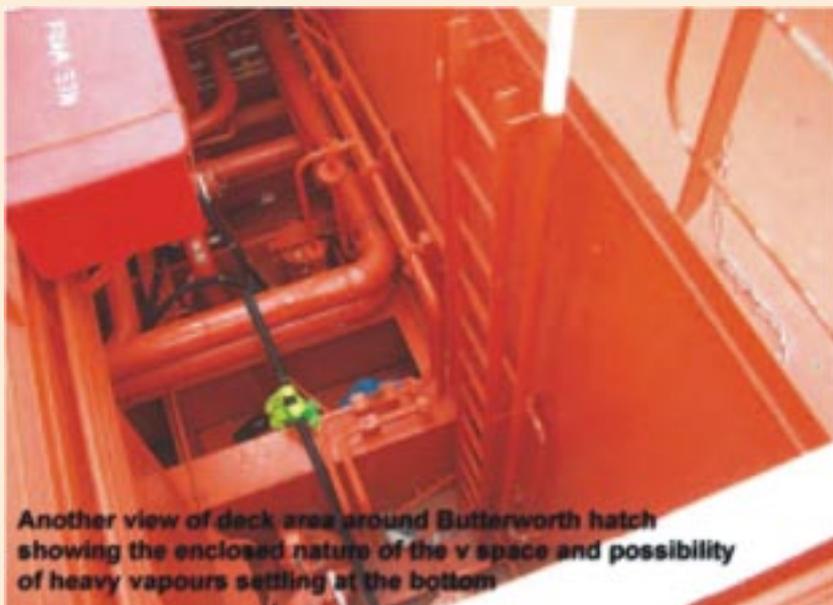


Real Life Accident: Hydrogen Sulphide (H₂S) Gas almost kills crew members on Ship

A chemical tanker was instructed to load 2000 tonnes of crude sulphate turpentine (CST), a Category X cargo under MARPOL Annex II. The cargo was to be discharged to another tanker via a ship-to-ship (StS) transfer at a receiving terminal. Although there were several experienced crew members on board,



none of them had any previous experience of this cargo, or knew about its associated hazards. The ship's Safety Management System (SMS), Procedures and Arrangements (P&A) Manual, cargo checklists and procedures were all followed, despite there being no information on this specific cargo.

Prior to arrival, a briefing was conducted by the chief officer. The material safety data sheets (MSDS), were not available at the time. Accordingly, the hazards of the cargo (toxicity of hydrogen sulphide (H₂S), organo-sulphides and mercaptans) were not properly discussed. On arrival, the shipper handed the vessel a cargo-specific MSDS. The ship's manager also supplied a generic MSDS which did not mention H₂S. Because of the delayed and incomplete information from a large number of sources, the crew remained largely ignorant of the dangers of the cargo. The receiving STS ship, the terminal staff and even the cargo surveyor, who also obtained a generic MSDS from the internet, were also largely unaware of the dangers. Although there was a week's delay in the transfer operation, information on hazards was not updated among the parties because everyone thought they had the correct data. As a result, the

(contd. on page 2)

Highlights

	Page
Real Life Accident: Hydrogen Sulphide (H₂S) Gas almost kills crew members on Ship	1
Ban on filming in court is overturned	2
Editorial	3
All About CENTRIFUGAL PUMP: Faults & Overhauling!	5
World Record Dual Fuel Engines Ordered By Leading American Shipping Company	6
West Africa: Support Campaign for Action On ECOWAS Court Judgments	7
ABS Releases Specialized e-Learning Package for Chemical Tanker Operations	8
10 Things Marine Engineers must do to know their machinery inside out	9
ICS Questions France About CO₂ Reporting Requirements for Ships	10
Container Vessel "MOL COMFORT" Casualty Update	11
100th Offshore Ship Design from ULSTEIN	12
Vessel Operating costs expected to rise over the next two years	13
Gazprom won't lose out in Russian LNG Law, will still dominate	14
Somali Pirates convicted in Spain	15
NTSB Member mark Rosenkind addresses Maritime Safety	16
Prison Ship Martyrs' Monument	17
Third Platform Supply Vessel (PSV) 'World Pearl' Delivered To World Wide Supply	18
How Dredging Anchor is Used for Maneuvering Ships?	19
Real Life Incident: Ship's sea suction choked with fish	20
8 Most common problems found in ship's refrigeration system	21
Pirates kidnap two U.S. sailors off Nigerian coast - sources	22
Administration makes inspections Institute savvy	23

Views and opinions expressed by various writers on individual capacity or of institution and organisations are not of "Marine Waves". Every care is taken to publish the references to notifications & circulars of government / classification societies etc. Hence Marine Waves Management will not be responsible for any error in the publication.

Readers are recommended to make appropriate enquiries before entering into dealings with advertisers in this publication. The Editor and Publisher does not vouch any claims made by advertisers and hence shall not be held liable for any adverse consequences.

– Editor: "Marine Waves"

OUR LEGAL ADVISORS

Surana & Surana — International Attorneys



Head Office: International Law Centre, 61/63, Dr. Radhakrishnan Salai, Mylapore, Chennai - 600 004, India.
Tel : 91-44-28120000, 28120002, 28120003
Fax: 91-44-28120001, E-mail: intellect@lawindia.com

(contd. from page 1)

surveyor used a respirator filter that was ineffective against H2S vapours. The accompanying seaman, who opened the tank's Butterworth hatch (see Figure 1), was not protected. He did not query why the surveyor was wearing a respirator and yet he was not.

During the transfer, which was completed without incident, there was a very strong odor of rotten eggs, yet no one investigated this properly and no reference was made to the MSDS to verify the cargo hazards. Following the STS transfer, a mandatory pre-wash of the tanks was carried out. As several fixed washing machines were defective, portable machines were lowered down the Butterworth hatches. As the washers agitated the tank's atmosphere the pungent, heavier-than-air cargo vapors were driven out through the opening and settled in the vicinity of the hatch.

When the pre-wash was completed, a seaman went down to the hatch to remove the portable washer. Although part of the upper deck, the area around the Butterworth hatch was in effect an enclosed space: there were limited openings, unfavorable natural ventilation and the area was not designed for continuous worker occupancy (Figure 2). As he descended the ladder, the seaman became unable to detect the pungent smell, began to shake uncontrollably, and collapsed across the open hatch.

Very soon afterwards, another crew member saw the casualty and alerted the chief officer. The chief officer informed the Master, who went to the bridge to sound the general alarm. Instead of using the terminal's emergency procedures, he informed the agent of the problem. The agent, in turn, informed the Harbourmaster, who contacted the emergency services. Meanwhile, the chief officer attempted to rescue the seaman, but without testing the atmosphere and without wearing breathing apparatus. The inevitable happened. As he approached the seaman, he lost his motor functions, could not speak, and slipped in and out of consciousness. Another seaman attempted a further rescue from the walkway above the Butterworth hatch. He took large gulps of air before descending to the casualties. He was badly affected by the cargo vapours, but fortunately managed to struggle back to the walkway.

Soon afterwards, crew members wearing breathing apparatus rescued the chief officer and seaman. They were transferred to hospital, where, fortunately, they made a full recovery.

Root cause/contributory factors

- Use of deficient and different versions of MSDSs;
- Complacency, leading to lapses in procedures in this case there were inadequate safety briefings and an acceptance of strong smells;
- Failure to use breathing apparatus despite the strong odor of hydrogen sulphide H2S;
- Defective fixed washing systems;
- Potentially dangerous spaces were not identified - the Butterworth hatch was effectively in an enclosed space;
- Would-be rescuers acted on impulse and emotion rather than knowledge and training - the initial rescue was attempted without breathing apparatus and without

testing the atmosphere;

- Terminal emergency procedures were not followed - only the chief officer was briefed on terminal emergency procedures, so the Master was not aware of the correct procedure to expedite assistance.

Ban on filming in court is overturned

The legal system in England and Wales has reached a landmark for open justice: from tomorrow, broadcasters can film in the Court of Appeal.

ITN chief: 'Filming in courts has been a long time coming'

Footage film in the court room can be used in a news and current affairs context only and is banned from being used in other genres such as satire, entertainment or commercial



use in advertising.

Safeguards will protect the administration of justice

Safeguards have been put in place to protect witnesses, victims and the administration of justice while ensuring cameras in the courtroom do not disrupt proceedings.

A 70-second delay will act as one of a number of safeguards.

Some cases will be broadcast live with a 70-second delay to allow the removal of anything that contravenes broadcasting regulations or standard court reporting restrictions - such as contempt of court laws and court orders.

In addition, appeals against conviction which might result in a re-trial will only be shown once the case is decided, and the judge can order no filming or broadcasting if it is in the interests of justice.

The top judge in England and Wales has said that allowing cameras in courtrooms will allow a "wider audience" to understand and see for themselves the workings of the legal process.

Lord Chief Justice Lord Thomas, said: "My fellow judges and I welcome the start of broadcasting from the Court of Appeal.

"The Court of Appeal has, of course, been open to the public and to journalists for a long time.

"The change in the law which is now coming into force will permit the recording and broadcasting of the proceedings of the Court of Appeal." "This will help a wider audience to understand and see for themselves how the Court of Appeal goes about its work."

From the Editor's Desk



Sincerity is the single virtue that binds divinity and man in one – **Jingshoju**

Sincerity is a soul quality that God has given to every human-being, but not all express it
– **Paramhansa Yogananda**

Support Campaign for Action on ECOWAS Court Judgments: The usefulness of International Courts such as the ECOWAS Community Court of Justice (ECCJ) does not lie in their mere creation and existence BUT they are useful and influential in promoting human rights, peace and justice only when they adjudicate cases and their decisions are enforced or fully complied with by state parties. The ECCJ has been recognised as an important arm of the ECOWAS that is capable of promoting justice and human rights and by extension peace and security in the West Africa region. Unfortunately, however, the Court's influence, significance, and contributions to peace and security in the region has been significantly undermined by the continuous disregard of the Court's decisions (particularly those on human rights offences) among the same governments who set up the Court. So far, over a dozen judgments of the Court (including over a dozen human rights-related ones) have been disregarded by various Member States. While the situation undermines calls for African crimes to be tried in Africa by Africans, it also works against the realization of ECOWAS' vision of having an ECOWAS of the people rather of states. Also, as the ECOWAS continues to pursue peace and stability in the region, it must be emphasised that, as highlighted in the ECOWAS Conflict Prevention Framework, there cannot be peace and stability in the region without an assurance of justice for community citizens whose rights are violated. Also, at a time when there is a serious advocacy for African crimes to be tried in Africa by Africans, there can't be a better time to strengthen the ECCJ. The above reasons among many others underscore an ongoing campaign by the Media Foundation for West

- *The need for such integrated approach in all disciplines of human activities to ensure fair and just practices throughout the world as a unified practice wherever feasible with transparency, accountability and responsibility with attitudes to suit.*
- *Let's match up for the international benchmark, to all that we do to raise the human race to new heights of human achievement.*
- *Man does not indeed live by bread alone. He thirsts for righteousness and justice in his life-time -and a bad judicial system-makes him dissatisfied with democracy itself. It is a dangerous social situation, for any citizen, of any nation as we rely upon the Judiciary ultimately to live with peace, happiness and prosperity.*
- *We, in INDIA need to follow "a common approach in administration of justice, Unfortunately the need for a common approach to the administration of justice in INDIA, has not been properly understood - not just among those that we serve or even ourselves, but also by those who make decisions on policy and resources". "Lack of understanding and attitude of those to take discretion for the Administration of Justice that matters. As RA16/2013 in O.A7/2013, with the ARMED FORCES TRIBUNAL, Chennai Regional Bench.*
- **TRUTH AND REALITY, HAS LOST IT'S VALUE NOWADAYS**
- *There are black-sheep in all fields of discipline. Media as a whole are Social and Rights Activists who looks to finding ways and means to finding solutions to public issues.*
- *Right of expression and to be heard, unbiased. " Freedom of expression to be respected, considering the substance of the content, irrespective of caste, creed, religion, community, literate, illiterate level of class, poor or rich etc. Needs to be heard, for moving forward, as inter-actions prove credible, in practical life".*
- *Social Protection in the AIR, more particularly for Ex-Serviceman who once came forward young, to serve the nation from external threats with risks and sacrifices. Illogical move for the learned Honorable Bench Members of AFT Chennai Region to dismiss the case, neglect the reply to counters, against natural*

(contd. on page 4)

(contd. from page 3)

justice, the freedom of expression and to be heard? submitted in OA7 and as well as RA16/2013.

- "FEAR "is not the natural state of civilized people. *The "Brave dies once".
 - o Any injustice committed against anyone is a threat to anyone. – **Montesquieu**
 - o Human Rights are every human-beings entitlement, by virtue of his humanity. – **Mother Theresa**
 - o Give to every human-being, every right that you claim for yourself. – **Robert Ingersoll**
 - o No man is above the law and no man below it. – **Theodore Roosevelt**
 - o A 'Right' is not what someone gives to you, it's what no one can take from you. – **Ramsey Clark**
- Grave Injustices caused to "Service and Ex-Service Personnel" should not be tolerated despite the Armed Forces Tribunal, having come into existence, in 2009, to serve the XServicemen of India. Lacks employability of duty conscious service-minded personnel. Serving to whom they want with discrimination against equity and justice, is a violation to that enshrined in the Indian Constitution. High time, peoples government come to their rescue. Parliament churns-out numerous laws, covering various aspect of human activity over the years. It is most unfortunate that very few amongst the practicing advocates in A.F.T. are aware of them, while they are expected to know and keep themselves abreast with updates to serve the ex-servicemen, so that to accomplish the ex-serviceman's individual rights, by putting forth the relevant Acts and assist them. Hence, all Soldiers, Sailors and Airmen released from service are not aware of these Acts, unless they had served in the clerical cadres of the armed forces. Even then they have to keep abreast with the time to time revised Acts. With the result, advocates exploit the ESM by bargaining/negotiating with a big margin of the ex-servicemen's dues, entitlement and that of the arrears, taking a big unfair share of the ex-servicemen' dues. All this leads to corruption, thereby bribing within from those calling at Armed Forces Tribunal (A.F.T.).
- I am paused to think, if one omits an act or does a wrong act, it constitutes as an offence. It is no defence that one was not aware of the Law. Was it not expected for the learned, honourable Bench to primarily ensure that the existing laws are utilised optimistically to favour those ex-servicemen, who call at the Armed Forces Tribunal (A.F.T.), for redressing their grievances? This will boost up the morale of the ex-servicemen and as well as those in service. I would rather suggest and recommend a unison approach to ex-servicemen's welfare, irrespective of any of the Regional Benches or Principal Bench of the ARMED FORCES TRIBUNAL This would ensure uniformity in their rights, benefits and privileges availed without disparity nor discrimination caused. Thereby, I am of the view that practicing advocates would be able to formulate similar standard contents for drafting their application/petition for a given need but for some added specific points that to be raised with an improved approach. Which is in consideration, similar to standard forms/norms as applicable. All this, is as simple with proper application of the minds.
- The learned honourable Bench and the learned advocates of the Tribunal, should primarily realise that the ' Tribunal ', has come into existence, to help and ease the problems of the service and ex-service personnel's, so that they get their due share unlike other Civil and Criminal Courts, where the variables are much more, than what is actually stipulated in the Acts. NGO's, ESM's Unions/Associations has a tremendous responsibility to reach-out their welfare measures, so that no section of the ESM cries for deprivation / discrimination caused.

There are several laws, which are professedly enacted for the benefit of the common person. Unfortunately a vast majority of them are not aware of their rights, about the mechanisms and procedures for availing of the remedies provided, and also about their duties and responsibilities. The little persons who know are rebuked being a minority. Hence the mighty and the influenced rules with their contacts. All this speaks of the very poor Corporate Social Responsibility in this country.

Dr. Chandran Peechulli, Ph.D; FIE(India),M.Tech;MBA;(LLM), PgD.IMS; MSNAME(USA),C.Eng.,FIIPE., Ex.Chief Engineer, G.M.Tech., D.P.A., Crossworld Shipping. Chief Consultant - Cee Cee industrial and Marine Management Consultants, Chief Editor: "Marine Waves" www.themarinewaves.com Corporate Member: Chennai Press Club, Visiting Faculty : Maritime Institutions.

All About CENTRIFUGAL PUMP: Faults & Overhauling!:

Centrifugal Pump Overhaul:

1. Switch off supply from the control room and isolate breaker with masking tape and place a safety board (Men at work).
2. Switch off supply from local panel and isolate by masking tape, place a safety board on the panel (Men at work).



3. Close suction and discharge valves and lash them with rope.
4. Drain the suction pipe and ensure water is not coming, then loosen or crack open the joints and ensure that pump is safe for opening .
5. Fix chain block and ensure its cable length and strength is satisfactory.
6. Mark on coupling and casings and then remove the coupling bolts.
7. Now motor input supply wire can be marked and disconnected as per drawing.
8. Motor can be lifted by chain block.
9. Disconnect all external fittings and pump casing e.g. cooling pipe, pressure gauge, purging cock.
10. Remove top cover and jack it for removal.
11. Now the pump shaft with impeller can be lifted.
12. Dismantle the impeller, liner and remove the wear ring.
13. Remove the gland packing.

INSPECTION PROCEDURE

1. Impeller, pump shaft and casing to be inspected for erosion, pitting and wear down etc.
2. If required rectify defects with brass putty.
3. Excess worn out parts can be replaced with new ones.
4. Check wear down ring clearance, general practise is to replace with new ring.

5. Check shaft trueness, remove sleeve from the shaft replace sleeve with 'o' ring if required.
6. Check key, key slots, nuts and its threads are ok.
7. Assemble all the pump parts.

PROCEDURE TO START THE PUMP

1. Open inlet and out let valves.
2. Purge air and prime the suction line.
3. Turn the shaft coupling and ensure shaft is free to rotate.
4. Connect motor wire R, Y, B.
5. Start and check current drawn by the motor while starting and running.note down the pr and feel the pump casing for any noise or rise in temp of motor.

Fault Finding & Trouble Shooting

- Does not deliver any liquid
 - Insufficient priming liquid
 - Insufficient pump speed
 - Excessive discharge pressure (such as a partially closed valve or some other obstruction in the discharge line)

Excessive suction lift Clogged impeller passages

- Wrong direction of rotation
- Clogged suction screen (if used)
- Ruptured suction line
- Loss of suction pressure
- o Insufficient capacity and Crackling noise from the pump casing
 - Air leakage into the suction line
 - Insufficient speed of the pump
 - Excessive suction lift
 - Clogged impeller passages
 - Excessive discharge pressure
 - Mechanical defects (such as worn wearing rings, impellers, stuffing box packing,or sleeves)
- o Does not develop enough discharge pressure
 - Insufficient speed of the pump
 - Air or gas in the liquid being pumped
 - Mechanical defects (such as worn wearing rings, impellers, leaking mechanical seals, and sleeves)
- o Works for a while and then fails to deliver liquid
 - Air leakage into the suction line
 - Air leakage in the stuffing boxes
 - Clogged water seal passages
 - Insufficient liquid on the suction side
 - Excessive heat in the liquid being pumped
- o Takes too much power and the motor overheats
 - Operation of the pump at excess capacity and insufficient discharge pressure
 - Misalignment
 - Bent shaft
 - Excessively tight stuffing box packing

Worn wearing rings

Other mechanical defects

- o Vibration
 - Misalignment
 - Bent shaft
 - Clogged, eroded, or other-wise unbalanced impeller
 - Lack of rigidity in the foundation
 - Insufficient venting (Positive suction head)
 - Insufficient suction pressure may also cause vibration, as well as noisy operation and fluctuating discharge pressure

NOAA announces end of Traditional Paper Nautical Charts:

NOAA's Office of Coast Survey, which creates and maintains the nation's suite of over a thousand nautical charts of U.S. coastal waters, announced major changes ahead for mariners and others who use nautical charts. Starting April 13, the federal government will no longer print traditional lithographic (paper) nautical charts, but will continue to provide other forms of nautical charts, including print on demand charts and versions for electronic charting systems.

"Like most other mariners, I grew up on NOAA lithographic charts and have used them for years," said Rear Admiral Gerd Glang, director of NOAA's Office of Coast Survey. "We know that changing chart formats and availability will be a difficult change for some mariners who love their traditional paper charts, but we're still going to provide other forms of our official charts."

Since 1862, those lithographic nautical charts - available in marine shops and other stores - have been printed by the U.S. government and sold to the public by commercial vendors. The decision to stop production is based on several factors, including the declining demand for lithographic charts, the increasing use of digital and electronic charts, and federal budget realities.

"With the end of traditional paper charts, our primary concern continues to be making sure that boaters, fishing vessels, and commercial mariners have access to the most accurate, up-to-date nautical chart in a format that works well for them," said Capt. Shep Smith, chief of Coast Survey's Marine Chart Division. "Fortunately, advancements in computing and mobile technologies give us many more options than was possible years ago."

NOAA will continue to create and maintain other forms of nautical charts, including the increasingly popular Print on Demand (POD) charts, updated paper charts available from NOAA-certified printers. NOAA electronic navigational charts (NOAA ENC®) and raster navigational charts (NOAA RNC®), used in a variety of electronic charting systems, are also updated weekly and are available for free download from the Coast Survey website. NOAA will also announce a new product full-scale PDF (Portable Digital Format) nautical charts, available for free download on a trial basis online.

The world of navigation is benefiting from advances in technology, Smith explained. He said that NOAA will consult with chart users and private businesses about the future of U.S. navigation, especially exploring the use of NOAA charts as the basis for new products.

World Record Dual Fuel Engines Ordered By Leading American Shipping Company:

Matson Navigation Company, Inc. - a subsidiary of Matson, Inc., a leading U.S. carrier in the Pacific Ocean - has placed an order for two 3,600 TEU container ships, powered by two MAN B&W 7S90ME-GI dual fuel engines. The deal includes an option for three further vessels.



The engines are the largest dual-fuel engines ever ordered in terms of power output with each engine developing a massive 42,700 kW. The ME-GI engines and pertaining systems will be manufactured by MAN Diesel Turbo's licensee, Hyundai, and will be able to use HFO, MDO or LNG as fuel.

MAN Diesel & Turbo reports that the 7S90ME-GI uses the Diesel cycle to maintain high efficiency, with no need for any derating. The company also states that the engines by virtue of its diesel operating principle will have negligible methane slip and no need for restrictive load ramps or other knock-preventing measures. MAN Diesel and Turbo view the order as yet another significant step in the adoption of its dual-fuel technology by the marine market.

Mature, versatile technology

Ole Grøne, Senior Vice President Low-Speed Sales and Promotions, MAN Diesel & Turbo, said: "The ME-GI has a number of inherent characteristics that we feel give it a decided advantage in the market. Primarily, it is a Diesel engine in contrast to the other dual- or triple-fuel engines on the market, which are Otto engines. Simply put, engines that operate according to the Diesel principle have a higher efficiency and power concentration than those following the Otto principle. Furthermore, in the light of after-treatment, a Diesel engine's performance can benefit from NOx control, both in regard to fuel and gas, and within both Tier II and Tier III areas."

Grøne stressed, that a high focus has been put on the safeness of MAN Diesel & Turbo's dual-fuel gas technology and said: "Due to compact, double-wall, gas-fuel pipes in the engine room and on the engine, the gas volume at any point in time within the engine is kept to a minimum, ensuring complete safety."

The new container ships will be constructed by Aker Philadelphia Shipyard, the leading U.S. commercial shipyard, and are scheduled for delivery in the third and fourth quarters

of 2018.

Matson reports that the 850-foot long vessels will be the largest Jones Act containerships ever constructed and are designed to operate at speeds in excess of 23 knots. Importantly, the ships will also be able to navigate safely into some of Hawaii's smaller ports.

The company also states that the new vessels will incorporate a number of 'green ship technology' features such as a fuel-efficient hull design, dual-fuel engines, environmentally safe double-hull fuel tanks and freshwater ballast systems. "These state-of-the-art advancements are important to Hawaii as a means to reduce fuel consumption, resulting in significant emission reductions over time in our home trade," Matt Cox, president and CEO, Matson said.

The ME-GI engine

The ME-GI engine represents the culmination of many years' work. Depending on relative price and availability, as well as environmental considerations, the ME-GI engine gives shipowners and operators the option of using either HFO or gas - predominantly natural gas. An ME-LGI counterpart is being developed to use LPG and methanol.

Mitsui became the second MAN Diesel & Turbo two-stroke licensee to demonstrate the ME-GI concept after Hyundai did so in Korea in November 2012. Shortly afterwards, TOTE - another American shipping company - ordered two 8L70ME-GI engines to power two 3,100 TEU newbuilding container ships, with an option for three additional vessels. That announcement represented the first commercial order for the engine type, officially designated as ME-C-GI (M-type, Electronically Controlled, GI for Gas Injection) in the MAN Diesel & Turbo low-speed portfolio.

The following month, MAN Diesel & Turbo was able to confirm the successful introduction of the ME-GI to the market with the announcement of another order when Teekay LNG Partners L.P. (Teekay LNG), an offshoot of Teekay Corporation, the international shipping group, placed an order for two LNG carriers powered by 2 x 2 5G70ME-GI engines, including an option for three further ships. This order has now been increased to 4 vessels with 5 options.

MAN Diesel & Turbo sees significant opportunities arising for gas-fuelled tonnage as fuel prices rise and modern exhaust-emission limits tighten. Indeed, research indicates that the ME-GI engine delivers significant reductions in CO₂, NO_x and SO_x emissions. Furthermore, the ME-GI engine has no methane slip and is therefore the most environmentally friendly technology available.

MAN Diesel & Turbo predicts a broad, potential market for its ME-GI engine. As such, the ME-GI engine represents a highly efficient, flexible, propulsion-plant solution.

West Africa: Support Campaign for Action On ECOWAS Court Judgments:

The usefulness of International Courts such as the ECOWAS Community Court of Justice (ECCJ) does not lie in their mere creation and existence. They are useful and influential in promoting human rights, peace and justice only when they adjudicate cases and their decisions are enforced or fully complied with by state parties.

The ECCJ has been recognised as an important arm of the

ECOWAS that is capable of promoting justice and human rights and by extension peace and security in the West Africa region. Unfortunately, however, the Court's influence, significance, and contributions to peace and security in the region has been significantly undermined by the continuous disregard of the Court's decisions (particularly those on human rights offences) among the same governments who set up the Court.

So far, over a dozen judgments of the Court (including over a dozen human rights-related ones) have been disregarded by various Member States. While the situation undermines calls for African crimes to be tried in Africa by Africans, it also works against the realization of ECOWAS' vision of having an ECOWAS of the people rather of states.

Also, as the ECOWAS continues to pursue peace and stability in the region, it must be emphasised that, as highlighted in the ECOWAS Conflict Prevention Framework, there cannot be peace and stability in the region without an assurance of justice for community citizens whose rights are violated.

Also, at a time when there is a serious advocacy for African crimes to be tried in Africa by Africans, there can't be a better time to strengthen the ECCJ.

The above reasons among many others underscore an ongoing campaign by the Media Foundation for West Africa (MFWA) and its partners, appealing to ECOWAS Heads of States to see the non-compliance of the ECCJ's decisions as a major impediment in the quest for peace and stability in the region.

To ensure the strengthening of the ECCJ and the consequent promotion of peace and Justice in the region, the MFWA and its partners are urging Civil Society Organisations (CSOs), human rights groups and activists, and the media in West Africa to join this campaign to appeal for a discussion and a decision on the non-compliance of the ECJJ's judgements during the upcoming Summit of ECOWAS Heads of State in December.

Singapore moves ahead in development of LNG Bunkering Standards:

Singapore has taken a significant step forward in the development of the practical operational procedures and standards for Liquefied Natural Gas (LNG) bunkering operations.

The Maritime and Port Authority of Singapore (MPA) and its appointed consultant, Lloyd's Register, have completed its study on the Technical Standards and Procedures for LNG bunkering in the Port of Singapore. The study consolidated information that needs to be addressed before LNG bunkering can take place into five key areas as follow:

1. LNG Bunkering Standards and Procedures within the Port's limits



2. Technical Requirements and Specifications for LNG bunker tankers and receiving vessels with regard to transfer system, fittings and safety equipment
3. Safety Standards for LNG Bunkering operations
4. Identification of Safety Exclusion Zones and Emergency Procedures
5. Competency Standards for Personnel handling LNG bunkering

Following the completion of the study, MPA will be organising industry consultation sessions to share the results of the study with the maritime industry and seek their feedback. With the industry feedback, MPA will subsequently finalise the LNG bunkering standards for the Port of Singapore.

"There is an increasing need for the shipping industry to look at alternative sources of fuel and LNG is a promising option that we should consider. The completion of the study is an important milestone in the development of LNG bunkering in the Port of Singapore and we would like to share this significant progress with the industry" said Captain M Segar, MPA's Assistant Chief Executive (Operations).

Singapore is recognised for its transparency and places a strong emphasis on the quality of bunkering services and safety standards. In 2012, the Port of Singapore recorded bunker sales volume of 42.7 million tonnes, retaining its position as the world's top bunkering port. Singapore's strong performance in bunker sales can be attributed to its strategic location at the crossroads of international trade and the industry structure that results in competitive bunker prices and assured quality and safety standards.

ABS Releases Specialized e-Learning Package for Chemical Tanker Operations:

ABS, a leading provider of maritime classification services, announces the launch of Chem-eL, a specialized training package designed to support safety and competence in chemical tanker operations. Chem-eL is a sector-specific e-learning marine product developed in accordance with the requirements stated in the International Maritime Organization's International Convention on Standards of Training, Certification and Watchkeeping for Seafarers and the relevant IMO Model Course.

Developed by ABS in cooperation with Malaysian Maritime Academy (ALAM), a subsidiary of the MISC Bhd. (MISC), Chem-eL is designed to enable shipowners in this highly specialized sector to optimize their training programs for shipboard and shore-based staff.

"MISC identified a need for an e-learning program that could be used within the MISC and Group company fleet, as well as for students at its own training facilities. Drawing on technical knowledge from within ABS, we were able to develop a curriculum that could additionally serve the wider industry," said ABS Chief Learning Officer Mark McGrath.

The package was made available to MISC headquarters in October 2012 for use across the fleet and at its maritime training institution, ALAM, to enable eight months' shipboard and shore-based testing.

David Fredrick, Malaysian Maritime Academy Chief Executive Officer, noted that, "Ensuring the required level of safety in chemical tanker operations requires a very high standard of

training to support crew competence. When MISC wanted to develop a training package for use at ALAM and across the company, we knew that ABS had the technical and education expertise to support our aims and deliver a package that fulfilled our needs."

Chem-eL supports safe and compliant shipboard operations by making the necessary training resources available in a highly flexible way. Accessible online, it requires no specialized software installation. Responsive customer support, user-friendly interface and high quality graphics all enhance the learning experience.

Course topics include an introduction to chemical tank practice, chemical and physical cargo properties, hazards and hazard control design, cargo containment and handling systems, safe working practices, pollution prevention and ballast operations. Also covered are tank cleaning operations, risk management, the ship/shore interface, emergency, security and custody transfer aspects relating to carriage of liquid chemicals in bulk.

Capt. Loo Eng Chuan, MISC Senior Manager, Operations, Chemical Business Unit, said, "Chem-eL is the first program that provides step-by-step guidance to learners from basic understanding to advanced stages of chemical tanker operations and it also covers commercial aspects of chemical business."

Infographics: Technologies to make an Ultimate Eco-Friendly Ship:

With the introduction of stringent environmental regulations in the maritime industry, almost all modern ships are now fitted with a variety of eco-friendly machinery and systems. These green technologies not only reduce the carbon footprints but also help in saving fuel and increasing efficiency of ships.

This infographic explains all the famous green technologies that have been implemented on ships or are under active development.

Technologies mentioned in the infographics for an eco-friendly ship:

1. Kite Sail System / Skysails
2. Solar / Wind Sails
3. Air Bubbles / Air Lubrication System, Carpet of bubbles
4. Exhaust Scrubber



5. Dual fuel engine
6. Sox/ Nox Reducing Technologies
7. Hull Protection
8. Ballast Free Ships
9. Green ship technologies

This is not an exhaustive list of green technologies introduced in the maritime market but all the important ones that have caught the attention of ship owners and maritime organizations.

Real Life Accident: Injury During Cargo Hose Pressure Test:

While doing pressure testing of cargo hoses on a tanker ship, the junior officer who was part of the testing team got seriously injured when the connection between the water hose and cargo hose got detached and the flailing hose coupling hit his left leg.

Accident:

On some chemical tanker fleet, the annual pressure testing of cargo hoses is generally carried out by ship's crew, ideally when the cargo hoses are being used for tank cleaning. During such an operation, with the ship at a repair yard, the cargo hose pressure test was being conducted at a pressure of 12 kg/cm². A junior officer was part of the testing team, and was involved in documenting data and taking photographs.



▲ Safe cargo hose pressure-testing arrangement showing safety loop across connector between water and cargo hoses

Suddenly, the connection between the water hose and cargo hose detached and the flailing hose coupling hit his left leg causing a serious fracture.

Root cause/contributory factors

Worn and insufficient threads on the water hose coupling.

Corrective/preventative actions

The shipyard was given a letter of protest about the accident.

Alert issued to the fleet instructing the crew to:

- i. Inspect all tools and equipment which are used for the pressure test beforehand;
- ii. Attach a safety loop or lashing rope across every temporary

connection in the hose and piping system to prevent them from snapping back;

iii. Keep away from snap-back danger zones;

iv. Locate and monitor devices such as pressure gauges which are within a safety zone.

10 Things Marine Engineers Must Do To Know Their Machinery Inside Out:

If you are a marine engineer working on ships, you would know that there is a massive difference between the theoretical knowledge provided in the maritime books and the practical skills that are acquired by getting one's hands dirty in the engine room. Though there is no substitute to the knowledge that is acquired through years of experience working in the engine room, a marine engineer wouldn't be able to survive if ignores the bookish knowledge completely.

A ship's engine room is installed with different types of machinery systems, each requiring specific approach while carrying out maintenance and troubleshooting. It is only through a healthy combination of knowledge and practical skills can a marine engineer understand his machinery inside-out.

So what exactly does it take for a marine engineer to know his machinery systems inside-out?

Mentioned below are few key points which can help marine engineers for understanding their machinery and systems in a better way.

1. Understand Starting / Stopping Procedures

Every ship is different and so are its machinery systems. Though the basic type of machinery systems remains the same for all ships, the operating and maintenance procedures would differ according to the manufacturer of the machine and the ship type.

It is imperative for a ship's engineer to understand the starting and stopping procedures of his machinery extremely well before doing everything else. This can be done by using the operating manual of each machinery system and asking questions to fellow engine room colleagues/seniors. (Most of the times, engineers are afraid to ask seniors or colleagues for help as they feel that it would make them look inexperienced and dumb. Though people on board ships have a tendency to judge a person's knowledge by the kind of questions he or she asks, it is always better to get over such apprehensions and gather as much details about your machinery as possible. Moreover, there are always officers on board who would be more than happy to share their knowledge when asked. It is always better to know everything about your machinery before hand than to regret and slog during breakdown or emergencies.)

Note: The operating manuals would teach the basic steps for starting/stopping a machinery. But it's only through experience that an engineer will be able to understand how his machinery works, what are their common issues, and how he can troubleshoot them quickly.

2. Read The Machinery Manual Thoroughly

As mentioned above, the manual of every machinery is the bible to understanding that particular system. As an engineer, you must know your machinery manual like the "back of your hand". It's the knowledge base on which you will be able

to build the foundation of your maintenance schedules and troubleshooting techniques. Without knowing the construction/design of your system and understanding how it works, you will be shooting "arrows in dark" while dealing with an emergency situation.

A marine engineer therefore must read, understand, and memorize his machinery manual to the best of his abilities.

3. Learn From The Machinery Records

Every engine room machinery has a history which should be studied thoroughly by the marine engineers. This history will tell you about all the things that the machinery has gone through in the past including major accidents, problems, and overhauling operations. Based on these records, a marine engineer will also be able to plan his routine maintenance procedures and prepare the troubleshooting approach with utmost ease.

Go through the records of the past few months to find out when and how did your machinery get stuck or confronted a problem. The data therein would help you to learn a lot about your machine.

4. Find out Details on All Major Maintenances

Past maintenance reports help engineers to understand the main problems that the machinery has faced and what are the issues that have been experienced frequently. The maintenance reports would also include all important comments and tips that need to be considered while handling that particular machinery system. Marine engineers must study the maintenance reports not only to understand the past problems but also to learn how the machinery will behave under different conditions.

5. Keep a Track of Running Hours

Depending on the running hours of the machinery, the ship's engineer will plan and perform the next maintenance procedure. Keeping a track of the running hours is extremely important to prevent any kind of sudden failure or breakdown of machinery. Marine engineers must properly maintain and monitor the running hours as stated by the manufacturer or the company to ensure smooth running of their machinery systems. They would also help to plan any major maintenance of the machinery in the next scheduled dry dock.

6. Know Your Machinery Clearances

Routine maintenance is an integral part of marine engineers' duties on board ships. One of the important aspects of the machinery which engineers must be aware of are the different types of clearances. A ship's engineer must keep a close watch on the clearances of different parts of engine room machinery such as bearing and bumping clearances in compressors, crank pin and piston ring clearances in generator etc. as they are an important part of any planned maintenance system. These data would help to plan out and schedule the next maintenance operation.

7. Check If There is any Alteration Done in the Used Parts by Referring Past Records

Ship's machinery systems are constantly going through regular maintenance procedures which often involves major repair works. During such procedures some of the machinery parts are to be altered to perform repair jobs. For e.g. whenever any major repair is done on the crank shaft pin of the marine

engine (through grinding), the dimensions of the adjoining parts like the shell bearings are also altered. It is therefore important for engineers to look through the past records to find out if any alteration of machinery parts done in order to ensure that the right kind of spare parts are used during any pending or future maintenance or repair work.

8. Know the Required Spare parts

A marine engineer must have the knowledge of all the spare parts that are required for his machinery. It is imperative that these spare parts are available in the ship's inventory especially during sudden break down and while planning machinery overhauling. Go through the manuals to know what all parts will be required to carry out maintenance and repair work. Cross-check the ship's inventory to keep a track of the number of spare parts left on board ships. Raise a requisition whenever required.

9. Know All Important Tests

All important engine room machinery and systems have some kind of tests attached to them for their smooth operations. As a ship's engineer, it is important to understand these tests and learn how are they performed and what are the procedures involved to send the required sample shore. Tests such as boiler water tests, generator lube oil test etc. require engineers to know about their contents, chemicals involved and common impurities found. Learn the purpose and procedures of these tests to ensure smooth running of your machinery.

10. Find Out Past 3 months Log Book Parameters

Log book is one such reference on board that marine engineers have to refer every single day. Apart from this, they must take out time to go through the log book parameters of their machinery, especially from the past three months, in order to understand common problems or any major changes that have taken place in their usual operations. If an engineer is new to the ship, log book is the best and quickest reference which would help to know and understand his machinery system.

ICS Questions France About CO₂ Reporting Requirements for Ships:

The International Chamber of Shipping (ICS), the global trade association for shipowners, has written to the French Government to raise concerns about a new requirement for foreign shipowners to provide information to their French customers about CO₂ emissions, using a detailed methodology that has not been discussed internationally.

ICS believes that the unilateral application by France of these new CO₂ reporting requirements to foreign ships cuts across the principles of global regulatory uniformity and the primacy of IMO as the regulator of international shipping.

The new and very detailed rules that have been added to the French Transport Code apply across all transport modes, although the Director General for Maritime Transport is responsible for their enforcement in the maritime sector.

ICS has therefore suggested that the Director General for Maritime Transport should advise that these requirements will not be enforced on international shipping pending the outcome of discussions on the monitoring and reporting of fuel consumption and CO₂ emissions currently taking place at the International Maritime Organization (IMO).

The IMO Marine Environment Protection Committee is now in the process of developing global regulations for the mandatory monitoring and reporting of fuel consumption and CO2 emissions by ships trading internationally. ICS fully supports the development of these measures at IMO and wishes to avoid any impediment to their adoption for global application.

Simon Bennett, ICS Director External Relations, explained "We anticipate that the methodology for reporting that will be agreed by IMO Member States through amendments to the MARPOL Convention will be very different to the methodology specified by the new French requirements. The IMO requirements should also be tailored to the special characteristics of international shipping, and will be the product of international consensus. The immediate implementation of these French regulations is a real concern because shipping is a global industry requiring adherence by governments to a uniform global regulatory framework if it is to operate efficiently."

ICS has reminded France of the difficulties that would be created if other coastal states were to implement their own unilateral requirements for the reporting of CO2 emissions by ships.

Mr Bennett added "The global maritime transport system would be very challenged indeed by the administrative burden of providing information that required the use of different methodologies and national formats for reporting given that cargo ships can call at a very large number of countries during the course of a year."

Shipping companies are still trying to understand the detail of the new CO2 reporting requirements, the English translation of which has only recently come to the attention of the global shipping industry. But serious concerns are already being raised by international companies about the validity of the methodologies that have been developed by France, as set out in the 'Methodological Guide for Transport Services' produced by the Ministry of Ecology, Sustainable Development and Energy.

The development of a global system for the monitoring and reporting of CO2 emissions from ships will be considered by the next meeting of the IMO Marine Environment Protection Committee in March 2014. It is also the subject of a draft EU Regulation proposed by the European Commission.

Article L. 1431-3 of the French Transport Code came into effect for foreign shipping companies in October.

Container Vessel "MOL COMFORT" Casualty Update: Following the loss of the container vessel "MOL COMFORT", ClassNK established a special Casualty Investigation Team in order to investigate and determine the cause of the casualty.

Japan's Ministry of Land, Infrastructure, Transport and Tourism (MLIT) further established a Committee on Large Container Ship Safety to develop measures to ensure the safety of large container vessels on 29 August 2013. In addition to its independent investigation, ClassNK serves as members of the Committee and is actively involved in its deliberative and investigative work.

Based on both the results of its own independent investigation as well as the deliberations of the third meeting

of the Committee on Large Container Ship Safety held on 28 October 2013, the ClassNK Casualty Investigation Team has released preliminary findings and safety measures resulting from the investigation as follows.

Preliminary Findings

Based on the presence of water-ingress in the bottom of the vessel's midship at the outset of the casualty, the fracture in the vessel's hull is considered to have originated from the bottom part of the vessel.

Hull strength and loads at the time of accident were assessed in order to investigate how the fracture occurred and progressed. Structural hull capacity was analyzed using non-linear finite element 3-hold modeling, and dynamic wave loads including whipping effects were also analyzed.

Weather, sea state and cargo loading condition data from the vessel's previous voyages are being investigated to estimate the loads acting on the vessel. In addition, structural inspections were conducted on the sister vessels of the MOL COMFORT.

During the inspections of the sister vessels, buckling type deformations measuring approximately 20mm in height were observed on the bottom shell plates in the vicinity of center line of midship area. However, it remains unclear at this stage as to whether this type of deformation could have served as a trigger for the casualty. Reinforcement work to increase the hull strength of the sister vessels is already being carried out as a preventative safety measure.

With cooperation from shipowners, structural investigations are also being carried out to determine whether similar deformations have occurred in large container vessels with designs differing from those of the MOL COMFORT.

Numerical analyses of hull strength and applied loads continue to be conducted in order to develop a more detailed understanding of the casualty and establish countermeasures to prevent the occurrence of similar casualties in the future.

Safety Measures

Based on the preliminary findings noted above, the ClassNK Casualty Investigation Team has proposed the following safety measures be carried out on large container ships in order to prevent the occurrence of similar casualties.

o It is recommended that crew inspect the midship section to the extent possible in order to determine whether deformations have occurred on the bottom shell plates. At the request of shipowners, ClassNK will dispatch qualified surveyors to attend such inspections free of charge.

o If consecutive deformations in the transverse direction are observed on the bottom shell plates an occasional survey is recommended. ClassNK will dispatch qualified surveyors upon request.

The ClassNK Casualty Investigation Team will continue to work closely with the Committee on Large Container Ship Safety as it continues to investigate the MOL COMFORT casualty and compile its final report on the incident.

RO/RO Ship MV Fernanda catches fire near Iceland: Coast Guard SAR crews in Iceland have rescued 11 crew members from ship which caught fire in heavy weather to the south of the North Atlantic island.



The Icelandic Coast Guard received a Distress call at 2 p.m. local time on 30th Oct. reporting engine room fire onboard the Ro/Ro cargo ship MV Fernanda. Within two hours, Coast Guard SAR helicopters were on the scene & airlifted the 11 crew to safety. The crew members, who were all uninjured, have been taken to Reykjavik, the largest city and capital of Iceland.

Meanwhile, Coast Guard ship Thor was sent to the scene to commence firefighting operations. The 95-meter MV Fernanda is registered in the Dominican Republic and was built in 1981.

100th Offshore Ship Design from

ULSTEIN: ULSTEIN's latest design contract for Vroon Offshore Services pushes the total number of offshore ship designs sold past the 100 mark. This milestone has been achieved in 14 years, with 74 of the contracts signed for the X-BOW® design.

The numbers behind that 'headline hundred' are a testimony to the firm's versatility and proven collaborative approach:

- 25 different ship owners
- 16 different shipyards
- 38 built at Ulstein Verft, 62 at other yards

"We have sold 100 designs since 1999 and I want to thank everyone that has contributed to the successful development. Looking back, this is an important milestone for us, while looking forward it is an inspiration for us to continue developing competitive, exciting designs for the future," says Tore Ulstein, deputy CEO.

The latest contract on two PX121 PSVs (ship numbers 100 and 101) that was ordered by Vroon Offshore Services (Netherlands), will be constructed at COSCO (Guangdong) shipyard in China. The vessels are destined for European waters, and managing director in Vroon Offshore Service, Jan-Piet Baars, comments: "The PX121 design is part of the new generation of PSVs and it will offer, especially in harsher environments, a unique combination of world class client service delivery, high efficiency and impressive crew comfort."

Building expertise

Tore Ulstein, Deputy CEO of Ulstein Group, believes the firm's current success, and future promise, is grounded in an industry heritage rich in hands-on experience and technical expertise.

"ULSTEIN has close to 100 years of experience in shipbuilding," he comments. "We also have ownership interests in, and shipping expertise from, vessels delivered

from Ulstein Verft. In many ways having our own yard has been the foundation for our design success. This is where the prototypes often has been constructed, allowing us to bring in customers and show them how our concepts are transformed from drawings into unique, innovative vessels."

X is for innovation

Although ULSTEIN's latest designs were introduced in 1999, the company has a history of developing ship designs that stretches back to the beginning of the 70s (its UT-designs, later sold out of the group, made an early impression). The first of the new generation, the multifunctional anchor handling vessel (AHTS) 'Olympic Hercules', was delivered in 2002. However, 2005 was the year that the global shipping market really 'woke up' to the power of ULSTEIN designs.

2005 marked the launch of the X-BOW. This revolutionary design, first seen on the AHTS 'Bourbon Orca', reduces movements and eliminates wave slamming and bow impact, stabilising the work platform and improving comfort on board. The unique lines of the hull create tangible performance benefits, with positive effects on fuel-efficiency, speed, and motions, which extend the operational window, especially under poor weather conditions and in rough seas. Test results show that the shape of the hull reduces power consumption by 7-8 per cent compared to vessels with conventional hull lines.



"MARINE WAVES" (International Maritime Newsletter)

CHENNAI – 600 090, INDIA.

Ph: +91-44-42018982

REGISTERED OFFICE

Edited and Published at
M107/5, Kalakshetra Colony,
29th Cross Street, Besant Nagar,
Chennai - 600 090, INDIA.

Ph : +91-44-42018982

OVERSEAS ASSOCIATE – E.U. COUNTRIES

Dr. Swarna Prasad, M.Sc., PhD.,
14, Collins Close, Chandler's Ford, Eastleigh, SO53
4HS, Hampshire, England, U.K.
Phone L(L/L). +44 2380 253367.

**E-mail: seafarersman@indiatimes.com
chandranpeechulli@gmail.com**

Website: www.themarinewaves.com

The success of the concept is not only reflected in its sales figures, but also its critical reception. Following on from the delivery of the 'Bourbon Orca' in 2006, X-BOW vessels have been nominated for, or have won, the 'Ship of the Year' Award in almost every year of competition. In 2013 ULSTEIN's inspection/maintenance/repair (IMR) vessel 'Seven Viking' received the prestigious prize.

Local strength, global leadership

Tore Ulstein is quick to acknowledge that the head office's Norwegian location pays real dividends for the business.

"Norway has a population of only five million people, but it has the second largest offshore fleet in the world," he notes. "The Norwegian maritime cluster is renowned for the way its companies are able to collaborate closely in the innovation processes, while the geographical distance between players is small. The naval architects, product developers and ship designers in ULSTEIN cooperate with, for example, shipowners, suppliers, classification societies and state authorities in order to develop and improve our designs. Together we are all focusing increasingly on comfort, health, safety and the environment. The result of this is new and improved solutions that deliver real benefits to the market."

Vessel Operating Costs Expected To Rise Over The Next Two Years:

Vessel operating costs are expected to rise by 3% in both 2012 and 2013 according to our new survey. Lube expenditure and crew costs are the categories most likely to produce the highest levels of increase.

The survey is based on responses from key players in the international shipping industry, predominantly shipowners and managers in Europe and Asia. As was the case twelve months ago, those responses identified lubricants as the cost category likely to increase most significantly - by 2.9 and 2.8% in 2012 and 2013 respectively.

Crew wages, meanwhile, are expected to increase by 2.3% in 2012 and by 2.4% in 2013, with other crew costs thought likely to increase 2.1% for both years under review. The cost of spares, meanwhile, is expected to escalate by 2.2% in each of the two years covered by the survey. Expenditure on stores is expected to increase by 2.1% in both 2012 and 2013, while the cost of repairs and maintenance is expected to increase by 2.1% and 2.2% in the same years. The increase in P&I costs for 2012 and 2013 is estimated by respondents at 2.1% and 2.2% respectively, while for hull and machinery insurance the respective figures are 1.9% and 2.0%. Dry-docking costs over the same period are expected to rise by 1.9% and 2.0%. As was the case in the 2011 survey, management fees were deemed likely to produce the lowest level of increase in both 2012 and 2013, at 1.3% and 1.4% respectively.

"With crude oil prices hardening, lube costs will go up," said one respondent, while another observed, "Fuel and lube suppliers are very aware that there is an oversupply of tonnage on the market, and take advantage of that in their dealings with owners." Another still said, "There is ongoing pressure to reduce operating costs by means of improving vessel fuel efficiency, and in practice there might be a gap between expectations and what can be achieved as fuel and lube costs are likely to increase at a steady pace." Elsewhere it was noted, "There is no alternative to lube oil, and costs

are already very high, making it very difficult to operate a ship."

A number of respondents cited crew costs as a major cause for concern. One said, "As long as there is stiff competition on crew costs amongst managers, with wages being increased at random, the situation will not settle down." Another noted, "The volume of new vessel deliveries and short contracts will put pressure on crew supply, and crewing costs will go up." Neither were respondents convinced that more expensive crews would actually mean better crews. "Crew competence and skill is declining," said one, "with a trend towards short contracts and fast promotion. This is leading to more accidents and to extraordinary unbudgeted expenses." Another remarked, "The shortage of qualified crews is steadily getting worse. A lot of the new crews are of a very low standard." Elsewhere it was noted, "Crews from countries that offer lower wages will play a very important role in the cost of operating vessels. With low freight earnings, owners will try to save on crew wages." Meanwhile, one respondent claimed, "The biggest single factor in operating cost increases these days is the scarcity of Filipino and Chinese seamen."

Several respondents expressed concern about overtonnaging. "The market has been very shaky in 2012, and will continue to be so next year, because of the oversupply of tonnage and the shortage of motivated and qualified crews," noted one, adding, "Below-break-even voyages are being undertaken in order to avoid sending ships into lay-up or being sold at very low prices." Another pointed out, "The shipping markets will only get more difficult, as a result of overcapacity," while another still predicted, "Due to the oversupply of ships, we face a major crisis, and an increase in the amount of laid-up tonnage."

The difficulty of obtaining finance, declining freight rates, and the cost of increasingly stringent regulatory compliance were among other concerns cited by respondents to the survey. "Legislation coming into force, including that affecting labour conditions and the environment," said one, "will have a major impact on operating costs for older tonnage."

Moore Stephens also asked respondents to identify the three factors that were most likely to influence the level of vessel operating costs over the next 12 months. Overall, 27% of respondents identified finance costs as the most significant factor, followed closely by crew supply (20%). Competition was in third place, with 18%, followed by demand trends (17%). In last year's survey, 26% of respondents identified finance costs as the most significant factor, followed closely by crew supply (25%). Demand trends were in third place last year, with 14%.

Labour costs, competition and raw materials costs were other significant influencing factors which featured in the responses to the survey.

Moore Stephens shipping partner Richard Greiner says, "Ship operating costs increased by an average of 2.1% across all the main ship types in 2011, and it is unsurprising that our latest survey anticipates that costs will rise by a greater margin in both 2012 and 2013. Although they will be difficult for owners, operators and managers to absorb in a struggling economic environment and a depressed freight market, these increases still represent a continuation of less volatile cost movements than those we saw just a few years ago."

"Once again, lubes and crew costs are predicted to increase most significantly, and it was concerns in respect of these which dominated the comments made by respondents to the survey. Given projected increases in the price of oil, and the entry into force next year of the Maritime Labour Convention 2006, it would be a surprise if the same were not true of next year's survey."

Foreign Shipowners Encourage China to Resolve VAT Problems: The Chairman of the International Chamber of Shipping (ICS), Mr Masamichi Morooka, has written to the Chinese Minister of Finance, encouraging the Chinese Government to continue its efforts to find a solution to the problems created by the application of Value Added Tax (VAT), since 1 August, to the transport and logistics services provided by 'Wholly Foreign Owned Shipping Companies'.

The problems exist because it is much harder for foreign shipping lines - as opposed to Chinese companies - to reclaim the 6% VAT (and a 0.8% VAT surcharge on ocean freight) that is now collected by shipping agencies in China, and so avoid passing this on to their overseas customers. The



unintended consequence is that foreign carriers are being placed at a competitive disadvantage to Chinese shipping companies.

One of the reported impacts is that hundreds of millions of dollars of shipping contracts with foreign shipowners that are normally concluded in China are now being concluded in other jurisdictions where the new VAT rules do not apply.

ICS - which represents the world's national shipowner's associations and over 80% of the world merchant fleet - has emphasised to the Ministry of Finance the great importance that is attached by the international shipping industry to the successful resolution of VAT issues that have been raised by foreign shipping companies which collectively transport a very significant proportion of China's international trade.

ICS Director of External Relations, Simon Bennett, explained "The Chinese Government is deeply conscious of its commitments towards the maintenance of a 'level playing field' in maritime services, and has no wish for the new arrangements concerning the application of VAT to international shipping services to have a negative impact on the competitiveness of Chinese exports, the vast majority of which is carried by ships. We have therefore welcomed

the positive indications that have been given by the Chinese authorities during recent meetings with foreign shipping company representatives in Beijing that steps are being taken to address those concerns."

He added "However, these issues are very complex and we recognise the major challenge for the State Administration of Taxation in trying to find a solution for international shipping that will be consistent with China's broader objectives as it seeks to move towards a system of VAT in other parts of the Chinese economy."

Notes: The application of VAT to transport and logistics services provided by 'Wholly Foreign Owned Shipping Companies' was outlined in Chinese Circular 'Cai Shui No 37' on 24 May, with effect from 1 August 2013.

ICS is the principal global trade association for commercial shipowners and operators. Its membership comprises national shipowners' associations in 35 countries representing over 80% of the world merchant fleet at those international bodies which impact on shipping. This includes the United Nations International Maritime Organization (IMO) and the World Trade Organization (WTO).

Gazprom won't lose out in Russian LNG Law, will still dominate: Gazprom will not lose out on business after Moscow passes legislation stripping it of a monopoly on exports of liquefied natural gas because demand from China will outstrip Russian output of conventional and unconventional fuel for years.

The government approved a draft law on Wednesday to allow gas producers other than Gazprom to ship LNG abroad to try to spur new projects and help Russia double its global market share to 35-40 million tonnes by 2020.

The law, seen by many as a rap over the knuckles for Gazprom which officials have criticised for being slow to boost its presence in the LNG market, is expected to be signed into law by president Vladimir Putin this year and come into effect in 2014. But even though it loses its monopoly, Gazprom should be relatively unscathed by the bill. It will still dominate a pipeline network used for much of Russia's gas exports and, with Chinese leaders promising to tackle pollution, demand for cleaner energy supplies such as gas is set to rocket.

"China's potential for gas consumption is high, meaning that it's not an LNG-or-pipeline question," said Kyle Davis, partner at law firm Goltsblat BLP. "And China will need lots of gas. Right now China runs on coal but all indications are that for environmental and other reasons China plans to greatly increase gas consumption in the near future."

Gazprom did not respond to a Reuters e-mail seeking comment.

It has a sole LNG plant on Russia's Pacific Island of Sakhalin and plans to add at least one more in the far east to ship



super-cooled gas to Asian markets by 2018. Its local competitors Rosneft and Novatek, teaming up with international majors such as ExxonMobil, Total or China's CNPC, also plan LNG plants, with the first one expected to be launched by 2017.

But Tatiana Mitrova, head of the oil and gas department at the Russian Academy of Sciences Energy Research Institute, said neither Rosneft nor Novatek would be able to access the pipes. "This pipeline gas is the most interesting for China given its importance for the country's energy security," she said. "This is not a crucial issue for now given increasing supplies from Central Asia but this route is not the safest," she said, referring to shipments through the Central Asian region, where the political environment is clouded by uncertainty over leadership succession.

BRIGHT PROSPECTS

China bought 42.5 billion cubic metres (bcm) of gas from abroad last year. That was up more than 30 percent compared with 2011 and a nearly 10-fold increase from 2007. Natural gas demand rose 13.5 percent in the first nine months of 2013 for example, 4.3 percentage points faster than production despite a push into unconventional reserves. In its annual International Energy Outlook this year, the U.S. Energy Information Administration said China's gas consumption was set to rise by more than 360 percent between 2010 and 2040 to reach almost 500 bcm.

And pipeline gas to China from Central Asia comes in at an average \$9 mmBtu, much cheaper than the super-cooled fuel shipped from mainly Qatar, Australia and Malaysia. Beijing's main supplier of pipeline gas is former Soviet Turkmenistan, once Gazprom's ally, which plans to triple flows to China to up to 65 bcm by 2020 from 20 bcm shipped last year.

Gazprom has been in talks for years to build its own export pipeline to China, both to ship 38 bcm annually and put some of its East Siberian fields on stream. It agreed on a pricing formula - but not on price - planning to sign the final deal by the end of the year. An adviser to CNPC, who declined to be named, said: "Both sides are set to make compromises, though the gap is still there. But the gap will narrow as more natural gas gets developed."

Some analysts say Gazprom should invite China to jointly develop gas fields as Turkmenistan did to speed up production. "We believe that Gazprom may over time become a leading supplier of natural gas to China, delivered both through the pipeline and in the form of LNG," ratings agency Fitch said last month.

Alleged Pirate's Trial Begins After 2 1/2 Years: Jury selection began today in the case of a Somali man detained for 2 1/2 years for his role in the 2008 takeover of a Danish cargo ship. 51 year old Ali Mohamed Ali is charged with piracy and if convicted could face life in prison.

Ali is the alleged ransom negotiator for Somali pirates who seized a vessel in the Gulf of Aden in late 2008. The M/V CEC Future, a Danish ship carrying American cargo was taken over November 7, 2008 by a group of pirates wielding AK-47s and rocket propelled grenades. The vessel owner, Clipper Group, eventually paid 1.7 million in ransom to the pirates for the safe return of the ship, crew, and cargo after the vessel had been held for 71 days.

Ali was detained in 2011 when the US government lured the alleged pirate to the US under the pretense of attending an educational conference in North Carolina. He had been serving as an educational official in Somaliland at the time of his arrest at Dulles International Airport outside of Washington DC.

The prosecution in the case has alleged that Ali boarded the ship two days into the hijacking to serve as a ransom negotiator because of his fluent English. The pirates then compensated Ali for his role in the attack.

The defense claims that the Somali boarded the seized vessel as an observer, but that he was forced to play the part of translator once he was on the ship. Clipper Group CEO, Per Gullestrup, has said he does not believe Ali was affiliated with the pirates and the ship's captain, Andrey Nozhkin, has stated that Ali actually served as a buffer between the pirates and the hostages.

Ali's 2 1/2 years pre-trial detention has stirred up controversy in the legal and constitutional rights communities.

Initially, a Washington Federal District Judge denied Ali's motion to be released pending trial citing Ali as a flight risk. In late 2011 US District Judge Ellen Hueville was assigned Ali's case and overturned the decision to hold the Somali. The US government reversed Hueville's decision to release the Somali twice, most recently in September of this year. Hueville has stated that his right to due process was being violated by such a lengthy pre-trial detention period. She also added that Ali had endured harsh conditions during his detainment including spending 10 days in solitary confinement for an allegation that was later proven false.

The US government, however, has remained firm on its position against Ali. In a 2011 Department of Justice press release U.S. Attorney Machen is quoted as saying, "This case shows our resolve to prosecute pirates and those who profit from crimes on the high seas. Those who negotiate and collect these ransoms are every bit as responsible for these crimes as the pirates who commandeer the ships."

Another pirate implicated in the hijacking, Jama Idle Ibrahim, is already serving out his 25 years for role in the attack and an additional 30 years for an attack on a US navy vessel also in the Gulf of Aden.

Somali Pirates Convicted In Spain: Spain's National Court in Madrid handed down sentences today ranging from 8-12 1/2 years for six Somali's implicated in a 2012 attack on the Spanish naval vessel the Patino.

The six accused, Mohamed Abdullah Hassan, Mohamed Aden Mohamed, Issa Abdullah Issa, Abdillahi Mohamed Gouled, Mohamed Said Ahmed and Hamoud Elfaf Mahou, were all convicted on charges of piracy and arms possession and Hamoud Elfaf Mahou was sentenced to an additional four years for the charge of membership in an armed group.

The six Somalis were arrested in January of 2012 after a shootout with the Patino, a Spanish Navy supply ship that was part of the EU's Atalante operation against piracy in the Indian Ocean. The men attempted to board the Spanish ship in the early morning hours armed with AK-47s and grenades. After the Somalis opened fire on the Spanish sailors, the Spanish fought back causing an exchange of gunfire that lasted about two minutes and caused the pirates to flee the scene.



The Patino, accompanied by a Spanish naval helicopter, then pursued the Somali motorboat, finally apprehending the suspects about an hour after the initial attack.

Due to the darkness at the time of the attacks, investigators have speculated that the pirates may have mistaken the Spanish Navy vessel for a freighter and that the attack on the Navy may have been inadvertent.

During their trial, the six Somalis claimed that they were fishermen who had approached the Spanish vessel in distress. They had also stated that the Spanish ship had been first to open fire and that they had only started shooting in defense.

The prosecution had originally asked for 23 year sentences citing strong evidence linking the men to well established piracy networks in the region. The evidence included cell phones containing the numbers of known pirates and evidence of a large deposit made so that the six men could purchase weapons and equipment for the attack.

Piracy along the Somalia coast reached its peak in 2011, but attacks in this region have since been on the decline due to increased surveillance and punishment for crimes in this area. UN Secretary General Ban Ki-moon stated that there were only 17 attacks in the first nine months of 2013. By comparison, there were 99 reported attacks in the same period for 2012.

NTSB Member Mark Rosenkind Addresses Maritime Safety: Member Mark Rosenkind, of the National Transportation Safety Board, testified Tuesday before the U.S. House of Representatives Subcommittee on Coast Guard and Maritime Transportation. In his speech he addresses important maritime transportation safety issues that have arisen as a result of a series of investigations carried out by the National Transportation Safety Board (NTSB).

NTSB-USCG Cooperation

The USCG and NTSB work closely together to evaluate those accidents that meet the threshold of a major marine casualty, as set forth in joint NTSB-USCG regulations. Upon a determination that the NTSB will lead an investigation of a major marine casualty, it will establish the facts, circumstances, and probable cause of the event, consistent with its statutory mandate. Even where a determination is made that the USCG will lead an investigation, the NTSB frequently provides investigative support to the USCG, such as providing voyage data recorder information retrieval and materials properties analysis. The NTSB investigates all major marine casualties that occur each year - typically 30-35 per year.

Recent NTSB-USCG Activities

In June 2013 the Chairman of the NTSB hosted the Commandant of the Coast Guard for the annual Chairman-Commandant meeting. Several topics were discussed at this meeting including the ongoing good cooperation and constructive relationship between the agencies as well as the synergy in our investigative expertise and collaboration. Particularly noted in the meeting were concerns related to safety aspects of DUKW amphibious passenger tour vehicles and large passenger vessel safety. These discussions resulted in agreement that the USCG would lead efforts to improve amphibious passenger vehicle safety with NTSB support and the NTSB would lead a passenger vessel safety forum in partnership with the USCG with a focus on large foreign passenger vessels calling US ports.

Large foreign flagged passenger vessels have been increasingly in the spotlight since the grounding and capsizing of the Costa Concordia in January 2011. Since then there have been several accidents, including fires on board vessels resulting in the loss of power or significant damage to the vessel. Many of these accidents happened in close proximity to the US coast and affected thousands of US citizens sailing onboard. While some assume that the NTSB is investigating these incidents, under current regulations, investigations of these events involving foreign flagged vessels, occurring in international waters, although close to the US, are not led by the NTSB, but are conducted by the USCG, which is also the oversight agency for these operations.

The US Coast Guard is the official representative to the International Maritime Organization (IMO) and as such represents this country on maritime regulatory matters internationally. One important aspect of the IMO's work is to ensure maritime casualties are thoroughly investigated and that those countries directly involved or designated as "substantially interested states" to an accident consistent with the IMO Casualty Code work collaboratively to guarantee the most thorough, unbiased investigation. Many countries such as the UK, Sweden, Japan, Australia, Canada, Denmark, Finland and Ireland, among others also have their maritime regulatory agency as the primary representative to IMO. The independent safety agency in these countries, however, acts as the official representative when it comes to casualty investigations and representing the country as a substantially interested state. This distinction is important as it meets the intent of the IMO Code on Casualty Investigations in terms of an independent and unbiased investigative process that is not intended to apportion blame or determine liability but rather to understand the circumstances leading to the accident in order to determine measures to prevent recurrence and improve safety. Although the NTSB is the independent accident investigator, unlike the countries listed above, it does not serve as the official representative to IMO on casualty investigations.

Through cooperation and agreement provided by the memorandum of understanding (MOU) between the USCG and NTSB, both agencies have worked closely to review and provide feedback to accident reports from other countries where the US is a substantially interested state. The NTSB's Office of Marine Safety provides expert support from licensed, experienced merchant mariners and professional investigators on staff.

Out-of-Water Survival Craft and Small Passenger Vessel Safety

Throughout its history, the NTSB has investigated hundreds of marine accidents, identified a broad array of safety risks, and issued over 2400 recommendations to the USCG and other entities to improve marine safety. A longstanding issue of considerable interest to the NTSB is the importance of out-of-water survival craft, particularly for passengers and crewmembers on small passenger vessels.

NTSB Investigations and Recommendations Concerning Lifesaving Equipment

The NTSB first addressed this issue in determining the probable cause and making recommendations concerning the sinking of the M/V Comet off Point Judith, Rhode Island on May 19, 1973. Of the 25 fishing party passengers and 2 crewmembers, only 11 were rescued. The NTSB determined the loss of life following the vessel's sinking, among other things, was due to "the lack of adequate equipment to protect the victims from prolonged exposure to cold water."(1)

The NTSB also stated its concurrence with the recommendation of the USCG Marine Board convened to investigate the vessel's sinking to require "all primary lifesaving devices to keep persons out of the water when the prevailing water temperature is expected to be 60° F or less."(2) In responding to this Marine Board recommendation, the Commandant acknowledged, "should one of these small passenger vessels sink in an area where the sea water temperature is sufficiently cold, present equipment would offer little chance of survival." The Commandant also stated, "[t]he need for such equipment as an anticipatory measure will be given further consideration."(3)

In July 1986, the NTSB issued Safety Recommendation M-86-61 to the USCG to:

Require that all passenger vessels except for ferries on river routes on short runs of 30 minutes or less have primary lifesaving equipment that prevents immersion in the water for all passengers and crew.(4)

In its safety recommendation letter to the USCG, the NTSB again reiterated its concerns with the use of immersible lifesaving equipment on small passenger vessels:

The Safety Board is concerned about the use of buoyant apparatus and lifefloats aboard small passenger vessels in lieu of liferafts. Since neither buoyant apparatus nor lifefloats keep survivors from immersion in the water, potential hypothermal effects can result. Use of such buoyant apparatus or lifefloats is permitted between May 15 and October 15, north of the 33rd parallel on the U.S. east coast. However, National Oceanic and Atmospheric Administration (NOAA) data show that water temperatures can be quite low (below 50°) even during summer months along the east coast. In fact, the USCG requires most vessels that operate in waters where temperatures drop below 60° to carry exposure suits for all crewmembers in recognition of the potential for hypothermia.(5)

The NTSB's most recent recommendation on this topic is from our investigation of the Queen of the West engine room fire that occurred on the Columbia River in Oregon on

April 8, 2008, and was issued to the USCG in 2009.

Require that out-of-water survival craft for all passengers and crew be provided on board small passenger vessels on all routes. (M-09-17)(6).

The Queen of the West was a passenger vessel with 177 persons onboard when fire broke out. The fire was detected and contained by the suppression systems and crew actions. However, had the fire grown to the extent that required the captain to order the evacuation of the vessel, 124 passengers, who were mostly senior citizens, and 53 crewmembers would have abandoned ship with only one six-person rescue boat available. Had the vessel fire spread more quickly, the passengers and crew would have evacuated into 44oF water wearing only lifejackets for flotation.

The nearest assistance was about 2 hours away and the effects of hypothermia would have quickly set in, putting the passengers and crew at a high risk for injury and death.(7)

More recently, the need to implement the out-of-water survival craft requirement was justified again in the NTSB's investigation of the September 8, 2011, Trinity II liftboat accident in the Bay of Campeche, Gulf of Mexico.(8) The crew was partially submerged in the warm water of the Gulf of Mexico after abandoning their ship in a storm. The length of their immersion slowly lowered the crew's body temperatures, and four died as a result of hypothermia, drowning or complications from prolonged exposure. Had the crew been able to remain out of the water all of them likely would have survived.

Legislation Related to Survival Craft

Following the Queen of the West engine room fire and the NTSB's investigation, Congress included a provision in the Coast Guard Authorization Act of 2010,(9) prohibiting the USCG from approving a survival craft as a safety device unless the craft ensures that "no part of an individual is immersed in water." The provision further prohibited the USCG from approving a survival craft that does not meet the new standard subsequent to January 15, 2015. Section 303 of the Coast Guard and Maritime Transportation Act of 2012,(10) directed the USCG to submit a Congressional report on a number of specific areas enumerated in the 2010 Act and delayed the January 15, 2015, implementation date for the out-of-water survival craft requirement. The 2012 Act specified the new implementation date as "the date that is 30 months after the date on which the [USCG] report ... is submitted." The USCG submitted its report, Survival Craft Safety, in August 2013; therefore, moving the implementation date to February 2016. Out-of-water survival craft can save lives and we urge Congress not to repeal or delay the requirement further.

Hours of Service (HOS)

The NTSB supports a systematic approach to fatigue management that includes three fundamental elements: education; medical oversight, including diagnosis and treatment of sleep disorders; and proper scheduling and hours of service rules. In our investigation of the Eagle Otome accident,(11) we recommended that pilot oversight organizations implement fatigue mitigation and prevention programs that: (1) regularly inform mariners of the hazards of fatigue and effective strategies to prevent it; (2) promulgate HOS rules that prevent fatigue resulting from extended hours of service, insufficient rest within a 24-hour

period, and disruption of circadian rhythms; and (3) HOS rules that ensure that mariners' work schedules do not cause fatigue. The USCG's voluntary crew endurance management system (CEMS) educates operators about the causes and effects of fatigue and ways to mitigate it. Similarly, the Coast Guard's revision of its medical oversight system provides critical oversight of the diagnosis and treatment of sleep disorders.(12).

In 2011, the USCG published a notice of proposed rulemaking (NPRM) regarding towing vessel safety.(13) Although the USCG indicated it was not making any specific proposal at that time, it sought additional data, information and public comment on potential requirements for hours of service or crew endurance management for mariners aboard towing vessels. The USCG also pointed out that such rules should ensure that mariners could obtain a minimum of eight hours of uninterrupted sleep and prevent circadian rhythm disruptions from interfering with mariners' ability to maintain the regularity of a sleep-wake schedule needed for recuperative rest.(14) The USCG cited the results of its application of the Fatigue Avoidance Scheduling Tool (FAST) to various watchkeeping schedules to examine their effects on circadian rhythms and uninterrupted sleep periods.(15)

Although recent literature on the application of biomathematical models to work settings has demonstrated shortcomings in such an approach,(16) we agree with the USCG's conclusion that the 6-hours-on, 6-hours-off watch schedule widely used by inland waterway operators does not provide the uninterrupted sleep time or circadian rhythm regularity that mariners need to obtain sufficient recuperative sleep. Research cited in the NPRM clearly shows that a 4-hours-on, 8-hours-off watch schedule is better at reducing the effects of fatigue on mariner performance than a 6-hours-on, 6-hours-off watch schedule.(17)

The complex waterways on which towing vessels operate (near shallow water, often near obstructions such as major rail and highway bridge abutments, and near vessels carrying passengers or hazardous materials) require operators to continuously maintain the highest levels of alertness. Anything that reduces a mariner's cognitive performance-whether insufficient sleep, medication use, medical condition, extended duty, or disrupted circadian rhythms-can lead to potentially catastrophic accidents. Accordingly, the NTSB fully supports the establishment of effective science-based HOS rules for towing vessel operators, and we urge the Coast Guard to promulgate the necessary regulations at the earliest possible time. Such regulations, when implemented, should be consistent with NTSB Safety Recommendation M-99-1, which asked the Coast Guard to:

Establish within 2 years scientifically based hours-of-service regulations that set limits on hours of service, provide predictable work and rest schedules, and consider circadian rhythms and human sleep and rest requirements.(18)

Proposed USCG HOS regulations should provide for at least eight hours of uninterrupted sleep, prevent extended periods of duty, and ensure that mariners' circadian rhythms are not disrupted. Recent rules promulgated by the Federal Aviation Administration, the Federal Motor Carrier Safety Administration, and the Federal Railroad Administration demonstrate that Federal transportation regulators can issue science-based HOS rules that would mitigate the effects of

fatigue and help prevent fatigue-inducing work schedules.

Other NTSB Activities Related to Vessel Safety

At the same time the NTSB released the Trinity II accident report, the agency issued a Safety Alert entitled, *Mariners: Improve Your Chances of Survival When Abandoning Ship*. A copy of this Safety Alert is attached to this written hearing statement. The Safety Alert describes several problems leading up to the ten crewmembers abandonment of the water-damaged liftboat in near-hurricane-force conditions that negatively impacted their probability of survival once they were in the water. The crew's inflatable liferafts were blown away after crewmembers attempted to inflate them on deck rather than in the water, as they should have been. When they abandoned the liftboat, they were forced to cling to a lifefloat that did not offer out-of-water flotation. The Safety Alert also stresses the need for mariners to develop and execute a thorough weather preparedness plan; conduct realistic emergency drills that include the proper use of lifesaving equipment; and a step-by-step assessment of all such equipment, especially liferafts, that cannot actually be deployed during drills.

Third Platform Supply Vessel (PSV) 'World Pearl' Delivered To World Wide Supply:

Damen Shipyards Galati has handed over the third Platform Supply Vessel in a series of six to World Wide Supply of Norway. This six-ship order heralds a new era in offshore construction for Damen Shipyards Group.

World Pearl is built to Damen's entirely new PSV 3300 design. The first of the Class PSV 3300, World Diamond, was delivered in July to the Norwegian company.

"Delivery of the first PSV 3300 represents a new era in Damen's continuing offshore supply vessel story," said Arnout Damen commenting at the time of the first delivery.

"This has been a truly collaborative project, with Damen drawing on expertise from the client and within the group, as well as from partners among leading research institutes and subcontractors to deliver a 'first in class vessel' designed, built and equipped to European standards for a world class customer."

Meeting future demand

Delivery of the new design involved extensive CAD/CAM modelling by Damen Shipyards Gorinchem in the Netherlands and model testing at Maritime Research Institute Netherlands (MARIN). The 3300 is part of an entire new range of Damen PSVs.

With an 80.1m length, the PSV 3300 has a deck load of 1,500 tonnes. The new type can be used to transport crew and equipment to and from offshore platforms but it also offers fire-fighting and oil pollution recovery capability. Equipped with azimuth thrusters and dynamic positioning (DP2), the design is distinguished by slender hull lines to meet challenging conditions, minimise fuel consumption and to enhance crew comfort.

Long-term contracts supporting Petrobras

Four of the six World Wide Supply PSV 3300s have secured long-term contracts supporting Petrobras, offshore Brazil. The remaining two are expected to be offered to the North Sea spot charter market.

ITIC Issues Warning on Forged Shipping Documents:

ITIC has warned shipping intermediaries to be on the look-out for cleverly forged documents which could result in them being held liable for substantial claims by cargo interests.

In the latest issue of its Claims Review, ITIC refers to the case of a Belgian ship agent which released six containers of castor oil valued at \$270,000 against a fraudulent bill of lading. The containers were to be shipped from India to Belgium, and although the bill of lading against which the ship agent released the cargo to the consignee appeared at first glance to be genuine, it was in fact a clever forgery.

The shipper claimed that it had not been paid for the cargo, for which it still held the original bills of lading. It duly arrested one of the carrier's vessels in India and obtained a bank guarantee from the carrier as security for its claim. In turn, the carrier looked to the ship agent for indemnity.

Examination of the bills of lading that had been presented established that the agent should have spotted the forgery. The forged bills included clearly incorrect details, such as the name of the load port, and also spelling errors, including the name of the carrier. The agent had therefore been negligent in releasing the cargo against the documents.

The claim brought against the carrier by the shipper was for the cargo value plus costs and interest. The case was fought in the Indian courts, which is usually a slow process. As it was unlikely that the claim could be successfully defended,

ITIC and the carrier pushed the shipper to settle the matter. Finally, after almost four years of negotiation, a settlement of \$160,000 was agreed - \$100,000 less than the original amount claimed. ITIC also reimbursed the carrier's legal costs and the bank charges incurred in maintaining the bank guarantee.

ITIC says it has never been easier for documents to be cleverly forged, and warns ship agents that they need to ensure that they thoroughly check the details on bills of lading and other such documentation.

How Dredging Anchor is Used for Maneuvering Ships?:

Ship's anchors can be used not only for berthing but also during maneuvering through channels and other similar areas with restriction in movement. Dredging anchors is a method which is used to assist a ship in maneuvering during unavailability or inability of tugs to assist as required.

A dredging anchor sniffing the bottom of the ship would hold the bow steady while allowing a ship to move fore and aft, this would shift the ship's pivot point forward. Then, to overcome the anchor's drag, propulsion is used giving good steering at low speed.

Today, modern ships have bow-thrusters to control the bow while going ahead or astern. While piloting in the narrow confines, in restricted waters or maneuvering vessels in somewhat constricted space, bow thrusters or tugs can be handy.

Sometimes ships have to cross stern first (i.e., moving backward) through the restricted channel between ships or buoys, using engines and bow thrusters. Now since the stern cants (moves laterally sideways) while a ship comes astern

due to transverse thrust, a towing tug is employed in this case at the stern and the engine is used sparingly just to adjust any deviation in the desired direction of motion.

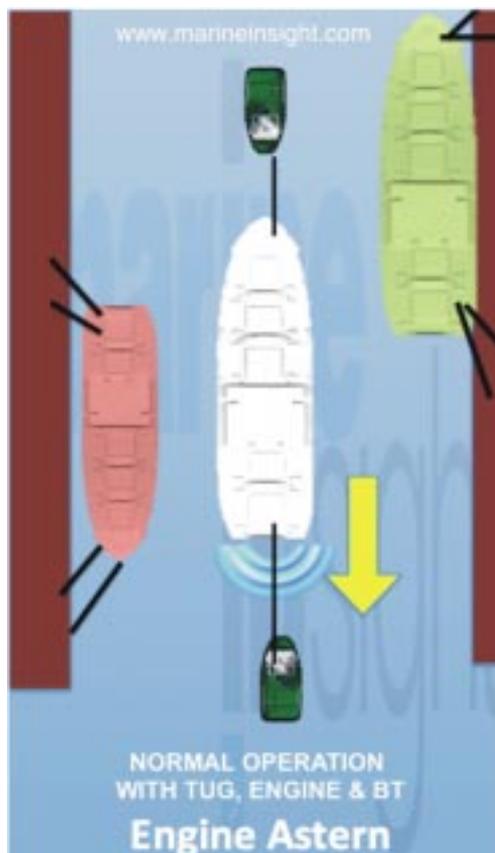
At the bow of the vessel, a checking tug is also deployed to control it and prevent it from swinging waywardly. The checking tug also comes in to play in stopping the momentum of the ship lest its engine doesn't respond in time.

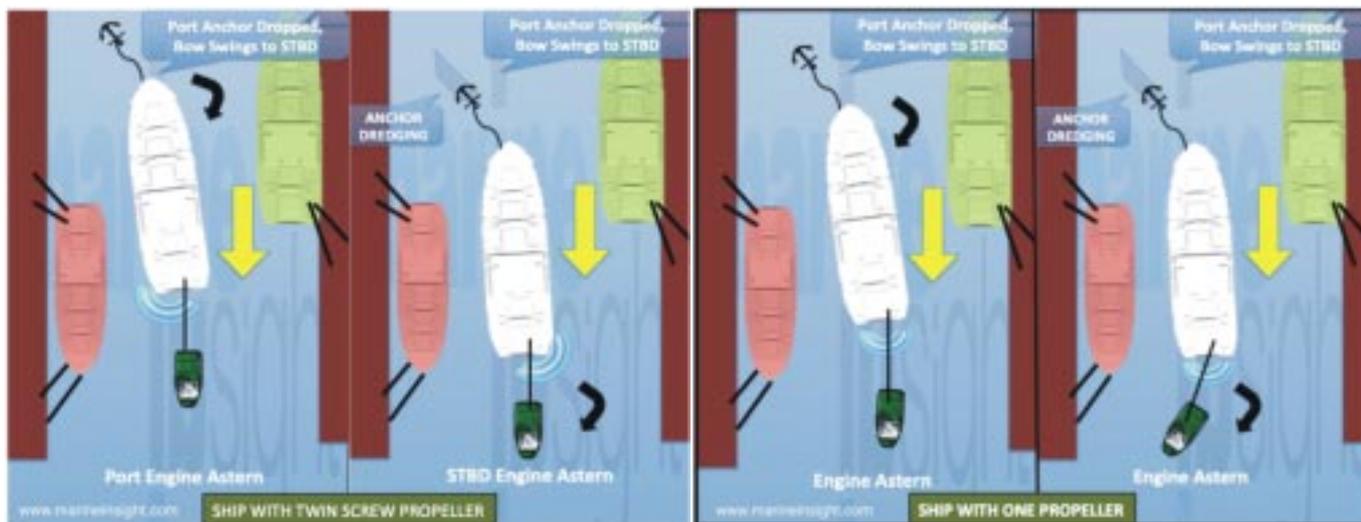
Now what happens when there is neither a bow thruster nor a tug to check the bow? The towing tug is necessary as the ship will invariably deviate with every second of the engine running astern due to the transverse thrust. In such an emergency situation the anchor becomes the rescuer.

The anchor is dropped at short stay where the cable is almost vertically down up to the anchor and taught. The anchor barely digs in when the ship is put to astern and the anchor is dragged over the sea bed. The pivot is shifted to the bow near the howse-pipe, making it easier for the towing tug at the stern to exert more moment of force as its distance from the pivot has increased. Also, the bow is prevented from "Yawing".

The objective of this operation is to drag the anchor over the soft mud (like the drag-heads of the suction dredgers) and not to dig the anchor deep into the mud. Otherwise the cable will come under huge strain and can part when engine is run astern or when the towing tug tows. The machineries involving the anchor on the forecastle, like the windlass, the bow-stopper or the brakes can also get damaged.

Ideally the length of the cable should not be one and a half to two times than that of the depth of the water. Moreover, it is generally advised to have a thorough knowledge of the





sea or river bed before performing this operation. Recent survey charts in this case can become extremely helpful.

Real Life Incident: Ship's sea suction choked with fish:

An oil tanker was discharging at an Asian oil terminal. Simultaneously, the vessel was being inspected by a vetting inspector and the owner's superintendent was also attending. The inert gas (IG) plant was in operation. About four hours into the discharge, the chief engineer (C/E) was informed that the seawater low pressure alarm had been activated. He came to the engine room and observed that all the sea water pumps were showing inadequate discharge pressure. At the time, the high sea suction was in use, and even though it was well under water, the C/E instructed the duty engineer to change over to the low sea suction in order to improve the head.

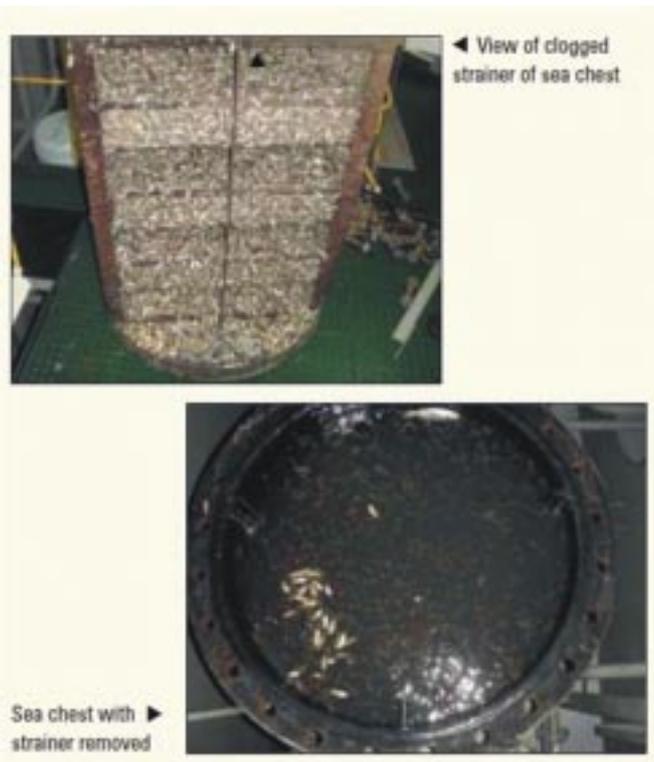
Immediately, the pump suction and discharge pressures became normal. After monitoring the system for some time, the C/E left for his cabin. After a few more hours, the problem recurred and the C/E again returned to find all seawater pumps had developed vacuum condition on the suction side and were showing very low discharge pressures. It was immediately suspected that the strainers inside the sea suction chests were clogged. However, with the cargo pumps and IG plant operating at full capacity, it was decided to use both the high and low sea suction together to avoid stoppage of any of the seawater pumps. It was not possible to open up any of the sea chests to clean the strainer without halting the discharge, with attendant commercial implications.

The Master and superintendent were informed of the serious situation, when, by chance, the terminal announced a temporary stop in cargo operation. Until this stoppage time, the engine room had spent a nervous few hours with the pumps struggling to develop adequate water flow. In the middle of this crisis, a class surveyor was scheduled to attend for annual survey. On arrival, he declared his intention of testing the operation of the deck foam monitor with both fire and service pumps, which was quite a tough task under the circumstances.

With great trepidation, the engineers were able to adjust the pump suction and discharge valves to satisfactorily demonstrate the operation of the deck foam monitor. Soon after the departure of the class surveyor, cargo operations

were halted at the terminal's request and with the IG scrubber and condenser sea water pumps stopped, and auxiliaries under control, the low sea chest was opened up for inspection.

A mass of tiny fish was found inside, and when the strainer was extracted, it was found to be completely choked from the suction side. After non-stop work by the crew, the suction was completely cleaned out, and the strainer replaced after the mesh was cleared. After the sea chest was boxed up, it was put in use and all seawater pumps were tested and found to be developing normal pressures. The high sea suction was also found to be choked with fish, and was similarly cleared and boxed up, by which time cargo discharge was resumed, with terminal instructions for continuous discharge until completion. Unfortunately, just four hours after resuming cargo discharge, seawater pressure again became low, forcing the simultaneous use of both sea suction.



The Master and superintendent were regularly updated of the situation, when, without prior intimation, port state inspectors boarded the ship. The mess near the sea suction was quickly cleaned up, and the vessel passed the inspection creditably despite the accumulated stress of the past 24 hours. Just after the port state inspection, and towards the end of cargo discharge, abnormally high temperatures were observed in the steam condenser shell and condensate lines, calling for urgent corrective actions. Discharging was finally completed later that night. An exhausted engine room crew once again opened, cleaned and boxed up the sea suction (again filled with tiny fish) and the ship sailed from the terminal without any delay, much to everyone's relief.

Corrective / preventative actions

1. The fleet (especially a sister vessel) was advised to use high sea chest in ports as this is generally located close to several overboard discharges; e.g. ballast, condenser sea water, fire and general service (GS), and IG scrubber pumps. The turbulence created in the vicinity of these overboard discharges may help prevent fish being drawn towards the high sea suction.
2. It was also suggested that regular injection of steam into sea chests might assist in keeping the strainers clear of unwanted fishes and other organisms.

8 Most Common Problems Found in Ship's Refrigeration System:

One of the few machinery systems which needs to run continuously on ships is its refrigeration plant. As a lifeline for all perishable food items and temperature sensitive cargo, refrigeration plant is one of the most important systems on ships which requires utmost attention of engineers at all times.

However, just like all other machinery on ships, the refrigeration system can also get into some trouble from time-to-time. Some of these problems are common but require immediate attention. Mentioned below are eight most frequently seen problems in the ship's refrigeration plant:

Note: Mentioned in "(") are solutions for each problem.

1. Compressor Starts But Stops immediately: When the compressor in the reefer circuit starts and suddenly stops, it can be because of the following reasons:

- Low pressure cut out gets activated (Ensure that all the suction line valves are in open condition, the refrigeration is properly charged and the low pressure cut out is not defective)
- Defective oil pressure cut out (Check for proper functioning of oil pressure cutout and replace the defective cutout)
- Defrosting timer is getting activated frequently (If the defrost timer is getting activated frequently, leading to cutout of compressor, check and repair defrost timer)
- The lube oil level is below required level (This can be because of leakage of lube oil from seal or carry over of oil. Rectify the leakage and refill the oil level)
- Foaming of oil leading to reduced oil pressure (Ensure no foaming takes place, renew the oil if required)
- Motor overload cutouts are activating (Ensure that electrical motor trips are working properly.)

2. Compressor Start and Stops Frequently: If while

maintaining the correct temperature of the ship's provision room or reefer cargo, the reefer compressor is frequently cutting-in and out, then such problem needs to be sorted out immediately. The most normal causes for such operation are:

- Wrong Setting of Cutouts: It may be because the high pressure (HP) cutout is set too high or LP cutout is set too low (Check and change the setting to advisable limit)
- Differential Setting Span is Small: The low pressure (LP) cut out is provided with starting and stopping pressure setting. If the setting span is too small, it will lead to frequent cut-in and cut-out of the compressor (Change the setting and increase the span between starting and stopping compressor pressures.)
- Defective Valves: If the compressor discharge valve is leaky or the line solenoid valve is not closing properly, this will lead to variation in sensor pressure and result in frequent cut-in and cut-out of compressor (Replace all the defective valves)
- Clogged Suction Filters: Compressor is provided with a filter in the suction line. If that is clogged, it will lead to frequent LP cut out (clean the filter)

3. Compressor is Running Continuously: The function of compressor in a refrigeration system is to act as a pump to circulate the refrigerant in the cooling circuit. It can happen that to maintain the cooling temperature in the rooms, the compressor is running continuously. If this happens following can be the causes for the same:

- Refrigerant not sufficient for cooling evaporator (Ensure thermostatic expansion valve is working properly and clean the filters inside TEV)
- Thermostat low pressure cut-out not activated at low temperature/ pressure (Correctly set the LP cut-out to correct setting)
- Refrigerant charge is low in the circuit (Check for leakage of refrigerant and charge with required refrigerant)

4. Unusual Sound from Compressor: One of the most common problems in any machinery is abnormal sound coming from some of its parts. This may be due to trouble with mechanical components inside the compressor or due to the reasons stated below:

- The capacity control setting is too high, leading to knocking sound during starting (Reduce the capacity control setting)
- The oil pressure is low (Ensure that the oil level is maintained and no foaming of oil is developed. Replenish or refill the lube oil if required)
- Incorrect alignment of compressor and motor (Check the alignment and set motor and compressor in one line)
- Loose foundation (Ensure that the compressor foundation is secured and all foundation bolts are checked for tightness)
- Loosening of driving belt (Ensure to check the elasticity of the belt and renew if the belt is slack)

5. High Compressor Discharge Temperature: It may happen that all the provision rooms or cargo holds are maintained at correct temperature, but in doing so the discharge temperature of the compressor is going above the limit. This problem may arise due to following reasons:

- Excessive suction temperature due to less refrigerant

in the circuit (Recharge the circuit to maintain refrigerant quantity in the circuit. Ensure TEV is set properly and supplying enough to the evaporator, else degree of superheat will result in increase of suction and discharge temperatures of the compressor)

- Leak in the discharge valve leads to generation of heat (renew the leaky valve)
- Leak in the safety valve (Renew safety valve)
- Open bypass between suction and discharge (control the bypass to avoid this)

6. Evaporator Coil Icing: Another common problem in reefer system is icing of the evaporation coils which may happen due to:

- Too low temperature setting (Increase the coil temperature by adjusting TEV or it's sensor)
- The coil capacity is less (Install large capacity evaporator coils)
- Defrost is not operational (Check if the defrost system is functioning at regular intervals)

7. Reduced Cooling Capacity: If the cooling capacity of the plant has reduced and it is not being able to maintain the provision room or cargo hold temperature, following may be the causes:

- Inadequate refrigeration (Charge refrigerant in the circuit)
- Insufficient or damaged insulation in the room (Check and renew the insulation)
- Room or hold is over packed (Ensure that the room is not filled above its capacity)
- Malfunctioning solenoid or TEV (Check the functioning of these valves and renew if not functioning properly)
- Poor thermostat location that senses cold temperatures (Place the sensor of the TEV in proper location i.e discharge of the evaporator)
- Room door is kept open (Ensure to close the door while exiting the provision room)

8. Reducing oil level in compressor: If the oil level in the compressor crank case of the refrigeration system is reducing within short intervals, this indicates leakage or increase in consumption of lube oil due to following reasons:

- Nozzle or filter clogged (Ensure that the nozzle in oil return line or filter in solenoid valve is cleaned and not choked)
- Foaming of oil due to liquid in suction line (Foaming of oil may arise due to liquid refrigerant entering the crankcase. Replenish oil and troubleshoot cause of liquid in suction of compressor)
- Drive side seal leaking (The compressor is provided with oil seal at the drive side. Ensure it is not leaking and renew it if required)
- Worn out piston rings/ liner leading to oil carryover in the system (Renew the compressor piston rings or liner)

Pirates kidnap two U.S. sailors off Nigerian coast - sources: Pirates attacked an oil supply vessel off the Nigerian coast and kidnapped the captain and chief engineer, both U.S. citizens, American officials said on Thursday as the Nigerian military ordered its Navy to rescue the men.

"We believe this was an act of piracy," U.S. State Department spokeswoman Marie Harf said, adding that U.S. officials were closely monitoring the situation and seeking more information.

"At this point, we do not have information that would indicate this was an act of terrorism," Harf told reporters in a briefing. "Obviously, our concern at this point is for the safe return of the two U.S. citizens."

Pirate attacks off Nigeria's coast have jumped by a third this year as ships passing through West Africa's Gulf of Guinea, a major commodities route, have come under threat from gangs wanting to snatch cargoes and crews.

The U.S.-flagged C-Retriever, a 222-foot (67 metre) vessel owned by U.S. marine transport group Edison Chouest Offshore, was attacked early Wednesday, UK-based security firm AKE and two security sources said. The company was not immediately available for comment.

A U.S. defence official said the State Department and FBI were leading the American response to the incident. A second defence official said the U.S. Marine Corps has a small training unit in the region but it was not clear if it would get involved.

However, representatives for the Nigerian Navy said they were aware of the incident and taking action. "We have directed the central Naval Command to see to their rescue. So our men are on top of the situation," spokesman Kabiru Aliyu told Reuters.

U.S. Navy officials have grown increasingly concerned about piracy and armed robbery in the Gulf of Guinea and are working with local authorities there to strengthen their ability to patrol the region and better share information.

The White House said on Thursday it is increasingly concerned about the rise in piracy off the coast of West Africa.

"More broadly, we are concerned by the disturbing increase in the incidence of maritime crime, including incidents of piracy off the coast of West Africa, specifically in the Gulf of Guinea," White House spokesman Jay Carney told reporters at a briefing.

Navy Secretary Ray Mabus has called the region a potential "hot spot" after a visit to four countries surrounding the gulf in August. He told Defense News in September the Navy was working closely with Gabon, Senegal, Sao Tome and Ghana to help fight an increase in illegal trafficking of drugs, people and arms.

"The piracy threat is spreading even further through the waters of West Africa, and the attacks have been mounting, even as global rates of reported piracy are at their lowest since 2006," said Michael Frodl of U.S.-based consultancy C-Level Maritime Risks.

CONTRAST TO HORN OF AFRICA

Unlike the dangerous waters off Somalia and the Horn of Africa on the east coast of Africa, through which ships now speed with armed guards on board, many vessels have to anchor to do business off West African countries with little protection.

This makes them targets for criminals and raises insurance costs. Kidnapped sailors and oil workers taken in Nigerian waters are usually released after a ransom is paid.

In a separate incident, three Nigerian soldiers were killed on Tuesday when armed robbers attacked a vessel carrying construction workers in the creeks of oil-producing Rivers state, the army said on Thursday.

Piracy has regained attention in the U.S. recently since the release of a movie earlier this month chronicling an April 2009 hijacking of a U.S. ship by Somali attackers.

The incident involved a cargo ship seized off the Horn of Africa later rescued by the U.S. Navy, which sent two ships and Navy SEALs to intervene.

Topaz Wins Lloyd's List 'Offshore and Energy' Award:

Topaz Energy and Marine, a leading offshore support vessel owner with primary operations in the Middle East and Caspian, is pleased to announce that it has won the Lloyd's List 'Offshore and Energy' award.

The prize was awarded for excellence in providing services to the offshore energy industry via the operation of offshore support vessels. Topaz received the award at the recently held Lloyd's List Middle East and Indian Subcontinent Awards at the Grand Hyatt in Dubai.

Accepting the award on behalf of Topaz was Chief Executive Officer, René Kofod-Olsen, who commented, "We are honoured to receive this award as it recognizes the reliability of our services, our strong commitment to safety and the sustained growth of our fleet with focus on modern and technologically advanced tonnage".

Topaz was also a finalist for the 'Ship Operator' award.

Dubai-based Topaz Energy and Marine owns and operates a modern and technologically advanced fleet of more than 90 offshore support vessels and offers services such as anchor-handling, towing, platform supply, emergency recovery and response, IMR and personnel transfer to many blue-chip clients in the offshore oil and gas industry.

ULSTEIN Designed 'Aegir' Wins KVNR Shipping Award:

Heerema Marine Contractors' new Deepwater Construction Vessel 'Aegir', a customised ULSTEIN SOC 5000 design developed by Ulstein Sea of Solutions, won the Dutch KVNR Shipping Award.



The state-of-the-art vessel is designed for world-wide operations and suited for executing complex infrastructure

and pipeline projects in ultra-deep water. The vessel is capable to switch between various pipelay modes and has sufficient lifting capacity to install fixed platforms in relatively shallow waters as well as performing installations jobs in deep water.

The maximum waterdepth in which she is able to operate is 3,500 m. The versatility in operational modes allows HMC to offer its clients savings in additional vessels and mobilization and sailing times.

'We are proud that we have been able to support Heerema in developing this innovative vessel based on combining Heeremas operational experience and our design experiences in complex offshore construction vessels', says Edwin van Leeuwen, General Manager at Ulstein Sea of Solutions.

KVNR is the Dutch Association of Ship Owners.

Administration Makes Inspections Institute savvy:

The newly launched Comprehensive Inspection Program for Maritime Training Institutes replacing the earlier cumbersome system will help both the institutes as well as the candidates in selecting the right course and the institute.

The Comprehensive Inspection Program (CIP) will replace the inspection regime followed by the Directorate General of Shipping (DGS) for maritime training institute. So far the DGS had three monitoring mechanisms in place that depended on physical inspection of the institutes by the inspection team from the Academic Council, the quality certification audits and the grading of the institute by the Rating agencies. The aim of this changeover is to provide independence to the institutes at the same time ensure that the quality system is in place.

The CIP would lighten the burden of the institutes from undergoing multiple inspection processes. On the longer run the CIP is expected to serve as an effective tool for the DGS as it offers a non-intrusive system of regulation of the 138 approved training institutes that are in existence in the country. As such it will rely on a matured regulatory concept of self regulation thereby encouraging a permeation of the best practices across the training institutes.

Based on a creditable grading system it would help prospective candidates aspiring for a career in the maritime field in a way of their decision-making of choosing a right institute for a particular course, as the process would substantially assess the relative quality of similar courses offered across various institutes. Moreover, since the institutes and courses they offer will be benchmarked against internationally accepted best practices, students would get a fair idea about the course quality vis-à-vis global standards.

Henceforth, the approved training institutes conducting pre-sea courses will not require the ISO certification of the quality system and grading by rating agency. Instead they need to approach a classification society (CS) authorized by the government of India as Recognized Organization (RO) for inspection, gradation and certification. The audit frequency and the certification validity will be largely governed by the concept of "Five Year Cycle" employed for the audit survey

services envisaged under various maritime conventions, based on the principles of Initial, Annual, Intermediate and Renewal audits / surveys.

"At present four classification societies are approved by the Directorate," said Ajitkumar Sukumaran, E & SS cum Dy. D.G. (Tech), DGS Mumbai. "The remaining 10 which are approved can also function as the RO and the list will be uploaded on the DGS's website in about two to three weeks time. As of now the CIP that has been launched on 3rd August 2013 is only for Pre-sea courses."

Henceforth, the Institutes are required to implement and maintain a Quality System in accordance with the ISO or equivalent standard, as per the requirements or the STCW

convention, which shall be verified and certified to that effect by the concerned RO during the CIP.

The future of India in global shipping will largely depend on the strength of providing seafaring-human-resources of highest standards. India has maintained till date a coveted place in the international shipping as one of the respected suppliers of not only competent seafarers, but also valued professionals and strategic ship managers to international maritime sector. While this has been the outcome of the decade old maritime education, training and examination system in India, it now needs to be recognized that in the increasingly competitive manpower **supplying scenario in the international shipping, excellence in maritime education and training is a necessity.**

"Maritime Group" knows as to what we are, not forgetting that we are here to share our valued flow of thoughts, interchanged with quality of expression exchanged, is to arrive at a QUALITY consensus, since "MARINE NEEDS A MULTI-DISCIPLINARY APPROACH - Do something instead of killing time or else, time will be killing you."

For all practical purposes, my e-mail ID would be:- chandranpeechulli@gmail.com, OR chandran.peechulli@yahoo.com



Attention Seafarers! TOLL FREE NUMBER

In case of Emergency seek Help, while in Indian waters / Indian EEZ, Contact: INDIAN COAST GUARD Dial City Code, followed by 1554.

For example from Chennai, 044-1554

TELEPHONE NUMBERS

PORTS ON THE EAST COAST OF INDIA, COAST GUARD REGIONAL HEAD QUARTERS (EAST), (MRCC) Chennai,
Tel: +91-44-2346 0405, Telefax: +91-44-2539 5018 Email: isareast@dataone.in, Inmarsat "C" (IOR) 44190 7510
Inmarsat "M" (IOR) 64190 1410

PORTS ON THE WEST COAST OF INDIA, COAST GUARD REGIONAL HEAD QUARTERS (WEST), (MRCC) Mumbai,
Tel: +91-22-2438 8065, Telefax: +91-22-2431 6558
Email: indsar@vsnl.net Inmarsat "C" (IOR) 44190 7210 Inmarsat "M" (IOR) 76288 2349

**ANDAMAN AND NICOBAR SRR, COAST GUARD REGIONAL HEAD QUARTERS, ANDAMAN AND NICOBAR, MRCC
PORTBLAIR, Tel: +91-3192-245530, Telefax: +91-3192 - 242948**
Email: mrcc-ptb@indiancoastguard.nic.in | pblmrcc@sancharnet.in | Com_cs@dataone.in
Inmarsat mini 'C' (IOR) 583-441922666 /
583-441908010 Inmarsat Fleet-77: 00-870-600938555

This site is owned and operated by "MARINE WAVES" whose registered office is in M107-5, 29th Cross Street, Besant Nagar, Chennai - 600 090, INDIA. 42018982. Managed by Shri R Venkatakrisnan, M.Com; MCA; MBA., Managing Trustee, for "Marine Waves Trust". Founded / Authored by Dr. Chandran Peechulli, Ph.D; MBA; D.Sc; FIE (India), PgDIMS (UK), PGTED; FIPE; MSEI; MSNAME (USA), Ex.Chief Engineer (Marine), G.M. (Tech) Crossworld Shipping, Managing Editor & Publisher - "MARINE WAVES" International Maritime Newsletter. www.themarinewaves.com

Readers' valued feedback very important to us. Please be free to e-mail: seafarersman@indiatimes.com, seafarersman@hotmail.com
You don't have to be a "Writer", all you need to be yourself and pour-out your thoughts on Seafarers and their life and work out at sea.

Service to active Seafarers out at Sea on top priority.

Do write to us of your unsolved problems/grievances, the matter will be taken up with the concerned Civil Authorities/Telephone, Electricity Board and other Government Agencies / Departments.

K.M. SCHOOL OF MARITIME ENGINEERING (COCHIN UNIVERSITY OF SCIENCE AND TECHNOLOGY)
KOCHI – 682 022, KERALA, SOUTH INDIA Contact : The Director, Dr. K.A. SIMON
The only and foremost Maritime Training Institute in India, directly being run by a government university.