



THE INTERNATIONAL PILOT

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A MESSAGE FROM THE PRESIDENT

Fellow Pilots,

Even smart people sometimes believe weird things! These people come to their beliefs for a variety of reasons (e.g., peer pressures, emotional inclinations) that have little to do with empirical evidence or logical reasoning.

But once their beliefs are formed, they excel at reinforcing them by shutting out contradictory evidence. Apparently this is called the "confirmation bias" – instead of weighing the pros and cons of all relevant facts, people will sort through the body of data and select those most confirming what they already believe, ignoring the rest.

In our own particular sector, pilots around the world are exposed to this phenomenon more often than people might think. For example, I recently heard an otherwise very credible speaker at a recent conference insist that *the economic imperative trumps everything!* Clearly, it came from the heart, and was regarded as an absolute commandment. At the other end of the spectrum, there are groups who hold the firm position that virtually any type of vessel transit, even under pilotage, presents unacceptable risks for the environment. I also frequently come across persons, even within the maritime sector itself, who think that technology

can do things in respect of vessel navigation that, as far as I know, it cannot do – such as conducting ships from the shore. Fortunately, at least in our sector, these people are not a majority!

The value proposition of maritime transportation and, in particular, of pilotage is compelling. Pilotage helps move cargo in ever-larger volumes around the world, safely and quickly. It helps optimize capital investment in maritime transportation infrastructure through innovative transit and berthing practices. These contributions to the world's economy typically come at a very low cost, with pilotage tariffs being only a small fraction of a vessel's operating costs. And the due diligence and extra level of safety that comes with highly skilled and well-delivered pilotage can also make the difference between something that is acceptable or not. In effect, pilotage contributes to the "social license" to undertake activities that might otherwise be deemed too risky.

If "smart people who believe in weird things" were to gain more critical mass in respect of maritime transportation issues, this could become a challenge that pilots and industry stakeholders worldwide would have no choice but to face. Getting such people out of their belief systems is daunting. But, perhaps this would lead to using new approaches to document what we do, to quantify the value of maritime transportation and pilotage, and to get our message across – to "reframe" the discussion. A considerable challenge; but also an opportunity to become even better at telling our story!

IMPA's upcoming biennial Congress in September in Seoul promises to be a great event and will offer an opportunity to reflect on these types of questions – and on many others – to prepare for the future. It will be a great meeting of minds and I very much look forward to seeing you there.

Simon Pelletier



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Message from the Secretary General

Dear Colleagues,

It was strange to be at IMO yesterday (17 May 2016) and listen (after an initial shock!) to another debate on the length of ladders. This time it was somebody else's problem and connected to the effect of angle of heel on the length of lifeboat ladders. I certainly got a feeling of déjà vu. Otherwise matters proceeded fairly sedately at IMO's Maritime Safety Committee, albeit with a first for IMPA in co-sponsoring an industry paper on E-Navigation.

Outside of IMO the glacial progress on getting ISO to update their technical standard for ladders continues. At one point we considered publishing our own technical guidance but thanks to some support from the UK's Maritime and Coastguard Agency we managed to pin ISO down a little more. We have also held further frank discussions with Carnival Corporation using some of the feedback that a lot of members had given us. Progress seems to be being made, judging by comments that we have had from associations who handle a lot of cruise vessels.

We have also received universal plaudits for the Bridge Poster which was created in collaboration with MAIF (Marine Accident Investigator International Forum), now being seen daily on ships' bridges. 10,000 have been distributed and downloads are freely available from the website. Industry certainly perceives us as having a very proactive and positive view when these sort of projects come to fruition.

Work continues in the office and with our Korean hosts getting ready for IMPA 2016 in Seoul. A draft programme is now to be found on the conference website and I look forward to meeting as many of you at that time.

Nick Cutmore



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ICS Defends Open Registries, Australia Not So Sure

By MarEx 2016-02-09



The International Chamber of Shipping (ICS) has published its Shipping Industry Flag State Performance Table for 2015/2016 pointing to the positive performance of open registries (sometimes referred to as flags of convenience.)

The Table provides an annual overview of the performance of the world's ship registers against a number of criteria, using data available in the public domain. ICS is keen to draw attention to the impressive number of positive indicators that are now being achieved by those flag states which are used by the vast majority of ship operators.

ICS Director of Policy & External Relations, Simon Bennett, explained: "One thing the ICS Table has demonstrated for many years is the lack of substance to arbitrary distinctions that are sometimes made between the performance of open registers and so called traditional flag states.

"About two thirds of the world fleet is now registered with the eight largest open registries, all of which show impressive levels of performance. While they might have been relevant 20 years ago, the ICS Table continues to show that such distinctions are no longer helpful."

Bennett's view is not shared by others in the industry. Australia announced a Senate Inquiry into flag of convenience shipping last year after a Four Corners program highlighted the suspicious deaths of three seafarers on board a Japanese-owned ship.

Over a six-week period in 2012, three crew members died working on board the Sage Sagittarius, a bulk carrier that carries coal between Australia and Japan.

In a submission to a Senate inquiry, the Australian Council of the Mission to Seafarers said the majority of flag of convenience companies did not abuse crews, but it was concerned about the Sage Sagittarius and a man-overboard incident on the K Pride as the ship was heading to Newcastle, Australia, in 2015.

The Maritime Union of Australia has indicated that suicide is 20 times more prevalent for seafarers on flag of convenience vessels.

There were 24 submissions to the Inquiry including one from the Department of Immigration and Border Protection which says the use of flag of convenience ships are more attractive for use in illegal activities. The submission also states that these ships, with complex financial and ownership arrangements, can be shrouded in secrecy making it difficult to hold anyone to account for injuries and deaths on board.

The senate inquiry coincides with a move from by the Australian Federal government to deregulate the Australian shipping. This is raising concerns about the loss of Australian jobs being lost and potential weakening of labor standards. Over the last few months, two ships – the *MV Portland* and the *CSL Melbourne* – have had their Australian crews sacked and replaced by developing world workers. As a result the MUA and other unions have set up a Jobs Embassy outside of parliament house.

In its submission to the Inquiry, ICS states: "ICS notes that the Senate inquiry concerns so-called 'Flags of Convenience.' In the opinion of ICS, this is actually a pejorative term that has its origins with a political/ industrial relations campaign waged by the International Transport Workers' Federation (ITF) since the 1940s, originally in response to the use by U.S. shipping companies of the Panama and Liberia flags."

The submission continues: "Ironically, because of the influence of ITF's industrial relations policy, the pay received by many seafarers from developing countries, serving on ships under a flag designated as 'FOC' by ITF, is actually superior to those serving on ships under developing countries' flags which are not open registers. This is because many seafarers on 'FOC' ships are subject to collective bargaining agreements approved by ITF, without which the ships might be subject to boycott action by ITF's dock worker affiliates worldwide. However, this boycott policy is not usually applied by ITF to ships on what it regards as 'non-FOC' flags, even if the employment conditions might be inferior."

ICS believes that foreign ships have no direct impact on Australia's minimum employment law standards. Except in those trades where Australian requirements may also apply, foreign seafarers are subject to the employment law of their flag State and their country of residence, as well as the requirements of the ILO Maritime Labour Convention.

The Inquiry findings are expected to be released on February 26.

Please use the following website to view the ICS Table:
<http://www.ics-shipping.org/docs/flag-state-performance-table>



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The Canadian Maritime Pilots' Association celebrated its 50th Anniversary in May



Pictured from left to right are three of its four Presidents: Michel Pouliot, President from 1984-2009, Simon Pelletier since 2009 and Capt. L-M Dussault President from 1966-1973 and one of the founding fathers of IMPA.

Steering Gear: Curing the Root Cause, Not Just the Symptoms

By Captain Richard Madden 2016-02-09

On August 12, 2014, the bulk carrier *Flag Gangos* was downbound on the Mississippi River, outbound for sea with a full load of grain and corn. During the outbound transit she suffered a steering gear casualty that resulted in her collision/allision with a moored oil tanker, pier and tank barge at IMTT Gretna, Louisiana. The damages to all vessels and the oil terminal came close to \$17.5 million.

Why did this happen?

The short answer was that a hydraulic valve became clogged with debris, preventing it from actuating normally. The long answer starts almost a year prior, shortly after the vessel was launched in Guangdong, China. For the first seven months of operation, the "clogged steering system filters" alarm sounded up to 48 times per month. While the filters were repeatedly checked, cleaned and ultimately upgraded to a larger size in June 2014, little else was done to identify a root cause.

During post-accident investigation, samples of the hydraulic fluid were taken from both the port and starboard steering hydraulic systems. The analysis of these samples indicated that the oil was at a "critical" level with very high levels of ferrous particles, sand, plastic particles and dust.

Ultimately, the U.S. National Transportation Safety Board identified two root causes. The first was a delay in upgrading a steering gear component previously identified by the manufacturer as requiring replacement. The second was the failure to routinely test the steering gear hydraulic fluid.

As mariners, whether on the deck or engine side of the house, we need to be cognizant of best practices in the industry. If there is a standard procedure, such as sampling lubrication or the determination of a root cause when an alarm or incident occurs, we must ensure the proper procedures are followed. Not delving down to the root cause of why the filters were clogging or indicating clogged on *Flag Gangos* allowed an unsafe condition to persist. Curing the symptom (much like a medical doctor) does not necessarily cure the real issue.

How could the root cause of these alarms have been determined?

While there are numerous systems out there for determining the root cause of incidents, one of the simplest is the 5-Why method. To boil it down to the very basics, identify the incident (i.e., alarm sounds for clogged filters) and ask "why?" Repeat this process with the answer



(or answers) you have generated and by the 5th "why," you should have your root cause.

In the case of *Flag Gangos*, the first answer might be because the filter became clogged. The next step would be to ask, "Why did the filters become clogged?" The answer in this case could be that either the filters installed were too small for the job or the hydraulic fluid was contaminated.

Following this causality chain further, we ask, "Why was the hydraulic fluid contaminated?" (Note: we are now at 3-whys and starting to zero in on the real problem. The answer might be – and I'm entirely hypothesizing now – that the hydraulic fluid had to be removed at some point for maintenance and was stored in dirty drums before being pumped back into the system.)

It can be seen that there are multiple answers possible for each level of "why." At the second level, we had two branches. The first, that the filters were too small; and the second, that the hydraulic fluid was contaminated. For whatever reason, the first branch - that of filters being too small - was followed, with the result that only a symptom of the root cause was cured.

It is crucial that all possible root causes developed by the 5-Why analysis be investigated. Simply resolving the simplest and most expedient (and sometimes least expensive) possible root cause is usually the most attractive. Unfortunately, that leaves the actual root cause hanging out there ready to strike at the most inopportune time - like when you are passing an oil terminal outbound.



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North Korea Jams GPS Signals in the South

By MarEx 2016-04-01

On Friday, South Korea's Ministry of Science, ICT and Future Planning warned that North Korean forces were using radio transmissions to jam GPS signals in the region of Seoul, Incheon and Gyeonggi. It said that the disruptions had been ongoing for about a month and had affected over 100 airplanes and vessels, though no resulting accidents have yet been reported.



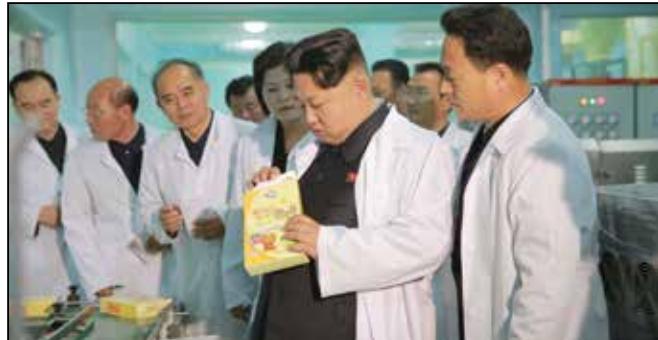
North Korean leader Kim Jong-un.

South Korean authorities traced the signals to Haeju, on the southwestern coast, and to Diamond Mountain, in the southeast.

The jamming is not the first instance; North Korea has attempted the tactic in the past, notably in 2012, when over 250 commercial airplane flights had to switch to an alternate navigation tool due to jammed GPS.

The regime is facing a new source of internal pressure in addition to diplomatic tensions with neighbors. On Wednesday, the North Korean government warned its citizens to prepare for another "arduous march" of famine as new U.N. sanctions take hold. "We may have to go on an arduous march, during which we will have to chew the roots of plants once again," said the state official paper Rodong Sinmun. "Even if we give up our lives, we should continue to show our loyalty to our leader, Kim Jong-un, until the end of our lives."

During the last "arduous march," in the 1990s, at least several hundred thousand (and perhaps as many as several million) died of starvation. Residents of Pyongyang have been ordered to donate two pounds of



North Korean leader Kim Jong-un.

rice per month to state warehouses, and farmers are being forced to give an additional cut of their crops to the military.

Separately, the New York Times reports that cross-border traffic continues unabated in the town of Dandong, China, which handles 90 percent of North Korea's trade with the outside world. The report suggests that bribes and smuggling are the general order, and that the new U.N. sanctions appear to be having little to no effect there, including the inspection requirement for North Korean cargoes, which is not enforced.

NK News also reports that waterborne shipments of North Korean coal continue to move across the Yellow Sea to China, despite a general ban on the nation's iron ore and coal exports. In talks leading up to the recent U.N. sanctions resolution, China successfully negotiated for continued trade with Pyongyang so long as it was conducted for "livelihood purposes," a loophole which observers suggest may permit continued, unfettered commerce between the two long-time trade partners.

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Blind Pilotage

Report reproduced from the Marine Accident Investigation Branch Safety Digest 2/2015.

There was dense fog throughout the area when a pilot boarded a large bulk carrier which had discharged its cargo at a riverside berth. Port regulations dictated that the tug, required to assist the vessel's manoeuvre off the berth, could not operate in visibility of less than 2 cables* and so departure was delayed until the visibility improved.

The pilot remained on the vessel and a few hours later there was a slight improvement in visibility. Staff in the port's VTS centre contacted the master of the tug allocated to assist and asked if he would attend the bulk carrier, which he agreed to do.

VTS staff advised the pilot that the tug was willing to attend, and the pilot agreed that the vessel could depart. Visibility was about 4 cables and the pilot was aware that another vessel was waiting for the berth. The pilot asked the OOW to call the rest of the vessel's crew and to prepare for departure. The OOW tested the bridge gear but required the assistance of another officer to set up the vessel's one operational radar; the vessel's second radar set, fitted with ARPA, had been defective for several weeks.

While preparations for sailing were continuing the visibility reduced to less than 2 cables, but since the tug had already been secured at the vessel's stern, the decision was taken to continue with the departure. The master and pilot exchanged information about the planned manoeuvre off the berth but there was no discussion about the specific roles and responsibilities of the individuals on the bridge, who were the master, OOW and the pilot. The duty helmsman was not in the wheelhouse as he was assisting with unmooring operations.

When the manoeuvre began, the pilot instructed the tug to pull the vessel stern-first into the middle of the river and the vessel's engine was put astern. However, due to a combination of the tug's power and the vessel's light condition the vessel quickly gathered sternway, crossed the river and left the fairway, when VTS staff alerted the pilot to the vessel's position.

During the manoeuvre the OOW was at the helm and was also operating the engine telegraph; the master remained in the central area of the bridge and the pilot moved between the radar, on the port side, and the VHF radio set, on the starboard side. In the absence of any prominent



speed or heading display on the bridge, and with no continuous radar watch being kept, the bridge team soon lost situational awareness.

On receiving the alert from VTS, the pilot ordered the engine to full ahead, helm harda-port and instructed the tug to pull on the vessel's port quarter, intending to manoeuvre the vessel back into the fairway. However, the tug's power caused the vessel to swing to starboard towards shallow water. The pilot assumed, incorrectly, that the vessel's engine was defective and reported this to VTS, and the vessel's master, hearing this report, increased engine power to maximum sea speed to demonstrate that the engine was operating normally.

The vessel's forward mooring party then contacted the bridge and warned that through the fog they could see moored barges close ahead of the vessel. However, no action was taken to reduce the vessel's increasing speed, with the result that the vessel made contact with the moored barges and grounded at full sea speed.

As a result of the contact the vessel was holed above the waterline, but no damage was caused to the hull by the grounding, which occurred in an area of soft mud. The vessel was refloated a few hours later on a rising tide, with the assistance of two tugs and was taken out of service for 2 weeks while hull repairs were carried out.

* 1 cable = one tenth of a nautical mile

The Lessons

1. The OOW was unable to set up the one operational radar to the pilot's requirements despite the vessel being delayed for several hours. It is important that masters and watchkeeping officers are completely familiar with all navigational and communications equipment.
2. The master/pilot exchange did not consider the roles and responsibilities of the members of the bridge team during the manoeuvre. In restricted visibility it is particularly important that consideration is given as to how situational awareness will be maintained, and there should be a clear understanding of who will be responsible for the continuous monitoring of the vessel's position.
3. The decision to depart the berth was taken despite a further reduction in visibility. Another vessel was due onto the berth to discharge cargo, and the pilot was aware that a delay in departure may adversely affect commercial operations in the port. Decisions taken relating to safety of navigation should not be prejudiced by commercial considerations.
4. The bridge team's loss of situational awareness was compounded by poor internal communications. An effective bridge team is one which communicates well at all levels and where individuals are empowered to question decisions in the interest of navigational safety.
5. The power of the tug exceeded that of the vessel but, due to the loss of situational awareness and lack of position monitoring, this was not realised by the bridge team. The power of harbour tugs allocated to a vessel should be discussed in the master/pilot exchange to assist effective planning of the manoeuvre.

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Sluggish Pitch Control Causes Serious Accident

MAIB Safety Digest 1/2016

A chemical tanker was being manoeuvred to its designated jetty. As the vessel approached the quay, the pilot ordered an astern movement to enable a turn into the lock. The vessel did not respond and continued to proceed ahead. Despite placing the pitch control to full astern, the CPP did not respond in time and the vessel's bow struck the quay. The bulbous bow was holed, but fortunately the damage was above the waterline (Figure 1).

The subsequent investigation identified that the vessel had a history of sluggish astern response. However, the crew had accepted this as a 'characteristic' of the vessel and usually compensated for it by demanding astern movements well in advance.

The CPP control panel on the bridge had a back-up control button (Figure 2) for use in an emergency. Activation of this button bypassed the feedback control system, giving direct control of pitch to the pitch control lever. However, the master was not familiar with its use, and therefore lost the opportunity to bring the vessel back under control before it struck the quay.

It was also revealed during the investigation that the system parameters for astern pitch control had been incorrectly set during the commissioning of the propulsion system when the vessel was delivered from the yard.



Figure 1: Bulbous bow damage caused by contact with the quay

The Lessons

1. If you are expected to manoeuvre a vessel, you should make every effort to familiarise yourself with the controls at your disposal. The function of back-up controls should be well understood and tested. They can help prevent serious accidents.
2. Regular drills simulating propulsion system failure and recovery should be carried out. These drills will give operators confidence in the back-up systems and help them react effectively in an emergency.
3. Frequent engine response tests should be completed, both ahead and astern. This is particularly important before entering and leaving port or congested waters.



Figure 2: Bridge control panel of CPP system showing back-up controls

Navigating a Changing Climate

It is essential for pilots to be closely involved with how ports and maritime facilities will deal with climate change effects, regardless of its causes.

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- to reduce greenhouse gas emissions and shift to low carbon maritime and inland navigation infrastructure, and
- to act urgently to strengthen resilience and improve preparedness to adapt to the changing climate.

For further information see the Thinkclimate Support Website: www.pianc.org/thinkclimatesupport.php

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BIMCO/ICS Manpower Report predicts potential shortage of almost 150,000 officers by 2025

Launched yesterday evening at the International Maritime Organization, the latest five-year BIMCO/ICS Manpower Report forecasts a serious future shortage in the supply of seafarers. The report identifies:

- A current shortfall of about 16,500 officers (2.1%), but
- A need for an additional 147,500 officers by 2025 to service the world merchant fleet.

The global supply of officers is forecast to increase steadily, but this is predicted to be outpaced by increasing demand.

Some officer categories are in especially short supply, including engineer officers at management level and officers needed for specialised ships such as chemical, LNG and LPG carriers.

The report suggests that in the past five years the industry has made good progress with increasing recruitment and training levels and reducing officer wastage (i.e. retaining qualified seafarers and increasing the number of years which they serve at sea). But the report indicates that, unless training levels are increased significantly, the growth in demand for seafarers could generate a serious shortage in the total supply of officers.

However, the report estimates there is a current surplus of about 119,000 ratings (15.8%), with demand only having increased by about 1% since 2010.

Significantly, China is thought to have overtaken the Philippines as the largest single source of seafarers qualified for international

trade (although the Philippines is still the largest source of ratings). However, data from international shipping companies suggests that the extent to which Chinese seafarers are available for international service may be more limited, with the Philippines and Russia seen as equally important sources of officers, followed closely by Ukraine and India.

BIMCO CEO, Angus Frew, said: BIMCO and ICS have once again collaborated closely to produce valuable in-depth analysis of maritime manpower trends. The industry can put this report to good use by ensuring we can continue to operate the world merchant fleet with sufficient numbers of qualified and competent seafarers.

ICS Secretary General, Peter Hinchliffe commented: Without continuing efforts to promote careers at sea and improve levels of recruitment and retention, the report suggests it cannot be guaranteed that there will be an abundant supply of seafarers in the future.

A summary of the key figures in the report can be downloaded free of charge from home pages of the BIMCO and ICS websites.

The full BIMCO/ICS Manpower Report can be purchased from Marisec Publications at:
<http://bit.ly/27azcQf>



International Chamber of Shipping Secretary General, Peter Hinchliffe

Fake Navigational Charts on the Rise, Says UKHO

By MarEx 2016-04-01

The United Kingdom Hydrographic Office (UKHO) has reported a rising number of counterfeit copies of charts and publications, and has issued a reminder that the use of unauthorized, unvalidated information may be unlawful and dangerous.



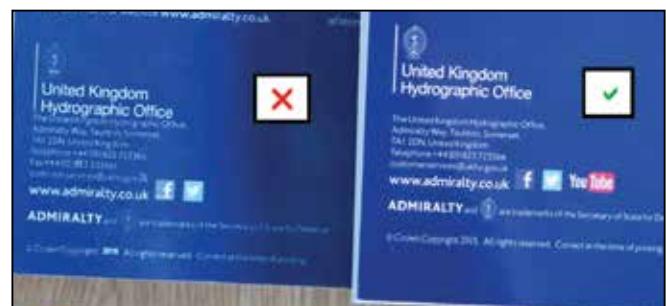
The counterfeit Admiralty products haven't been reviewed by UKHO's staff, who ensure the quality of charts and publications widely used for navigation around the world, and the content doesn't necessarily come from any relevant government source or hydrographic office. Its use for navigation could be hazardous, UKHO says.

In addition, fake charts do not satisfy SOLAS carriage requirements, and may violate the laws of flag and port state authorities, plus international copyright laws. In nations which are signatory to the Berne Convention on intellectual property rights, authorities have the ability to seize counterfeit documents.

UKHO has issued a guide to identifying counterfeit products, including photos of the originals displayed adjacent to photos of the fakes. The office suggests that mariners with suspicions about the authenticity of their sailing directions or charts to contact UKHO directly.

Damian Bowler, chief commercial officer of the UKHO, said that "while some of the counterfeits are very easy to spot, others are more difficult to detect. The UKHO continues to urge all purchasers, users, inspectors and regulators to look out for counterfeit ADMIRALTY charts and publications. Counterfeit versions ... cannot be trusted for voyage planning or navigational purposes. They are unsafe, unofficial, non-compliant with SOLAS and illegal to carry or sell. Buyers also carry the considerable risk of failing port state inspections."

"We are continuing to seek and stop the production and sale of counterfeit copies of ADMIRALTY products and have raised our concerns with the International Maritime Organisation, the International Hydrographic Organisation and Flag States. We also encourage anyone that suspects they may be in possession of counterfeit products to get in touch with us," he said.



Pilot Ladder Safety

By Capt. Malcolm C. Armstrong, FNI, Honorary Member of IMPA

I was interested to see the photos of improperly made and rigged pilot ladders illustrated in issue number 38, July 2015, of The International Pilot.

I hope the owners and personnel of the offending ships were suitably reprimanded and/or prosecuted for these dangerous pieces of equipment.

However, these pilot ladders did not get into such a terrible state overnight and what bothers me most of all is the fact that pilots had almost certainly been using these ladders for several months or even years while the ladders were neglected and gradually deteriorated. The ladders were therefore in an unfit state for use long before these photographs were taken.

The problem of deficient pilot ladders will never be corrected until pilots themselves take action and refuse to use unsafe equipment. Pilot ladders now have to be inspected regularly by the appropriate authorities, but there are instances where a ship has

perhaps just one good pilot ladder that passes inspection and is kept safely stowed away while non-conforming ladders are used by uncomplaining pilots.

I have been active in promoting pilot ladder safety for more than forty years. I was elected vice president of IMPA in 1974. In 1980, with the blessing of IMPA, I wrote and published the first edition of the book "Pilot Ladder Safety". The sixth edition of this book was published in 2012 to feature the latest changes to the SOLAS regulations. I have been retired from active piloting for some years now but I have been involved as expert witness and consultant since "retiring". In one of the cases of serious pilot injury in which I was assisting, the advocate for the ship owner was quite adamant that the pilot was not expected to board the ship if the equipment was deficient. This was a ship that had been running for several years with non-complying boarding arrangements and had had other, though less serious, incidents of pilot injury but still pilots continued to service the ship.



23rd International Maritime Pilots' Association Congress

September 25 (Sun) ~ 30 (Fri), 2016
Sheraton Grande Walkerhill & W Hotel
Seoul, Korea

Welcome Message from Korea

It is my great pleasure to invite you to the 23rd IMPA Congress from 25-30 September 2016 in Seoul, Korea. The Korea Maritime Pilots' Association is delighted to have the opportunity to host the congress.

The host city of Seoul is the capital of Korea with over 600 years of history. It is the heart of Korea's culture and education as well as politics and economy.

I am excited to welcome you all to Seoul and preparing a program that will give you pleasant time and memories sharing with the pilots from all over the world.

Please set aside the time in your busy calendar to join us for this wonderful event. Online registration is available through the IMPA2016 congress website.

I appreciate your interest and support for the congress, and look forward to seeing you all in Seoul.



Captain Na, Jong Pal

Chairman, Organizing Committee of IMPA 2016



Captain Choi, Yeong Sig

Vice-Chairman, Organizing Committee of IMPA 2016





Registration Information

- Online registration is now available through the congress website (www.impa2016.com)
- Registration Fees

Category	Early Bird (Until 25 Jul.)	Regular (26 Jul. ~ 24 Sep.)	Onsite (25 ~ 30 Sep.)
Delegate	USD 1,600	USD 1,800	USD 1,950
Accompanying person	USD 1,200	USD 1,350	USD 1,450

Congress Tour (Sep. 28, Wednesday)



First stop is Gyeongbokgung Palace built in 1395. It continued to serve as the main palace until the Japanese invasions of Korea (1592 – 1598), when all of the palaces were severely damaged. It was not until about 1868 that the palace was reconstructed and expanded to a 410,000m² complex with over 500 buildings. It flourished for several decades in this state until the Japanese once again demolished the palaces during their occupation of Korea (1910-1945). The 40-year restoration project that aims to fully restore Gyeongbokgung Palace to its original form has been ongoing since 1990.

Upon arrival at the palace, you will witness the changing ceremony of royal palace guards. Then the group photo shooting will be followed in front of the palace's main building called 'Geunjeongjeon'.

After lunch, you will be moved up to Mt. Namsan where N Seoul Tower, Korea's first integrated transmission tower, is located. You will have some free time while enjoying city view before going back to the hotel.

Accommodation



The organizing committee of IMPA 2016 has reserved rooms at discounted rates to accommodate IMPA 2016 delegates and accompanying person. Reservations will be made on first-come, first-served basis. Detailed information will be founded in "Accommodation" page of the IMPA 2016 official website (www.impa2016.com).

Congress Coordinator

c/o The Plan Co.

- For general inquiries: seoul@impa2016.com
 - For registration: reg@impa2016.com
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Hosted By Korea Maritime Pilots' Association

www.impa2016.com

eNav: Is Technology Outpacing Implementation?

Story and photos by Jorge Viso, Tampa Bay Pilot

PAGING THROUGH SEVERAL TRADE periodicals, it seems that there are more and more elaborate ideas for what might be possible in the future with eNavigation. The basic principle of eNavigation, as initially articulated by the IMO ("harmonized collection, integration, exchange, presentation and analysis of marine information on board and ashore by electronic means ...") has undoubted merit and is a worthy goal. It appears, however, that many of the ideas for the future of eNavigation have gotten way ahead of the reality of operations on board merchant vessels.

If you talk to crew members on cargo ships, the subject of eNavigation is a short conversation. The word is not getting to the front lines, and it may be difficult for crew members to get excited about the promise of eNavigation; they don't see harmonized, integrated marine information. Instead, they see a collection of components and chunks of information that are too often unreliable, unusable or disjointed.

In this context, integration of data or information is a valuable objective, but before we talk about all the "cool" things that it can do for those on the ship and the shore, let's make sure we have the basics right on the ships. After all, the ship and the needs of the professional mariners serving on board should be driving all of this.

GPS and a RADAR

The reality of ship navigation is that most vessels plying the oceans are equipped with the basic requirements: gyro, radar, GPS and a chart. The integration is basic, and ECDIS arrives as the platform to tie it all together. While eNavigation is all about integrating and sharing data, what about the quality of the data?

We all remember the "GIGO" adage that originated in the 60's: "garbage in, garbage out." This axiom should be resurrected as we tie all these pieces together, especially in the wheelhouse.

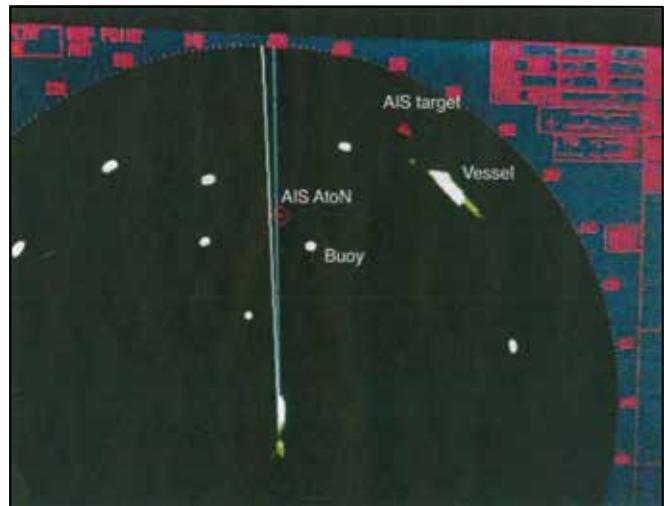
Harbor pilots, who routinely use portable pilot units (PPUs), see disturbing discrepancies in position or information datagenerated by the ships on which they work. While the discrepancies encountered in the past are trending lower, every time a new piece of electronic equipment or information source is added to the navigation system, it opens the door to another opportunity for error.

Gyro error and smoothing combined can make proposed virtual buoys a detriment - not an aid - to navigation.

Case in point...

Pilot-carried PPUs have detected GPS smoothing in vessel position data that can lead to problems if that information is relied upon when making navigational decisions. (GPS smoothing is the induced delay of current GPS to yield a smoother average COG/SOG) These errors coursing through the system usually go undetected in open waters where precise position information may not be necessary. In confined waters or restricted visibility, however, they can lead to catastrophe.

The recent push for deployment of synthetic AIS aids to navigation has stumbled onto a similar problem: the integration of smoothed

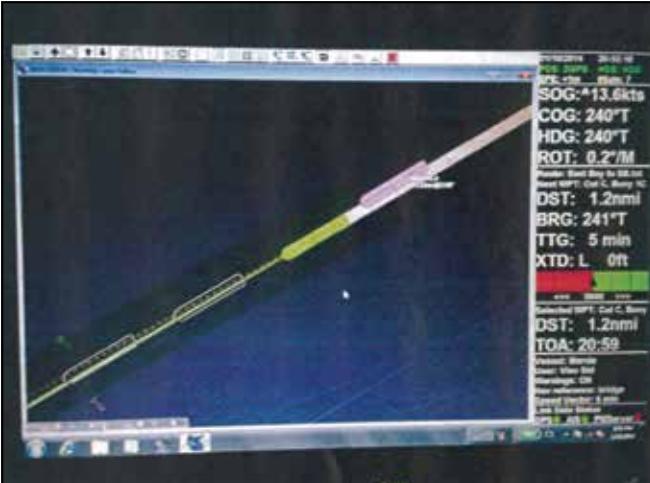


GPS smoothing and a gyro error combine to separate AIS target positions from radar representations.

GPS data onto a radar display. A simple case of apples and oranges: radar and GPS. There is a relatively easy solution to this, but the fact that the development and deployment of AIS AtoNs got this far without the smoothing effect being considered should be a cautionary tale. Gyro error and smoothing combined can make proposed virtual buoys a detriment - not an aid - to navigation.

These types of errors and discrepancies were discovered through cross checking between PPU information, which has a high level of accuracy, and ship's equipment. It is obviously good when these things are recognized before they lead to serious mistakes, but it is also often quite disturbing to realize how vulnerable modern navigation is to bad information.

Currently there are limited resources in the regulatory field to enforce quality assurance and detect system "glitches" before new technology is implemented. A pilot who encounters bad information at the end of the AIS pilot plug has little recourse in the immediate sense to fix a problem with the ship's equipment, and there is often limited interest from authorities to follow up. Pilots have had to tailor their equipment to overcome the shortcomings of regulated ship's equipment. All PPU vendors provide pilot plug interfaces that correct for improperly configured pilot plugs, along with providing independent differentially corrected GPS and, more recently, rate of turn generators.



GPS smoothing is depicted graphically in this screen capture of a PPU derived ship position (green) contrasted against ship generated position (magenta).

There is, of course, another aspect to this situation. Many of the more elaborate eNavigation scenarios being proposed today envision an increased shoreside involvement in ship navigation. These shoreside wannabe "navigators" would be relying on data and information emanating from the ship but would not have the ability that mariners on the ship have to cross check the data and information - whether by a PPU or simply looking out a window.

Before we move onto integrating everything together in the "internet of things," we might consider the veracity of the individual components. Start at the ship's equipment and expand from there. Better data makes for better information. Harmonizing, integrating, exchanging, and sharing bad information compounds the potential dangers posed by that bad information and, ultimately, makes navigation less safe. That's not what eNavigation was supposed to be about.

Pilot Card Shows LSMGO Reducing rpm

From Captain Skip Strong, Maryland, USA

The ship these photos came from is VERUDA and operated by Uljanik Shipmanagement. Standard bulker 190 X 32.2 X 17.1 dimensions built in 2011. Very squared away (correct! Ed) Captain and crew.

I took these photos because it was the first (and so far only) time that I have seen a pilot card that shows the reduced RPM when operating on LSMGO as required when operating within the ECA. While dead slow, slow and half were comparable RPM, there was a significant difference at full (18 RPM) which equated to about 3 kts in speed. On my 40 nm transit with this ship, it added about an hour to the transit time. Not a real problem for this particular trip, but had we been trying to make a tide, we would have likely missed it.

When you look at the photos, you will see that the hp/kw for the main engine is missing from the pilot card. The Captain said

"they" (he did not specify who "they" were) could not calculate the actual hp when running on LSMGO.

I was very happy to see the LSMGO RPM listed on the pilot card as opposed to trying to figure out the difference by comparing the RPM indicator and the uncorrected pilot card.

As well as the two pictures below there is a web address to a timelapse video of VERUDA undocking:

https://youtu.be/h_I-PSgbIBg of the reality of operations on board merchant vessels.

ENGINE DATA		Maximum power kW (BHP)	
Maneuvering engine order	rpm/pitch	Loaded	Ballast
Full ahead	90 - LSMGO	9.5	10.2
Half ahead	82 - LSMGO	7.5	8.3
Slow ahead	52 - LSMGO	5.0	5.5
Dead slow ahead	37 - LSMGO	4.0	4.3
Dead slow astern	37 - LSMGO	Time limit astern	LIMITLESS min
Slow astern	52 - LSMGO	Full ahead to full astern	500 s
Half astern	82 - LSMGO	Max no. of consecutive starts	15
Full astern	90 - LSMGO	Minimum rpm	37
		Astern power	4.0 - 5.0 ahead

STEERING PARTICULARS	
Type of rudder	SEMIBALANCED

PROPELLION PARTICULARS		course propeller stopped Rudder angle for neutral effect	
Engine order	RPM / Pitch setting	Speed (knots)	
Full sea speed	121	14.43	15.11
Full ahead	108	12.73	13.66
Half ahead	80	9.42	10.25
Slow ahead	52	5.88	6.36
Dead slow ahead	37	3.56	4.00
Dead slow astern	37	Critical revolutions 35 - 60 rpm Minimum rpm 32 Time limit astern no limit min	Emergency full ahead
Slow astern	52	Time limit at min revs. 35 min Emergency full astern	
Half astern	80	Slow to full astern 500 s Astern power 80 % ahead	
Full astern	108	Max. no. of consecutive starts 15	

THRUSTERS	
Thruster	kW (HP)
Bow	-
Stem	-
Combined	-

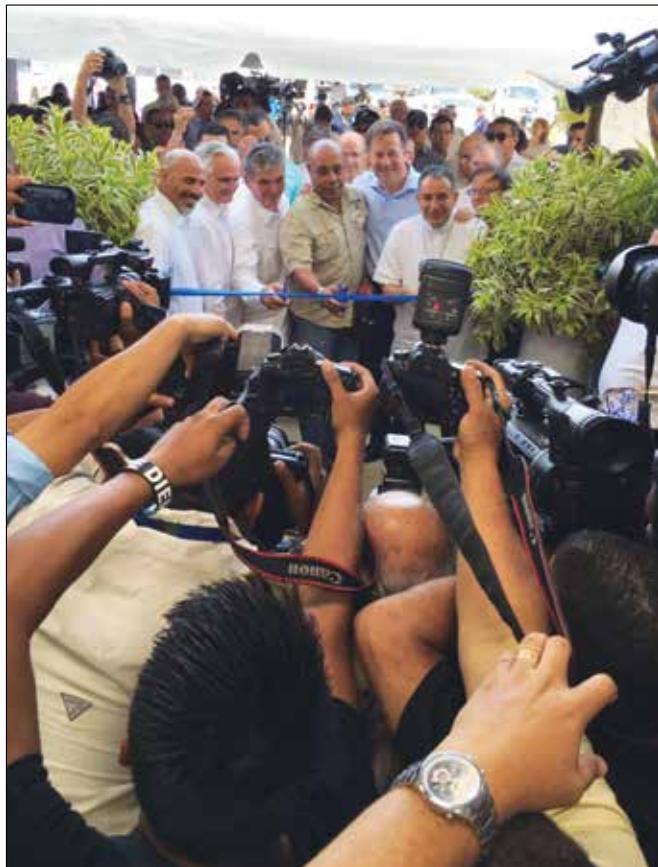
DRAWS	
Estimated Square Under keel clearance	Ship's speed (knots)
2 m	7
3 m	6
4 m	4
5 m	2

TURNING CIRCLES AT MAX. RUDDER ANGLE	
1.11 min	1.11 min

Panama Canal opens new Manned Scale Model Centre, for training Pilots

By Captain Jose Burgos, Panama Canal Pilot

On March 23, 2016, the Panama Canal Authority inaugurated its new Manned Scale Model Centre, or Centro de Maniobras en Buques a Escala (CMBE), as one of the components for pilot training on the expanded Canal.



exposed to different maneuvers: docking/undocking, approaches and transiting the different locks, shallow water and deep water hydrodynamic effects, use of tugboats, use of anchors and emergency maneuvers, among others.



This Centre is located next to the Gaillard Cut, at the heart of the Panama Canal. In fact, you can see transiting vessels on their north and southbound directions from the classroom. It is surrounded by thick rainforest giving the participants the isolated environment needed to focus in the nature of our trade.

The lake has a northern and a southern section, united by a narrow channel, an exact replica of the Gaillard Cut. All together, there are four hectares of navigable water. In the northern part of the lake, we find the two locks of the Atlantic side, Gatun and Agua Clara, and some of the docks existing in the Pacific side. The southern section has a docking facility to turn around and exchange the pilot with the helmsman. Cocoli, the new Pacific lock, is located at the southern portion of the Gaillard Cut. The scale used on this Centre is 1:25. There is an area of deep water (2.0 m) on the northern part and the rest of the lake is of 70 cm deep.

On a regular day, participants arrive in the morning, and after an introduction and orientation of the Centre and its models, get on board on one of our two neopanamax 1:25 scale vessels. Pilots are





The CMBE is one of the training components for the new channel approaches and locks of the Panama Canal Expansion. Pilots are required to attend this Centre and also the electronic simulator, as well as training on board a chartered cape sized vessel.

As the Panama Canal Administrator pointed out on the inauguration of the Centre, this project was recommended by the Panama Canal Pilots' Association. Our association with IMPA provided paramount technical exchange with other pilot associations and training facilities around the world. The Panama Canal Authority, after evaluating many options, decided to build a Centre of its own, in order to fulfill Panama Canal Pilots navigational needs with a tailor made project.

The expansion of the Panama Canal will be completed by June 2016. The Panama Canal Pilots are looking forward with enthusiasm to the challenges that lay ahead on our course.

Ocean Economy Set to Double in Size by 2030

By Aiswarya Lakshmi and reproduced from MarineLink.com

The world's oceans must be managed well to ensure the potential of an "ocean economy" that was worth US \$ 1.5 trillion in 2010.

"Calculations based on the OECD's Ocean Economy Database value the ocean economy's output (measured in terms of the ocean-based industries' contribution to economic output and employment) in 2010 at USD 1.5 trillion, or approximately 2.5% of world gross value added (GVA)," says a new Organisation for Economic Co-operation and Development (OECD) report.

With more sustainable development, it can more than double in size to touch over US \$ 3.2 trillion by 2030.

"Looking to 2030, many ocean-based industries have the potential to outperform the growth of the global economy as a whole, both in terms of value added and employment. Between 2010 and 2030 on a "business-as-usual" basis, the ocean economy could more than double its contribution to global value added, reaching over USD 3 trillion," the report adds.

Offshore oil and gas accounted for one-third of total value added of the ocean based industries, followed by maritime and coastal tourism, maritime equipment and ports.

Direct full-time employment in the ocean economy amounted to around 31 million jobs in 2010. The largest employers were industrial capture fisheries with over one-third of the total, and maritime and coastal tourism with almost one-quarter.

Economic activity in the ocean is expanding rapidly. However, an important constraint on the development of the ocean economy

is the deterioration of its health. The ocean has absorbed much of the anthropogenic carbon emissions, leading to ocean acidification.

This report explores the growth prospects for the ocean economy, its capacity for future employment creation and innovation, and its role in addressing global challenges.

Special attention is devoted to the emerging ocean-based industries in light of their high growth and innovation potential, and contribution to addressing challenges such as energy security, environment, climate change and food security.



Image: Organisation for Economic Co-operation and Development (OECD)

Blackout caused Grounding

Reproduced from Safety4Sea 2 March 2016

The Swedish P&I Club issues its Monthly Safety Scenario for March 2016 regarding an accident due to blackout and recommends preventive measures. The Swedish Club publishes on a monthly basis a new "Monthly Safety Scenario" (MSS) to assist owners in their efforts of complying with the maritime regulations.

A far from unusual event....

The Incident

The bulk carrier had steel products onboard and crossed the Pacific to arrive at its discharge port. There was a change of command during the Pacific crossing. This was the first time the new captain had been in command. The previous captain had been onboard for about 11 months.

At the final discharge port the pilot was picked up in the morning. The vessel proceeded up the river under manual steering. The weather was intermittently rainy but visibility was good and the wind was light.

There was a proper pilot exchange between the pilot and master. The pilot was given a pilot card describing manoeuvring characteristics. The pilot checked to confirm there was an anchor watch forward, which was a requirement.

Normally the 3rd engineer is stationed in the emergency generator area during manoeuvres, but for this river transit he and the 2nd engineer had changed watch positions so the 3rd engineer could gain more experience in another area of the engine room. The 3rd engineer was doing his rounds on the fuel treatment area when he noticed excessive differential pressure on the fuel filter.

Without consulting anyone he decided to carry out a manual back flush after switching from one fuel filter to another. He moved the switch-over lever only part of the way, which resulted in the fuel flow to the main engine and auxiliary engines being interrupted and leading to a total blackout.

The Chief Engineer and the rest of the engine room watch acted immediately but it usually takes 10-15 minutes to recover from a blackout.

At the time of the blackout the vessel was altering course to port for a major turn of almost 90 degrees. There were no other vessels underway in the area.

The master ordered full astern on the engine telegraph but nothing happened due to the blackout. He realized that he had no engine control, the main engine revs were falling, there was no steering control and the vessel still had some port rudder. The vessel was moving at about ten knots.

In front of the vessel there were some smaller vessels moored at the quay. The pilot ordered starboard anchor to be dropped but it had no effect.

The pilot ordered the fog signal to be sounded. He also called the berthed vessels on the VHF and the VTS and he ordered the port anchor to be dropped.

Both anchors were dropped and the vessel was slowing down a bit. Shortly afterwards the vessel, made contact with the quay at approximately 7 knots and continued alongside, hitting one of the vessels berthed alongside before proceeding out into the river again. The berthed vessels' moorings parted, one snapping back and damaging a vehicle parked on the wharf.

The berthed vessel drifted away from the berth as own vessel wedged between it and the wharf, still making headway and scraping along the wharf, where it finally grounded.



Consequences

- Serious damages to own vessel and the vessels at the berth.

Preventive Measures

- If a job is delegated it is paramount that the person delegating the job ensures that the person doing it has sufficient knowledge.
- Implement minimum training requirements for each position onboard the vessel.
- A useful tool for a manager is to have a career plan for each officer, which defines required courses and training

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Captain Paul Dunn

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There's a Gash in Your Stern Sir

MAIB Safety Digest 1/2016

A very large car carrier was making its way into a UK port under pilotage on a calm, clear day when it struck the quayside, putting a substantial gash in the hull near the vessel's stern on the starboard side (Figure 1).

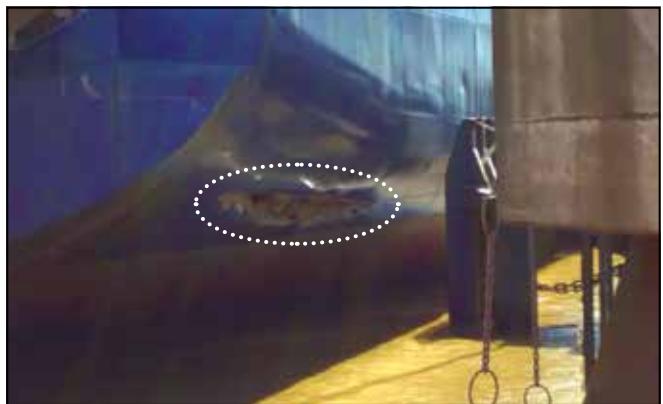


Figure 1: Damage sustained to the vessel

The vessel, loaded with cars from the Far East, had to turn off the dock entrance and manoeuvre astern to berth. Due to its size, three tugs and two pilots were allocated. The tugs were positioned with one forward and attached, one aft and attached, and one in the middle to act as a pusher if needed. All tugs were under the control of the lead pilot via VHF radio. The vessel's Korean crew were at their mooring stations, with the captain, third officer, cadet, helmsman and the two pilots on the bridge. Both of the pilots had VHF radio handsets. On the berth, the mooring gang were under the control of the berthing master, who also had a VHF radio handset.

During the berthing operation the lead pilot positioned himself on the starboard bridge wing and the second pilot on the port bridge wing. The lead pilot was using a tablet computer to gather a range of information, including the vessel's distances from the quay. However, as the vessel was being swung off the dock entrance the battery for his wireless internet link device ran out of power and the berthing information on the pilot's tablet computer was lost.

After the vessel had turned into position, it was manoeuvred astern toward the berth using the vessel's main engine and the assistance of the tugs. The aft tug was being used to push the vessel toward the



Figure 2: Vessel making approach astern toward berth – tug pushing

quayside whilst the ship moved astern, and the bow thruster used in combination to keep the heading parallel to the jetty.

As the vessel closed to the berth the mooring parties communicated to the bridge in their native language. The captain spoke directly to the pilots in English on the bridge but he did not pass any information on the vessel's distances from the berth.

Without any accurate information on distances the pilot lacked situational awareness and failed to recognise the developing situation. A few minutes later, the starboard quarter of the vessel struck the quayside, damaging the vessel and the quay fenders (Figures 2, 3 and 4).

The berthing master, who had not communicated with the pilots up to this point, used his VHF radio to tell the lead pilot "yep, there's a gash in your stern sir". It was fortunate that the damage to this vessel was above the waterline and into a ballast tank. Had this been below the waterline, there could have been serious flooding. Had the damage been in way of a bunker tank, this could have resulted in a pollution incident. It was clear that the lead pilot had lost situational awareness; once he lost his electronic aid he did not properly utilise the resources available to him.

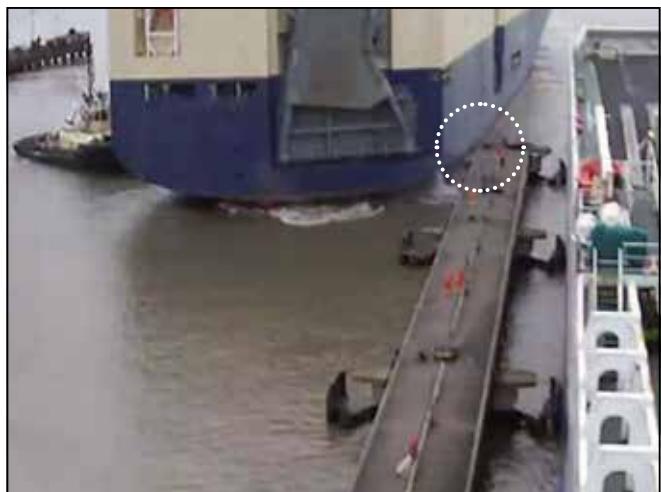


Figure 3: Contact with the end of the jetty



Figure 4: Vessel engine and rudder used after collision and damage to tank causing leak

There's a Gash in Your Stern Sir - The Lessons

1. Effective Bridge Resource Management is critical to a successful and safe voyage. Pilots should be considered to be part of the bridge team during their time on board, providing guidance to the captain and bridge officers. It is the responsibility of both the vessel's crew, and also the pilot, to engage and ensure that all staff are aware of vital communications.
2. Where the working language of the vessel differs from that understood by the pilot, there must be clear and effective information exchange, and key information should be translated into a common language. In this case, the pilot did not ask for clearance distances from the vessel's crew, and they were not provided to him by the master.
3. Pilots must ensure that a briefing is given to key members of the ship's management team involved so that all have a clear understanding of the forthcoming proposed operations. Part of the teamwork on the bridge should include the ability for staff to be able to challenge decisions, actions or emerging situations. This was not done by any of this vessel's crew, berthing master or the 2nd pilot. Pilots on board vessels provide a valuable service, but they are not infallible. The master or the OOW must have the confidence to seek clarification on decisions, actions and orders. Pilots must be prepared and willing to accept challenges.
4. The role of the berthing master was to direct his team and to provide the pilots with information regarding the position of the vessel on its approach, and position when alongside. However, the berthing master did not communicate effectively with the pilots before the vessel struck the quay, and the pilots did not contact the berthing master to ask for any information. The successful completion of any berthing operation requires good communications and for all the participants to be aware of their roles. In this case, both were missing.

Captain Tony Pierce, from Cape Breton, Nova Scotia Canada, reported this incident in February this year.

By Tony Pierce Cape Breton Pilot



I had the Cap Diamant in to Nustar #1 Terminal yesterday, was ordered for 08:00 but was a little early, I boarded at 7:30 but all went down hill from there. On approaching the ship the Capt called the PB and asked to speak to the Pilot, he proceeded to inform me that while readying the stbd gangway for Pilot boarding the wire broke and they had lost the gangway into the water and couldn't retrieve it. I boarded on the Port side and then we decided to proceed into the anchorage area and wait for a work boat to come and help retrieve the ladder by securing a line at water level. Upon further inspection they found that it wasn't the gangway winch wire that had broken but the gear in the winch had sheared off and thus they had no control of the gangway and the gangway fell into the water only held on at the deck level at swivel point (see picture). I informed Canso Traffic of the situation and followed up with a call to ship safety. I also informed the Capt that because of the free fall and subsequent impact on the water that the gangway needed to be rechecked and prob recertified before using it again, he agreed. Capt was very safety conscious and very concerned about the situation, which was very reassuring.

Don't know if this has happened before or if you have heard of this particular problem but luckily it happened at that time and not when I was on the gangway boarding the ship. Seems to me that a gear shearing off is not unheard of my question is, shouldn't there be some sort of fail safe or safety chain of sort to prevent the free fall of the gangway in this particular case. Especially when there is the potential for people to be on the gangway when this happens.

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Peril in Traffic Separation Scheme

CHIRP Maritime Feedback, Issue No: 42, 01/2016

Over 400 commercial vessels pass through the Dover Strait daily; the statistics for Malacca (where 4825 Very Large Crude Carriers (VLCCs) alone transited in 2013) are similar. Other choke points are all getting busier.

By definition TSSs are established where traffic density is high and navigation constrained. These are therefore places where the dangers of navigation are amplified. At CHIRP we are reminded by a considerable 'postbag' in the last quarter of this fact

What did the reporters tell us?

OVERTAKING IN A TSS. A VLCC heading north-east in the Sandettie TSS was overtaken at very close quarters (1–2 cables) by a container ship. This manoeuvre necessitated her passing F1 buoy, marking the separation line at a distance of about 50 metres. The manoeuvre took place at the entrance to the NE lane, where the VLCC and to an extent the overtaking vessel were heavily constrained by their draught. The container ship did not comply with guidance on the relevant chart and in BA5550 advising against use of the Deep Water Route (DWR) by vessels under 16 metres in draught, and to the dangers of overtaking.

Extracts from the information reported to CHIRP. The reporter commented: 'I was contacted by large container vessel bound for Hamburg making 21 kts (ship name) astern of me on channel VHF 16 & 6 stating he would 'squeeze' past me at entrance to DW route. I responded that I was a deep draught vessel and could not deviate from my course. On approaching Sandettie SW buoy with F1 buoy right ahead, container vessel contacted me again on VHF 16 to request I alter my course to starboard to give him a little more room, I stated that with his draught (13m) he should not be using DW route and should pass south and east of Sandettie especially as two deep draught vessels were now using the DW route and also that he should not be overtaking in the DW route. I started my alteration into the DW route early to give a little more sea room as he passed very close on my portside. [Ship] was also extremely close to crossing into the SW bound lane when passing the deep draught bulk carrier ahead of me ...'



Not an alarming sight in an enclosed dock system, but alarming at 21 knots in open water!!!

Many NE bound vessels with draught less than 16m use the DW route against recommendations, and are not questioned/advised by Griz Nez Traffic or Dover CG. This may be OK when no deep draught vessels are in or approaching the route, but to continue this practice (and overtaking) when the route is in use is asking for trouble'.

The overtaking ship offered a different perception of some of the circumstances, but commented: 'we certainly realize that the situation was more or less self-inflicted. It should never have taken place as good practice would have been overtaking the VLCC on her starboard side, allowing own vessel to make the planned alteration of course towards starboard – or by slowing down until ample room available'.

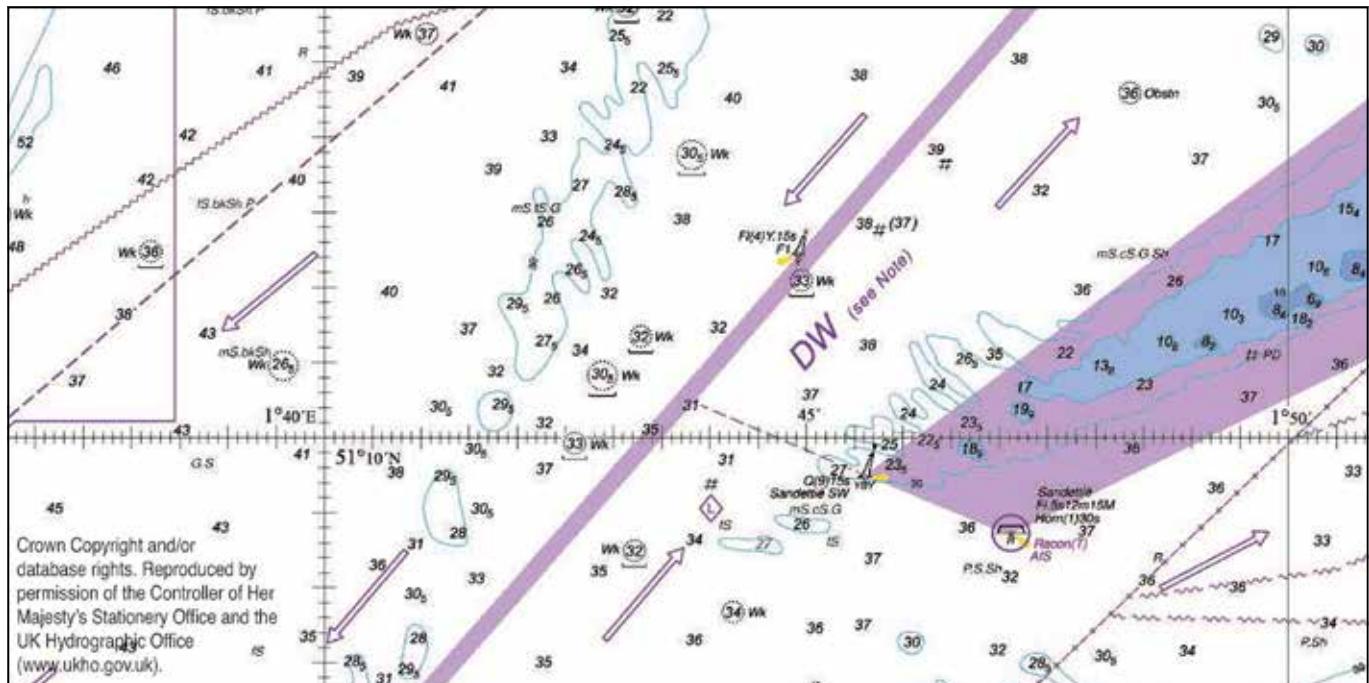
The lessons to be learnt

It is the obligation of the overtaking vessel to "keep out of the way of the vessel being overtaken ... until finally past and clear".

The distance at which the container ship, at speed, passed the VLCC (see photograph) was far too close. There was no spare room. Though we do not have tidal information (height or stream) which may have influenced decisions, it is clear that the VLCC judged he had little or no space to starboard. The OVERTAKING manoeuvre should not have taken place. Moreover, interaction will almost certainly have been present; this can cause loss of heading control or – at the least – unpredictable rudder requirements to maintain course (dependent on ships' sizes and speeds, and the depth of water in which they were navigating). Though not in itself a factor in the rights and wrongs of collision avoidance, it is a fact that a collision where this manoeuvre took place could have closed the strait to deep draught vessels bound NE, or at the very least obstructed the route, with major consequences.

Why did this happen?

Was it inexperience? Was it a failure to think ahead? Was it a lack of prior planning? Was it red-line-it (the tendency once a passage plan has been 'entered' to follow it regardless)? Whatever the cause, the container ship's managers did acknowledge that she could or should have slowed down.



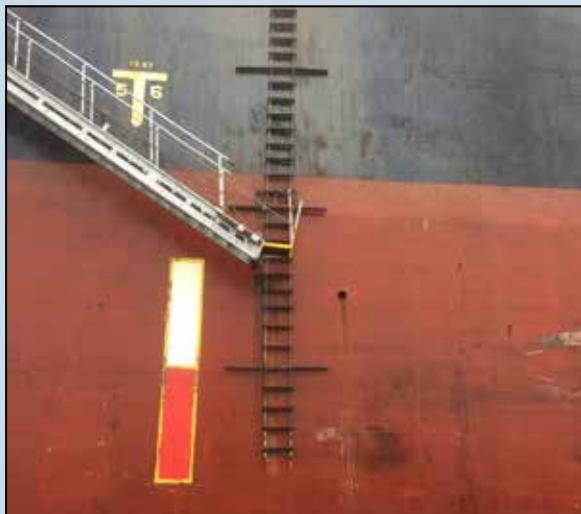
A very narrow entrance to the NE-Bound Sandettie DWR – note the position of F1 buoy. (Not to be used for navigation).

Can It Get Any Better Than This?

Submitted by San Francisco Bar Pilot Kip Carlson

It appears by the platform stanchions and lashings that the pilot was expected to climb up between the platform of the combo steps and the hull of the ship.

The crew had NO idea how to correct things, the weather was getting worse, and more ships were coming into the pilot area. The young, strong, enthusiastic pilot just climbed all the way to the deck ... and explained things to the captain!



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