



News & Views

Newsletter of the Nautical Institute

- New Zealand Branch -

May 2007, Issue 101

BRANCH NEWS

Message from the Chairman

Greetings to all NI members and any others who may read this newsletter.

It was pleasing to finally be able to meet as a Committee again (even if we were unable to achieve a quorum) as it enabled us to discuss various matters from an organisational point of view. It is obvious that one of the difficulties we face is that the committee are predominantly sea going, travel frequently or are very busy in their own business, which makes getting together a less than easy task. To ensure continuity is maintained the Secretary, Kees Buckens now plans to hold a meeting bi-monthly on a Wednesday, regardless of whether or not a quorum can be achieved.

I am still very much in favour of maximising email technology to ensure the majority of you to be able to receive, and even more importantly, share information with each other. A difficulty we have as an organisation is that we operate very much in isolation from each other.

I am keen to see the NZ Branch web site be reinvigorated to make it a more current and viable choice for anyone looking for information on matters nautical, particularly through providing links with other sites. I would like to request from you all any information or web sites that you

think could be of technical value or even just of interest to members or anyone else for that matter. Please forward any information that you have to the Secretary or myself. It is interaction amongst members such as this that may enhance the value of your membership and maybe/hopefully entice others to join. To achieve this we are considering to create the position of webmaster within the branch.

The perennial subject of membership received a further airing at the meeting. Having given some thought to what it may be that members or potential members may want from our organisation, the following are some thoughts that I raised with the others, (it is most likely these are not new to you):

- As there are now far fewer Kiwi Deck Officers than in times past, I believe that the NI would be of value to them professionally, as well as them to us. Without a reasonable number of sea going members we as an organisation may well become irrelevant and therefore less likely to be consulted in professional or technical matters (frequently these days many decisions are made by business people rather than subject matter experts). Marketing the benefits of NI membership to holders of NZ maritime certificates is considered to be important for the NZ Branch's future.
- I believe that the NZ Branch could well be marketed as a source for networking in job search and professional development. Unless one is well connected and in 'the know' (as many older well established members are), it is difficult and often confusing for those who looking to break into this vast and complex industry.
- Receiving *Seaways* has the potential to be a primary method for mariners to obtain professional and current information which otherwise they may not receive. Keeping oneself current is a requirement of every profession, our industry is no exception.

- Finally, an enticement for students to join the NI could be to offer a one year free membership to the top students undertaking Foreign Going courses at the Maritime School. Additionally, I believe putting together an attractive and comprehensive promotional package and a physical presentation for these students would assist them gain a better awareness of the Institute and the benefits membership can offer.

None of this is new, however we do need to implement some initiatives to ensure your Branch survives. If any members have ideas that may assist promote the organisation, provide or facilitate matters for you, or if you have any information such as favourite web sites etc, again, please feel free pass this onto Kees or myself.

Best wishes

Mark Longstaff, MNI
Branch Chairman
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AROUND NEW ZEALAND

Roadways to Waterways

In September 2006 the New Zealand Shipping Federation presented its draft document "Roadways to Waterways" to the Minister of Transport, the Hon Annette King. The document is intended as a basis for a fully developed maritime transport strategy to complement government's strategies for cycling, road and rail. Addressing a perceived gap in New Zealand's surface transport policy, the draft strategy is intended to make the most of the potential of the maritime sector and coastal shipping in particular as an efficient, effective, safe, sustainable and environmentally friendly alternative to road and rail transportation. Following is the Executive Summary of the document. The full text of the draft document is available on line at <http://www.nzsf.org/documents/NZSFDraftShippingStrategy.doc>

The importance of the maritime sector and coastal shipping as a part of New Zealand's transportation networks has long been acknowledged as a matter of principle. In practice, however, NZ-flagged coastal shipping and its related infrastructure have been in steady decline over more than four decades.

The reasons for this are various, but significant among them has been the diminished competitive neutrality between transport modes as a result of the substantial and continued subsidisation of road and rail transport. This and the failure to integrate maritime transport into regional and national surface transportation strategies have meant that the most economically self-sufficient, efficient and environmentally friendly form of transportation is discouraged in favour of the least.

The fact this is occurring at a time when the costs of maintaining and improving road and rail infrastructure are increasing only underscores the problem and the size of the associated opportunity costs. The focus on road and rail is of course understandable. However, the net effect of present policy is that government is relying on only two of the three legs of the surface transportation stool. Government's vision for an affordable, integrated, safe, responsive, and sustainable transport system by 2010 promises to be less than optimal as a result.

The neglect of maritime transportation and coastal shipping locally stands in marked contrast to Europe and the United States where "short sea shipping" and its promotion are explicitly recognised as a means of reducing road congestion, enhancing environmental responsiveness and assisting economic development.

That potential is no less real in the local context. It is highlighted - albeit negatively - by the fact that if the freight carried by New Zealand's reduced coastal fleet (outside the Cook Strait) was shifted to land-based transport, it would mean an additional 180,000 20-tonne truck movements on our state highways each year.

The converse is also true, underscoring the significant potential for the maritime sector to help reduce the pressure on New Zealand's road and rail networks, and thus contribute meaningfully to government's transport vision.

Capturing that potential will not be easy, but neither does it have the complexities or fiscal implications of other aspects of the surface transportation network.

The tasks are, in our view, two-fold:

the enhancement of the viability of marine transport and coastal shipping as a transport option through appropriate policy settings and government machinery; and

the alignment of national and regional goals and infrastructure investment to ensure optimal integration of the surface transport modes.

These tasks are not government's alone. Capital investment in coastal ships is largely a matter for industry, just as advancing the public interest in the best transportation outcomes is a matter for government. We conceive of it as a partnership that starts from the proposition that shipping and its related infrastructure is a national resource which is worthy of development and proceeds from there.

Government's policies in respect of the sector will be critical to the job of rebuilding the visibility and credibility of the maritime transport option. Accordingly, New Zealand's surface transport strategy should be refocused to include:

- enhancement of coastal shipping as a transport option, through appropriate policy settings and increased funding;
- enhancing responsibility for the development of the maritime and coastal shipping at the policy level within central and regional government;
- development of a coordinated national ports policy and, assistance with ports infrastructure development;
- establishment of a maritime promotions unit to work with the shipping industry to promote coastal shipping to:
 - cargo / freight owners;
 - regional councils; and
 - ports owners and operators;
- expansion of investment in off-road freight solutions and an extension of eligibility criteria to include coastal shipping and related infrastructure;
- establishment of a maritime outputs class within the Land Transport Programme with a focus on investment in coastal shipping and related ports infrastructure;

- introduction of a maritime training programme.

These are not radical proposals. Nor do they involve the type of market distortions that might be occasioned by such measures as the reservation of coastal cargo for New Zealand flagged ships. They are a package of initiatives aimed at restoring a measure of competitive neutrality to the transport modes and capitalising on the benefits of maritime transport as the most fuel-efficient, safe environmentally friendly and high capacity form of freight transport.

Isn't it Interesting

An advert inserted in a Wellington paper by the Harbourmaster says "Might is Right – Any vessel under 500 gross tonnage must give way to any vessel over 500 gross tonnage in Wellington Harbour (bylaw 6.3)"

In the same paper an article on Avoiding Harbour Collisions quotes the bylaw as "any vessel under 500 gross registered tons shall not impede the navigation of a vessel over 500 tons". Where the word registered came from is unknown to me as it is not in the bylaw. In my opinion the 'not to impede' in the bylaw has a completely different meaning to 'must give way' in the advertisement. The duties of an impeded vessel are clearly set out in NZ Maritime Rule 22.8(6) (c).

The article also states that the Wellington harbour rule was made under the provisions of rule 1b of the International Collision Regulations however New Zealand replaced these rules some years ago with Maritime Rule Part 22 which makes no provision for harbour authorities to make special rules. Auckland harbour also recently introduced a bylaw that established a moving prohibitive zone around all vessels over 500 tons.

In the absence of special lights or day marks that would identify both classes of vessel, the local rules mentioned above are unworkable.

It is my opinion that both these bylaws may be illegal under New Zealand law and that New Zealand authorities appear to have a different interpretation of 'not to impede' than that of many overseas experts. *Captain J A Brown, MNI*

Invitation to comment

You are invited to comment on the draft Part 32 (Foreign Going Deck Qualifications) amendment rules 2007. To read the full draft amendments .please visit Maritime New Zealand's website at: http://www.maritimenz.govt.nz/rules/rules_consult.asp

Kordia to provide unique solution for national vessel tracking system

Maritime New Zealand has selected Kordia™ to provide a national maritime vessel tracking system called AIS (Automatic Identification System) that will enable government agencies, port and harbour authorities, local councils and others to secure real-time information about where vessels are and what they are doing within New Zealand's coastal waters. Peter Williams, Deputy-Director Safety and Response Systems at Maritime New Zealand says that Kordia™ has been providing high-quality and high-reliability SOLAS services to mariners on behalf of Maritime NZ since 1993.

"AIS provides a tool for us to achieve "Maritime Domain Awareness", which is all about understanding the impacts of our marine environment on sovereignty, security, safety, economy, environment and foreign policy interests of New Zealand," says Williams.

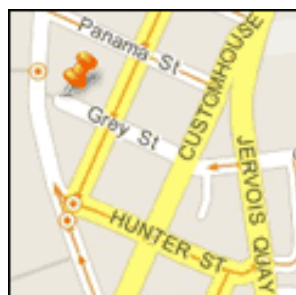
"Maritime New Zealand will serve as the "competent authority" for the delivery of AIS services in New Zealand. We will facilitate access for all other government agencies, local bodies, search and rescue organisations, and any other appropriate users," he says.

Kordia started trialling the AIS technology in 2004. To build the combined AIS-DSC system it will use the existing 28 station VHF maritime network around the NZ coast. *Kordia press release, 3 April 2007*

MaritimeNZ moves office in Wellington

Maritime NZ has moved into new offices in Wellington but its postal address and all contact numbers remain the same:

Level 10, Optimation House
1 Grey Street
Wellington



Confusion caused by redrafted COLREGS

The International COLREGS say:-

Rule 34

Manoeuvring and Warning Signals

(c) When in sight of one another in narrow channel or fairway:

(i) a vessel intending to overtake shall in compliance with Rule 9 (e) (i) indicate her intention by the following signals on her whistle.

Immediately you would consult 9 (e) (i) which says:-

In a narrow channel or fairway when overtaking can take place only when the vessel being overtaken has to take action to permit safe passing the vessel intending to overtake shall indicate her intention by sounding the appropriate signal prescribed in 34 (c) (i).

The New Zealand Rules say:-

Rule 22.34

(3) When in sight of one another in a narrow channel or fairway-

(a) a vessel intending to overtake another must indicate its intention in compliance with Rule 22.9 (narrow channels) by sounding one of the following sound signals.

You will consult 22.9 which says inter alia:-

- (1) Keep to the starboard side
- (2) Vessel less than 20 metres not to impede
- (3) Vessel fishing not to impede
- (4) Must not cross so as to impede
- (5) Similar to 9 (e) (i) of the int. rules
- (6) Must sound signal nearing bend
- (7) Must not anchor

Although on close examination both rules say the same I have had experiences of officers who believe that any overtaking in a narrow channel should be proceeded with sound signals and have referred to Rules 22.34.

I believe that because the New Zealand Rule does not refer explicitly to the part of rule 22.9 which refers to overtaking and also that it places emphasis on the "must indicate" before "in compliance with", some may have the impression that a signal must be made on all occasions when overtaking is carried out.

This is an example of confusion caused by the re-drafting of the International Collision Regulations by the New Zealand Maritime Safety Authority which was unnecessary and a complete waste of resources. *Captain J A Brown , MNI*

POAL appoints Chief Executive-designate

Ports of Auckland announced today that it has appointed Jens Madsen as Chief Executive-designate. This follows the announcement last November that present Chief Executive and Managing Director, Geoff Vazey, will retire on 31 August 2007.

Mr Madsen joined Ports of Auckland as Chief Operating Officer in February 2006. He brings to the role an extensive and in-depth knowledge of the international shipping and logistics industry, gleaned from an impressive global shipping background, including 28 years with the world's largest shipping group, A.P. Moller-Maersk. During this time Jens established and headed Maersk's New Zealand arm from 1996 to 2000. He then went on to be a leading figure in the global refrigerated container trade.

His expertise and experience provides the Company with strong leadership and a valuable insight into the wider shipping industry.

"This is a significant appointment for both Ports of Auckland and New Zealand's shipping and logistics industry. We are absolutely delighted to have someone of Jens Madsen's calibre in this role," said Ports of Auckland Chairman Gary Judd. Mr Geoff Vazey will remain Ports of Auckland Managing Director until his retirement later this year. *POAL press release, 2 April 2007*

CentrePort orders new tug

CentrePort has recently placed an order with Damen Shipyards, based in The Netherlands, to construct a new \$9M harbour tug at a shipyard in Vietnam.

Construction has already commenced and delivery of the tug to Wellington will be in April 2008.

Liz Ward, CEO of CentrePort said "The new tug will set new standards in port marine services. This acquisition is a planned replacement for one of our faithful Voith-Schneider tugs and is part of our drive to enhance safety and to accommodate the trend to larger vessels using the port of Wellington".

"Our existing tugs are now over thirty years old, and although still very effective they lack the power that we require in the future. The new tug will be two and a half times as powerful as 'Toia'. 'Kupe' or 'Ngahue'. A name for the new tug has yet to be decided".

The vessel is being built in Haiphong, Vietnam to a proven Damen design. A number of similar tugs are already in service in England and Australia. CentrePort's tug will be number 14 in the construction schedule. At least a further ten tugs of the same design are on order for other international ports. It will have stern drive instead of Voith Schneider propulsion and with a bollard pull of 70 tonnes will be one of the most powerful harbour tugs in New Zealand.

Damen, who have traditionally built their tugs in Europe, have chosen the emerging shipbuilding industry of Vietnam for reasons of quality and price and also to improve accessibility to new markets.

"The introduction of this new technology will add value and increased safety to the handling of vessels in Wellington's boisterous climate. Crew's will welcome the modern layouts, controls and responsiveness and pilots will immediately see the advantage of the additional assistance when berthing large car carriers, container ships, tankers and passenger ships" says Ms Ward.

Centreport press release, 8th February 2007

Auckland Sailors Home ablaze

An arsonist set fire to the Auckland Sailors Home during the early hours of Saturday 10 March 2007. The fire forced a complete evacuation of the inmates, many of whom are elderly and are only mobile using walking frames. That no loss of life occurred was thanks to the sterling work of fellow resident Pieter Gorter, and a great deal of good luck. Pieter Gorter is a deck officer on the Cook Strait service and a student at the New Zealand Maritime School. The young man who has been charged with setting fire to the Home was staying there that night and is yet to appear for trial.

One of the firemen who turned out to the fire was an Anglican priest attached to St Marks in Remuera. Revd. Ross Bay alerted Revd. John Marcon, Missioner at the Seafarers Centre, he opened the Centre and organised breakfast and comfort for the 30 inmates of the Home. The

Centre did suffer some water damage but not sufficient to trigger an insurance claim above the excess of \$5000.

MaritimeNZ FACT SHEET

MARITIME SECURITY

IN 2003 THE INTERNATIONAL MARITIME ORGANIZATION ADOPTED THE INTERNATIONAL SHIP AND PORT FACILITY SECURITY CODE (ISPS) IN RESPONSE TO THE THREAT POSED BY WORLD TERRORISM, IN PARTICULAR AGAINST THE MARITIME INDUSTRY.

Under the Maritime Security Act 2004 Maritime New Zealand is the regulatory body responsible for ensuring that ships and ports meet the requirements of the ISPS Code. This includes approving and auditing security plans developed by port and ship operators. The plans are based on risk assessments and specify security measures such as perimeter fencing, visitor and vehicle access, and the security levels at which ships and port facilities must operate. The risk assessment process is based on a whole of Government approach to securing New Zealand's borders and ensuring economic viability.

Maritime NZ also provides and coordinates security information to ships and ports, manages the risk management process, and ensures security compliance of foreign vessels arriving in New Zealand. Under the Maritime Security Act, the Director of Maritime NZ's powers include the authority to ensure that port and ship authorities comply with the Maritime Security Act, and specifying the maritime security operating level for New Zealand.

The Director also has the ability to prosecute individuals or organisations for breaches under the Maritime Security Act. Maritime NZ is also a key player within the Pacific region, working with our Pacific partners to ensure that they also meet the ISPS Code guidelines. This programme is carried out under the Pacific Security Fund.

IMO CORNER

Revised MARPOL annex I & II introduce stricter rules for carriage of chemicals and vegetable oils in bulk

Stricter rules on carrying vegetable oils in bulk by ship are among the changes introduced by amendments to the International Convention for the Prevention of Pollution from Ships, 1973, as modified by the Protocol of 1978 relating thereto (MARPOL 73/78), which enter into force on 1 January 2007.

The revised Annex II regulations on carriage of noxious liquid substances carried in bulk (including chemicals and vegetable oils) introduce significant changes to the way certain products may be transported, in order to protect the marine environment from harm.

Revised Annex I regulations on carriage of oil by ship update and re-order the regulations as well as introducing some new rules.

Rescue at sea

On 1 July 2006, amendments to two IMO Conventions entered into force. The amendments, concerning the treatment of persons rescued at sea, are particularly timely in view of several recent incidents involving migrants and refugees unwittingly involved in accidents at sea.



To provides guidance on relevant legal provisions, and on practical procedures to ensure the prompt disembarkation of survivors of rescue operations, and measures to meet their specific needs, particularly in the case of refugees and asylum-seekers a leaflet has been

prepared jointly by the International Maritime Organization (IMO) and the Office of the United Nations High Commissioner for Refugees (UNHCR).

It is intended for masters, ship owners, government authorities, insurance companies, and other interested parties involved in rescue at sea situations.

For further information or to download the leaflet visit the IMO website at:

http://www.imo.org/includes/blastDataOnly.asp/data_id=15282/UNHCRIMOleafletpersonsrescuedatsea.pdf

PIRACY REPORTS

Increase in Hijacking and Piracy off Somalia

There has been a marked increase in attacks and hijackings off the Southern part of Somalia, particularly off Mogadishu, in recently.

The attacks are mainly targeted towards vessels with cargo for Somali ports.

Vessels are advised to steer well clear of Somalian waters at all times and only approach once full clearance to enter the port has been received

4 April 2007,

http://www.icc-ccs.org/main/all_piracy_al.php

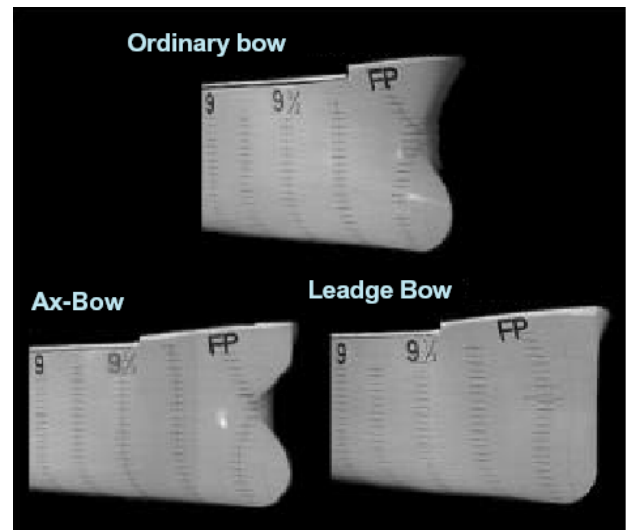
TECHNOLOGY

Universal applies new energy-saving type Leadge Bow to 81,000DWT bulker

Universal Shipbuilding Corporation has developed a new bow shape called Leadge-Bow, which is applied to low-speed blunt ships such as bulk carriers or tankers for increasing propulsive performance in waves. Leadge-Bow is coined from combining "Leading" and "Edge." This bow shape is expected to decrease the required horse power in waves by 4 to 5 % in comparison with the conventional bow. The first ship employing the new Leadge-Bow will be an 81,000DWT bulk carrier to be constructed at the Maizuru Shipyard. The Leadge-Bow has been created on the basis of the Ax-bow previously developed in 2000.

The Ax-Bow was first applied to the 172,000DWT Capesize bulk carrier KOHYOHSAN built for Mitsui O.S.K. Lines, Ltd. in 2001. The navigation record of KOHYOHSAN has shown the required horse power is reduced by 3 to 4%, showing good performance in actual sea conditions. This has

promoted the ship to the prize-winner of the Ship of The Year in 2001 awarded by The Japan Society of Naval Architects and Ocean Engineers (former The Society of Naval Architects of Japan).



Since then many Ax-Bow ships have been built by the Universal Shipbuilding Corp. Although the bow has demonstrated good performance in actual use and has been appreciated by the operators, Universal Shipbuilding Corp. has continued the study on improving ship performance in waves for the newly developed Leadge-Bow. Through the study, Universal Shipbuilding Corp. has further stepped up hull performance in waves by straightening and sharpening the bow edge between the Ax-Bow above waterline and the bulbous bow below waterline, which eliminates the bulbous bow in the side view. In the model tests, this bow shape has been confirmed to give the same wave making resistance in still water as the conventional hull with bulbous bow, although the bulbous bow has customary been considered to reduce the wave making resistance in still water. This means that Leadge-Bow shows the same performance in still water as conventional ships with the bulbous bow. In waves, on the other hands, Leadge-Bow can reduce the required horse power in waves by 4 to 5% compared with conventional ships, whose reduction rate is more than that for Ax-Bow.

Betting on air-cavity system

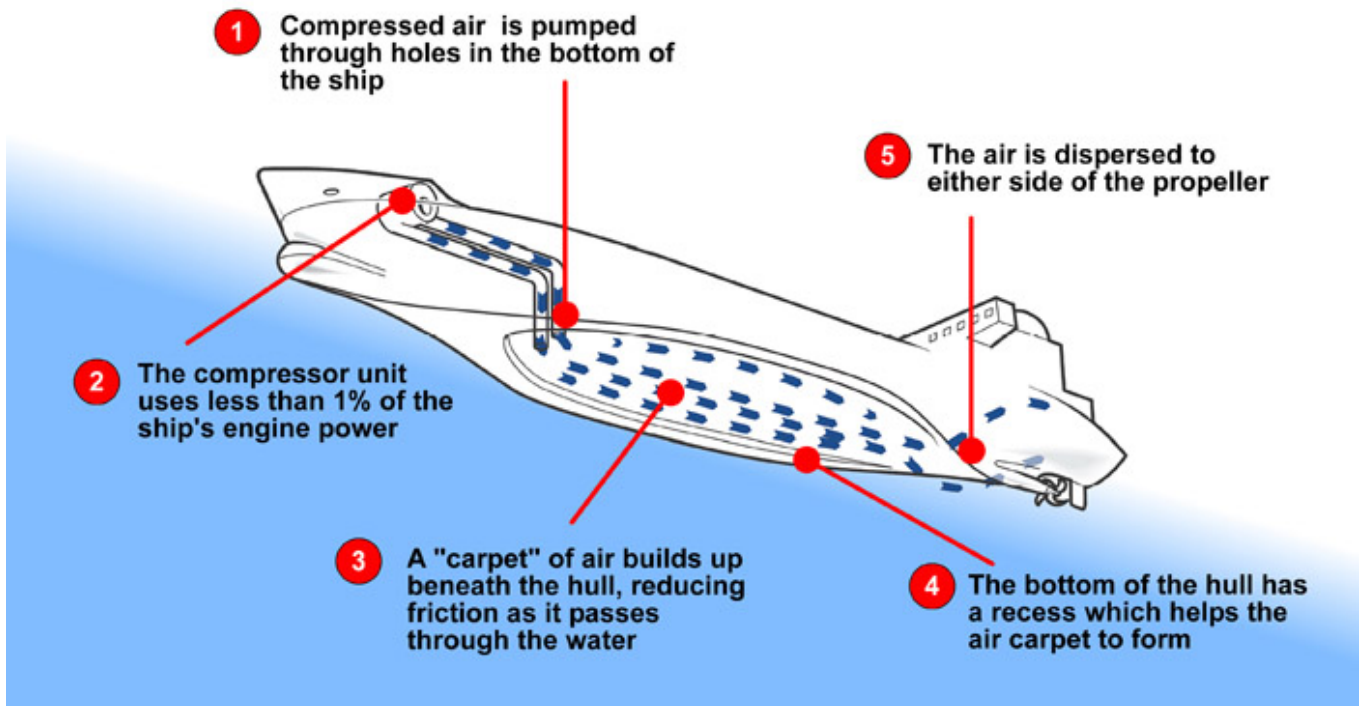
Many newspapers run quizzes asking readers to work out the links between lists of apparently unrelated items. The task is to work out the

progression from horses to helicopters to hovering hulls for ocean-going ships. The answer is Jorn Winkler, a helicopter and aircraft pilot, Winkler has developed an air-cushion system to cut big ships' fuel consumption and carbon emissions from principles first used by the hovercraft. Air Cavity System (ACS) hulls are not a new idea but Winkler's patented method for pumping air into a cavity under the hull in order to cut drag from contact with the water is claimed to be the first to work in all wave conditions.

the concept could work with large ships. His Netherlands-based company, DK Group, is now focusing on attracting owners of some of the largest boxships, tankers, bulkers and LNG carriers.

Winkler says, for example, the design is best suited to panamax boxships of 4,000 teu or more and tankers from aframax size up to VLCC. To prove his point, DK will over the next six months acquire and modify a 2,000-dwt vessel to undertake sea trials. The conversion will involve adding a steel "skirt" to the bottom of the hull to

How ACS Works



The big difference between the ACS and hovercraft technology is that the ACS does not lift the vessel out of the water but injects a layer of air between it and a large area of the ship's underside. The big difference between Winkler's ACS and others is that the bigger the ship, the better it is claimed to work in terms of savings and environmental benefits. Six years of model tests suggest reductions in drag and fuel consumption can be as high as 15%. Apparently, Winkler's first idea was merely to develop more efficient jet skis but he soon realised

restrain the pumped air cushion. However, DK chief executive Christian Moller says conversions are not the target. The system is best-suited to newbuildings and with that in mind, DK has been working closely with an unnamed classification society to ensure its design stays within International Maritime Organisation (IMO) regulations.

Moller says the cost of integrating a cavity hull in a ship design depends on how much steel is involved. He estimates an extra 700 tonnes of steel is needed to build the cavity skirt for an aframax,

adding 2% to 3% to the price. DK is confident bunker savings will mean ACS will pay for itself in two to four years, depending on ship type. With shipping said to be responsible for at least 500 million tonnes of CO2 emissions a year and emissions trading likely to start from 2011, the timing is right. If emission taxes are set at EUR 20 (\$25.89) per tonne, DK says it would cost the shipping industry some EUR 10bn a year, while environmental regulation is most likely to increase over the next few years. Adding steel skirts to the bottom of a hull will normally either mean increasing the ship's draught or reducing its cargo capability. DK's vessel designs get around this by making the hulls wider, rather than shallower or deeper. Moller says DK's Aframax design is about 20 centimetres wider than comparable ships. Both Moller and Winkler acknowledge the shipping industry is traditionally conservative toward innovation but they say they are talking to a number of owners and shipyards. "The conversation with owners about whether they would like to save 15% on fuel bills takes less than two minutes but what remains is for the first vessel to be built. That is what will give ultimate proof of the concept," Moller said. But he adds that many other hull-design changes, making savings of just 2% to 3%, have been accepted on tank testing alone and without the developers sailing a demonstration vessel, as DK intends to do. He says the company will also gain from the prototype tests by trying out the next generation of initiatives on the ship. DK is investing some \$25m in total project development. Future potential is suggested by Winkler's assertion it will be easier to run a 12,000-teu to 13,000-teu containership on a single engine and screw with the ACS because it reduces drag. When you are talking about 400 tonnes per day of bunker consumption for such mega-ships, the fuel savings also increase significantly. And despite conversion not being a viable option for tankers, it can be done for containerships through the jumboisation process of adding an extra mid-section. Moller says the company hopes to be in a position to take orders for ACS ships by the end of 2007. "We are trying to break new ground so owners and yards will have to step up to the plate and take a

risk. But the potential gained in the end is making ships more efficient and contributing to a cleaner environment," he said. *Tradewinds* - Jan. 27 2007

EDITORIAL

In this edition of News and Views we highlight two new construction techniques that will change the way we see ships in the future. In the 1960's we were introduced to the bulbous bow, the advantages were quickly recognised and the design was adopted by most ship builders. A superficial glance might give the impression that this new bow shape is a step back, however when the promised fuel savings prove to be correct we should soon see the Leage-bow appearing on ships visiting our shores. Similarly if the sea trials with the Air Cavity System are successful and we see savings of 10% - 15% in fuel consumption, reduced carbon footprint and improved manoeuvring characteristics, it seems logical that ship builders will adopt these designs quickly, in particular for ships sailing in special MARPOL areas.

Over the years the economic benefits of design modifications have driven naval architects to creative solution and have led to some revolutionary technologies both in ship construction and in propulsion design. Yet on the navigation bridge we seem to live in a time warp going back to the previous century when no electronic navigation equipment existed and position fixing was fully reliant on sextant observations and compass bearings. The navigation bridge of most modern ships still feature open bridge wings with the bearing compass, accompanied by a box-seized control station, positioned near the outer end of the wing. The bearing compass is usually quite high in order to have a clear view over the wind breaker at the front of the bridge. The lids on the weathered control stations hide the frosted displays of frozen indicators and corroded handles that control engines and thrusters. Above the entrance to the bridge, 5 – 10 meters away, we usually see the rudder indicators and engine revolutions meters – no matter that we have variable pitch propellers!

In the wheel house we find an array of modern navigation equipment, ARPA/Radar overlaid with ECDIS, GPS/SBAS, AIS, auto pilot and/or

navigation computer, Doppler speed log, anemometer, echo sounder, etc. often integrated with each other through a digital bus system. Most of this equipment is prescribed in SOLAS chapter 5 to increase the safety of navigation.

In addition to the traditional telegraph and thrusters controls, there may be a “joystick” to control the movement of the vessel for close quarter manoeuvring and various ways to steer the ship. Using this equipment, the Master is able to control the position and heading of the vessel within meters accuracy in relation to its environment.

However when the ship approaches its destination where we will conduct a controlled collision with the berth, ship or buoy, we abandon all this technology in favour of the trusted wind-in-face and rain-down-collar system. Often the junior officer remains inside the wheel house to maintain the position in the chart, observe the radar and make entries in the ship’s log and manoeuvring books. To ensure good communications we position the lookout in the entrance door so that he can relay the shouted rudder-orders to the helmsman inside, while on the wing Master and Pilot huddle together to carry out the required manoeuvre. Although on a fine day the lack of advanced navigation and ship handling equipment is a major deficiency, the distractions due to lashing winds, icy or monsoonal rain, or the burning midday sun in the tropics, increase the risks of the manoeuvre to dangerous levels. Yet this is in general ignored because of traditional values that it is “better” to manoeuvre the ship from an open bridge wing. There is an often quoted misconception that feeling the wind in your face will give a better indication of direction and force than the meteorological equipment fitted for that purpose.

This danger was recognised by the Panama Canal Committee in the early eighties and partly mitigated through the requirement of a cover over the bridge wings. Vessels that manoeuvre frequently have gone one step further. Vessels such as cruise ships and ferries but also working vessels in ports and off-shore industry, as well as those that venture in extreme arctic climates all have fully enclosed bridge wings with windows stretching from bulkhead to deck and port to starboard. On these enclosed bridge wings the

navigation equipment is maintained in an air-conditioned environment and in ergonomically designed positions that best support the ship handling. The Master and the Pilot no longer have to suffer the distractions of the weather, communication distortions have all but gone and visibility on the bow, side and stern have dramatically improved because of the full size windows.

Why then are 95% of ships designed with open bridge wings where sun, wind and rain commence deterioration of the limited equipment on the wing from the moment they are installed at new building? The answer surely must be found in how the owner will benefit from the additional (minimal) costs of fully enclosing the navigation bridge and adding a few additional computers.

Enclosing the bridge will not reduce fuel costs, nor will it reduce the carbon foot print of the vessel, nor will it improve the manoeuvring characteristics of the ship. It will however create heavy resistance from senior officers onboard as well as ashore, who are very accustomed to the open wings and will oppose change. The benefits of the fully enclosed navigation bridge will be found in the risk management arena. For this to work we must first obtain statistical data. Available data from Lloyds of London state that 90% of accidents occur when the ship is within restricted waters. The data does not show in how many of these accidents weather related distractions on the open bridge wings should be considered as contributing factors, or in how many cases a breakdown of communication due to open wing configuration was a factor. Insurers typically publish statistics for claims exceeding \$100,000, but due to the low costs/low speed impacts, scrapes or near misses, many docking incidents will go unreported and will not appear in the data. The bottom line is, there is no reliable statistical data supporting the frequency claims and the individual consequences are typically below the threshold to obtain a risk value above the “As Low As Reasonable Possible” (ALARP) line.

As a result ship owners will continue to accept and absorb the damages caused by docking incidents that could have been mitigated by fully enclosing the navigation bridge, unless professional bodies such as the Nautical Institute make the case. MSC circular 982 (20 December 2000) gives guidelines

for the ergonomic criteria for bridge equipment and layout. It provides detailed guidelines for work conditions on the bridge, including desired air temperatures, humidity and airflow. Yet when entering the most accident prone part of the voyage we throw these guidelines to the wind.

This is a call to arms to report to ship owners, insurers and IMO that we have caught our last cold, got our last sun burn and it was the last time that we got soaking wet and that it is time that the recommendations of circular 982 must be applied to all of the navigation bridge, not just the middle bit. *Kees Buckens, nznisec@xtra.co.nz*

Why a seafaring career is still a good choice

With clockwork regularity I'm being asked by sea going colleagues why a student should opt for a career at sea, followed by a raft of barriers and negative aspects of what they see as modern day seafaring. My standard answer has always been that I thoroughly enjoyed my time at sea and that when I left the sea to take up my current position as lecturer at the Maritime School, I looked back on a satisfying and rewarding career that I would highly recommend to any qualifying student. Recently though after reading yet another very downbeat article on the future for New Zealanders in a sea going career I decided to be a little more specific in why a 6th form student should seriously consider a career as a navigation - or marine engineer officer.

It is fair to say that a career at sea is not for every one. He or she must be able to deal with considerable responsibility right from the start. The officers ensure the safety of their ships, their shipmates and the environment. They will become part of a select group of internationally qualified and highly skilled professionals who will supervise the work of technicians and crew to ensure that during his or her watch the ship follows a safe course and the engines and other technical systems are operated correctly. Both tasks that are vitally important for the safety of the ship. Within 10 to 15 years of graduating from the Maritime School as Officer Of the Watch or Marine Engineer Class 3 the student would expect to be promoted to Captain or Chief Engineer with total responsibility for the operation of the ship and the well being of the crew and all onboard. In the latest generation of vessels this means the

responsibility for a ship valued at several 100 million dollars (in case of cruise ships this could be well over 1 billion dollars), the cargo of maybe 10,000 containers, 2000 – 3000 passengers or 150,000 tonnes of LNG.

Although it was the responsibilities that I missed most when I came ashore, the view from my new office was another major downside. The view from my previous office was the best any one could have: one day it was a Fjord in Norway, the next day staring at the Winter palace in St Petersburg and on yet another day I was looking at the Panama or Suez Canals. Although modern ships spend less time in port than in the past, a career at sea still means that you will travel to almost any place in the world. The seafarer will experience the peoples and cultures in the corners of the world the way they live, not the polished versions in the tourist destinations, that look more and more the same where ever you go. While travelling the world they will build an international network of friends and contacts that will last a lifetime.

These contacts may come in handy when it becomes time for a change. Currently there is a shortage of about 15,000 navigating and engine officers worldwide and growing, therefore job security is a guarantee. On the other hand, the officers may decide to use their internationally recognised qualifications and experience to find employment in one of the large number of professional jobs servicing the shipping industry ashore. Even in a country with a small population such as New Zealand an estimated 21,000 people work in maritime related industry, 10,000 of these work in the shipping industry contributing an estimated \$1 billion to the New Zealand economy or about 1% of total GDP in 2002, according to Statistics New Zealand. Many senior personnel with maritime qualifications in this shore based industry are shortly due to retire, so there are excellent opportunities to continue with a second career ashore in professional jobs such as shipping - or harbour management, broker or surveyor. Skills and experience gained at sea are readily transferable to industries outside shipping, where seafarers are highly regarded because of their work attitude.

In New Zealand most employees have just gained a fourth week of holiday per year, quite a reduction from school or Uni days. As an officer however, he

or she enjoys very generous leave periods comparable with the study days. These typically vary from one month on board and one month holiday for off-shore work and short sea trade to three or four months at sea before several months of leave is acquired. Off course the flights to and from the ship are paid for by the company and most companies will allow the officer to deviate from the home-flight when this is requested in ample time. In addition, most shipping companies will allow the officer to bring his or her spouse onboard for some or all of the time, at no extra costs.

Much is written recently about the challenges for young people to buy a house in New Zealand. A choice for a seafaring career will be helpful here as well. Wages earned by the officers are very generous compared to professions ashore and are usually within the upper income brackets. In New Zealand a 21 year old graduate officer-of-the-watch or marine-engineer will take home a wage that is comparable to what many university graduates hope to earn in their 30s. The real value of wages however is much higher because the officer has relatively few expenses as accommodation, travel and food are all met by the company. These same officers can expect rapid promotion and in their late 20s earn 6-digit incomes with top salaries as Captain or Chief Engineer to be well over \$200,000 per year.

In summary, working on board a ship is a truly unique and stimulating life style with many opportunities for socializing both onboard the ship with colleagues of many different nationalities, and ashore during visits to foreign ports. Regrettably there are occasions when the seafarer is faced with stressful or unpleasant situations that are borne out of regulatory or bureaucratic red tape. The international attention that these incidents attract also demonstrates that these are the exception rather than the norm and adherence to the rules usually keeps you in safe waters, and allows the officer to fully enjoy a satisfying and rewarding career. *Captain Kees Buckens is senior lecturer and coordinator Foreign Going programmes at the New Zealand Maritime School.*
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Waipapa Point Lighthouse Restoration

Maritime NZ is restoring the Waipapa Point lighthouse to provide a long-term solution to weather proof the structure, while preserving the historic character of the light.

The light was lit for the first time on 1 January 1884, and the last keeper withdrawn in 1976. The light shines from a 13 metre-high white wooden tower, and is 21 metres above sea level. Its white light flashes five times every 20 seconds, and can be seen for 9 nautical miles. Waipapa Point, east of Invercargill, marks the scene of New Zealand's worst shipwreck. On 29 April 1881, 131 people were drowned when the passenger steamer Tararua was wrecked on a reef off the point. It was on one of its regular trips between Otago and Melbourne, via Bluff.

NOTICES

NZ Branch of the International Institute for Marine Surveying formed

The secretary received a message from Barry Thompson informing us of the recently formed NZ Branch of the International Institute for Marine Surveying (IIMS) of which Barry is the Chairman. We sent congratulations to Barry and are looking forward to working with the newly formed branch on matters of common interest

The New Zealand Branch of the Nautical Institute wishes to acknowledge the assistance of the New Zealand Maritime School in printing this newsletter. For

New enquiries on all courses please call +64 9 379 4997, email

maritime@manukau.ac.nz or visit the School at <http://www.nzmaritime.com>

