engineers Australia (17 July 2009, Perth)
System Safety Due Diligence - Tools & Techniques
*(*Mike Dean & Richard Robinson)
This presentation describes a minimum set of tools and techniques that have been used in Australian jurisdictions to demonstrate due diligence in complex technological systems. This includes software safety allocation requirements under IEC 61508. (For further information contact: Dr Geoff Roy at geoff@cadplan.com.au).

ENA Earthing Seminar (31st July 2009, Sydney)
Engineering Due Diligence – Earthing Systems (Richard Robinson)
This presentation will outline a process to enable the development of robust engineering due diligence arguments for known earthing hazards. It will use the issue of abnormal voltage rises on water pipes as a case study (presented with permission from EnergySafe Victoria). (Contact Than Dovan at than.dovan@sp-ausnet.com.au for further details).

Introducing Lisa Xu

Lisa has recently joined the team in Melbourne as Office Co-ordinator.

Courses

Scheduled dates for Risk and Liability (Engineering Due Diligence) Public Courses presented by Richard Robinson are as follows:

Adelaide: 4-5 August
Brisbane: 27-28 May, 21-22 October
Canberra: 16-17 June
Melbourne: 7-8 May, 17-18 September
Perth: 23-24 June, 18-19 September
Sydney: 26-27 August

See the EEA website www.eeaust.com.au for further details and registration.

Richard is also providing EEA in-house courses for Defence, Canberra and Powerlink, Brisbane.

All courses use the revised 7th edition of the R2A Text. This is available for purchase direct from R2A Melbourne or EABooks for $100 plus GST and P&H.

Formal Philosophy *(Logic)*	***Natural Philosophy*** *(Science)*	***Moral Philosophy*** *(Design & Ethics)*
The universal and necessary laws of reason.	*Knowledge about the natural material time space universe acquired using rational principles (logic).*	*Consideration of what ought to be and how this can best be achieved. It results in:* ***Social Infrastructure*** *The implementation of an ethic which modifies our social institutions and conventions.* ***Material Infrastructure*** *The implementation of a design which changes the natural material time space universe.*

The modifications of the superstructure and other changes in the repeat construction of the vessel and the resulting increase of the empty vessel weight and height of the centre of gravity can be ruled out as a cause of the accident.

Moment caused by putting the helm

The Pilot Tender ELBE 3 has an installed engine rating of 157 kW. When the helm is set a force is generated resulting from the diversion of the propeller jet. This depends on the effectiveness of the rudder (rudder angle and area of the rudder blade) and the propeller thrust (engine rating).

The rough calculation shows that the moment caused by setting the helm of the pilot tender does not exceed the righting moment of 16 KNm in any of the calculated cases. It can be concluded from this that the enlargement of the rudder area and the setting of the helm cannot have been the cause of capsizing.

Analysis of the serious marine casualty Pilot tender

The stability of the pilot tender is in line with the stability criteria of the IMO Res.A167. The stability is sufficient for this vessel, and during trials in open water the boat did not encounter any stability-endangering situations.

Applying "full speed" and a "hard rudder position" alone do not lead to capsizing of the boat according to these calculations in the situation described. The stability calculations have also shown that an error made by the boatswain in running the vessel can therefore be ruled out.

The manoeuvres of the pilot tenders demand some skilfulness from the boatswain, and the pilots association (Lotsbetriebsverein) is itself responsible for the qualification and deployment of these staff. The boats are not tied up with lines to the vessels receiving piloting services, but approach very close to these vessels so that the pilot can transfer safely. For this manoeuvre it is advantageous to have a hull with a long, largely straight contact surface. However, for casting off from the other vessel a hull that is drawn in towards the stern and in which the contact area ends well before the rudder axis to facilitate turning away is better.

The pilot tender is not a self-righting craft. On the contrary, the stability curve and also the floating position on the day of the accident show that in the "upturned floating position" the stability is more than twice as high as in the upright floating position. The additional installation of self-inflating buoyancy bodies that become effective in the event of capsizing create self-righting of the boat. However, this has a negative influence on the centre of gravity of the vessel and increases the weight of the boat, so that the stability curve for the upright floating position would deteriorate further.

The calculations have revealed that the stability in damaged condition and safety in damaged condition can only be produced by installing approx. 1 m3 additional buoyancy bodies in the engine room. This buoyancy is also urgently necessary if, for instance, the 3 mm thick aluminium shell plating is damaged in a collision, as in the accident of Pilot Tender ELBE 2 on 16.12.2002 (BSU Ref. 209/02

Measures already taken

In the draft of the present report the BSU recommended to the operator of Delta St. Petersburg that the arrangement of the pilot transfer station be shifted on the vessels more to the vessel pivot point at halfway along the ship's length.

The operator informed the BSU in its comment on this that a draft design for a pilot ladder had been submitted to Germanischer Lloyd for approval. The following sketch shows the arrangement of the pAfter approval of the drawing the modification is to be implemented on all 4 vessels of the "M Class" of this operator. The new pilot station would then be in the middle of the vessel where the rubbing strakes are interrupted.

The SeeBG (Marine Insurance and Safety Association) too sees need for action regarding the alignment of the transfer arrangements, not only in relation to the marine casualty of Delta St. Petersburg. With reference to the regulations of the SOLAS Convention that are to be observed, the flag state administrations and classification societies are also called upon to act here. The SeeBG will therefore approach the recognised classification societies in order to find a general solution for the problem pilot gate midships:

Safety recommendations

The following safety recommendations shall not create a presumption of blame or liability, neither by form, number nor order.

The BSU recommends the public authority responsible for procurement that in the case of new procurement or conversion of the pilot transfer vessels, care should be taken to ensure that the intact stability and floatability satisfies the requirements of use in the Elbe estuary in the event of damage. It should be reviewed whether it is possible by changing the form of the vessel to achieve greater positive range of stability up to 180°, or at least to ensure far-reaching self-righting of the vessels by means of appropriate technical measures.

turn over his starboard bow in order to reach his outgoing course of 275°. Shortly after this he was informed via channel 17 from the main deck that something was wrong with the pilot boat, whereupon he immediately reduced the pitch again.

On this occasion the casting off from Delta St. Petersburg proved difficult for the boatswain of ELBE 3, as the pilot tender did not get clear from the ship's side and after a little time slipped ever further aft towards the stern of the container vessel with an increasing list to port. The boatswain still tried to get away from Delta St. Petersburg by increasing the engine speed to "full ahead" and setting the helm from port to starboard. After a short time, however, the list to port increased considerably so that the boatswain called to the persons in the superstructure to leave the interior. At this moment the pilot tender capsized.

The interior quickly ran full of seawater. During the capsizing incident the seaman and the pilot were able to pull themselves through the entrance hatch and dive to the surface of the water. On the surface of the water they swam to the completely capsized pilot boat that was lying upturned and helped the boatswain who was also swimming on the surface and losing strength and who threatened to slip out of his life jacket.

The Master of Delta St. Petersburg saw the capsized pilot boat at the stern and sounded the general alarm, notifying the crew that they should get the life boat ready. The turning manoeuvre was resumed in order to help the capsized pilot tender. The vessel notified the Station Vessel ELBE of this intention by radio. Station Ship ELBE declined this assistance as they had observed the capsizing and immediately launched an inflatable boat that picked up the three persons at the scene of the accident after about 8 minutes.

Delta St. Petersburg was instructed to stop the turning and to maintain its position. All three persons in the water were wearing automatically inflatable life jackets. The pilot tender lying in a stable, upturned floating position was subsequently picked up by MV VOGELSAND and taken to Cuxhaven.

Points of Interest

No visible damage or paint abrasion was ascertained. DELTA ST. PETERBURG has a closed bridge. Visibility downwards to the pilot transfer station is easily possible through appropriately arranged light lattices. The Master stated that neither he nor a crew member had observed the capsizing of the pilot tender directly.

In other pilot operations it was normal for the pilot vessel to proceed ahead, only this time it had "sagged" off.

The pilot station with pilot ladder is arranged well aft on Delta St. Petersburg. From the transom to the pilot ladder is about 1/5 of the ship's length (34 m). In this area the shell plating is still just parallel above the water surface. In the under-water area and also a few metres further aft in the above-water area the frame contours already fall inwards considerably.
The arrangement of the pilot ladder in the straight midships part halfway along the vessel would be approx. 77 m from the stern.

The Pilot Tender ELBE 3 was inspected on shore lying in a hall in Cuxhaven on 29 August 2006. The evident damage to the hull and the surrounding fender was sustained on salvage and/or before the accident in normal operation and is not to be seen in connection with the capsizing. No damage to the conning position and the aerials resulting e.g. from contact with Delta St. Petersburg could be seen.

The Pilot Tender ELBE 3 was built as third copy of vessels "of the same design" in 2002 at the Fassmer yard as a "self-righting boat with open conning position". The hull and engine of the vessels are all the same. Only the superstructures were modified in accordance with findings gained during work assignments to allow even safer transfer of the pilots.

A basic requirement for pilot tenders made by the public authority carrying out the tendering procedure in 1997 was a self-righting and self-draining design. According to the requirements the boat must have positive righting moments over a range of 180° range of stability. In the text of the tendering procedure in 2001 for repeat construction this requirement was changed to an "unsinkable design". Sufficient fendering to absorb the collision energy was also to be provided so that in rough seas it would be possible to go alongside vessels. The rudder was to be extended as in the prototypes ELBE 1 and ELBE 2.

In order to obtain reliable statements about the stability of the pilot tender and the course of the accident an expert opinion was commissioned from the firm Ship Design & Consult GmbH (SDC). The vessel shape was digitised using the lines drawing and the hydrostatic form values were calculated with the "NAPA" programme system. The calculations take into account free heeling, free trim and the effect of the free surfaces in partly filled tanks. A comparison of the data from 1999 and 2002 drawn up by two different firms with the data now produced revealed only slight differences in the displacement and centre of gravity values that can be neglected for the calculation. Thus all three firms calculated the hydrostatic values practically with the same geometry model.

Pilot's Personal Liability insurance – protecting your livelihood

OAMPS Gault Armstrong
Marine Insurance Specialists

Q1: I understood that I was protected for my negligence as a Pilot by my employment contract and also my employer's insurance policy?

A1: On the whole this may be correct if the employer is a Port Authority or private Pilot company. However, there are circumstances where protection may not exist, such as:-

- The employer does not stand behind the Pilot for legal, commercial or other reasons;
- The employer is no longer in business; or
- The Pilot was acting beyond his/her authority at the time of the incident and therefore not entitled to an indemnity. This may of course be disputed but in the short term the Pilot could be liable for substantial defence costs.
- The employer may not pay for separate legal defence for the Pilot and this may be required for the suitable defence of the Pilot;
- The Pilot may also be refrained in what he/she can state as to their version of events;
- The employer's insurer declines to indemnify the Pilot due to a technical issue e.g. alleged non disclosure by the employer, which of course could be nothing to do with the Pilot.
- The employer's insurer could delay with a decision on indemnity at the detriment of the Pilot;

The employer's insurance cover may not be as wide as the proposed Personal cover.

Q2: Is the proposed Pilot insurance available for individual Pilots only and will they be the insured on the policy?

A2: Yes, the proposal is the first in Australia in that it offers a personal policy for each individual Pilot. For convenience, groups can also apply but each Pilot remains the policy holder and will be responsible for the premium payment.

Q3: Is the proposed personal Pilot insurance portable if a Pilot changes employers?

A3: Yes, totally portable within AMPI members and as long as the insured remains a Pilot.

Q4: Aren't Pilots protected by immunity under Section 410B of the Navigation Act?

A4: Yes, immunity exists in Australia but there are circumstances where the immunity may not apply and in reality there is still the risk of litigation against a Pilot who would be deemed a "soft" target following an incident. Australia is a litigious country and invariably the vessel owners are based overseas so they may not care for local immunity.

Some litigants might consider pilots have "deep pockets" justifying them being sued even if the claim against the Pilot is tenuous. Defence costs will therefore be incurred.

Q5: I understood our Maritime legislation in Australia to be 'watertight'?

A5: There has been of late Maritime cases that have overturned established legislation e.g. UKTC.

Q6: With the availability of the Pilot's insurance will Pilots be more exposed to litigation?

A6: Quite the contrary – Pilots are invariably the target following an incident.

Q7: What is the position on the International scene?

A7: Many developed countries now have similar schemes supported by the local Pilot Association. Additionally, recent reports issued by the IGA P&I Clubs cite Pilot error as a significant contribution to Maritime incidents and apparently increasing.

Q8: What cover is provided within the proposal?

A8: The following limits apply to each Pilot/policy based on the basic cover- higher limits are available for increased premium:-

Combined single Limit	**A$2,000,000 each occurrence**
Legal liabilities from pilot activities	A$1,000,000 each occurrence
Statutory Fines & Penalties	A$1,000,000 each occurrence
Errors & Omissions	A$1,000,000 each occurrence
Third Party Liabilities	A$1,000,000 each occurrence
Defence costs – non criminal acts	A$750,000 each occurrence
Defence costs – alleged criminal acts	A$200,000 each occurrence
Excess	A$2,500 each occurrence

Q9: What is the premium for this cover?

A9: The annual premium will be A$950 plus taxes and will be charged to a common due date , proposed to be 30 June. i.e. the minimum premium will be A$950 and pro rata for period to the following 30 June. Higher limits will attract higher premiums.

Q10: How can cover be effected and is this insurance offer available elsewhere?

A10: Cover can be effected by the completion of the appropriate proposal form issued by OAMPS Gault Armstrong. The offer is exclusive to OAMPS Gault Armstrong.

Laser Docking Aids

Laser docking aid systems (DAS) have proven instrumental in increasing efficiency and safety in critical docking operations. With vessels getting larger and the traffic volume increasing, the value of DAS is being brought into sharper focus. But, like all products, there are good systems and not-so-good systems, and often the difference can come down to how well the hardware and software is integrated into the day-to-day operations of the particular jetty.

Designed to be effective over the last 200 metres of approach to a jetty, a DAS takes distance data from two laser sensors and uses it to calculate information vital to successful docking. The data can be provided to the pilot or vessel master through a number of media including jetty-mounted display boards, hand held monitors and laptops. Data including distance from the jetty, speed and approach angle all help the pilot monitor the approach and make adjustments where needed.

Naturally, for the pilot to have confidence in the system, the data needs to be accurate, real-time and reliable. The best way to remove error from the DAS data is to ensure the system has been correctly installed and fully integrated into the jetty infrastructure and data systems. A hard landing can mean damage to the vessel, fenders or jetty and can lead to injury. A planned approach to specification and design is recommended.

Planning

At many facilities operational benefits of a DAS may never be fully realised because design and training issues have not been properly addressed, specifically inadequate hardware and software design, and incorrectly positioned laser sensors or main display board. These factors should be considered at the planning stage of the project, which will lead to a system that best suits the jetty.

Software and hardware design

Laser docking aid systems rely on post-processing data acquired by laser sensors. Speed, distance and angle must be calculated in real-time and output to the display board and monitoring network. A robust, well-designed system should use an embedded micro-controller to perform these functions without the need for reliance on software hosted by MS Windows to provide critical functions. It should be able to operate the system and log the data to a non-volatile flash memory with the aim of minimizing reliance on personal computers and/or operator skill.

Unsatisfactory sensor location

Laser sensors need to be correctly positioned and installed on the jetty to allow for the full range of vessels to be berthed, taking into consideration their size, loading condition and tidal variations possible at the facility. Jetties with large tidal variations may require a sensor elevator or tilt mechanism that may be manually or remotely controlled. However, sensors set too far apart may not target the flat section of a vessel's hull and will provide inaccurate distance measurement. Some jetties may require additional sensors in order to cover the full range of vessels to be docked. All these factors need to be considered at the design stage.

Unsatisfactory main display board location

The main display board is mounted on the jetty to provide the pilot or master with a visual indication of the critical data. The location requires careful consideration. Obstruction of the display board from a vessel's bridge and the narrowing angle of view as a vessel nears the jetty are common shortcomings. Fixed position display boards provide limited flexibility whereas rotating display boards may overcome visibility limitations. Large jetties that berth vessels both port side or starboard side to the fenders may require dual display boards so pilots on both vessels have a clear view.

Inadequate elevation of a display board can be another problem particularly at LNG terminals where the vessel's bridge may be over 20 metres above the jetty, thus requiring the display board to be considerably elevated above the jetty deck.

The Trelleborg Solution

As one of the world's leading manufacturers of docking aid systems, Melbourne-based Trelleborg Harbour Marine has considerable experience with installing DAS at major terminals around the globe, specializing in LNG jetties. Their Smartdock® system has been specified for 70% of all new LNG projects outside of Japan since 2005. With both the hardware and software designed in-house, the system is fully integrated and adapted easily to suit the specific requirements of the site.

Software

The working heart of Smartdock® is the software. Information from the sensors is transmitted to the various display options employed at the site. In the case of the hand held monitors and the jetty display boards, the data is limited alpha-numeric figures. With the laptop or dedicated PC, a graphical representation of the docking process augments the figures.

In the vessel approach or docking mode, the software allows the display of the vessel in the form of a dynamic graphical representation, together with data presentation of vessel distance, speed of approach and longitudinal angle. After the vessel has berthed, the software will provide display alarm and logging of the vessel's

Cosco Busan pilot pleads guilty in deal

Bob Egelko, Chronicle Staff Writer
Saturday, March 7, 2009

(03-06) 17:06 PST SAN FRANCISCO -- The pilot of the container ship that struck the Bay Bridge in 2007 and spilled 53,000 gallons of fuel oil pleaded guilty Friday to federal water pollution charges in an agreement that calls for him to serve two to 10 months in prison.

Capt. John Cota, 61, admitted in a San Francisco courtroom that he acted negligently in piloting the 901-foot-long Cosco Busan in a heavy morning fog Nov. 7, 2007, without using the ship's radar or discussing his plans with the captain and crew. He also admitted failing to disclose all the prescription drugs he was taking when he renewed his federal and state pilot's licenses in 2006 and 2007.

But his negotiated plea agreement nearly fell apart when a prosecutor read a lengthy account of Cota's alleged misdeeds and his lawyer protested that it was full of inaccuracies.

"An incompetent, untrained crew and mistakes by the Coast Guard" contributed to the accident, defense attorney Jeffrey Bornstein told U.S. District Judge Susan Illston.

Illston reproached Assistant U.S. Attorney Jonathan Schmidt for "arguing for the grandstand." After Schmidt backed off and accepted Cota's account in the plea agreement of his own shortcomings, Illston allowed Cota to plead guilty to misdemeanor charges of violating the Clean Water Act and the Migratory Bird Act. She scheduled sentencing for June 19.

Besides imprisonment, the plea agreement includes a fine of between $3,000 and $30,000. Cota, a vessel pilot for 26 years, has surrendered his license and said in his plea agreement that he would not reapply until January 2010.

Cota and the ship's owners and operators are also defendants in civil damage suits by state and federal agencies and by fishers and crabbers seeking reimbursement for their losses.

The guilty plea "is a reminder that the Cosco Busan crash was not just an accident, but a criminal act," Justice Department official John Cruden said in a statement. "This is not a case involving a mere mistake."

Bornstein told reporters that the government is "trying to make Capt. Cota out to be a scapegoat" for an accident that had multiple causes.

Prosecutors agreed to dismiss felony charges that Cota lied in annual physical exams about the medications he was taking. Cota admitted in the plea agreement that he omitted some medications from the forms he provided to state and federal licensing authorities, including a sleep-disorder drug, but did not say he had knowingly lied.

The Cosco Busan hit the second tower of the bridge west of Yerba Buena Island. Oil pouring from a gash on the ship's port side killed more than 2,000 birds and reached the bay shoreline and ocean beaches in Marin and San Mateo counties. Government agencies have estimated the cost of the damage and the cleanup at $60 million.

Last month the National Transportation Safety Board found that Cota had made numerous errors and had been impaired by his prescription drugs.

The board also faulted the ship's captain for failing to plot a navigation plan or communicate with Cota. It criticized state and federal regulators for continuing to license Cota despite his sleep disorder, his use of medications known to affect judgment, and what investigators described as his history of accidents.

The ship's operating company, Fleet Management Ltd. of Hong Kong, still faces six felony charges for allegedly falsifying documents to interfere with the federal investigation. Illston granted the company's request to postpone its trial from April to Sept. 14.

Courtesy of San Francisco Chronicle

German Pilot Boat Capsizes

On 23.8.2006 the Container Vessel MV Delta St. Petersburg was proceeding downstream the river Elbe on a voyage from Hamburg to Rotterdam. One hour before reaching the Pilot Station Vessel ELBE, Delta St. Petersburg was informed that due to the low freeboard of 2 m, the smaller Pilot Tender ELBE 3 was designated to collect the pilot.

A WNW wind force 3 and a light north-west swell prevailed in the Elbe estuary, so that the pilot ladder was rigged on the port side, the lee side of the vessel. On passing Buoy 6 the Station Vessel ELBE was informed that it was planned to collect the pilot on the port side.

Shortly before reaching the station vessel the Master of Delta St. Petersburg was instructed by the pilot to reduce speed to approx. 6 kn for the approaching collection manoeuvre and after passing the station vessel to turn to a southern course in order to make lee and ensure safe collection.

The vessels rate of speed was reduced and on passing the station vessel the pilot bid his farewells to the bridge and made his way to the main deck. When he was on the port side next to the pilot ladder, Delta St. Petersburg was already on a southern course with good lee. There were two crew members on the main deck by the pilot ladder.

The Pilot Tender ELBE 3 manned with a boatswain and a seaman came alongside close to the pilot ladder and the pilot climbed over without any problems and together with the seaman went into the forward superstructure.

At this time the Master of Delta St. Petersburg was informed via radio channel 17 by one of his men at the pilot ladder "pilot is off' and 5 - 15 seconds later he was informed by his Second Mate who was standing on the port side of the bridge and observed the casting off manoeuvre: "pilot boat away". He thereupon increased the propeller pitch and began to

Accidents & Incidents

Marine Safety Investigation Report - Final

Independent investigation into the grounding of the Antigua and Barbuda registered bulk carrier Enterprise at Grassy Harbour, King Island, Tasmania on 10 May 2007

Occurrence Details

Occurrence Number: 241
Location: Grassy Harbour, King Island
Occurrence Date: 10 May 2007
State: TAS
Occurrence Time: 1045 (UTC +10)
Highest Injury Level: None
Occurrence Category: Incident
Investigation Type: Occurrence Investigation
Occurrence Class:
Investigation Status: Completed
Occurrence Type: Grounding
Release Date: 27 January 2009

Vessel Details

Vessel: Enterprise
Flag: A&B
IMO: 8321890
Type of Operation: Bulk carrier
Damage to Vessel: Minor
Departure Point: Geelong
Departure Time: 0630
Destination: Grassy Harbour, King Is. Tasmania

Abstract

At about 1045 on 10 May 2007, the bulk carrier Enterprise grounded briefly as it was being manoeuvred in the confined waters of Grassy Harbour, King Island, Tasmania. The ship was under the conduct of the pilot, who was following the pilotage plan he usually used for the ship when it called at the port.

Prior to the ship's entry to the port, its after draught had been reduced to 5.0 m so that a minimum under keel clearance of 0.5 m could be maintained alongside the berth. At that draught, the ship's controllable pitch propeller was not fully submerged. However, neither the pilot nor the master adequately considered the effect that the reduced draught would have on the efficiency of the propeller and therefore, the ship's manoeuvrability.

While manoeuvring off the berth, the pilot was forced to maintain astern pitch for longer than he had planned. As a result, the ship was subjected to the effects of the propeller's transverse thrust on its stern for longer. The transverse thrust combined with the starboard thrust of the bow thruster, which was being used to maintain the ship's heading, resulted in the ship moving bodily to starboard and grounding on rocks at the southern end of the main breakwater. The ship's propeller was damaged but Enterprise was not disabled. No pollution resulted from the grounding.

The ATSB has issued one recommendation to address a safety issue identified in the report.

Turkish Pilot Capt. Fahrettin Aksu died on ladder accident

Wednesday, 04.15.2009, 06:17pm (GMT)

On the 10th April Capt. Fahrettin Aksu (54) fell into the sea during disembarkation from reefer ship “Sun Genius”, after completing his duty.

Pilot boat recovered his body from the sea soon afterwards, but he was dead.

Capt. Aksu was onboard the vessel for pilotage through the Strait of Istanbul.

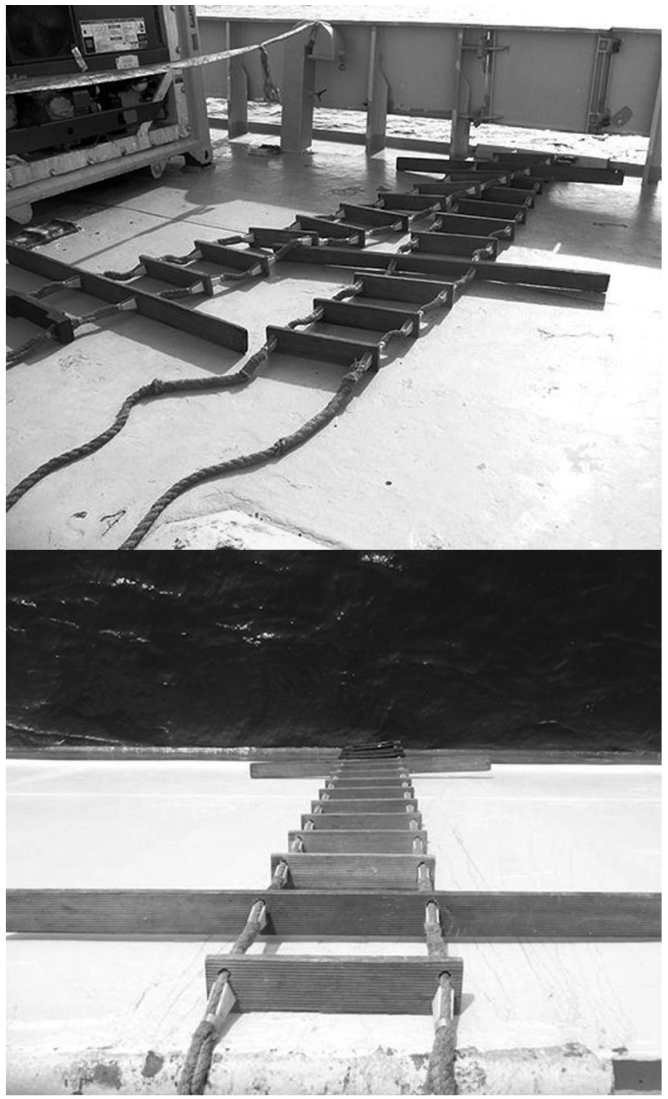
The reason for the accident is yet unknown.

It was 03:20 local time and freeboard of the ship was 5 meters. Capt. Aksu was climbing down the ladder and after a few steps, he suddenly fell.

Sun Genius was ordered to anchor at Buyukdere bay after the accident. Ship released after inspection but legal inquiry continues.

Safe Passage offers its condolences to the family of Captain Fahrettin.

This is alleged to be the ladder the pilot fell from.



transverse drift. All docking data is logged to files and reports may be generated in graphical form or as a grid report. The software includes a replay capability of the docking manoeuvre.

At many facilities, environmental data gathered from weather, current and tide sensors. This information can be integrated with the Smartdock® display.

Laser Sensors

Laser sensors are a key component of any DAS as they provide the raw measurement to be transmitted to the post-processor. Consequently, their performance is vital to the pilot or master as they will be making decisions based upon what the sensors read. The Smartdock® lasers are pulse infrared sensors accurate to +/- 2.0 cms and can be used in heavy rain, fog or tropical conditions. They are positioned on the jetty in the best positions for the specific berth. Factors that decide where they are installed include tidal range, vessel size and type considering the freeboard and flat hull plate section, and the orientation of the jetty itself.

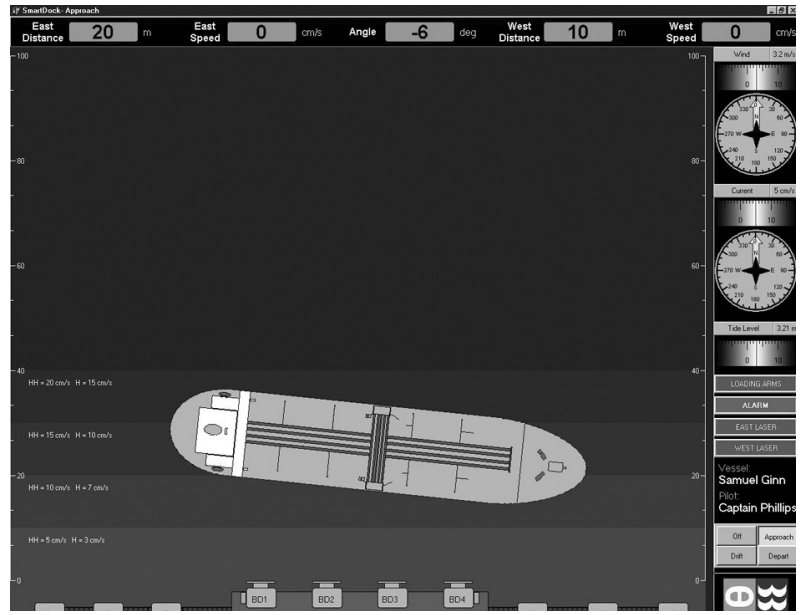
Some terminals with more complex or varied operations may need additional customization such as more sensors, built-in tilt sensors, wireless telemetry and laser elevators to vary the height.

Main Display Board

The Smartdock® main display board can be adapted to the site requirements to ensure that it can be seen almost constantly from the vessel’s bridge. Standard display boards have fixed two-metre high pedestals, which means they have to be positioned very carefully and have no scope for variation in the vessel type. The Trelleborg system can be fitted with either manual or electronic rotating boards, which enable the display to be rotated to maintain line-of-sight with the bridge. The electronic version is rotated either by the operator through a push-button system, or remotely via the Smartdock® software.

Summary

Laser docking aid systems can increase efficiency and safety during vessel approach at a number of marine terminals; however, the system needs to be integrated into the day-to-day operation of the site to have maximum benefit. Where this is done correctly, the jetty operator has critical real-time data available to assist in the safe docking of each vessel. Monitoring the process in this way helps protect the facility and, in the event of an incident, provides a complete log of the event.



News from Port Ash

By Cliff Beazley

Activity at Port Ash started earlier than anticipated this year when we delivered a course to two Hawaiian pilots who came with two ASPSM masters on January 5th. We were regaled with new stories from both mid-Pacific and the Weipa-Gladstone run. The year has continued busy and interesting with little break at Easter, though it is easing back for the winter period.

Highlights are undoubtedly the several port workshops which built on our experience with MSQ in 2008. This year we built both Botany Bay and Port Kembla quite comprehensively for 3-4 day workshops using temporary buoys, leads and wharves with floating breakwaters in the case of Port Kembla. For Botany Bay we set out the new container wharf area that will run parallel to the airport runway and this took up all of the approximately 230m (3nm) lake length.

It is reasoned that although hydrodynamics may not be strictly accurate, pilots are mostly interested in speed and spatial aspects, tug power and positioning, with wind and current where relevant. If these are reasonably correct, then success follows spontaneously with the obvious time-accelerated advantage of packing an awful lot of routine and experimental ship handling into a few days.

The ship-models took on new identities with the panamax bulker adapted to a 228m long container ship by adjusting power settings and raising thruster power to match container ship bridge cards. Visibility from the bridge was constrained by container stacks and typical tug make-fast positions were used. All models were used as bridge-forward car carriers for the Port Kembla workshops. In all cases simulated breakdowns were practiced and in many cases that long forgotten item - the anchor - was used to save the day, in particular when backing down a waterway with a disabled forward tug or thruster.

The RAN visited for several weeks and it was our great pleasure - and every honest taxpayer's - to learn that major incident figures last year had dropped to only three, with ongoing manned model training being credited. I recall attending an industry gathering at the AMC many years ago at which a prominent pilot speaker [who shall remain nameless] pointed out with some exaggeration that the RAN had an intimate relationship with most wharves in Australia. By chance I was allocated a lunch seat with several Grey Funnel Line representatives who wondered 'who is this masked man?' Perhaps that was the genesis of naval manned-model training – who knows?

A fascinating study was carried out this year in conjunction with the AMC in which we constructed a very long offshore loading jetty to simulate a loading port in WA. An adverse current sets directly on to the jetty at certain stages of the tide complicating loaded ship departures, so the project was set up to explore causes and seek solutions. Construction involved many factors - ships, tugs, current, under keel clearance and jetty, all at 1:36 scale. The port's pilots and tug masters were heavily involved in this and there was an excellent result to everyone's satisfaction. I hope to expand on the detail at some future date.

You may remember last edition's article by St Lawrence Seaway Pilot Capt. Hugues Cauvier on 'understanding the pivot point'. Hugues sent me a presentation package last year and he hits the nail pretty much on the head in interesting fashion, although I worry a little about its complexity. We have promised to do some experimentation for him and plan to do so when time and circumstances permit. I was very interested to see his explanation of 'ship generated current' a phenomenon I think some of us know as 'added mass'. We describe these effects during our courses as 'esoteric' because although they are present all the time, once engines, rudder, thrusters and tugs come into play they become largely invisible and – dare I say – partly irrelevant to everyday ship handling with a couple of thundering great tugs strapped up alongside! However for those ports that work large ships in tight areas with little tug power I daresay these factors are very real indeed.

It is an observation that many 'esoteric' factors are these days rendered invisible by the sheer brute power of modern tugs. Capt. Henk Hensen, author of the definitive book Tug Use In Port, wrote an article in Seaways magazine some time ago pointing out that very big ships were in bygone days handled just as successfully by much smaller tugs with exactly the same result. Don't get me wrong – I'm not advocating a return to the bad old days and remember well the advent of wonderful zedpeller tugs which turned the pilot's job from 'chancy' to 'certain' lessening the invasion of grey hair. God bless the man who invented the zedpeller! But Henk makes a point.

Whilst on the subject of tugs, we look forward to exploring the phenomenon of the so called 'donkey-like' behaviour reputedly caused by a forward escort tug squaring up and pushing at higher ship speeds, when it might have an effect opposite to that intended. I understand this was first brought to general attention by Capt. Max Van Hilten of the Dutch Maritime Pilots' Institute and the question has been raised again by Hugues.

Port Walcott Pilots

By Captain Paul Horton

Port Walcott Pilots, operating at Cape Lambert, WA will be one of the few Pilot organisations in Australia to own their own Pilot Station.

Construction is well in hand to provide Pilot Station office space, accommodation, and recreation area for all Pilots, 3 on station at one time, plus a visitor or relief pilot. There will be sheltered car parking for 8 cars (or 4 with a snooker and table tennis table!)

The office will be fitted with Large Screen AIS, VHF, Real Time tidal data and internet portal to the RioTinto ship scheduling system. Once manned a much more efficient total pilotage Management system will be in place. Completion is on schedule for the end of the winter season.

The building is constructed from foam "Eco Block" with 150mm concrete core filling, combining great strength for cyclonic protection whilst also providing excellent insulating properties for the climate. A curved roof will also enhance the buildings aesthetic appearance as well as being "cyclone friendly".

The building will incorporate the latest in environmentally friendly septic disposal systems, providing moisture and nutrients required for an organic veggie garden!

The building enjoys sun rising over the Indian Ocean and Point Samson beach looking at the anchorage area for 24 vessels. Point Samson recently celebrated its centenary with a new park opening, the small township, commonly referred to as "the jewel in the Pilbara", is fast becoming a prime tourist stop.

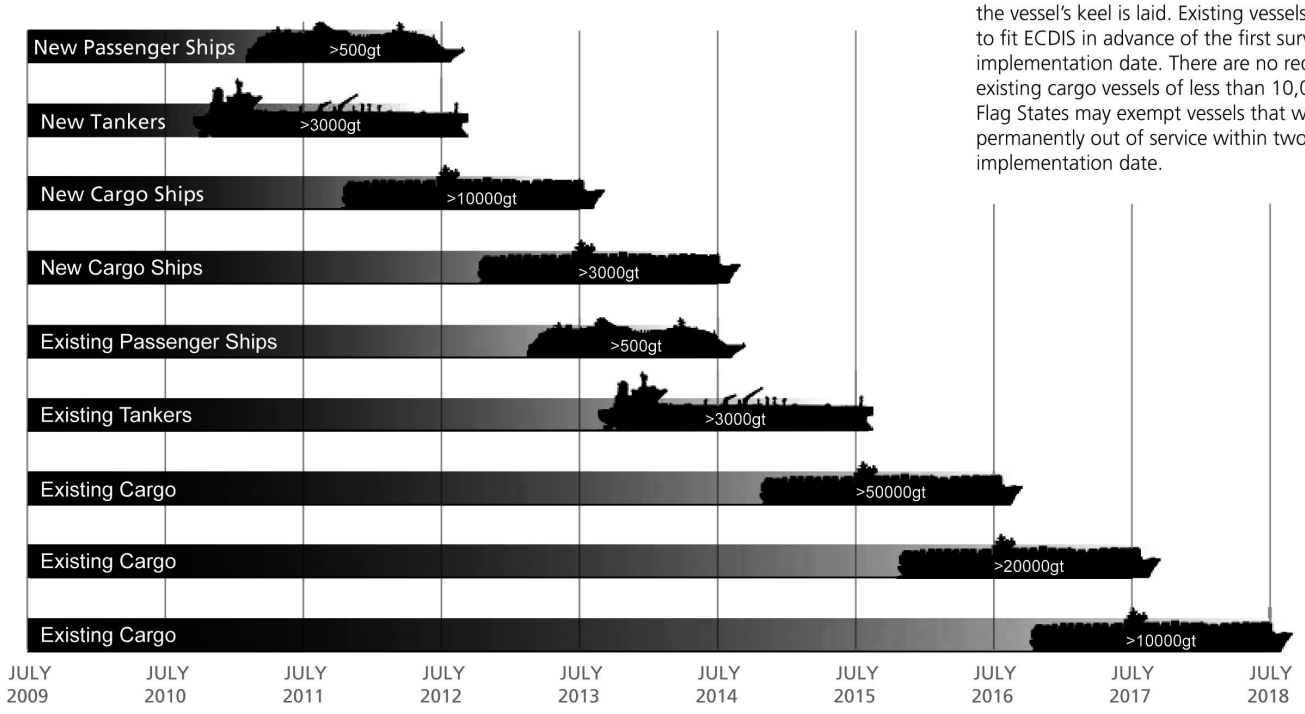
The Cape Lambert Jetty has recently been lengthened to 3.5 kms and now has 4 berths serviced by 2 loaders, a third tug has been added to the tug fleet and exports of 80 Million tonnes and upwards is expected

The real possibility of a second jetty, planned to accommodate a further 4 vessels will provide opportunities for an increase in pilot numbers.

ECDIS Time Line Introduction – Find out how your fleet will be affected

Fitting of ECDIS will become mandatory in a rolling timetable that begins in July 2012. The legislation will be phased by vessel type and size to eventually apply to almost all large merchant vessels and passenger ships. Use the diagram to determine which of your ships will be affected and when.

The timetable for newbuilds is based on the date the vessel's keel is laid. Existing vessels will be required to fit ECDIS in advance of the first survey after the implementation date. There are no requirements for existing cargo vessels of less than 10,000 gross tons. Flag States may exempt vessels that will be taken permanently out of service within two years of the implementation date.



Based on IMO Circular letter issued December 2008. Please check www.thefutureofnavigation.com for the latest updates and news.