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The MET Network with NGO Observer Status at IMO

GLOBALNIET TER NEWSLETTER



To promote, develop and support in the spirit of cooperation, the common interests of its members in all matters concerning the development and quality of maritime education and training.

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Editorial
Board:

Iman Fiqrie Malaysia **Chris Haughton** United Kingdom Richard Teo Australia **Rod Short** New Zealand



Editonial

fis month's newsletter 49 finds a number of interesting articles and highlights; collision regulation loss prevention placards; Automatic Identification System (AIS) Aids to Navigation (ATON), AIS ATON (AIS Buoys); Virtual AIS ATON; marine safety investigation involving the collision between Kota Wajar and the yacht Blazing Keel in Queensland on 6 July, 2014; a grounding report of ro-ro Commodore Clipper following disabling of ECDIS; Offshore Vessels (OSV) for the Oil & Gas Industry; Safety Climate; Toastmasters International and the coaching of cadets in English, communication and leadership; and finally, "What is your stone" in life?

Incidents involving maritime safety seems will always be forefront in seafaring! As many may already know, tasked with helping ensure maritime safety, the International Maritime Organization (IMO), "...is a specialized agency of the United Nations (UN)...responsibility...to improve the safety and security of International shipping and to prevent pollution from ships" (http://www.imo.org/en/About/Pages/FAQs.aspx); their responsibility also includes energy efficiency of ships.

In the paper, "15 Years of Shipping Accidents: A review for WWF Southampton Solent University," the suggestion was that over 40 years of safety and environmental accidents have been the impetus of a multitude of regulation and regimes (Butt). The paper further suggests that 2012 was a watershed in that World Maritime Day 2012 was used to mark the 100th anniversary of the sinking of the Titanic as well as note several other serious accidents. Little could they have imagined the catastrophic MV SEWOL which capsized in Korea, killing over 295 soles; the Captain was eventually convicted and sentenced to over 36 years.

The disasters highlighted during World Maritime Day 2012 were supposed to "...renew the spotlight on the main causes of Shipping accidents...", with the hope of making significant change (Butt, 2).

According to Butt, much of the key research highlighted in the aforementioned paper over 15 years included input from expert stakeholders from industry including major European shipping insurers, the MAIB, the IMO, Lloyds Register, a Naval Architect and an English P & I Club from the International Group. The criteria for the research of safety accidents included shipping

complexities, the industry in general, insurance, underwriting requirements, role of IACS, Port State CONTROL and class societies (2). Absent it seems, in all the criteria was a hard look at MET, training and competency.

The evidence links issues with safety to older vessels, Cargo carriers, and "poor performing" Flag States. The report does suggest slight improvements in safety and disasters, but also seems to lack the rigor of statistical standard tests, scrutiny, trend analysis and significance.

A relevant question seems to be what is maritime education and training's (MET) role is in helping to ensure maritime safety; possibly produce competent COC holders and thus make the seas safer? That doesn't seemed to have worked thus far. A similar question was also asked in NL 47, reference was made to the World Maritime University (WMU) mission as a way ahead. In that article it was also suggested that the lofty WMU goals may be a little too high for a certificate program or institution where the focus is primarily on STCW in lieu of loftier goals like safety of maritime shipping.

So it is in that contest that Newsletter 49 begs the question again as to what should be the goals and missions for MET that compliment both the WMU or IMO goals. In producing competent seafarers, let's not forget this includes knowledge,

skill (practical), experience and attitude. Perhaps the answer or key to maritime safety then lies not in knowledge or skills but attitude or behavior! Your feedback is important, please join us on the Globalmetblog where over 130,127 subscribers have a voice for change.



Reference

Butt, N., Pike, K., Pryce-Roberts, N., Vigar, N., 2013. '15 years of shipping accidents: a review for WWF'. Available from http://ssudl.solent.ac.uk/2391/

For the Executive Secretary,

By Iman Figrie Bin Muhammad (LCDR, USN ret) Lecturer, Malaysian Maritime Academy

Coaching and Mentoring in Maritime Education and Training (MET) through Toastmasters International



Figure 1 - District 51 Malaysia Toastmasters' Mission

further MET, myself I really believe one such solution are organizations like Toastmasters International (TM), an outstanding example of the kind of character building program that can help further organizations in MET! Toastmasters (members) ultimately become competent communicators and leaders, Figure 1 refers. This is precisely the reason Malaysian Maritime Academy (MMA) decided to require active cadet participation in TM. A number of staff are also involved as coaches and mentors, including myself (Advanced Communicator Bronze (ACB), Competent Leader (CL)); Chief Engineer and lecturer Mr. Tham (Distinguished Toastmaster (DTM)); Senior Lecturer, Captain Siva (Advanced Communicator Silver (ACS); and the person responsible for bringing TM to MMA, Senior Lecturer, Captain Khalid Hashmi (ACS, CL).

The founder of the original TM in the U.S. was Ralph C. Smedley, and according to TM International (TMI), the first unofficial TM meeting was held in 1905. Mr. Smedley had organized a series of speaking meetings and clubs while he was working at the Young Men's Christian Association (YMCA) in Bloomington, Illinois, United States. The first official meeting of Club No. 1 was held in 1924 nearly twenty years later and incorporated in 1932. Today, TMI is as strong as ever and still challenging participants in communication and leadership; the first few challenges for beginners starts with several 5-7 minutes speeches such as the Ice Breaker and works through the rest of the series of 10 projects (speeches) that include such topics as Speak with Sincerity, Apply your Skills, Persuade with Power and Inspire Your Audience; done concurrently, the leadership track also consists of 10 projects that include Listening, Critical Thinking, Time Management, Mentoring and Team Building. TM values include Integrity, Respect, Service and Excellence; for more information about TMI, get the full Electronic Media Kit at https://www.toastmasters.org/About/Media-center

An example of what TM can do for cadets and the institution came about while I was facilitating Senior Cadets in a Modular Advanced Firefighting (MAFF) course and

group case study session (figure 2. refers)— two of the students in the class were former TM; One in particular was from Mainland China, we'll call him "Xi". I remember when Xi first arrived at MMA as a Junior Cadet and could barely speak any intelligible English at all, let alone stand before a TM crowd and deliver a coherent speech topic, so frail, quiet and unassuming. Here he was now standing before me a few years later in a good size group in the MAFF as a senior giving a very respectful presentation about a fire onboard a cargo ship; I felt very proud of him and told him so, that he had done an excellent job on the presentation and had made excellent progress since his early days as a TM and junior. He thanked me and again I was reminded of why I share and participate in TM; you get more than you give!



Figure 2 - Senior Cadets in a case study group during Modular Advanced Fire Fighting (MAFF)

Again, when he first came to the academy Xi was very shy, timid, English very broken and unintelligible. XI put in the hard work himself and I would say only needed coaching, mentoring and guidance to put all the pieces together. MET needs more of this kind direct, personal and group coaching to help make positive differences and outcomes with reference to the tough and higher objectives aspired by the IMO in safety, security, energy efficiency and cleaner oceans; leadership by example and of a positive nature in lieu of many exhibited in the past 15 years --most recent and notable, MV SEWOL.

I recently had the distinct pleasure of meeting Malaysia's Ralph Smedley, accredited speaker Distinguished Toastmaster (DTM) Gerald Green, at a MMA TM function and installation of about five more clubs at MMA. As always, when a DTM takes the stage you're in for a real treat and DTM Mr. Green was no exception. He spoke of something he called "M-A-G-I-C," which is also in title of his book "the magic of Public Speaking"; M- myth. There's no such thing as a born speaker; A- audience. Never underestimate your audience, speak in terms of your audience and what you're good at; G-genuine. Be sincere; I- you have an obligation to be interesting, talk in terms of pictures and use humor; C-concise. Be clear, K.I.S.S. (Keep it Simple Stupid), speak less and say more.

As a native English speaker and retired U.S., Navy Officer, I first joined TM assuming that I didn't need the help-- remember DTM Green's MAGIC? I thought there was not much I could

really get out of TM but instead I could, however, contribute by letting the academy's TM hear an English speaker. Boy was I ever wrong! unbeknown to me, I would learn and achieve many helpful communication, speaker tips and leadership competencies during my participation in TM; achieve ACB, CL, a number of awards and accolades. The most rich and memorable of which is the active participation in something worthwhile, fulfilling and profound. The highest achievement for a TM as far as competency is the coveted DTM. Although as a DTM-- leadership and mentoring roles never cease as one will see DTM ambassadors everywhere engaging and showing that TM character as only they can. You're usually in for a real treat if there's DTM speaking, go see yourself.

In conclusion, many cadet rank holders both past and present have been TM, not only does the individual benefit from active participation in TM by helping to build character, integrity, respect for one another, instilling a sense of service and excellence, but the institution gains as well by the cadets active participation and interaction throughout the institution. By representing the institution and its values outside, they are ambassadors that help bring change and spread the corporate brand.

Ву

Iman Figrie Bin Muhammad (LCDR, USN ret) Lecturer, Malaysian Maritime Academy

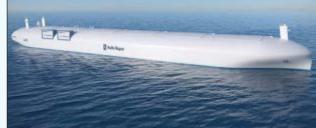
Inmarsat Joins Autonomous Ship Project

Agency for Technology and Innovation), will bring industry partners together with universities, research institutes, ship owners and other stakeholders to explore the economic, social, legal, regulatory and technological factors which need to be addressed in order to make autonomous ships a reality.

Inmarsat's role in the project is to provide the satellite communications link and platform. The Fleet Xpress service, delivered through the Global Xpress and L-band constellations, the world's first hybrid Ka/L-band mobile satellite system, forms the basis of the system.

"The launch of Inmarsat's Global Xpress mobile broadband network, which forms the heart of the new Fleet Xpress service, is a real turning point for the future of the maritime industry and ideally lends itself to the AAWA Initiative," said Ronald Spithout, President Inmarsat Maritime.

Global satellite communications provider Inmarsat has joined the Advanced Autonomous Waterborne Applications Initiative (AAWA) recently launched by Rolls-Royce



"Fleet Xpress will enable the ship-to-shore communications required to support the remote control functionality fundamental to the realisation of the autonomous ship. The high-performance, high-throughput network will open up unlimited possibilities for maritime applications and real-time monitoring and analysis of data, for smarter shipping today and the future."



OSV for the Oil & Gas Industry

his C.O.C. Class 1 (it is an acronym for Certificate Of Competency Class 1), it signifies the highest academic achievement for education and learning in the maritime industry. Symbolically, it means that the seafarer can "command" any type of ship or a vessel or a self-propelled Workboat of all tonnages and in all waters – meaning he can navigate any ship of any size to any corner of the vast oceans.



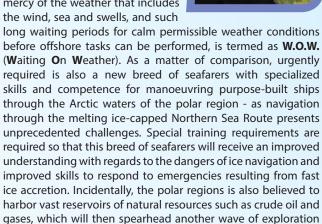
Traditionally, this is so. A seafarer after obtaining the required academic qualifications from a reputable maritime institution, he or she should be able to "command" any "ship" after completing the requisite training that relates to that specialized trade – whether it is an oil tanker, a chemical ship, a LPG/LNG ship, a general cargo ship, a container ship or a passenger ship. But with the advent of **OSV** (an acronym for **O**ffshore **S**upport **V**essels), where these vessels are specially designed and constructed for use by the Oil & Gas Industry, the rules of the game start to change. These purpose-built vessels serve the myriad needs of the **E**xploration and **P**roduction platforms and drilling rigs that are stationed in the continental shelf in their search for crude oil and gases, process these natural resources and then transport them safely to the purchasers.

Traditional Vessels of the Sea



The scope of this paper will restrict our discussion on training and development of seafarers who will eventually be competent enough to operate these **OSV** that are meant for **E**xploration and **P**roduction use, which are stationed in locations that often encounter harsh environmental and weather conditions. Very often we hear the 21st century comment regarding "modern feeble seafarers" who are only adept with electronic gadgets – a perception that is associated with the old adage "Wooden ships steel men. Steel ships, wooden men". Admittedly, this is no longer so as the "new profile of seafarers" who work on **OSV** must be tough both physically and mentally as the daily working hours

are irregular and often stretched beyond imagination as offshore activities are subjected to the mercy of the weather that includes the wind, sea and swells, and such



and production where future generations of improved OSV will

be able to withstand the harsh polar winters.

Coming back to reality, the focus at the moment in Malaysia is to train and to prepare seafarers to a level where they can become competent enough for the safe handling of **OSV** which generally include Standby Vessels, Emergency Rescue & Response Vessels, Anchor Handling Vessels, Supply Vessels, Seismic Vessels, Towing Vessels, Fast Crew Boats, etc. that provide marine support services to specialized vessels such as Workbarges, Workboats, Drilling Rigs (Jack-ups, Semi-submersibles, Drilling Tenders), Construction and Engineering Barges, Pipe-laying Barges, Floating Production Storage and Offloading (FPSO), and the list goes on and on. As the name suggests, each OSV is constructed differently and is designed for a specific purpose and hence the training requirements for the seafarer, as far as possible, would need to be tailor–made for the special circumstances of the situation.

OSV for the Offshore Industry



In order to summarize the pressing needs of the Oil & Gas industry with regard to the safe operations of **OSV**, the Malaysian NOSS (National Occupational Skills Standard) has embarked on a commendable journey to equip these seafarers with the necessary skills and competence, quote:

"This NOSS document provides a structured approach on acquiring skills to further their career on board Offshore

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Support Vessel (OSV) and at the same time, bridge the skill gap required to work onboard the OSV for existing seafarers. This NOSS document provides minimum criteria describing the various levels of skills needed in enabling a seafarer to perform tasks safely and efficiently on board OSV

The rationale for the creation of this NOSS document is to develop a standard skill sets for seafarers working in the offshore environment which are currently not being addressed uniformly by the local industry players.

The impact of developing this standard will produce a skilled workforce which is able to compete within the domestic and international markets. With such a skilled workforce, it will reduce the probability of accidents, downtime, loss of assets occurring thus maximising potential productivities."

Also, Capt. Syed Fazil Bin Yahya who has vast experience in the offshore industry, had shared his wisdom through his commitment as reflected in his words "Looking into the future, the KSA (Knowledge, Skills and Abilities) will have a huge immediate impact on the industry and the workgroups would have helped the OSV community to reach an important milestone by delivering a product that will raise the level of competency for each and every worker onboard an OSV".

Allow me to re-state the original objectives of this paper – the primary role of the **OSV** is to provide specialized support services to the Oil & Gas Industry, therefore, a need arises where these adventure seeking seafarers are required to be competent, well-trained and certified so that they can perform their offshore marine duties in a manner that can be as safe as possible. **STCW** 2010 (**S**tandards, **T**raining, **C**ertification and **W**atchkeeping) had painstakingly revamped the curriculum and through the Manila Amendments, it is hoped that the core competencies of seafarers with regards to **KUP** (**K**nowledge, **U**nderstanding, **P**roficiency) will be further addressed and strengthened.

Ву

Capt. Ng Yew Hong

Lecturer, Malaysian Maritime Academy

SRI Releases New Film on Criminalization of Seafarers

Raising awareness of the risks of seafarers facing criminal charges

eafarers' Rights International (SRI) has released a short, informative film commissioned by the International Transport Workers' Federation aimed at raising awareness of the risks of seafarers facing criminal charges as a consequence of their professional activities, and the actions they can take to protect themselves from unfair treatment.

The "Criminalization of Seafarers" film highlights recent high profile prosecutions of masters and crews following maritime casualties, and **draws on the results of the 2012 survey of seafarers conducted by SRI** on facing criminal charges. Importantly with reference to the Guidelines on Fair Treatment of Seafarers in the Event of a Maritime Accident, jointly adopted by the IMO and the ILO in 2006, the film

explains what seafarers can expect by way of fair treatment when they are detained by public authorities following a maritime accident, and it informs seafarers where they might get support and advice.

Deirdre Fitzpatrick, Executive Director of SRI commented "Despite the advances in safety in the industry, maritime casualties continue to happen and the consequences for seafarers are dire: their lives, liberty and professional certificates all being put at grave risk. The film highlights the fact that criminalization is a daily risk that seafarers need to be aware of, and that all stakeholders need to be sensitized to the unfairness of any attempt to scapegoat seafarers caught up in such incidents"

http://seafarersrights.org/

What is Your Stone?

<mark>lighligh</mark>t

by Iman Fiqrie

Find your stone in life, pick it up, throw it hard and true with all your might, courage and conviction as if your destiny depend on it. The aforementioned was adapted from Cathy Lee Gifford, on the recent passing of her husband the American football Hall of Famer Frank Gifford.

The idea of the stone is reference to a special stone in the City of Eilat, supposedly picked up and used by David to slay the giant Goliath. It wasn't so much the act of slaying the giant itself, but rather that David trusted in a higher power and was moved by it to action. What is our stone, special talent or calling in life?

When we find this special stone that is uniquely us and unleash it, a powerful destiny is right before us that we might otherwise never have known. Find your stone and throw it hard and true.

Grounding Report: ECDIS Alarm Disabled

The U.K. Marine Accident Investigation Branch (MAIB) has released its investigation into the grounding and flooding of the ro-ro ferry *Commodore Clipper* in July 2014, citing passage planning problems and ineffective use of ECDIS as contributing factors.

The Bahamas registered ro-ro passenger ferry *Commodore Clipper* grounded on a charted, rocky shoal in the approaches to St Peter Port, Guernsey.

No-one was injured, there was no pollution, but there was significant raking damage including breaches of the hull resulting in flooding of double-bottom void spaces.

The grounding caused a noisy, shuddering vibration that reverberated throughout the ship, but the crew did not check for damage, no external report was made and no safety announcements were made to the passengers.

Once alongside in St Peter Port, cargo discharge, reloading and a lifeboat drill went ahead as planned. However, a pre-planned divers' inspection of the hull soon discovered damage and the vessel was withdrawn from service.

The investigation found that there had been insufficient passage planning for the voyage. For the transit through the Little Russel, the extremely low tide and effect of squat were not properly considered. This resulted in the bridge team being unaware of the limits of safe water available and thus, despite their good positional awareness, they headed into danger without appreciation of the risk.

Several course alterations intended to regain track were ineffective due to the tidal stream setting the vessel off course.

Additionally, the absence of any alarm, steering and propulsion responding normally, and the master's conviction that there had been sufficient depth of water, led to a collective denial of the possibility that the vessel might have grounded.

The company's approved route was not followed, and the vessel's electronic chart display and information system was not used effectively because key safety features were either disabled or ignored.

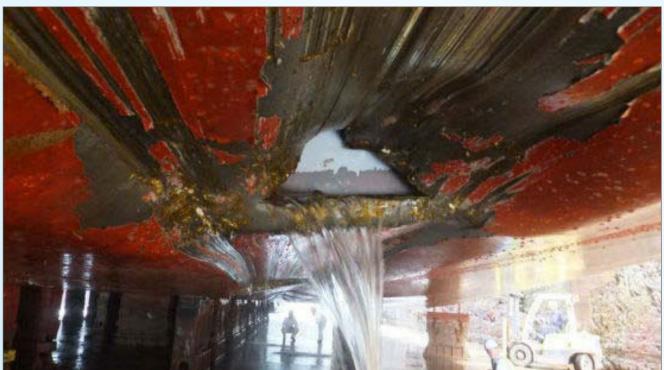
Had all the factors affecting under keel clearance been accurately assessed, it would have been apparent that it was potentially unsafe to pass over any charted depth less than 7.5m in the Little Russel, the report states.

The highly repetitive nature of *Commodore Clipper's* schedule induced a degree of planning complacency. Although the primary method of navigating in the Little Russel was visual, ECDIS was not used effectively as a navigation aid. In particular, the safety contour value was inappropriate, the cross track error alarm was ignored and the audible alarm was disabled. The layout of the central bridge console prevented the chief officer from using the ECDIS display to support the master during pilotage.

Additionally, the significant navigational risk routinely being taken by the crew of *Commodore Clipper* and the ECDIS nonconformity went undetected by audits and inspections.

The report is available here.

MAIB Report 6 August 2015



Hole in ballast tank of Commodore Clipper

Courtee

Safety Climate

The greatest power that a person possesses is a power to choose.

J Martin Kohe

hy do people still go to sea knowing that it is a high risk environment; the sea is unforgiving. The risk to life at sea is real. The loss of all life except one, the cook; on Bulk Jupiter in January 2015 is a reminder for all about the "fluid situation" at sea.

The security of vessels, especially in pirate-prone waters, is a constant nightmare to many shipmasters. The ship is a 24/7 business-environment; 365 days non-stop. Shipping is a business entity whereby making profit is the main reason for existence.

People who want to serve their nation will join the Navy but what type of people are serving the merchant fleets? We need the right mind-set just to survive life at sea. However, with the right talent, individuals will thrive at sea.

Those who opt for a career at sea must be fit for purpose. Shipping has a customer-focus. Ships provide services to the customers. Seafarers need to be customer-centric. Seafarers work long hours at sea just to meet the shippers' expectations. Nowadays, the paymasters are choosy. Many are looking for companies that provide great services at the lowest cost. Stiff competition tends to create the 4-seasons syndrome.

Spring and summer are good times; ships are maintained according to schedules. People are well-trained. All systems are in order. Autumn is the period of cuts; budgets etc. Winter is a sign of trouble; many ships are lying idle without any employments. The journey at sea seems like a cosine curve with ups and downs.

Out of concern for job-security, seafarers will try to imitate this 4-seasons syndrome played by shipping companies. Sometimes they will strictly obey the rules but cut-corners in order to meet objectives when the situation is dire. The economic cycles in the last decade tend to influence the "safety culture" in many shipping companies.

After 17 years implementing the International Management Code for the Safe Operation of Ships and for Pollution Prevention (International Safety Management (ISM) Code), we still have not been able to ensure a 100 percent safe and secure environment for people to work at sea.

Then again, even in the airline industry; which is self-regulated, it can never claim that it has

a 100 percent safe and secure

environment for people to work especially after the recent Germanwings incident.

"Safety culture" is a term coined after the Chernobyl disaster in 1986

An organization with a "safety culture" is one that gives appropriate priority to safety and realises that safety has to be managed like other areas of the business. For the shipping industry, it is in the professionalism of seafarers that the safety culture must take root.

(International Maritime Organisation (IMO) website)

Costa Concordia and Deepwater Horizon incidents reminded us to dig deeper in understanding the meaning of "safety culture".

.... "safety climate" is "what we actually do or not do". (Maritime Error Management p 61)

"Safety climate" in maritime academies will mirror the events on board ships at sea. The ability to inculcate and instil the right "safety climate" will ensure an accident free working environment, a clean ocean and a safe ship. Time spent by students on campus should be used to condition proper "safety climate". Maritime academies need to include "safety climate" in their next indoctrination exercises.

"Safety culture" is usually top-down approach; push through our throats. "Safety climate" is who we really are. It is about the real self. "Safety climate" is a choice and it is ours! All happenings in the learning environment is a good barometer of our "safety climate".

References

- 01. Maritime Error Management by Geoffrey W Gill
- 02. International Maritime Organisation (IMO) website

Ву

Capt M H Hamzah, Senior Lecturer, Advanced Nautical Studies Dept, Malaysian Maritime Academy

AIS Assisted Buoys and Virtual Navigation Aids

ighlight

by **Iman Figrie**

Captain Yashwant Chhabra, has written a couple articles for the newsletter on the Prevention of Collisions and has shared some materials condensed and highlighted here.

In an article posted on the gCaptain website in February 2014, Captain Madden, spoke of the AIS assisted buoys whose first noted use was probably in Mombasa, Kenya. These "high performance" buoys were called AIS Aids to Navigation (ATON or AIS ATON and enhance the physical buoy on radar and ECDIS.

On another the website, Ocean Navigator, in 2013, by Tim Queeny, a reference to so called Virtual AIS (VAIS) was used; this and other virtual navigation aids were used in super yacht competitions and according to the article, VAIS "...can be used to show 'area special messages,' shapes and zones that mark temporary hazard areas, anchorage areas, security zones or a variety of other information".

References

http://gcaptain.com/uscg-ais-aton-navigation/ http://www.oceannavigator.com/January-February-2014/Virtual-AIS/



New Collision Regulations Loss Prevention Placards Published

West of England P&I - Loss Prevention Placards

Two new placards have been added to the West of England Club's Collision Regulations series of Loss Prevention placards.

The new placards remind deck officers of the application of two of the principal Steering and Sailing Rules which apply to vessels in sight of one another; Rule 13 - Overtaking and Rule 17 - Action by stand-on vessel.

For more information please view the Loss Prevention Placards below:



Marine Safety Investigations & Reports



What happened

At about 0419 on 6 July 2014, in clear visibility, the container ship *Kota Wajar* collided with the yacht *Blazing Keel* in Moreton Bay. The ship was southbound in the shipping channel while the yacht was crossing the channel in a southwest direction.

The yacht suffered extensive collision damage but its watertight integrity was maintained. The two persons on board were not injured and the yacht safely returned to its marina.

What the ATSB found

The Australian Transport Safety Bureau (ATSB) found that no one on board either *Kota Wajar* or *Blazing Keel* saw or otherwise detected the other vessel before the collision. Neither vessel had maintained a proper lookout in accordance with the international regulations for preventing collisions at sea (COLREGS).

The investigation found that *Kota Wajar's* safety management system (SMS) procedures requiring a dedicated lookout were not effectively implemented and a lookout was not posted. In addition, radar was not appropriately used. The high workload of the ship's bridge team and local conditions, such as background lights ashore, were factors in not detecting the yacht.

The investigation identified that the visual lookout kept by *Blazing Keel*'s crew was ineffective. Furthermore, the yacht's night passage was undertaken without radar (which had been operational for 18 months) and its diving trip was not properly planned or executed.

It was also found that Brisbane Marine Pilots' standard passage plan and master-pilot exchange does not ensure that the ship's bridge team is provided adequate information with respect to local traffic and areas where attention should be paid to small craft.

What's been done as a result

Kota Wajar's managers, Pacific International Lines, Singapore advised the ATSB that action to better implement SMS procedures with regard to posting a lookout was being taken. Monitoring and verification of compliance with the procedures would be enhanced through unannounced audits, including the retrieval and playback of voyage data recordings. In addition, records of bridge activities, including attendance logs, would be reviewed in detail during routine audits.

Brisbane Marine Pilots (BMP) advised the ATSB that its standard passage plan has been amended to clarify responsibility for maintaining a good lookout by sight and radar. Bridge team engagement and communicating small craft interaction will be emphasised through the master-pilot-bridge team exchange and monitored through BMP's check pilot system. The pilotage company has also decided to review and amend its prearrival information for masters, to emphasise the small vessel interaction risk.

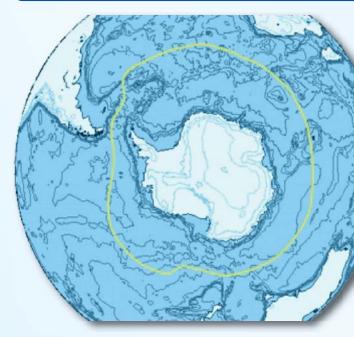
In response to the continuing safety issue around maintaining an effective and proper lookout when navigating in Australian waters, the ATSB has issued a safety advisory notice (SAN) to the masters, owners, operators and skippers of all vessels. Consistent with COLREGS requirements, the SAN reinforces the importance of taking all necessary measures to ensure that a proper lookout is kept at all times, and early avoiding action is taken to prevent collision.

Safety message

Across the past 26 years, investigations into 41 collisions between trading ships and small vessels on the Australian coast have identified that maintaining a proper lookout, using all available means in accordance with the COLREGS, is paramount to preventing collisions. In pilotage waters, pilots have a role in highlighting local traffic areas, patterns and conditions to the ship's bridge team.

Investigation number: 311-MO-2014-006

Circumpolar Current Debuted 30 Million Years Ago



A general delineation of the Antarctic Convergence, sometimes used by scientists as the demarcation of the Southern Ocean. "Antarctica-Region" by Apcbq, via Wikipedia

The Antarctic Circumpolar Current originated around 30 million years ago, according to new estimates emanating from the University of South Carolina. The current, which encircles Antarctica with a constant eastward flow in the Southern Ocean, formed after the tectonic opening of a deep-water channel in the Tasmanian gateway.

A cornerstone of the Earth's current climate system, the Antarctic Circumpolar Current (ACC) is akin to the Gulf Stream that gives the nations of western Europe a more temperate climate than would be expected from their latitude. There's a notable difference however: the ACC is much bigger.

"It's the largest ocean current today, and it's the only one that connects all the ocean basins," says research author associate professor Howie Scher. "The Atlantic, Pacific and the Indian are huge oceans, but they're all bounded by continents; they have firm boundaries. The Southern Ocean, around Antarctica, is the only band of latitude where there's an ocean that goes continuously around the globe. Because of that, the winds that blow over the Southern Ocean are unimpeded by continental barriers.

"So the fetch - the distance that the wind can blow over the ocean - is infinite. And fetch is one of the things that determines how high the waves are, how much mixing goes on in the oceans, and ultimately what drives surface ocean currents. With infinite fetch, you can have a very strong ocean current, and because this particular band of ocean connects all of the world's oceans, it transports heat and salt and nutrients all around the world."

In a paper recently published in the journal Nature, Scher and his team make the case for just when this massive ocean current

first started flowing. One straightforward obstacle in the distant past was the arrangement of continental masses. Antarctica and Australia were part of a single super-continent, Gondwana, and began to separate about 83 million years ago, so the Pacific and Indian Oceans couldn't have been in contact near the South Pole before then.

It was much later than the initial separation of Australia and Antarctica that deep ocean currents could flow between the two continents, though. Paleo-oceanographers have identified a transition, the opening of the Tasmanian gateway, a deep-water channel between Tasmania and Antarctica, as being a necessary part of any large-scale, sustained flow on the order of the ACC.

Using novel information about the separation of Antarctica and Australia, Scher and his team developed a tectonic model that showed that the Tasmanian gateway first developed at least 500m of depth between 35-32 million years ago.

From geochemical analyses of sediment core, however, they concluded that the channel opening to that depth wasn't enough to get the ACC flowing. The Pacific Ocean is in contact with much younger rock than the Indian Ocean, Scher says, which leads to a distinguishing concentration in each ocean of one isotope of neodymium that has a half-life longer than that of the solar system.

By measuring neodymium isotope compositions incorporated into fish teeth fossils in core samples, the team was able to establish that eastward current flow between the Pacific and Indian Oceans didn't begin until about 30 million years ago, some 2-5 million years after the Tasmanian gateway opened.

Taking both geophysical and geochemical data into account, they conclude that although the Tasmanian gateway was wide enough to accommodate a deep current, the gateway was located too far south to be in contact with the mid-latitude trade winds, which are the driving force for today's eastward-flowing ACC.

Instead, when the gateway first opened, water initially flowed westward, the opposite of that today, in keeping with the prevailing polar winds located at the more southern latitudes.

Only as both continents, and the gateway between the two, drifted northward on their tectonic plates over the next several million years did alignment with the trade winds come about. That reversed the current flow, to the east, and the ACC was born.

"It's the global mix-master of the oceans—that's a quote from Wally Broecker [of Columbia University's Lamont-Doherty Earth Observatory], and that's what it's been called by oceanographers for 50 years now," Scher says. "The Antarctic Circumpolar Current is the world's largest current today, it influences heat exchange and carbon exchange, and we really didn't know for how long it's been operating, which I call a major gap in our command of Earth history. It was a cool outcome."

Ву

Kevin Tester

Marine Professional, IMarEST





Global Maritime Education & Training Association GlobalMET Limited

Australian Company Number 103 233 754

www.globalmet.org

Chair:
New Zealand Maritime School
2 Commerce Street
Private Bag 92068
Auckland
New Zealand

Executive Secretary: Rod Short P O Box 307 Waikanae Kapiti Coast 5250 New Zealand rod.short3@gmail.com

Secretariat

P O Box 307 Waikanae Kapiti Coast 5250 New Zealand Tel 64 4 905 6198 Fax 64 4 905 6190 rod.short3@gmail.com B1/1070 Spaze I-Tech Prak Sector 49 Gurgoan 122002 India Tel 91 124 45525 56/57 secretariat@globalmet.org