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ACTIVITIES

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ABS

150 years
Tradition in safety

Balancing Safety and Innovation

Class Societies Should Act as Stewards of Safety

The current pause in the newbuilding market, coupled with a host of new environmental regulations has provided a climate in which innovative ideas and discussions flourish. An industry that usually takes an overly cautious approach in nearly every aspect of business now appears to be intensely focused on ‘the next big thing’.

ABS President and CEO Christopher J. Wiernicki cautions that too much excitement for the ‘new’ and ‘innovative’ could potentially harm the industry in the long term. He says this is particularly true for classification societies that must always be focused on promoting

safety throughout the industry. “In many ways, I see class societies as the stewards of safety,” says Wiernicki. “It is imperative that as industry develops and implements new technologies that we do not derive solutions that reduce the safety of the crew, the vessel or the environment. The value of a classification society is that, in carrying out its mission, safety always comes first.”

Though the sentiment may sound lofty, Wiernicki believes it is vital to the industry. Recognizing that there are tradeoffs associated with most decisions, he sees ABS as a partner for shipyards, designers, owners and operators as they develop designs, evaluate energy efficiency plans and manage fleet performance. “We are the people in the room who will ask – ‘how does this new design, equipment or operation impact the safety of the crew, the vessel and the environment?’”

One such example may be found in the ongoing debate over the reduced-power issue. Operators are looking for solutions that maximize energy efficiency while manufacturers

are examining the effects that reduced speeds may have on maintenance costs. It is the responsibility of class societies to find the balance between the two priorities, while remaining cognizant of the various safety implications, such as the operation of a vessel in heavy seas as the equalizer.

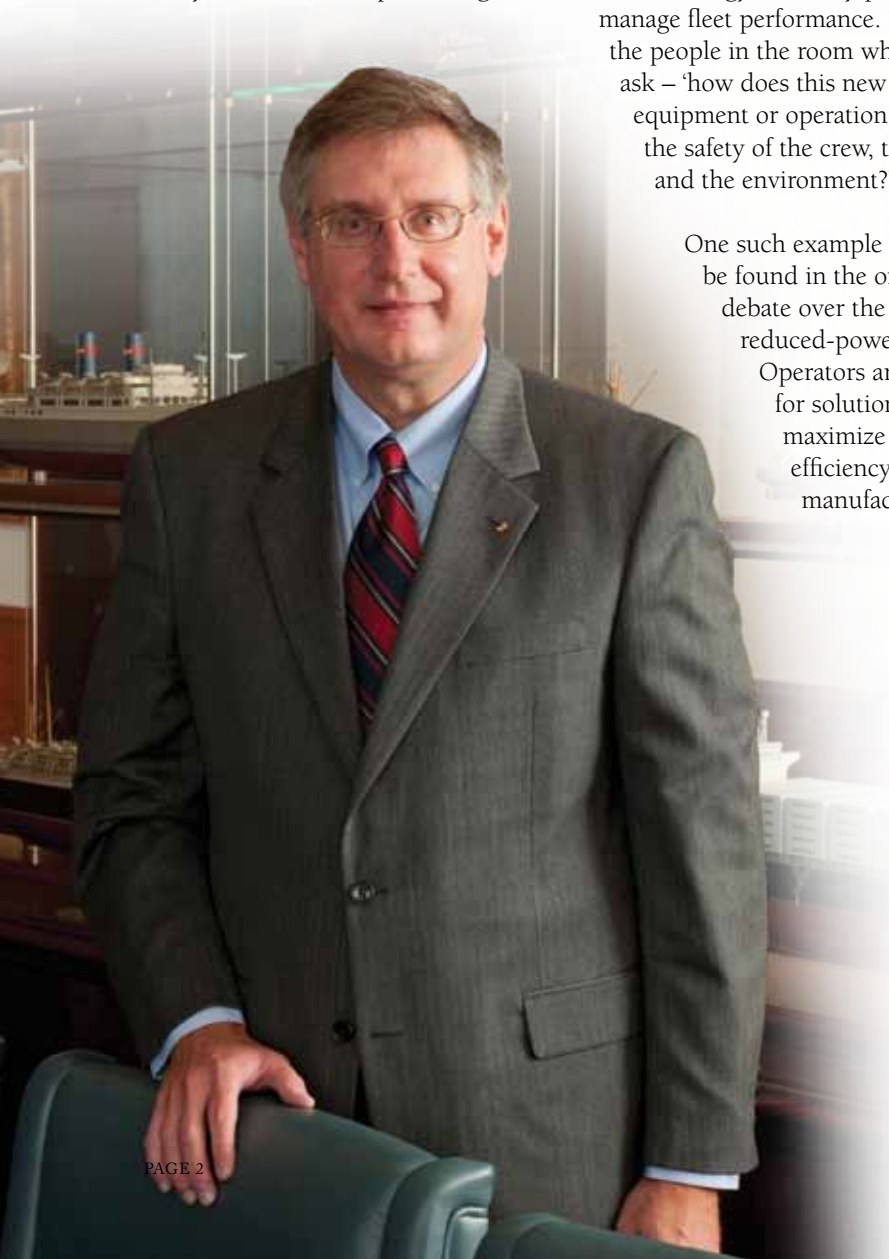
Wiernicki believes that safety and innovation can and must go hand-in-glove. “We have the rare opportunity today to find solutions that are both economical and environmentally-friendly,” says Wiernicki. “At ABS, we are working on many leading-edge projects that could result in truly game-changing technologies.”

These include the development of new assessment methodologies; design approvals in principle for new renewable energy assets; and comprehensive asset integrity management programs for both marine and offshore structures.

“Classification is an exciting segment of the maritime industry,” says Wiernicki. “I am constantly impressed by the creative solutions the talented ABS professionals propose. We are continuously developing new ways that help our clients evaluate the risks that are inherent in their daily operations,” he says.

“In fact, it has been the evolution of classification Rules, driven by the development of new technologies that has provided the industry with safety and environmental alternatives that reduce the overall risk,” he adds.

The challenge Wiernicki sees facing his employees, and the industry at large, is two-fold. “Working together, we must select the right technology at a time when many are still under development and design, and operational integrations are not fully understood,” he says. “And we must make sure the chosen solutions will maintain the safety of the vessel, its crew and the environment.”



ABS Nautical Systems Releases Next Generation Version of NS5 Software Suite

NS5 Enterprise advances usability, reporting, speed and overall software performance

ABS Nautical Systems has released a redesigned version of its industry-recognized suite of asset management software, NS5. This significantly-enhanced version, NS5 Enterprise, will be the first-of-its-kind application available on the market today.

Continually evolving to meet industry needs, NS5 Enterprise has a versatile design that will give all users – from senior management to crew members – 24/7 access to relevant data from their overall business landscape. Owners and senior management will have the ability to retrieve the latest real-time information that is driving their business – the status of their fleets. Shipboard and shoreside users will be able to reference this same data as it relates to their particular job functions.

This new functionality will give users a customized view to examine key performance indicators (KPIs) including fleet-wide data for maintenance, supply chain, safety and personnel records. With access to the latest business intelligence data and the ability to drill down into vessel specifics, NS5 Enterprise will serve as the backbone for any management meeting.

“Data that senior management normally request from managers regarding the status of their fleet will be directly available to them, anytime, anywhere,” says Fernando Lehrer, Vice President of Product Development, ABS Nautical Systems. “In addition, crews will also be able to see how their job functions tie in to the overall success of the company. These are significant steps to improving communication on all fronts.”

ABS Nautical Systems also recognizes the value of customer feedback and as such, NS5 Enterprise was designed

in partnership with User Centric, a global usability research firm that focuses on improving user experience. The firm garnered and incorporated direct feedback from ABS Nautical Systems’ clients to advance numerous critical software performance elements, such as user experience, speed and reporting. User Centric also was able to bring a wealth of knowledge to the NS5 Enterprise design and functionality through its work with Fortune 500 companies including Motorola, Abbott and Verizon Wireless.

Additionally, major advancements have been made to NS5 Enterprise’s system performance, in particular, as it relates to searching and retrieving large quantities of data. Users will have the ability to load data or run reports, regardless of size in a tenth of the time it previously took.

A ‘live’ version of NS5 Enterprise is also available. The business database is hosted on a dedicated server and access is as easy as logging in with a user ID and password. This option eliminates the need for remote office licenses and installations, while significantly reducing IT infrastructure costs.

“We are very pleased to announce the release of NS5 Enterprise, especially as we move forward in making our products more simplified for our users,” says Karen Hughey, President and



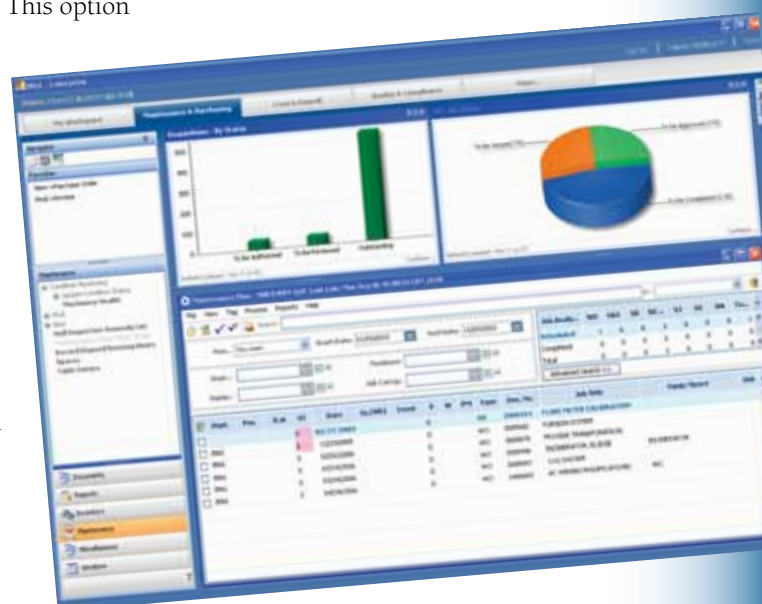
Karen Hughey



Fernando Lehrer

COO of ABS Nautical Systems. “More than ever, we are offering increased value, better intelligence and stronger communications to establish NS5 Enterprise as the must-have tool for the global maritime industry.”

NS5 Enterprise will continue to provide the same standardized, yet flexible, solution for asset management with its complete suite of modules that offer built-in configurations for customization – from keeping track of regulatory requirements, to managing crew and payroll and organizing planned maintenance programs. ☎



Maran Tankers Collaborates with ABS on Company & Ship Energy Efficiency Management Plans

Maran Tankers Management Inc. (MTM), the largest tanker operator in Greece, recently collaborated with ABS in the development, review and revision of its Company and Ship Energy Efficiency Management Plans (CEEMP and SEEMP).

“MTM has a strong history of embracing energy efficiency initiatives,” says Kirsi Tikka, ABS Vice President and Chief Engineer, who also leads the society’s Environmental Solutions Group. “We see this plan as an industry model for environmental performance management.”

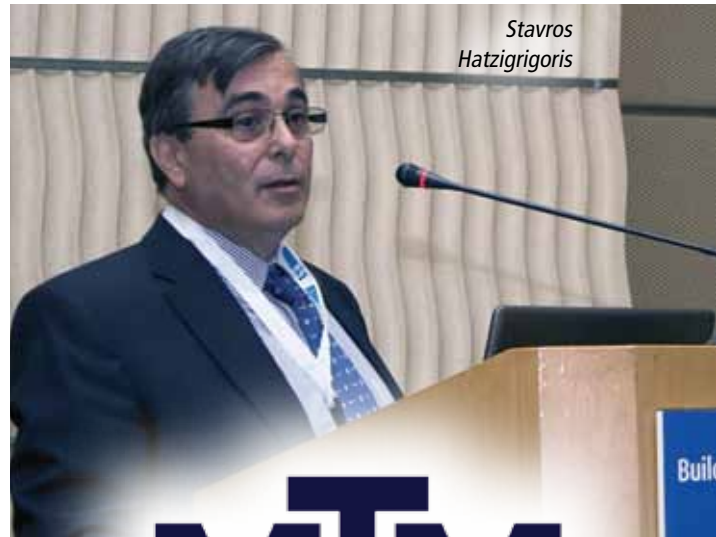
According to Tikka, the building block for operational efficiency planning has come from IMO’s SEEMP. This is a ship-specific tool aimed at continuous improvement of a vessel’s performance. “It can be thought of as a catalog of best practices that may be implemented on a particular vessel to improve its fuel efficiency,” explains Tikka.

The goal of MTM’s plan is to continually improve the energy efficiency of all seaborne operations by providing a mechanism for identifying measures

aimed at maximizing operational efficiency throughout MTM’s fleet and establishing a management tool for the company and its fleet of vessels.

While there are a variety of environmental issues and regulations up for discussion, energy efficiency is of particular interest because it has a commercial aspect. “MTM has incorporated fuel saving measures and technology for energy efficiency across our newbuilding specifications and ship operations. However, having in place the combined CEEMP/SEEMP allows these measures to be documented and monitored for further improvement,” says Stavros Hatzigrigoris, Managing Director of MTM. “It also allows us to be proactive and satisfy the newly-adopted regulations.”

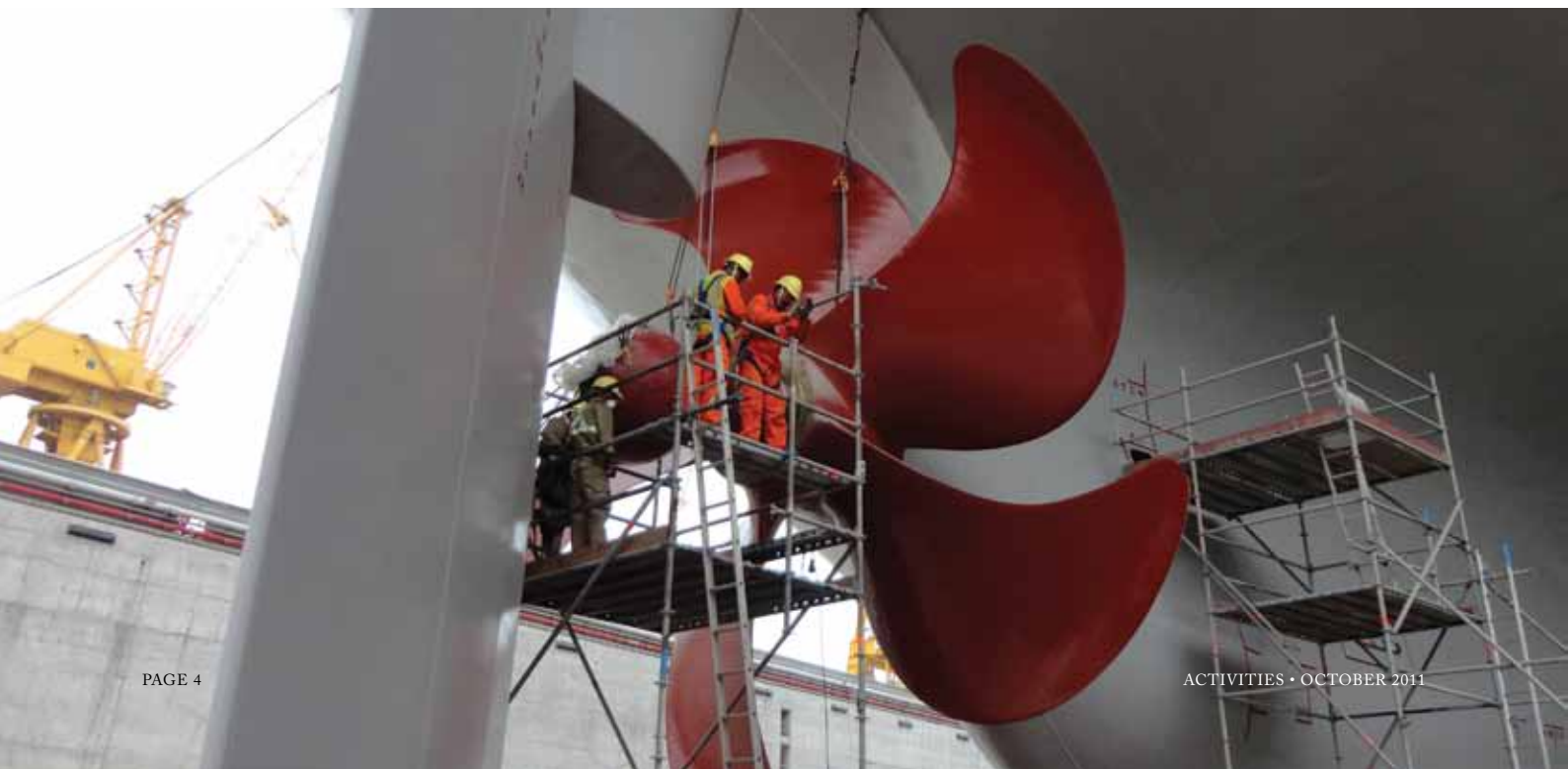
The plan is linked to MTM’s energy efficiency management policy and to the relevant environmental program



Stavros
Hatzigrigoris

MTM

on energy efficiency which has been established, maintained and implemented in accordance with the ISO 14001 procedures. The plan is also in compliance with the IMO’s SEEMP Guidelines and considers Intertanko’s *Guide for a Tanker Energy Efficiency Management Plan* and OCIMF’s *Guide for Energy Efficiency and Fuel Management*. ☺



Ship Energy Efficiency Management Plan Adopted

Starting as early as 1 January 2013, all shipowners and operators will need to identify and develop ship-specific energy efficiency measures for new ships. The regulation, adopted during the 62nd session of the IMO's Marine Environment Protection Committee (MEPC) requires all vessels to have a Ship Energy Efficiency Management Plan (SEEMP). A SEEMP will also be required for in-service vessels at specified dates starting after 1 January 2013.

"A SEEMP provides a possible approach for monitoring ship and fleet efficiency performance over time," says Johnny Eliasson, Manager of the ABS Environmental Solutions Group. "And it gives options to optimize the performance of the ship."

A SEEMP is basically a tool ship-owners and operators can use to outline a program to continuously improve the energy efficiency of their vessels.

"There are a variety of options to improve energy efficiency and the exact energy-saving measures will vary from ship to ship and from service to service. It may depend on the different operating conditions and the goals of the organization," says Eliasson.

According to the IMO's guidelines, developing a plan to achieve operational efficiency contains four steps: planning; implementation; monitoring; and self-evaluation/improvement.

"Each step is important in developing energy efficiency measures, which may be ship-specific or company-specific including: weather routing, trim adjustment, hull and propeller smoothness and cleaning intervals," says Eliasson. "Feedback is essential in assessing and improving the impact of the various measures implemented."

ABS will work in close collaboration with owners and operators to provide guidance and assistance during planning workshops. However, implementation and monitoring of the plan is primarily the responsibility of ship operators. ☞



Johnny Eliasson

ABS offers SEEMP development workshops to shipowners and operators to identify options to incorporate into their company and ship-specific energy efficiency management plans.

During workshops, ABS will assist with:

- Setting a desired course of action
- Identifying best practices
- Investigating technology solution options
- Establishing goals, measurements and timelines
- Identifying the responsible parties
- Developing specification requirements for system solutions



Stage Set for Advancing China's Deepsea Knowledge

ABS and China Classification Society (CCS) recently conducted a joint Deepsea Developments in the China Offshore Industry meeting in Beijing. The session brought together leading offshore industry professionals to discuss a wide range of oil and gas development issues. More than 100 representatives from the Chinese Government, shipbuilders, designers, research institutes, energy corporations and universities attended.

Topics included a discussion of the international energy market outlook from global energy research firm Infield Systems; the challenges and latest solutions proposed for deepwater development from offshore solutions technology leader Horton Wison; and a look at risk-based operations and new approaches toward minimizing risk for deepwater exploration from Worley Parsons.

ABS discussed the regulatory changes resulting from the Macondo well incident in the Gulf of Mexico and the broader impact on regulatory schemes worldwide; while CCS highlighted the impact of deepsea development

on the technology standards for the region's offshore industry.

"This industry meeting illustrates the cooperative spirit between ABS and CCS," says ABS President and CEO Christopher J. Wiernicki. "Over the past decade, China has significantly grown in its importance to both the marine and offshore industries. With our experience and leadership in setting standards for the offshore industry, ABS is being called upon to assist the region as it faces new exploration and production challenges."

China has begun to invest heavily in deepsea exploration as the country's economic growth demands more energy resources. "We are helping to support our country's efforts by providing the technical guidance necessary for safe and efficient exploration," says Li Kejun, Chairman and President of CCS. "This industry meeting shows our commitment to helping achieve deepsea technological advancements in the region."

Also in attendance was President of the China Association of the National Shipbuilding Industry

(CANSI) Guangqin Zhang. China's shipbuilding industry has been leveraging its strength in the marine area to rapidly diversify into the gas and offshore sectors. "Meetings such as these contribute to the intellectual discussion and allow for the introduction of new offshore technologies in our shipyards, new technologies that will position the region for successful deepsea exploration," Zhang says.

Collaboration between CCS and ABS is important as China moves forward in developing its offshore resources. ☞

From left: S.L. Chiu, Deputy General Manager, ABS Greater China Division; Richard Pride, President and COO, ABS Greater China Division; Weiping Hu, Deputy Director General of Oil and Natural Gas Department, National Energy Administration of China's National Development and Reform Commission (NDRC); Li Kejun, CCS Chairman and President; Christopher J. Wiernicki, ABS President and CEO; Guangqin Zhang, President of China Association of the National Shipbuilding Industry (CANSI); Hengyi Zeng, Vice Chief Engineer of China National Offshore Oil Corporation (CNOOC); and K.W. Lee, Regional Vice President, ABS Greater China Division.



ABS Opens Maritime Modeling Center

ABS recently opened a consolidated ship and offshore structure modeling center at Brunswick Landing, a former US Naval Air Station located in Maine. The ABS Maritime Modeling Center will initially be home to about 30 technicians who will create computer-aided design (CAD) models of ABS-classed vessels and units. The state-of-the-art center brings ABS modeling together in one location, streamlining ABS operations while also further protecting the intellectual property of ABS clients. ☞

Cianbro President & CEO Peter Vigue, US Senator Susan Collins (R) and ABS Chairman Robert D. Somerville at the announcement ceremony.



Wiernicki Speaks to Michigan Engineering Students on the Future of Ship Design

ABS President and CEO Christopher J. Wiernicki met recently with students at the University of Michigan's College of Engineering to discuss the future of ship design.

Delivering the distinguished Captain Ralph R. and Florence Peachman Lecture, Wiernicki addressed the pressing issues naval architecture and marine engineering students need to know to prepare for current and future industry design challenges. Topics addressed included the shipbuilding market; the demand for energy efficient ships; and the critical balance between risk and innovation.

"The focus on 'sustainable' vessels throughout the industry provides the opportunity to think creatively and to offer advances in ship design on a scale that has not been experienced in quite some time," says Wiernicki.

Using recent design trends for mega-containerships as an illustration,

Wiernicki walked the students through some of the cutting edge technology being introduced today.

He also provided insight on the latest research efforts that could affect future ship design, such as the use of nano-engineering for surfaces and coatings and the application of sensor technology for ship navigation.

"While technological advancements are generally viewed as positive, there can be consequences," cautions Wiernicki. "As such, we must always recognize that with technological advances we may implicitly or explicitly trade off one risk for another," he adds.

Stressing the importance of using proper risk management and sound engineering practices, Wiernicki explained to students that "safety must be grounded in the principles of risk and must be integrated and aligned throughout the entire life cycle of a project."

Wiernicki looked to ballast water management as a practical example of the safety versus environmental risks being faced today. "As new chemical compounds are introduced into the water so we can eliminate harmful invasive organisms, we must consider the safe storing and handling of these chemicals to protect the crew."

Recognizing the demand for new and innovative technologies, Wiernicki advised the students that they should always have a safety-first mindset.

"You will have to find a solution that improves efficiencies while maintaining the safety of the vessel, its crew and the environment," says Wiernicki.

"You must strive to find the innovations that push the frontier forward without putting safety at risk."



HIGHLY INTEGRATED CONTROL SYSTEMS CALL FOR SOFTWARE VERIFICATION

As the offshore industry has increased reliance on computer-controlled systems, validating software programs, including their integration, has become important for safe and efficient operations. In response, ABS announced the development of the *Guide for Integrated Software Quality Management (ISQM)* with an associated optional notation. The Guide places emphasis on the verification and validation of the multiple software packages.

ISQM is a risk-based software development and maintenance process built on internationally-recognized

standards. "The software installed at delivery does not sit in a vacuum," explains ABS Senior Principal Engineer Paul R. Walters. "Upgrades and new releases are routinely made by vendors which may introduce errors into the system and increase downtime or cause other operating problems."

"Operators benefit from the process by verifying that the software has been developed in a recog-

nized process that meets the operator's needs and performs as expected," says Walters. The ISQM process validates the software installation on the unit

and then monitors for consistency when there are software updates or a change in the hardware. ISQM provides a process to manage software over the offshore unit's life.

"The offshore industry has traditionally focused on structures and equipment, however, software has become such an important component in the operational phase that it must now be given special consid-

eration. And as control systems for offshore installations and units become increasingly more complex, successful implementation relies heavily on the software and the interfaces required for the integration of the software," Walters adds. "The benefit to owners and operators is an increased level of confidence in software reliability with the goal of decreasing downtime and reducing the risk of software-related incidents." ☞



Paul R. Walters



ABS Provides N-Notation for MAERSK REACHER

Maersk Drilling has requested ABS to provide the *Maersk Reacher* with the N-Notation, in order to assist with review to the Norwegian Maritime Directorate's Regulations for Mobile Offshore Units. Completion of the N-Notation can be used as part of Maersk Drilling's application for an Acknowledgement of Compliance (AoC) from the Norwegian Petroleum Safety Authority (PSA).

The AoC is a decision made by the PSA, following acceptance that the unit is capable of operating within the necessary regulations. Based on the request for an AoC, the PSA conducts numerous technical and management system audits.

The *Maersk Reacher* is a three-legged, self-elevating drilling unit. Built and delivered in 2009, it has accommodations for about 120 personnel. ☞



Operators Continue to Opt for Voluntary ILO MLC Certification

Greece-based Consolidated Marine Management (CMM) recently obtained ABS certification to the Maritime Labour Convention, 2006 for the 54,993 dwt VLGC *Hellas Serenity*. CMM is the first ship operator in Europe to receive the voluntary certification from ABS.

“We applaud Consolidated Marine Management for their initiative and foresight,” says Capt. Steve Blair, ABS Europe Division Head, Management Systems Certification, who worked closely with CMM during the certification process.

Capt. Hemant Juneja, ABS Director, Management Systems Certification who oversees the ABS MLC certification program notes that he is seeing an increased interest from ship operators in obtaining certification on a voluntary basis ahead of the Convention’s ratification. “The industry needs to be prepared for increased ILO MLC activity in the near future as awareness of the new convention gains momentum,” says Juneja. ☞



CMM is presented with ILO MLC, 2006 Certification. From left: Konstantinos Bourliaskos, CMM; Christos Nomikos, ABS Country Manager for Greece; Steve Blair, ABS Europe Division, Head MSC; Kostas Vlachos, CMM Chief Operating Officer; and Vassilios Kroustallis, ABS Vice President, Eastern Europe Region.

The Current State of the Convention

Ships, 500 gross tons or above involved in international trade, will be expected to be in compliance within 12 months of ratification by 30 member States. To date, 15 member States, representing 52 percent of the world’s tonnage, have ratified the Convention. Shipowners will be required to plan and implement measures to ensure initial and ongoing compliance with the national requirements for the seafarers’ working and living conditions before the Convention enters into force sometime in 2012.

FIND IT ON EAGLE.ORG

The ABS *Guidance Notes on the ILO Maritime Labour Convention, 2006* (Publication #164) address the Convention requirements with explanations and suggested enhancements to shipowners’ procedures and practices related to seafarers’ working and living conditions.

The ABS *Guide for Compliance with the ILO Maritime Labour Convention, 2006 Title 3 – Accommodation, Recreational Facilities, Food and Catering Requirements* (Publication #166) provides the assessment criteria and measurement methodology for obtaining an ABS MLC accommodations notation, MLC-ACCOM.

Both publications are available for free download from the ABS website at www.eagle.org. Navigate to Resources, Rules & Guides, Downloads.



HELLAS SERENITY

Learning from Near Miss Reports

New Joint Safety Project Examines Trends, Provides Lessons Learned

ABS, in conjunction with Lamar University in Beaumont, Texas, is working on a marine safety project that highlights common hazards to mariners, conveys 'lessons learned' and identifies corrective

actions that have been taken in the industry.

"We have collected over 21,000 reports of near misses in the industry," says ABS Safety and Human Factors Group Manager Kevin McSweeney. "We're trying to make the Mariner Safety Project as relevant as possible so that shipowners and operators

can identify common occurrences. Information obtained from the project will also be used to support other ongoing initiatives such as revisions of the ABS Habitability Guides and the development of the ABS ERGO notations that should be issued later this year."

The project's database will allow those interested to select the type of vessel and look for specific hazards experienced by the crew on those ships. "This will be a chance to learn from others before an incident might occur on a similar type vessel," McSweeney says. "We've had great cooperation from our industry partners."

One group that has been most interested in this research effort is the US National Safety Council's Waterborne Transport Group. The

current chairman of this group, John Doran, Director of SQE/DPA for OSG in Tampa, says, "The Waterborne Transport Group has been supportive of this effort since its inception because we all hold paramount the safety of our crews, vessels and the environment."

Doran continues, "We understand that the sharing of lessons learned and best practices is an instrumental element of continuous improvement, and I believe that the ABS Mariner Safety Project will be a very valuable tool for the industry."

The initial focus of this project has been on the shipping side of the maritime industry, but McSweeney notes "In the future, we will be looking for industry partners in the offshore sector to develop a similar initiative." ☞



Kevin McSweeney

Top 5 Near Miss Types and Examples of Each

Near Miss Type	Incident	Lesson Learned
Struck by/against, cut, crush, strain and sprain	Fingers nearly crushed when opening of a hatch cover that opens to the railing.	A redesigned or heightened rail allows for the opening of the hatch cover without potential of injury to personnel.
Navigation, mooring and line	Tug line fell to the deck during retrieval, narrowly missing a passing crew member.	Be aware of your surroundings at all times.
Slip, trip and fall	Third-party contractor placed an electric cord in front of a water tight door, which constituted a tripping hazard.	Never assume contractors receive equivalent safety training as onboard personnel. Instruct and monitor contractors of the onboard safety practices and procedures while aboard the vessel.
Fire and fire hazard	Fire sensors were disconnected to allow for welding in the engine room and were left disconnected after completion of the job. The completion of the job was not communicated to the proper department.	Communication is essential to eliminate hazards. When a task is performed that affects more than the personnel involved in its completion, the proper personnel must be informed of the start, completion and any other issues that arise during the course of the task. Tag-out procedures must also be followed and documented.
Spill, leak and release	During a fueling operation a leaky hose was detected. Left unnoticed the leak could have resulted in a spill of the fuel being transferred.	Perform inspections and have a monitored preventive maintenance program in place to avoid producing increased hazards to life and property.

ABS Concludes Environmental Research Study

Assessing Environmental Impact of Marine Transportation and Related Activities

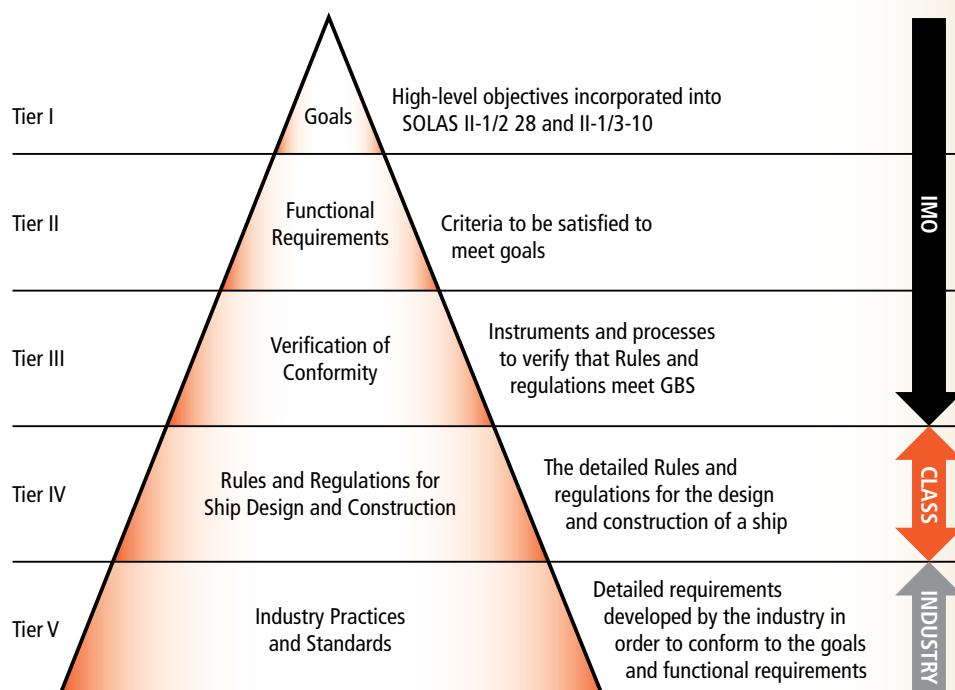
ABS recently completed a three-year research study that focused on environmental issues for ships. The results of this project support the application of a Formal Safety Assessment (FSA) for the identification of potential risk control options and future rules, including those based on goal-based standards (GBS).

The study, led by the National Technical University of Athens (NTUA) Professor Harilaos N. Psaraftis, combined practical industry data and information with academic research. The research was carried out by the Laboratory for Maritime Transport at the School of Naval Architecture and Marine Engineering (NAME) at the NTUA.

ABS Senior Vice President Peter Tang-Jensen explains, "At the IMO, the quantification of environmental impact is currently under investigation by IMO's Marine Environment Protection Committee (MEPC). Because vessels must be designed with a worldwide operational view, determining the proper environmental risk criteria is very important. After examining current approaches to risk, the NTUA study recommended new solutions that address environmental concerns in the development of a method to evaluate risks," he says.

"The intent of the study was to develop tools that can be used by designers, shipowners and other stakeholders to identify and select effective environmentally-positive policies and procedures," comments Tang-Jensen. The ABS-funded research focused on two principal areas:

- environmental risk evaluation criteria
- ship emissions and energy savings



The first aspect of the study examined current approaches to risk evaluation associated with a given design. "The study was the first to consider the criteria for environmental impacts," explains Jorge Ballesio, ABS Manager, Shared Technology, who coordinated the study. "To date, current decision-making criteria has focused on risks associated with human life or the ship itself. The study examined oil spill cost data and the integration of a nonlinear cost function within FSA."

Researchers analyzed data from the International Oil Pollution

Compensation Fund (IOPCF) and the US Oil Spill Liability Trust Fund (OSLTF).

The second aspect of the study developed the taxonomy of problems related to ships' air emissions and energy savings. The results of the second part indicate that the operational life of a ship produces by far the greatest amount of emissions to the atmosphere. "However the study also found that there are specific air pollutants with significant quantities in other stages, such as volatile organic compounds emissions during construction," explains Tang-Jensen.

Moreover, unlike previous studies, the research increased the use of specific ship data within the ship's life cycle assessment (for example the calculations of welding length offer the details of the operational profile of the ship). "Assessing the total emissions of a ship's life cycle, the analysis encompassed a cradle-to-grave approach," says Tang-Jensen. ☞



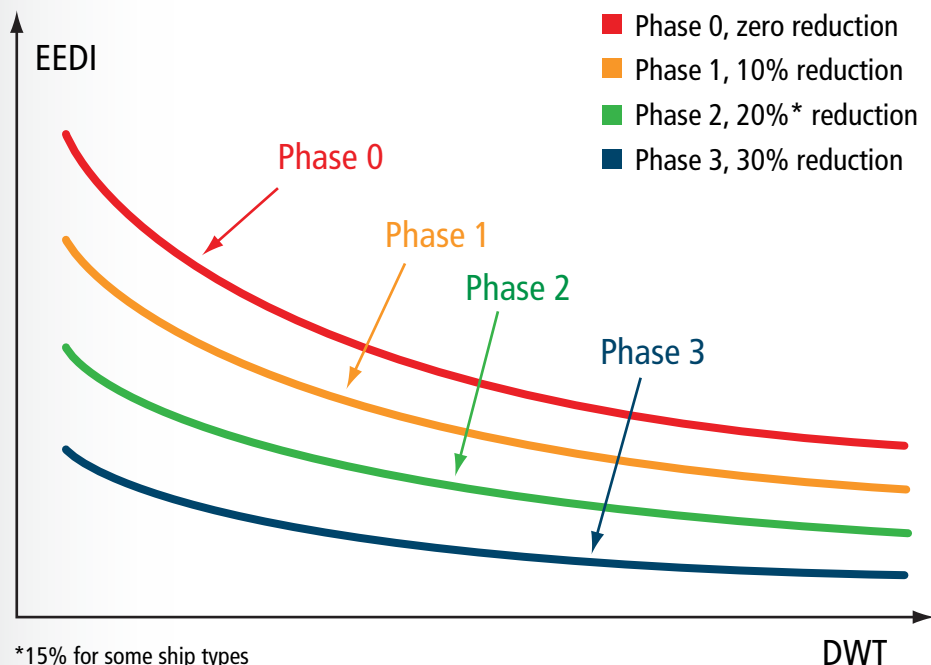
Peter Tang-Jensen



Jorge Ballesio

Energy Efficiency Design Index: When Do Shipowners Adopt?

New vessel energy efficiency regulations



An illustration of the IMO phased approach for attained EEDI values.

Starting as early as 1 January 2013, new vessels will need to meet mandatory Energy Efficiency Design Index (EEDI) baseline values. “The EEDI is a design target,” explains ABS Vice President and Chief Engineer Kirsi Tikka. “It is a technical measure, currently applicable to seven ship types, which is to improve the energy efficiency of new ships. The aim is to encourage innovation and technical development.”

The new regulation will be included as Chapter 4 in MARPOL Annex VI. “The EEDI is a baseline or benchmark,” says Tikka. “The index provides a measurable method for propulsion that is intended to express CO₂ emissions in relation to the ship’s work capacity such as tonne-miles.”

The regulation, adopted during the 62nd session of the IMO’s Marine Environment Protection Committee (MEPC), mandates that all new ships

of 400 gt and above be certified with an International Energy Efficiency Certificate. The certificate attests that an attained EEDI does not exceed the maximum allowable required EEDI. ABS supports the determination of EEDI for new ships as prescribed in the IMO guidelines. ABS also provides verification services as a Recognized Organization when authorized by the flag State.

“The basic concept is that a ship’s EEDI has to be equal to or less than the required, or target, EEDI value. A ship’s index is compared to a baseline representing typical efficiencies for the same ship type. Based on ship type and size, a ship’s energy efficiency will be measured by how much reduction

can be achieved from the baseline EEDI value,” explains Tikka.

“The allowable EEDI values reduce in three 10 percent increments for new ships built over a period of 12 years. For example, the allowable EEDI of a ship contracted for construction on or after 1 January 2025 will be 30 percent lower than that for the same ship had it been contracted for construction on 1 January 2013,” says Tikka.

The implementation dates for the EEDI regulation apply when the contract is signed on or after 1 January 2013; the keel

is laid on or after 1 July 2013; and/or the delivery occurs on or after 1 July 2013. Ships which undergo major conversion are also subject to the EEDI requirement. In some cases, an Administration may waive compliance with the EEDI requirements for new ships that are contracted, keel laid or delivered up to four years after the above dates. ☞



Kirsi Tikka

“It is a technical measure, currently applicable to seven ship types, which is to improve the energy efficiency of new ships.”

What is a new ship?

1 January 2013	Contract is placed on or after
1 July 2013	Keel is laid on or after
1 July 2013	Delivery is on or after

The following vessel types must have a required EEDI baseline value:

- Bulk carriers
- Gas tankers
- Tankers
- Containerships
- General cargo ships
- Refrigerated cargo carriers
- Combination carriers



New US Caribbean ECA to Set Tougher Pollution Limits as Early as 2014

A US Caribbean Emission Control Area (ECA) has been adopted by the IMO. Ships operating in the designated area will be subject to more stringent pollution limits as early as 2014.

The ECA sets limits on the emission of sulfur oxides (SOx) and nitrogen oxides (NOx) from ships. The area of the newly-formed US Caribbean

ECA includes the waters adjacent to coasts of the Commonwealth of Puerto Rico and the US Virgin Islands. The adjacent distance varies between 20 and 40 nautical miles.

By 1 August 2014, fuel oil sulfur content for ships transiting this area will be required to meet the 1 percent limit, which is the standard for the other existing ECAs. And

by 1 January 2015, ships will be required to reduce sulfur content to 0.10 percent.

Exempt are steamships constructed before 1985, which are not designed to use distillate or natural gas fuels. The exemption for steamships will continue in the US Caribbean ECA until 1 January 2020. ☞



Recently Released ABS Rules & Guides

ABS Rules and Guides are available for purchase and/or free download directly from the website at www.eagle.org. Sign up to receive email notifications when new publications or notices are available. The following listing reflects Rules and Guides updates from 16 April 2011 to 1 September 2011.

RECENT PUBLICATIONS

UPDATE *Guide for Nondestructive Inspection of Hull Welds*, September 2011 (Pub 14)

Originally published in 1975, this updated Guide includes additional details for inspection criteria and techniques which are considered as being widely-recognized by the industry as a reliable means of inspection of structure members and their welds during the construction of surface vessels and other related marine and offshore structures. This publication is only available for download.

UPDATE *Guidance Notes on the Application of Fiber Rope for Offshore Mooring*, August 2011 (Pub 90)

These Guidance Notes describe the criteria for design, materials, testing, manufacturing, installation and subsequent survey of fiber ropes used in offshore mooring systems to be classed or certified by ABS. These Guidance Notes supersede the *ABS Guidance Notes on the Application of Synthetic Ropes for Offshore Mooring* initially published in 1999. The main purpose of these new Guidance Notes is to reflect the latest technology developments and industry practice for applications of fiber ropes in offshore mooring systems. This publication is only available for download.

NEW *Guide for Certification of Seafarer Recruitment and Placement Service Providers*, August 2011 (Pub 183)

This Guide has been developed with the objective of establishing the minimum requirements expected of those agencies providing manning services for vessels subject to the International Labour Organization Maritime Labour Convention, 2006. This publication is only available for download.

NEW *Guide for Building and Classing Drillships*, August 2011 (Pub 184)

This Guide provides criteria that can be applied in the classification of the hull structure of mono-hull surface-type and ship-shaped drilling units (i.e., drillships). The hull strength criteria in this Guide are to be used in conjunction with Part 3, Chapter 2 of the *Rules for Building and Classing Mobile Offshore Drilling Units*. This publication is only available for download.

NEW *Guide for Integrated Software Quality Management (ISQM)*, August 2011 (Pub 185)

ABS developed this Guide based on the internationally-recognized standards for integrated software quality management (ISQM). The ISQM process verifies the software installation on the facility and then monitors the system for consistency when a software update or a change in hardware is made. Compliance with the criteria may result in the granting of the optional notation ISQM to a vessel or offshore unit. This Guide is effective for newbuilding or major modification contracts signed on or after 1 August 2011. This publication is only available for download.



UPDATE **Guide for the Class Notation Green Passport (GP),** June 2011 (Pub 158)

This updated edition incorporates the Regulation 5 requirements (paragraphs 1-4) of the IMO's Ship Recycling Convention and the IHM development guidelines in IMO Resolution MEPC.179(59). This Guide includes the criteria for the review, approval and issuance of the initial Inventory (Green Passport) for new construction vessels, existing ships and for the maintenance, verification and endorsement of the issued Green Passport for a ship in service. This publication is only available for download.

UPDATE **Guide for Hull Inspection and Maintenance Program,** June 2011 (Pub 156)

This second edition of the Guide incorporates revisions that allow for easier implementation of the requirements to be awarded the optional ABS HIMP notation. The program was introduced to assist owners with monitoring a vessel's hull condition on a regular basis including adopting proactive steps for scheduling maintenance. The program is designed to help owners better plan for maintenance issues such as the identification of corrosion or damage that may otherwise cause costly downtime or delays in the vessel's scheduling. This publication is only available for download.

NEW **Guide for Ice Loads Monitoring Systems,** May 2011 (Pub 178)

This Guide provides requirements for the installation of Ice Loads Monitoring Systems on ice-classed ABS vessels. The information provided in the Guide is intended to assist the owner in selecting the most appropriate system for a vessel based on the vessel's probable operating parameters. This publication is only available for download.

NEW **Guide for the Optional Class Notation Deep Water Anchoring for Oil Tankers and Bulk Carriers (DWA),** May 2011 (Pub 179)

This Guide specifies the ABS requirements and criteria for obtaining the optional class notation Deep Water Anchoring (DWA). Included in this Guide are requirements detailing the anchor size, chain length and size, and windlass particulars considered necessary to withstand the environmental conditions that vessels may be exposed to when anchoring outside a harbor or similar areas of sheltered water. This publication is only available for download.

NEW **Guide for Building and Classing Offshore Support Vessels,** May 2011 (Pub 180)

This newly-developed Guide covers the requirements for building and classing offshore support vessels which are intended for unrestricted ocean service. The Guide contains eight parts including conditions of classification, materials and welding for steel, aluminum and fiber-reinforced plastics, hull construction and equipment, vessel systems and machinery, specialized services and survey requirements. This publication is only available for download.

NEW **Guide for Propulsion and Auxiliary Systems for Gas Fueled Ships,** May 2011 (Pub 181)

This Guide covers the design and construction of the propulsion prime mover arrangements, auxiliary power generation arrangements and associated systems for gas fueled ships and may be applied to all types of vessels, other than those covered by the IMO IGC Code, that utilize natural gas as fuel. This publication is only available for download.

WITHDRAWN **Guide for Shipbuilding and Repair Quality Standard for Hull Structures During Construction,** 2007 (Pub 87)

This Guide has been withdrawn from the list of current ABS publications. As structural fabrication is to be carried out in accordance with a recognized standard to the satisfaction of the attending ABS surveyor, the latest version of IACS Recommendation No. 47 "Shipbuilding and Repair Quality Standard" may be used.



Recent Updates to ABS Rules & Guides

GENERIC RULES NOTICES & CORRIGENDA

Part 1 *Rules for Conditions of Classification (2011)*

- Corrigenda, September 2011
- Rule Change Notice 3, September 2011

Part 2 *Rules for Materials and Welding (2011)*

- Corrigenda, July 2011
- Rule Change Notice 1, July 2011

Part 1 *Rules for Conditions of Classification – Offshore Units and Structures (2011)*

- Corrigenda, September 2011
- Rule Change Notice 7, September 2011
- Rule Change Notice 8, September 2011

Part 7 *Rules for Survey After Construction (2011)*

- Corrigenda, July 2011
- Rule Change Notice 1, July 2011

NOTICES & CORRIGENDA

Pub 2 *Rules for Building and Classing Steel Vessels (2011)*

- Corrigenda, July 2011
- Rule Change Notice 1, July 2011

Pub 138 *Guide for Vessels Intended to Carry Compressed Natural Gases in Bulk (2005)*

- Corrigenda, July 2011

Pub 4 *Rules for Building and Classing Steel Vessels for Service on Rivers and Intracoastal Waterways (2007)*

- Corrigenda, July 2011
- Rule Change Notice 10, July 2011

Pub 144 *Guidance for Building and Classing Liquefied Gas Carriers with Independent Tanks (2010)*

- Corrigenda, May 2011
- Rule Change Notice 1, June 2011

Pub 5 *Rules for Building and Classing Steel Vessels Under 90 Meters (295 Feet) in Length (2011)*

- Rule Change Notice 1, July 2011

Pub 151 *Guide for Vessels Operating in Low Temperature Environments (2010)*

- Corrigenda, July 2011

Pub 6 *Rules for Building and Classing Mobile Offshore Drilling Units (2008)*

- Rule Change Notice 3, Revised August 2011

Pub 152 *Guide for Certification of Lifting Appliances (2007)*

- Corrigenda, September 2011
- Rule Change Notice 6, May 2011
- Rule Change Notice 7, September 2011

Pub 98 *Guide for Building and Classing Passenger Vessels (2001)*

- Corrigenda, July 2011

Pub 156 *Guide for Hull Inspection and Maintenance Program (2011)*

- Corrigenda, September 2011

Pub 99 *Guide for the Environmental Protection Notation for Vessels (2009)*

- Rule Change Notice 3, August 2011

Pub 157 *Guide for Hull Survey for New Construction (2007)*

- Corrigenda, July 2011
- Rule Change Notice 2, July 2011

Pub 107 *Guide for Building and Classing Liftboats (2009)*

- Rule Change Notice 4, July 2011

Pub 158 *Guide for the Class Notation Green Passport (GP) (2008)*

- Corrigenda, July 2011

Pub 109 *Guide for Building and Classing High Speed Naval Craft (2007)*

- Corrigenda, September 2011
- Rule Change Notice 11, July 2011
- Rule Change Notice 12, September 2011
- Rule Change Notice 13, September 2011

Pub 160 *Guide for Building and Classing Mobile Offshore Units (2008)*

- Rule Change Notice 3, June 2011

Pub 121 *Guide for Survey Based on Reliability-Centered Maintenance (2003)*

- Corrigenda, July 2011

Pub 167 *Guide for the Environmental Protection Notation for Offshore Units, Floating Installations and Liftboats (2010)*

- Rule Change Notice 3, August 2011

Pub 126 *Guide for Buckling and Ultimate Strength Assessment of Offshore Structures (2004)*

- Corrigenda, July 2011

Pub 180 *Guide for Building and Classing Offshore Support Vessels (2011)*

- Corrigenda, July 2011
- Rule Change Notice 1, July 2011

Pub 137 *Guide for Certification of FRP Hydrocarbon Production Piping Systems (2005)*

- Corrigenda, July 2011

ABS Releases Guide for Building & Classing OSVs

To address the growing sophistication with offshore support vessel (OSV) designs and technologies, newly-developed criteria and relevant existing Rule requirements have been consolidated into the *ABS Guide for Building and Classing Offshore Support Vessels*. The new Guide is applicable to OSVs of all sizes and it includes specific requirements for the various segments of the global support vessel market.

The requirements are tailored for the new generation of vessels including specialized multi-purpose vessels that carry out maintenance and repairs on platforms, facilities and subsea

pipings, equipment and systems. “The Guide takes a comprehensive approach toward OSV design,” says Wei Huang, ABS Manager, Offshore Technology and principal author of the Guide. “New categories of offshore service types such as well intervention and oil spill recovery vessels are included along with updates for advances in specialized equipment.”

The OSV Guide contains explanations for additional notations reflecting specialized capabilities such as transportation of supplies and equipment; towing and anchoring of offshore structures; firefighting; diving; oil spill recovery; safety standby and rescue; pipe laying; handling heavy surface and subsea loads; well intervention;

well stimulation; well testing; and wind farm support.

The OSV Guide consists of six major sections: scope and conditions of classification; materials and welding; hull construction and equipment; vessel systems and machinery; specialized offshore support services; and surveys after construction. The intent is to evolve the OSV Guide into Rules during the society’s next Rule-making cycle.

“Today’s support vessels are a far cry from previous designs sharing the same name,” says Mike Sano, ABS Senior Engineer who leads the OSV Market Sector Group. “As the search for oil and gas moves into deeper waters, along with increased activity in the renewable offshore energy market, more specialized and technically-advanced types of OSVs are needed for various support roles.”



Wei Huang



Mike Sano

The *ABS Guide for Building and Classing Offshore Support Vessels* is available for free download on the ABS website. Navigate to Resources, Rules & Guides, Downloads, Publication #180.

ABS Develops Guide for Gas Fueled Ships

Guide Taps into ABS, DSME, APMM Joint Research Project Findings

“With ship operators facing economic pressures from fuel costs combined with impending regulations aimed at reducing exhaust gas emissions, particularly for sulfur oxide (SO_x), LNG-fueled propulsion systems could be a practical and beneficial solution,” says ABS President and CEO Christopher J. Wiernicki. “It is a matter of when, not if, LNG will be a commonly-selected fuel source and as such we need a sound basis for ship designs.”

To assist operators and owners, ABS recently released its *Guide for Propulsion and Auxiliary Systems for Gas Fueled Ships*. The new ABS Guide, considered to be the most comprehensive available to the industry, provides criteria for the arrangements, construction, installation and operation of machinery components and systems for vessels fueled by natural gas. The objective of the guidance is to minimize operating risks and promote the protection of the vessel, its crew and the environment.

The Guide incorporates more than 50 years of ABS’ experience with the

handling and storage of LNG on board ships, many with dual-fuel diesel propulsion plants. Consideration was also given to industry standards including the IMO Resolution MSC.285(86) Interim Guidelines on Safety for Natural Gas-Fueled Engine Installations in Ships; the International Gas Carrier Code; and the IMO International Code of Safety for Gas-Fuelled Ships.

Significant contribution to the Guide also came from a joint research project with DSME and A.P. Moller-Maersk to develop a LNG-fueled containership. Concluded earlier this year, the project addressed the design and technical issues surrounding the use of a 7,000 teu containership burning LNG as fuel for both propulsion and power generation, with ABS providing approval in principle for the resulting design. The study also assessed operational, economic and regulatory impacts from the use of LNG as a fuel source.



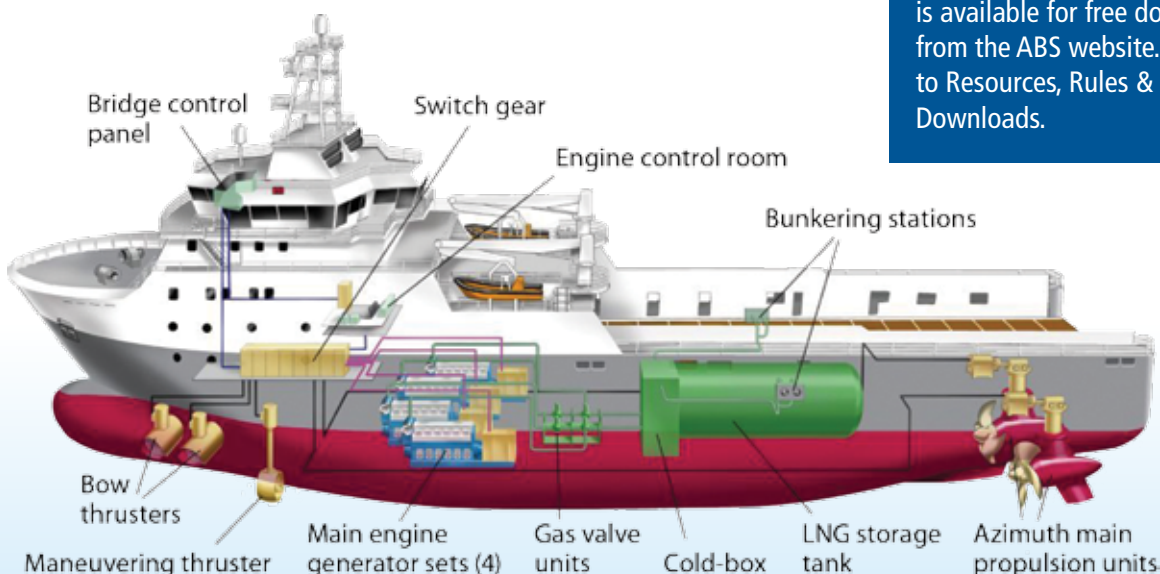
Yoshi Ozaki

Notable findings were the considerations given to the type and arrangement of fuel tanks used to provide the utmost safety for the crew and to minimize capacity reductions. The study also found that the initial costs for LNG fueled propulsion could be recouped within a three to ten-year period, depending

on the price of LNG.

“Natural gas has been used as a fuel for small regional non-LNG carriers working in environmentally-sensitive areas,” says ABS Director, Environmental Technology Yoshi Ozaki who led ABS’ involvement in the project “This study further supports technical feasibility of LNG fuel and suggests promise for a viable extended business line for LNG suppliers.”

The *ABS Guide for Propulsion and Auxiliary Systems for Gas Fueled Ships* (Publication #181) is available for free download from the ABS website. Navigate to Resources, Rules & Guides, Downloads.



Courtesy Wartsila

Floating LNG Terminal Training Highlights

Structural Analysis

ABS Academy recently presented a five-day client training course on Floating LNG – Structural Assessment to Indonesian classification society Biro Klasifikasi Indonesia (BKI). The course was presented at BKI's office in Jakarta, Indonesia.

ABS Staff Consultant Ping Liao, who conducted the training, comments that “the course's aim was to have students understand the structural analysis methodology for floating liquefied natural gas (LNG) terminals.”

The training highlighted the revised *ABS Guide for Building and Classing Floating Offshore Liquefied Gas Terminals* and the accompanying ABS Eagle FLGT software. The overview included how to use the software in line with the criteria specified in the Guide. The proprietary software evaluates structures considering buckling, yielding, ultimate strength and fatigue strength. The attendees were particularly interested in learning how to perform plan approval and drawing review for floating LNG facilities based on ABS criteria and software.

“Education is very important for a new generation of young engineers,” says Liao. “Experience may be difficult to



Staff Consultant Ping Liao presents the training on Floating LNG-Structural Assessment.

obtain, but training can open the door to gaining practical experience. And through training, young engineers can learn how to use a system correctly and efficiently. It can reduce the learning curve.”

The software training included three major aspects: Sea Environment

Assessment System (SEAS); Initial Scantling Evaluation (ISE); and Total Strength

Assessment (TSA). Liao explains each: “SEAS is a software tool to help engineers and clients understand the complicated metocean conditions and the impact to the design. It is used for the design and operation of offshore installations. ISE considers initial scantling requirements including hull girder and local strength, main supporting member, fatigue and sloshing. And, TSA is used to confirm the structural configuration and the initially determined scantlings by finite element analysis.”



Engineers from Indonesian classification society, Biro Klasifikasi Indonesia (BKI), learned the importance of structural analysis methodology for floating LNG terminals.

Since the inception of the external training program in 2008, ABS has expanded its training facility locations from Singapore and Piraeus to include Korea, Dubai, Houston and Rio de Janeiro. Courses are offered for designers, builders, shipowners and ship operators. Specialized training courses and programs may also be delivered at the customer's facilities. To learn more about the ABS Academy, visit www.absacademy.org.

ABS Training Offers Guidance on CDS

The ABS Academy in Houston recently hosted a two-day training course introducing the concepts and processes applied to the classification of drilling systems. Participants were also provided an overview of the latest international offshore drilling practices and standards.

The course includes an overview of the *ABS Guide for the Classification of Drilling Systems* to explain the requirements and standards that must be followed to be awarded the optional ABS CDS notation. Topics included discussions on well design; construction and operation; drilling system equipment; inspection and testing plans for components; survey requirements; materials used for drilling systems and components; welding and nondestructive testing (NDT) for drilling systems; and other applicable standards.

“The course has very good technical information about the way the Rules are working and how to talk about the Rules,” says Bolie Williams, IV of National Oilwell Varco. Training offered through the ABS Academy provides clients with a chance to work

directly with ABS. “ABS Manager Harish Patel clarified how ABS Rules are made and how they are different from those developed by other classification societies. I took good notes that I will pass on to my group,” Williams adds.

There were 24 participants that attended the multi-module course, including representatives from some of the world's leading suppliers of drilling systems and equipment: Aker Solutions Drilling Technologies, Inc.; National Oilwell Varco; Cameron; ContiTech Beattie

*ABS Academy presented a two-day training course, **Classification of Drilling Systems**, introducing the concepts and processes applied to the classification of drilling systems.*

Group; LeTourneau Technologies; and Transocean Offshore Deepwater Drilling Inc.

“As the scope and depth of offshore regulations increase and change, training becomes extremely important.

Clients look to class societies to interpret the requirements and provide practical guidance for complying with them,” says Graham Marshall, ABS Director of External Training.

ABS Academy assists by creating timely and informative courses to educate marine and offshore personnel. ☎



Bolie Williams, IV



To schedule a course, request a session or find out more information visit the ABS Academy website at www.absacademy.org.

Maersk Line Awarded Academy Appreciation Certificate

Maersk Line, Vice President, Technical Vessel Operation Palle Laursen, center, receives an ABS Academy Certificate of Appreciation plaque from Mark Corsetti, ABS Country Manager for Denmark and Frank Jacobsen, ABS Manager, Naval Programs. The certificate signifies continual dedication and commitment to training shipboard and shore-based personnel. ☎





ABS Membership Plaques



Tomoyuki Sekine, President of Iino Kaiun Kaisha, Ltd., receives an ABS membership plaque from Christopher J. Wiernicki, ABS President and CEO.



Mark A. McGrath, ABS Vice President and Chief Learning Officer, presents an ABS membership plaque to Hiroshi Kato, President of Toyo Shipping Line Co., Ltd.



John McDonald, ABS Europe Division President and COO, presents an ABS membership plaque to Vasileios Papakalodoukas, CEO, Ciner Shipping.



Karel Van Campenhout, ABS Senior Vice President, Operations, Europe Division, presents an ABS membership plaque to Frank Dambrin, Executive Vice President Fleet Management, Bourbon Offshore.



John Linster, then Western District Manager, ABS Americas Division, presents an ABS membership plaque to Lee Lampland, Director of New Construction for Matson Navigation Co.



Takashi Ueda, President of Sanoyas Hishino Meisho Corporation, receives an ABS membership plaque from Mark A. McGrath, ABS Vice President and Chief Learning Officer.



Robert D. Somerville, ABS Chairman, presents an ABS membership plaque to Stewart Wade, ABS Consultant.



Mark A. McGrath, ABS Vice President and Chief Learning Officer, presents an ABS membership plaque to Yasuhiko Katoh, President of Mitsui Engineering and Shipbuilding Co., Ltd.



Piotr Bialonoga, ABS Country Manager, Poland presents an ABS membership plaque to Michal Olko, Vice President, MMC Ship Design and Marine Consulting Ltd.; while Cezary Rubelek, President, MMC Ship Design and Marine Consulting Ltd.; and Michal Olkowski, Vice President, MMC Ship Design and Marine Consulting Ltd. look on.



Mark A. McGrath, ABS Vice President and Chief Learning Officer, presents an ABS membership plaque to Kuniteru Ishikawa, Senior Managing Director of Universal Shipbuilding Corporation.



Mark A. McGrath, ABS Vice President and Chief Learning Officer, presents an ABS membership plaque to Nobumitsu Kambayashi, President of Ship and Offshore Structure Company, Kawasaki Heavy Industries, Ltd.



John Linster, then Western District Manager, ABS Americas Division, presents an ABS membership plaque to Jack Sullivan, Vice President of Operations for Matson Navigation Company.



Datuk Nasarudin MD Idris, President and CEO of MISC Berhad, receives an ABS membership plaque from Mark A. McGrath, ABS Vice President and Chief Learning Officer.



Mark A. McGrath, ABS Vice President and Chief Learning Officer, presents an ABS membership plaque to Hisashi Hara, Executive Vice President and General Manager, Shipbuilding and Ocean Development Headquarters, Mitsubishi Heavy Industries, Ltd.



Peter Tang-Jensen, ABS Senior Vice President, presents an ABS Technical Committee membership plaque to Bo Cerup-Simonsen, Vice President, Technical Organization/Engineering and Projects, A.P. Moller-Maersk.

ADDRESS CHANGES

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Massachusetts Maritime Academy Opens New Facility

AMERICAN BUREAU OF SHIPPING INFORMATION COMMONS SERVES AS MODEL FOR LIBRARIES

ABS donated \$3 million to Massachusetts Maritime Academy (MMA) for its newest academic building, the American Bureau of Shipping Information Commons. The building, which was recently dedicated, will serve as a model for future generation libraries.

The donation to MMA is part of a wider, far-reaching campaign on the part of ABS to support infrastructure on several maritime institution campuses. The aim has been to be the spark for maritime education renewal throughout the US and the world.

The \$23 million facility extends beyond the traditional library concept

to encompass learning environments or 'spaces' emphasizing collaboration for study, research and training supported by the latest information technology advances. The information commons approach promises to make the facility the heart of the Academy's rigorous program which combines typical four-year college academic courses with specialized regimental training to prepare men and women for maritime careers on land and at sea.

"A library is the 'soul' of any campus," says Robert D. Somerville, ABS Chairman. "This facility redefines the learning environment and will contribute to the academic success of Academy students for generations to come."

The American Bureau of Shipping Information Commons is a Leadership in Energy and Environmental Design (LEED)

ABS Chairman Robert D. Somerville speaks at the dedication of the new academic facility emphasizing how proud the organization feels to be associated with this academic endeavor.



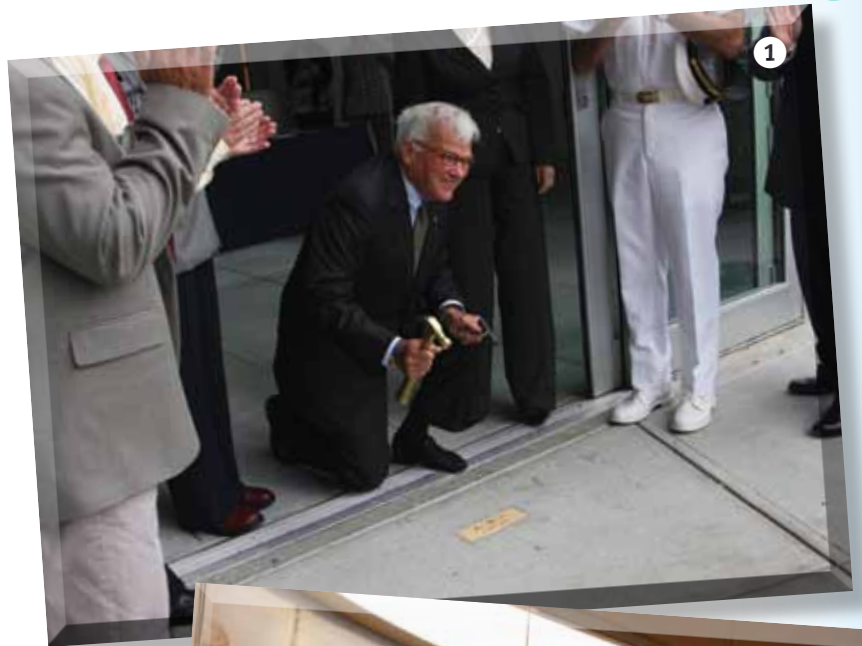
Gold Certified building. It will house the Academic, Learning and Writing Resource Centers supported by multimedia SMART classrooms, media production facilities, an Information Technology Service Desk and a 360-degree Bridge Simulator.

“Since our Academy and ABS share the same values and commitment to excellence in the maritime industry, we are proud to have their name grace this new building,” said Rear Admiral and President of MMA Richard G. Gurnon during the facility’s grand opening. ☞

1 Somerville at the entrance to the ABS Information Commons during the facility’s dedication on the campus of Massachusetts Maritime Academy.

2 Somerville addresses the audience.

3 A display case at the Information Commons showcases tools of the trade.



A group of ABS employees and retirees who graduated from Massachusetts Maritime Academy stand in front of the ABS Information Commons. From left: Joe Riva, Assistant Chief Surveyor, ABS Americas Division; Walter Czerny, retired ABS Pacific Division President; David Wamsley, Eastern US District Manager, ABS Americas Division; Somerville; Gus Bourneuf, retired ABS Chief Surveyor; Dr. Peter Cressy, member of ABS Board of Directors; Jim Silver, former ABS employee; Norman Wallace, retired ABS Director of Training; and John Gallagher, Regional Vice President, Northern Europe.



Global Management Appointments



Robert Gilman



Derek Novak

AMERICAS DIVISION

Robert Gilman has been appointed President and COO for the Americas Division, replacing Thomas Gilmour who recently retired.

Derek Novak has been appointed Vice President, Operations for the Americas Division. Replacing Novak in his role as Vice President, Engineering, Americas, is Matthew Tremblay.

Roy Bleiberg has taken on the role of Director of Engineering, Americas and Melvin Antony has been appointed as Assistant Chief Engineer, Americas.



Matthew Tremblay



Roy Bleiberg

Shadd Williams has been appointed District Manager, US Western District, replacing John Linster who retired after 37 years with ABS.

Michael Wildman has been named as the Assistant Chief Surveyor, Offshore for the Americas Division

EUROPE DIVISION

Mark Corsetti has been appointed Country Manager of Denmark.

Ian Hunter has assumed the role of Country Manager for Qatar.

Lynnda Pikel transferred from Houston to Rotterdam to assume the position of Manager, Offshore Technology & Business Development.

James McCormack has assumed the role of Assistant Chief Surveyor, Offshore for the Europe Division.



Melvin Antony



Shadd Williams

PACIFIC DIVISION

Eric Kleess was named President and COO for the Pacific Division as Mark McGrath transferred to Houston to assume the new role of ABS Vice President and Chief Learning Officer.

Wei-Biao (Bill) Shi has been appointed Vice President of Engineering for the Pacific Division and will be based in Korea.

Akira Akiyama was named Vice President, Global Marine Technology and Business Development.

Bill McKay was named Country Manager of Taiwan and Chris O'Day assumed the position of Country Manager for the Philippines.



Michael Wildman



Mark Corsetti



Ian Hunter



Lynnda Pikel



James McCormack



Eric Kleess



Mark McGrath

Joseph Angilella has been appointed as Country Manager of Vietnam and Pedro Santos has assumed the role of Country Manager for Malaysia.

Franck Violette has assumed the new role of Director, Technology and Business Development and Training for the division and will be based in Singapore.

Jeffrey Lambert has been named Assistant Chief Surveyor, Offshore for the Pacific Division.

GREATER CHINA DIVISION

Richard Pride was named President and COO for the Greater China Division as Adam Moilanen transferred to Houston to assume the role of ABS Vice President and Chief of Staff.

Kwok Wai (KW) Lee has assumed the role of Vice President, Operations for the Greater China Division.

Duncan Peart has been appointed Assistant Chief Surveyor, Greater China Division, replacing Manual Castro who transferred to Houston to assume the role of ABS Safety Director.

William Hirnikel has assumed the role of Assistant Chief Surveyor, Offshore for the Greater China Division.

HEADQUARTERS

Kirsi Tikka was appointed ABS Vice President and Chief Engineer and Robert Giuffra was named ABS Senior Vice President, Quality and Service.

Michael Wasicek has assumed the role of Chief Engineer, Machinery to oversee the society's machinery engineering and plan review activities. 🇪🇺



Wei-Biao (Bill) Shi



Akira Akiyama



Bill McKay



Chris O'Day



Joseph Angilella



Pedro Santos



Franck Violette



Jeffrey Lambert



Richard Pride



Adam Moilanen



Kwok Wai (KW) Lee



Duncan Peart



Manual Castro



William Hirnikel



Kirsi Tikka



Robert Giuffra



Michael Wasicek

Ballast Water Treatment Technology Conference

PREPARING FOR THE BALLAST WATER MANAGEMENT CONVENTION: A TRAINING OVERVIEW

“While the topic of ballast water management is receiving a great deal of media and regulatory attention lately, the problem itself is not new,” said ABS Training Manager, Colin Brookman at the Ballast Water Treatment Technology Conference, attended by 127 participants, in London.

“For more than 20 years shipowners, operators, naval architects, marine engineers, classification societies and entrepreneurs have been working with marine scientists and government agencies to develop procedures and equipment to prevent, minimize and ultimately eliminate the spread of invasive species and waterborne diseases,” says Brookman.

Brookman’s talk focused on the training required for ships’ crew on issues related to ballast management, reporting, recordkeeping, ballast water sampling, sediment control and the utilization of ballast water management systems.

“As the International Convention for the Control and Management of Ships’ Ballast Water and Sediments moves towards entry into force, it is the efficacy of processes, procedures

and equipment that are key to solving the problems. Essential to the establishment or revision of these processes and procedures is training,” explains Brookman.

He provided an overview of the ecological and health hazards resulting from the indiscriminate ballasting and de-ballasting; the interaction with port State authorities; and the need to understand operational constraints associated with various ballast water treatment technologies. He also highlighted the critical role of a ballast water management plan in providing crew safety guidelines in compliance with the pending Ballast Water Management Convention.

“Some countries or regions have unilaterally established ballast water management regulations. Those operating vessels that conduct ballasting and de-ballasting operations in the waters of these countries and regions have acquired knowledge and practical experience relative to the reporting, recordkeeping and compliance with the onboard ship-specific ballast water management plan. It is reasonable to believe that many of their existing processes and procedures will require revision if

The ABS *Ballast Water Treatment Advisory* summarizes the current state of ballast water treatment regulations and available technologies to provide useful guidance to shipowners, operators and builders as they make decisions about suitable treatment options. The Advisory is available for free download on the ABS website. Navigate to Resources, Publications, Environment.

they have to change from conducting ballast water exchange techniques to the utilization of ballast water treatment technologies,” he comments.

“Companies operating vessels outside of these countries or regions will require education on the economical and ecological damage resulting from the introduction of invasive species. Crews on board these vessels will require specific shipboard training on the practical implementation of the reporting, recordkeeping and use of the equipment intended to manage ballast water discharges,” Brookman adds. ☞



Colin Brookman



Charles J. Dorchak

◀ Speaking about ballast water management system approvals at the Ballast Water Treatment Conference in London, ABS Director, Charles J. Dorchak, of the Environmental Solutions Group. As session chair, Dorchak gave an overview of the IMO approval process. His presentation included what an approval certificate means, the impact approval has on system selection and what an owner selecting a system needs to consider.

Photos courtesy of Ballast Water Treatment Technology Conference, London 2011.

ABS Events and Conferences Calendar

3 November 2011

Seatrade Tanker Industry Conference

Singapore

ABS Presenter: Boon Joon Chin

Sponsored by ABS

www.tankerconference.com

7 – 8 November 2011

Ferries

Boston, MA, USA

ABS Presenter: William Lind

Sponsored by ABS

www.marinelog.com/DOCS/Conf.html

15 November 2011

Mare Forum USA

Houston, TX, USA

ABS Panelists

Sponsored by ABS

www.mareforum.com

15 – 16 November 2011

ShipTech

Dubai, UAE

ABS Presenter: Sean Bond

Sponsored by ABS

www.iirme.com/shiptech

16 – 17 November 2011

Human Factors in Ship Design

London, UK

ABS Presenter: Christine Tomlinson

www.rina.org.uk/humanfactors

2011.html

16 – 18 November 2011

SNAME Annual Meeting & Expo

Houston, TX, USA

Booth #: 103 & 105

ABS Presenter: Jim Gaughan

Sponsored by ABS

www.sname.org

17 – 18 November 2011

Tanker Safety Conference

London, UK

Sponsored by ABS

www.rivieramm.com/events

17 – 19 November 2011

Pacific Marine Expo

Seattle, WA, USA

Booth #: 811

www.pacificmarineexpo.com

23 November 2011

President's Invitation Lecture

London, UK

Sponsored by ABS

www.rina.org.uk/presidents

invitationslecture2011

29 – 30 November 2011

Floating LNG

Houston, TX, USA

ABS Panelist: William Sember

www.informaglobalevents.com/event/

floatinglng-conference-2011



30 November – 2 December 2011

International Workboat Show

New Orleans, LA, USA

ABS Presenters: John Burson &

Wei Huang

Booth #: 1910

www.workboatshow.com

29 November – 2 December 2011

Marintec China

Shanghai, China

Stand #: 4H21

www.marintecchina.com

24 – 26 January 2012

Offshore West Africa

Abuja, Nigeria

Sponsored by ABS

www.offshorewestafrica.com

25 – 26 January 2012

Managing Reliability & Maintainability in the Maritime Industry

London, UK

ABS Presenter: Smarty Mathew John

www.rina.org.uk/icsotindia2011.html

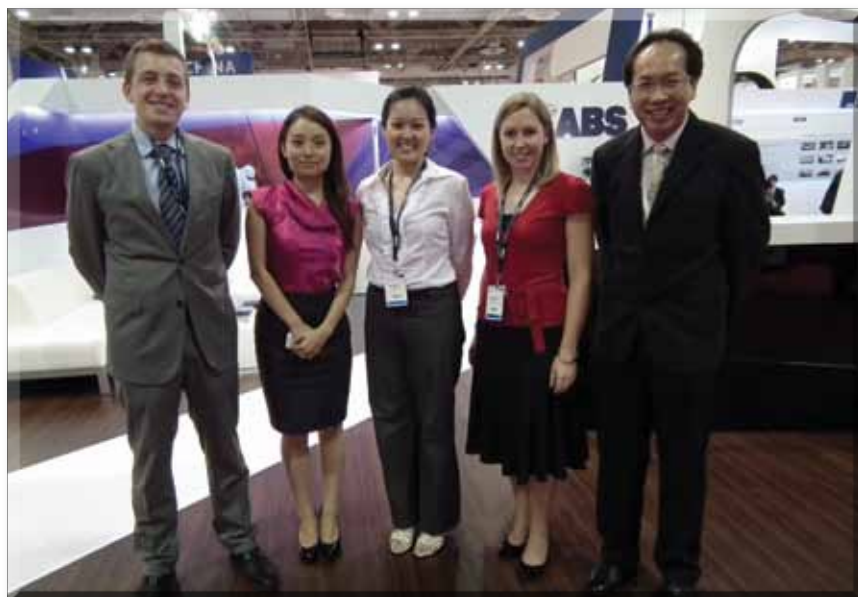
31 January – 2 February 2012

Topsides

New Orleans, LA, USA

Sponsored by ABS

www.topsidesevent.com/index/conference-information.html



ABS Offers Support to the Future Generations of Maritime Professionals



Tatsuhiko Imaki



Masae Utsumi



Kazunao Kanda



Alina Shrestha



Charles Rogers



Jesus Garcia Junco

ABS continues its support of higher education worldwide with scholarships awarded to students at universities. Merit-based scholarships are awarded to both undergraduate and postgraduate students majoring in naval architecture, ocean engineering or marine engineering.

In Japan, ABS recently awarded three scholarships to graduate students for their academic achievements: Tatsuhiko Imaki and Masae Utsumi in the Department of Marine Systems Engineering at Osaka Prefecture University and Kazunao Kanda from the Graduate School of Maritime Sciences at Kobe University.

In the US, five scholarships were awarded to students of the University of New Orleans' School of Engineering – one of only a few non-maritime schools in the US with a Naval Architecture and Marine Engineering program. Alina Shrestha was the recipient of the graduating senior award. Justin Champion*, Charles Holma*, Jesus Garcia Junco and Charles Rogers were also awarded scholarships for academic achievement.

Also in the US, ABS Principal Surveyor Michael Millar recently presented US Coast Guard Academy Cadet First Class Nathanael F. Crum with the Capt. Charles A. McAllister Memorial Award. First presented in 1930, the award is given by ABS to the cadet who has shown the highest proficiency in engineering subjects during his entire course

* Not pictured

ABS Principal Surveyor Michael Millar, US Coast Guard Academy Cadet First Class Nathanael F. Crum and Rear Admiral J. Scott Burhoe.



► *Professor Carlo Podenzana Bonvimo, scholarship recipients Messina Baldassare and Silvia Donnarumma, Professor Paola Gualeni and ABS Manager, Engineering Enrico Brina.*

of instruction. The late Capt. McAllister was Engineer-in-Chief of the US Coast Guard. Crum also received the Distinguished Graduate Award which is presented from the USCGA Alumni Association to the class valedictorian who has earned the highest overall academic, military and athletic rating.

In Italy, students from three Italian universities were awarded ABS scholarships for their academic accomplishments. The recipients were: Messina Baldassare and Silvia Donnarumma from the University of Genoa; Zial Mokahad and Sara Marcasa from the University of Trieste; and Carlo Colella and Carlo Marzano from the University of Naples.

Additionally, future generations of marine and offshore engineering students were honored by ABS for their thesis work at the University of Tokyo's Graduate School of Engineering. Takuya Shiosawa and Yoshiyuki Watabe were awarded crystal eagle trophies at a recent commencement

ceremony. Shiosawa, Department of Ocean Technology, Policy and Environment won for his thesis, "Experiment and Theoretical Study on the Motion of ROV with Crawler System." Watabe who studies at the Department of Systems Innovations won for his thesis titled "Experiments and Numerical Model Analyses of Brittle Crack Propagation/Arrest Behaviors and Applications to Crack Arrest Design of Street Structures." ☺



► *Scholarship recipients Zial Mokahad, left, and Sara Marcasa, right, with ABS Manager, Engineering Enrico Brina.*



Carlo Colella and Carlo Marzano



Takuya Shiosawa



Yoshiyuki Watabe



Newly Classed Vessels and Recent Contracts



*FPMC C LORD, a 301,861 dwt oil carrier, SHR, VEC, TCM, RRDA,
built by IHI Marine United for FPMC C Lord Marine.*

1 April - 31 August 2011

Newly Classed Vessels and Facilities

TANKERS

AMARYLIS, 81,384 gt/158,777 dwt, VEC, TCM, AB-CM, CSR, ES, SPMA, RRDA, built by Samsung H I for Noah Maritime

ANAFI, 3,212 gt/4,584 dwt, VEC, RRDA, built by Fujian Southeast Shipyard for Anafi Shipping

ANEMONE, 81,384 gt/158,590 dwt, AB-CM, CSR, ES, VEC, TCM, SPMA, RRDA, built by Samsung H I for Alcot Shipmanagement

B. ACE, 3,978 gt/5,683 dwt, VEC, TCM, built by Qingdao Hyundai Shipbuilding for Ace Marine Holdings

BUNGA BEGONIA, 29,124 gt/45,479 dwt, AB-CM, CSR, VEC, GP, RRDA, built by SLS Shipbuilding for MISC Berhad

CAPE ENDURANCE, 60,193 gt/109,676 dwt, SH, SHCM, VEC, TCM, RRDA, built by Hudong-Zhonghua Shipbuilding for MT Cape Endurance

CRANE GAIA, 5,707 gt/8,838 dwt, RRDA, built by Higaki Shipbuilding for Doman Shipping

D&K YUSUF I AL-GHANIM, 30,952 gt/49,761 dwt, AB-CM, CSR, VEC, RRDA, built by Shina Shipbuilding for D & K II Limited

DAYTONA, 61,332 gt/115,896 dwt, AB-CM, CSR, ES, NIBS, VEC-L, TCM, RRDA, built by Samsung H I for Olympian Hera Owners

DESH SAMMAN, 64,397 gt/114,682 dwt, VEC-L, TCM, AB-CM, CSR, built by Hyundai H I for Shipping Corporation of India

DESH SURAKSHA, 64,397 gt/114,682 dwt, VEC-L, TCM, AB-CM, CSR, built by Hyundai H I for Shipping Corporation of India

DEVON, 81,427 gt/157,642 dwt, AB-CM, CSR, RES, ES, VEC-L, TCM, GP, RRDA, built by Samsung H I for Moneghetti Shipholding

DONGBU PROMY 3, 7,072 gt/11,013 dwt, VEC, RRDA, built by Nok Bong Shipbuilding for DB Marine 3

ENJOY, 42,193 gt/74,158 dwt, AB-CM, CSR, RES, VEC, TCM, BWE, RRDA, built by SPP Shipbuilding for Enjoy Shipping

ERIKA SCHULTE, 11,246 gt/16,427 dwt, TCM, ES 2020, built by Jiangxi Jiangzhou Union Shipbuilding for Craig Shipping

FPMC C KNIGHT, 159,869 gt/301,861 dwt, SHR, VEC, TCM, RRDA, built by IHI Marine United for FPMC Knight Marine

FPMC C LORD, 159,869 gt/301,861 dwt, SHR, VEC, TCM, RRDA, built by IHI Marine United for FPMC C Lord Marine

GALUNGGUNG, 63,005 gt/88,322 dwt, AB-CM, CSR, ES, VEC, TCM, SPMA, RRDA, built by Jiangsu Eastern H I for Pertamina

GEDE, 63,005 gt/88,312 dwt, AB-CM, CSR, ES, VEC, TCM, SPMA, RRDA, built by Jiangsu Eastern H I for Pertamina

HANJIN RAS TANURA, 160,493 gt/309,988 dwt, NBL, VEC, TCM, AB-CM, CSR, built by Hyundai H I for Minden Enterprises

HARBOUR FIRST, 11,971 gt/16,894 dwt, Ice Class "IA", VEC, RRDA, built by Yangfan Group for Achte Nordtank

HARBOUR FOUNTAIN, 11,880 gt/16,500 dwt, Ice Class IA, VEC, RRDA, built by Yangfan Group for Siebte Nordtank

ISLAND SPLENDOR, 156,651 gt/256,310 dwt, VEC, SH, SHCM, RRDA, built by Shanghai Jiangnan-Changxing Shipbuilding for Grand Shipping

KAPSALI, 81,509 gt/158,547 dwt, AB-CM, CSR, VEC, TCM, BWE, ENVIRO, GP, SPMA, RRDA, built by Samsung H I for Adora Shipping & Trading

MAERSK MISAKI, 28,777 gt/47,980 dwt, VEC, SHR, RRDA, built by Iwagi Zosen for Constellation Shipholding

MELITA, 81,384 gt/158,659 dwt, AB-CM, CSR, ES, VEC, TCM, SPMA, RRDA, built by Samsung H I for Ace Maritime



ANEMONE, a 158,590 dwt oil tanker, AB-CM, CSR, ES, VEC, TCM, SPMA, RRDA, built by Samsung H I for Alcot Shipmanagement.



BUNGA BEGONIA, a 45,479 dwt oil and chemical tanker, AB-CM, CSR, VEC, GP, RRDA, built by SLS Shipbuilding for MISC Berhad.



DESH SAMMAN, a 114,682 dwt crude and oil product tanker, VEC-L, TCM, AB-CM, CSR, built by Hyundai H I for Shipping Corporation of India.



NEVERLAND STAR, a 115,952 dwt crude oil tanker, VEC, TCM, SH, ES, SHCM, RRDA, built by Samsung H I for Finaval.



OVERSEAS TAMPA, a 46,653 dwt crude oil and product tanker, SH, SHCM, ES, VEC, RRDA, built by Aker Philadelphia Shipyard for ASC Leasing.

- MURRAY STAR, 8,537 gt/13,006 dwt, VEC, GP, RRDA, built by 21st Century Shipbuilding for Rigel Schiffahrts
- NEVERLAND STAR, 61,248 gt/115,952 dwt, VEC, TCM, SH, ES, SHCM, RRDA, built by Samsung H I for Finaval
- ORKIM EXPRESS, 5,353 gt/7,990 dwt, RRDA, built by Wenling Xianfeng Shipyard for Orkim Express
- OSTTANK NORWAY, 13,239 gt/19,118 dwt, Ice Class IA, NBLES, VEC, TCM, RRDA, built by Yangfan Group for Funfte Oststank-Hamburg
- OVERSEAS LEYTE, 42,153 gt/73,944 dwt, AB-CM, CSR, RES, ES, VEC, TCM, BWE, RRDA, built by SPP Shipbuilding for Leyte Product Tanker
- OVERSEAS MARTINEZ, 29,242 gt/46,653 dwt, SH, SHCM, ES, VEC, RRDA, built by Aker Philadelphia Shipyard for ASC Leasing
- OVERSEAS TAMPA, 29,242 gt/46,653 dwt, SH, SHCM, ES, VEC, RRDA, built by Aker Philadelphia Shipyard for ASC Leasing
- OVIT, 6,444 gt/10,303 dwt, R2-S, VEC, RRDA, ES, built by Yardimci Gemi Insa for Yardimci Gemi Insa
- PACIFIC GARNET, 28,778 gt/47,879 dwt, SHR, VEC-L, GP, RRDA, built by Iwagi Zosen for Arpege
- PACIFIC QUARTZ, 28,778 gt/47,941 dwt, SHR, VEC-L, GP, RRDA, built by Iwagi Zosen for Kairasu Shipping
- PACIFIC SAPPHIRE, 28,778 gt/47,906 dwt, SHR, VEC-L, GP, built by Iwagi Zosen for Forward Gloria Navigation
- PHOENIX ADMIRAL, 62,234 gt/114,024 dwt, VEC, TCM, AB-CM, CSR, built by Hyundai H I for Phoenix Tankers
- PHOENIX ADVANCE, 62,234 gt/114,024 dwt, AB-CM, CSR, VEC, TCM, built by Hyundai H I for Phoenix Tankers
- POLA, 83,562 gt/149,996 dwt, AB-CM, CSR, RES, NIBS, VEC-L, TCM, RRDA, built by Jiangsu Rongsheng H I for Overland Enterprise
- POLYMNIA I, 156,651 gt/296,812 dwt, SH, SHCM, VEC-L, GP, TCM, RRDA, built by Shanghai Jiangnan-Changxing Shipbuilding for Foundation Company
- RED EAGLE, 42,292 gt/74,997 dwt, SHR, SHCM, VEC, TCM, RRDA, built by Sungdong Shipbuilding & Marine Engineering for Betamax
- SANKO NEPTUNE, 11,987 gt/19,999 dwt, VEC, RRDA, built by Fukuoka Shipbuilding for Neptune Chemicalship
- SANKO NOBLE, 11,987 gt/19,991 dwt, VEC, RRDA, built by Fukuoka Shipbuilding for Noble Chemicalship
- SPYROS K, 81,314 gt/157,648 dwt, AB-CM, CSR, VEC-L, TCM, BWE, ENVIRO, GP, RRDA, built by Sungdong Shipbuilding & Marine Engineering for Marine Velvet
- SUEZ FUZEYIA, 81,282 gt/158,573 dwt, AB-CM, CSR, NBL, VEC, TCM, BWE, GP, RRDA, built by Hyundai H I for Suez Fuzeyia
- SUEZ VASILIS, 81,282 gt/158,573 dwt, AB-CM, CSR, NBL, VEC, TCM, BWE, GP, RRDA, built by Hyundai H I for Suez Vasilis
- SUPERIORITY, 3,097 gt/4,162 dwt, VEC, built by Samho Shipbuilding for Seacoast Maritime Shipping
- VILAMOURA, 81,380 gt/158,621 dwt, NIBS, VEC-L, TCM, AB-CM, CSR, ES, RRDA, built by Samsung H I for Olympian Apollo Owners

BULK CARRIERS

- ALLEGRA, 22,400 gt/34,146 dwt, BC-A, TCM, GRAB(30), AB-CM, CSR, BWE, ES, RRDA, built by Dae Sun Shipbuilding & Engineering for Freeman Shipping
- AM GHENT, 51,265 gt/93,168 dwt, BC-A, AB-CM, CSR, GRAB(20), PORT, TCM, RRDA, built by Jiangsu New Yangzi Shipbuilding for Santander
- AMAPOLA, 22,223 gt/33,997 dwt, BC-A, AB-CM, CSR, GRAB(30), TCM, ENVIRO, GP, RRDA, built by Hyundai Mipo Dockyard for Polymnia Navigation
- ANGEL, 91,971 gt/175,935 dwt, BC-A, TCM, GRAB(25), AB-CM, CSR, built by Zhoushan Jinhaiwan Shipyard for Angel Shipping

ANTONELLA LEMBO, 51,255 gt/93,257 dwt, BC-A, AB-CM, CSR, GRAB(20), PORT, TCM, RRDA, built by Jiangsu New Yangzi Shipbuilding for Fertilia

AS ELBIA, 23,443 gt/34,394 dwt, BC-A, AB-CM, CSR, GRAB(20), TCM, GP, RRDA, built by SPP Shipbuilding for Twenty-ninth AARE Shipping

ATILLA, 23,204 gt/35,331 dwt, BC-A, TCM, GRAB(25), AB-CM, CSR, GP, RRDA, built by Samho Shipbuilding for Atilla Maritime

BOTTIGLIERI FLAVIO BORRIELLO, 51,255 gt/93,222 dwt, BC-A, AB-CM, CSR, GRAB(20), PORT, TCM, built by Jiangsu New Yangzi Shipbuilding for Giuseppe Bottiglieri Shipping

BRAVE SAILOR, 89,991 gt/176,283 dwt, BC-A, AB-CM, CSR, GRAB(25), TCM, RRDA, built by Shanghai Waigaoqiao Shipbuilding for Expand Trading

CAPTAIN V LIVANOS, 33,194 gt/59,000 dwt, BC-A, TCM, GRAB(20), AB-CM, CSR, BWE, built by STX Dalian Shipbuilding for Kingdom Steamship

CASTA DIVA, 91,373 gt/177,807 dwt, BC-A, SH, SHCM, GRAB(20), TCM, RRDA, built by Shanghai Jiangnan-Changxing Shipbuilding for Searange Management

CF CRYSTAL, 41,073 gt/75,725 dwt, BC-A, GRAB(20), AB-CM, CSR, RRDA, built by Chengxi Shipyard for Changhong Group

CF DIAMOND, 41,073 gt/75,619 dwt, BC-A, AB-CM, CSR, GRAB(20), RRDA, built by Chengxi Shipyard for Changjin Shipping International

CHIARA, 63,940 gt/114,247 dwt, BC-A, TCM, GRAB(20), AB-CM, CSR, BWE, PORT, RRDA, built by New Times Shipbuilding for Bentonwood

CIELO DI DUBLINO, 23,758 gt/37,064 dwt, BC-A, SH, SHCM, TCM, GRAB(20), ENVIRO, GP, RRDA, built by Hyundai Mipo Dockyard for D'amico Dry

CIELO DI SAN FRANCISCO, 23,758 gt/37,064 dwt, BC-A, SH, SHCM, TCM, GRAB(20), ENVIRO, GP, RRDA, built by Hyundai Mipo Dockyard for D'amico Dry

CMB VIRGINIE, 20,846 gt/32,519 dwt, BC-A, AB-CM, CSR, GRAB(20), TCM, RRDA, built by Jiangsu Lanbo Shipbuilding for Bohandymar

CONTI PYRIT, 33,036 gt/56,956 dwt, BC-A, CSR, ES GRAB(20), TCM, AB-CM, RRDA, built by Taizhou Sanfu Ship Engineering for Conti 168 Schiffahrts-GMBH & Co Bulker KG "Conti Pyrit"

DENITA WAVE, 51,255 gt/93,201 dwt, BC-A, TCM, GRAB(20), AB-CM, CSR, PORT, RRDA, built by Jiangsu New Yangzi Shipbuilding for Denita Navigation

DESERT CALM, 31,901 gt/57,454 dwt, BC-A, AB-CM, CSR, GRAB(25), RRDA, built by Hyundai Mipo Dockyard for Crestwood Shipping & Investment

DESERT PEACE, 31,901 gt/57,414 dwt, BC-A, AB-CM, CSR, GRAB(25), RRDA, built by Hyundai Mipo Dockyard for Derby Shipping & Investment

DIAMOND STAR, 33,205 gt/57,272 dwt, BC-A, TCM, GRAB(20), AB-CM, CSR, BWE, RRDA, built by STX Dalian Shipbuilding for Full Speed Shipping

ECE NUR BAYRAKTAR, 34,374 gt/58,450 dwt, BC-A, AB-CM, CSR, GRAB(20), TCM, RRDA, built by SPP Shipbuilding for Dennis Navigation

FATIH, 23,204 gt/35,364 dwt, BC-A, TCM, GRAB(20), AB-CM, CSR, GP, RRDA, built by Samho Shipbuilding for Fatih Maritime

FORTUNE DAISY, 40,325 gt/74,979 dwt, BC-A, TCM, GRAB(20), AB-CM, CSR, RRDA, built by Sasebo H I for Brave Turtle Shipping

FOUR RIGOLETTO, 23,456 gt/34,437 dwt, BC-A, TCM, GRAB(20), AB-CM, CSR, GP, built by SPP Shipbuilding for Four Handy

FPMC B 102, 62,272 gt/106,661 dwt, BC-A, TCM, GRAB(20), AB-CM, CSR, RRDA, built by STX Dalian Shipbuilding for FPMC 102 Marine

GENCO AVRA, 23,456 gt/34,391 dwt, BC-A, AB-CM, CSR, GRAB(20), TCM, GP, RRDA, built by SPP Shipbuilding for Genco Avra



SUEZ VASILIS, a 158,573 dwt oil tanker, AB-CM, CSR, NBL, VEC, TCM, BWE, GP, RRDA, built by Hyundai H I for Suez Vasilis.



ANGEL, a 175,935 dwt bulk carrier, BC-A, TCM, GRAB(25), AB-CM, CSR, built by Zhoushan Jinhaiwan Shipyard for Angel Shipping.



CF CRYSTAL, a 75,725 dwt bulk carrier, BC-A, GRAB(20), AB-CM, CSR, RRDA, built by Chengxi Shipyard for Changhong Group.



FPMC B 102, a 106,661 dwt bulk carrier, BC-A, TCM, GRAB(20), AB-CM, CSR, RRDA, built by STX Dalian Shipbuilding for FPMC 102 Marine.



KEY INTEGRITY, a 83,375 dwt bulk carrier, BC-A, AB-CM, CSR, GRAB(20), built by Sanoyas Hishino Meisho for James Cook Seatrade.



- HYDRA WARRIOR, 92,944 gt/179,258 dwt, BC-A, AB-CM, CSR, GRAB(20), TCM, RRDA, built by Sungdong Shipbuilding & Marine Engineering for Regal Seas Maritime
- INDUS FORTUNE, 51,238 gt/92,928 dwt, BC-A, AB-CM, CSR, GRAB(20), TCM, RRDA, built by Taizhou Sanfu Ship Engineering for MSPL Diamond
- INDUS PROSPERITY, 51,238 gt/92,988 dwt, BC-A, AB-CM, CSR, GRAB(20), TCM, RRDA, built by Taizhou Sanfu Ship Engineering for MSPL Diamond
- JAG RISHI, 33,036 gt/56,719 dwt, BC-A, TCM, GRAB(20), AB-CM, CSR, RRDA, built by COSCO (Zhoushan) Shipyard for Great Eastern Shipping
- JIN HAN, 33,919 gt/61,414 dwt, BC-A, SHR, RRDA, built by Oshima Shipbuilding for Jinhan Marine
- JIN HONG, 33,919 gt/61,414 dwt, BC-A, SHR, RRDA, built by Oshima Shipbuilding for Jinhong Marine
- KEY INTEGRITY, 44,428 gt/83,375 dwt, BC-A, AB-CM, CSR, GRAB(20), built by Sanoyas Hishino Meisho for James Cook Seatrade
- KWK LEGACY, 94,051 gt/179,687 dwt, BC-A, TCM, GRAB(25), AB-CM, CSR, GP, RRDA, built by Daewoo Shipbuilding & Marine Engineering for Jade Bulk Carriers
- MARDINIK, 23,322 gt/33,918 dwt, BC-A, TCM, GRAB(30), AB-CM, CSR, ES, RRDA, built by 21st Century Shipbuilding for Alps Navigation
- MARIA V. LIVANOS, 33,226 gt/57,275 dwt, BC-A, TCM, GRAB(20), AB-CM, CSR, BWE, built by STX Dalian Shipbuilding for Eastwynd Steamship
- MARIDA, 51,255 gt/93,268 dwt, BC-A, TCM, GRAB(20), AB-CM, CSR, PORT, RRDA, built by Jiangsu New Yangzi Shipbuilding for Marida Navigation
- MATISSE, 23,440 gt/34,416 dwt, BC-A, AB-CM, GRAB(20), TCM, GP, CSR, RRDA, built by SPP Shipbuilding for Matisse Shipping
- MOURMOURA, 51,255 gt/93,242 dwt, BC-A, AB-CM, CSR, GRAB(20), PORT, TCM, RRDA, built by Jiangsu New Yangzi Shipbuilding for Mourmoura Navigation
- NAVIOS AZIMUTH, 92,715 gt/179,168 dwt, BC-A, TCM, GRAB(20), AB-CM, CSR, GP, RRDA, built by Sungdong Shipbuilding & Marine Engineering for Aramis Navigation
- OCEAN WORLD, 116,955 gt/228,800 dwt, SH, SHCM, GRAB(25), TCM, built by CSSC Guangzhou Longxue Shipbuilding for Ocean World Navigation
- PROSPEROUS, 92,941 gt/179,100 dwt, BC-A, TCM, GRAB(20), AB-CM, CSR, GP, RRDA, built by Sungdong Shipbuilding & Marine Engineering for Prosperous Navigation

RAINBOW QUEST, 22,549 gt/34,627 dwt, BC-A, AB-CM, CSR, GRAB(20), TCM, RRDA, built by Shanghai Shipbuilding Industry for Celebes Wind

STORNES, 19,950 gt/39,353 dwt, BC-B, SH, SHCM, TCM, built by Yantai CIMC Raffles Shipyard for Van Oord Marine Services

THEMIS, 34,378 gt/58,486 dwt, BC-A, TCM, GRAB(20), AB-CM, CSR, RRDA, built by SPP Shipbuilding for Ithaca Shipping

TRUST AGILITY, 91,373 gt/177,807 dwt, BC-A, CSR, GRAB(25), TCM, AB-CM, BWE, RRDA, built by STX Offshore & Shipbuilding for Trust Energy Resources

TRUST INTEGRITY, 94,817 gt/180,556 dwt, BC-A, AB-CM, CSR, GRAB(25), BWE, TCM, RRDA, built by STX Offshore & Shipbuilding for Trust Energy Resources



U-SEA WOLLONGONG, 33,894 gt/61,684 dwt, BC-A, SHR, RRDA, built by Oshima Shipbuilding for Libero Panama

W-ACE, 51,239 gt/93,015 dwt, BC-A, AB-CM, CSR, GRAB(30), TCM, RRDA, built by Taizhou Catic Shipbuilding H I for Laibrook Shipholding

W-EAGLE, 51,239 gt/92,803 dwt, BC-A, TCM, GRAB(30), AB-CM, CSR, RRDA, built by Taizhou Catic Shipbuilding H I for Farrell Shipping

WELFINE, 51,265 gt/93,146 dwt, BC-A, AB-CM, CSR, GRAB(20), PORT, TCM, RRDA, built by Jiangsu New Yangzi Shipbuilding for Everfair Shipping

YUAN WANG HAI, 105,936 gt/207,906 dwt, BC-A, AB-CM, CSR, GRAB(25), built by Nantong Cosco Khi Ship Engineering for Yuanwanghai Shipping

ZHONG XING HAI, 105,936 gt/207,978 dwt, BC-A, AB-CM, CSR, GRAB(25), built by Nantong Cosco Khi Ship Engineering for Zhongxinghai Shipping

U-SEA WOLLONGONG, a 61,684 dwt bulk carrier, BC-A, SHR, RRDA, built by Oshima Shipbuilding for Libero Panama.



CONTAINERSHIPS

MAERSK CALABAR, 4,500 teu, SH, SHCM, NBL, TCM, built by Hyundai H I for A P Moller

MAERSK CAMEROUN, 4,500 teu, SH, SHCM, NBL, TCM, built by Hyundai H I for A P Moller

MAERSK CAPE COAST, 4,500 teu, SH, SHCM, NBL, TCM, built by Hyundai H I for A P Moller

MAERSK CHENNAI, 4,500 teu, SH, SHCM, NBL, TCM, built by Hyundai H I for A P Moller

MAERSK CONAKRY, 4,500 teu, SH, SHCM, NBL, TCM, built by Hyundai H I for A P Moller

MAERSK COTONOU, 4,500 teu, SH, SHCM, NBL, TCM, built by Hyundai H I for A P Moller

YM MOBILITY, 6,589 teu, SHR, ES 2020, NBL, TCM, RRDA, built by CSBC for All Oceans Transportation

YM MUTUALITY, 6,600 teu, SHR, ES 2020, NBL, RRDA, built by CSBC for All Oceans Transportation

GAS CARRIERS

GAS CERBERUS, 5,016 m³, SHR, SHCM, FL (25), built by Kanrei Shipbuilding for Carinthia

GAS ELIXIR, 5,000 m³, SHR, SHCM, FL (25), built by Kanrei Shipbuilding for Rising Sun



MAERSK CAPE COAST, a 4,500 teu containership, SH, SHCM, NBL, TCM, built by Hyundai H I for A P Moller.



LONE STAR, a 15,627 gt column stabilized drilling unit, ⚡DPS-2, built by Gulf Piping for Lone Star Offshore.

OFFSHORE

Column Stabilized Drilling Unit

ENSCO 8503, 19,377 gt, ⚡DPS-2, built by Keppel Fels for Ensco Offshore
 LONE STAR, 15,627 gt, ⚡DPS-2, built by Gulf Piping for Lone Star Offshore
 NORBE VI, 15,627 gt, ⚡DPS-2, built by Gulf Piping for Odebrecht Drilling
 WEST JAYA, 15,839 gt, built by Keppel Fels for Seadrill Management

Drillships

NORBE VIII, 67,821 gt, ⚡CDS, ⚡DPS-3, SH-DLA, built by Daewoo Shipbuilding & Marine Engineering for Odebrecht Drilling
 OCEAN RIG OLYMPIA, 59,610 gt, ⚡CDS, ⚡DPS-3, NBLES, SH-DLA, built by Samsung H I for Drillship Paros Owners
 PACIFIC SCIROCCO, 60,538 gt, ⚡CDS, ⚡DPS-3, NBL, SH-DLA, GP, built by Samsung H I for Pacific Scirocco

Fixed Platform

PLCPP2, built by PT McDermott for Chevron Thailand Exploration & Production
 PLFT2, built by PT McDermott for Chevron Thailand Exploration & Production

FSO

PTSC BACH HO, 77,064 gt, built by Nam Trieu Shipbuilding Industry for PTSC Production Services Joint Stock

Self Elevating Drilling Units

ARB-3, 14,019 gt, built by Jurong Shipyard for Saudi Aramco
 GMS ENDEAVOUR 6102, 5,087 gt, ⚡DPS-2, built by Gulf Marine Services for Gulf Marine Services
 HAI YANG SHI YOU 921, 5,413 gt, built by Offshore Oil Engineering for China Oilfield Services
 HAI YANG SHI YOU 922, 5,413 gt, built by Offshore Oil Engineering for China Oilfield Services
 HAI YANG SHI YOU 923, 5,413 gt, built by Offshore Oil Engineering for China Oilfield Services
 HAI YANG SHI YOU 924, 5,413 gt, built by Offshore Oil Engineering for China Oilfield Services

Delivery ceremony for sister drillships, NORBE VIII and NORBE IX, 67,821 gt drillships, ⚡CDS, ⚡DPS-3, SH-DLA, built by Daewoo Shipbuilding & Marine Engineering for Odebrecht Drilling.



MENADRILL II, 6,978 gt, built by Maritime Industrial Services for Menadrill Investment
 ST BAHARI-1, 14,346 gt, built by Dalian Shipbuilding Industry Offshore for Sino Tharwa Drilling
 WEST CALLISTO, 10,406 gt, ~~✕~~CDS, built by Keppel Fels for Seadrill Management

MISCELLANEOUS

Barges

A.M.S. 1802, 1,261 gt, built by Nanjing Lansheng Shipyard for Triton Offshore
 A.M.S. HENDERSON, 2,307 gt, built by Nanjing Lansheng Shipyard for Triton Offshore
 AMB CATHERINE 01, 3,141 gt, built by PT BH Marine & Offshore Engineering for PT BH Marine & Offshore Engineering
 AMB THEODORUS 01, 3,141 gt, built by PT BH Marine & Offshore Engineering for PT BH Marine & Offshore Engineering
 ARTHA SARANA XI, 3,146 gt, built by Nanjing Yonghua Shipbuilding for PT Mitra Kemakmuran Line
 ASIA STAR 808, 2,140 gt, built by Nanjing Sandingli Ship Industry for PT Pelayaran Mitra Kaltim Samudera
 ASIA STAR 909, 2,140 gt, built by Nanjing Sandingli Ship Industry for PT Pelayaran Mitra Kaltim Samudera
 BUKIT EMAS 211, 1,083 gt, built by PT Sumatera Maju Jaya for PT Pelayaran Sumatera Bukit Emas
 BUKIT EMAS 2503, 2,307 gt, built by PT Sumatera Maju Jaya for PT Pelayaran Sumatera Bukit Emas
 BUKIT EMAS 2505, 2,012 gt, built by PT Sumatera Maju Jaya for PT Sumatera Maju Jaya
 BULESKO III, 3,233 gt, built by Nanjing Asiapride Shipping Making for PT Pelayaran Buana Lestari Kalpindo
 BULESKO IV, 3,233 gt, built by Nanjing Sandingli Ship Industries for PT Pelayaran Buana Lestari Kalpindo
 CAJUN PRIDE, 1,063 gt, built by C & C Marine and Repair for Cajun Maritime
 CBC 4508, 1,031 gt, built by Southwest Shipyard for Canal Barge
 CIB 600, 1,066 gt, built by C & C Marine and Repair for CIBCO Barge Line
 COM 7, 1,166 gt, Ice Class A0, built by Ojsc Krasniye Barrikadi Shipyard for Bue Kyrán
 DONGIL 501, 1,457 gt, built by Yizheng Xinyang Shipbuilding for Triton Offshore
 DONGIL 502, 1,457 gt, built by Yizheng Xinyang Shipbuilding for Triton Offshore
 FINACIA 86, 3,106 gt, built by Nanjing Ding Feng Shipbuilding for PT Mitra Bahtera Segarasejati
 FINACIA 87, 2,962 gt, built by Nantong Jinjian Shipbuilding & Repairing for PT Mitra Bahtera Segarasejati
 FINACIA 88, 3,105 gt, built by Nanjing Ding Feng Shipbuilding for Trans-Log Supply Private
 FINACIA 89, 3,105 gt, built by Nanjing Ding Feng Shipbuilding for Trans-Log Supply Private
 FINACIA 97, 3,487 gt, built by Nantong Tiannan Shipyard for PT Mitra Bahtera Segarasejati
 FINACIA 98, 3,487 gt, built by Nantong Tiannan Shipyard for PT Mitra Bahtera Segarasejati
 FINACIA 103, 5,316 gt, built by Nantong Tiannan Shipyard for PT Mitra Bahtera Segarasejati
 FINACIA 105, 5,316 gt, built by Nantong Tiannan Shipyard for PT Mitra Bahtera Segarasejati
 HERMASA 73, 1,035 gt, built by Estaleiro Rio Amazonas for Hermasa Navegacao da Amazonia



OCEAN RIG OLYMPIA, a 59,610 gt drillship, ~~✕~~CDS, ~~✕~~DPS-3, NBLES, SH-DLA, built by Samsung H I for Drillship Paros Owners.



PACIFIC SCIROCCO, a 60,538 gt drillship, ~~✕~~CDS, ~~✕~~DPS-3, NBL, SH-DLA, GP, built by Samsung H I for Pacific Scirocco.



FPMC C KNIGHT, a 301,861 dwt crude oil tanker, VEC, TCM, SHR, RRDA, built by IHI Marine United for FPMC Knight Marine.



DEVON, a 157,642 dwt crude oil tanker, AB-CM, CSR, RES, ES, VEC-L, TCM, GP, RRDA, built by Samsung H I for Moneghetti Shipholding.



NORBE VI, a 15,627 gt column stabilized drilling unit, DPS-2, built by Gulf Piping for Odebrecht Drilling.

- HERMASA 79, 1,101 gt, built by Erin-Estaleiros Rio Negro for Hermasa Navegacao da Amazonia
- HERMASA 80, 1,101 gt, built by Erin-Estaleiros Rio Negro for Hermasa Navegacao da Amazonia
- HERMASA 81, 1,101 gt, built by Erin-Estaleiros Rio Negro for Hermasa Navegacao da Amazonia
- HERMASA 84, 1,101 gt, built by Estaleiro Rio Maguari for Hermasa Navegacao da Amazonia
- HERMASA 85, 1,101 gt, built by Estaleiro Rio Maguari for Hermasa Navegacao da Amazonia
- HERMASA 86, 1,101 gt, built by Estaleiro Rio Maguari for Hermasa Navegacao da Amazonia
- IN THYE 2503, 1,963 gt, built by Yangzhou Hairun Shipping for In Thye Marine
- INDO OCEAN MARINE 18, 2,133 gt, built by Jinsheng Ships Manufacture for PT Tran Pacific Ocean
- JASCON 31, 12,536 gt, built by Hantong Ship Machinery Equipment for Consolidated Projects
- JMC 2820, 3,436 gt, built by Nanjing Yonghua Shipbuilding for Cashman Equipment
- JMC 2821, 3,436 gt, built by Nanjing Yonghua Shipbuilding for Cashman Equipment
- JMC 3334, 4,948 gt, built by Jiangsu Huatai Shipbuilding for President Marine
- JMC 3335, 4,948 gt, built by Jiangsu Huatai Shipbuilding for President Marine
- JMC 4001, 9,128 gt, built by Yangzhou Sanjiangying Shipbuilding for Cashman Equipment
- JMC-259, 2,115 gt, built by Lad Services of Louisiana for Cashman Equipment
- JP-260 X 80-1, 2,488 gt, built by Bourg Drydock & Service for JP Offshore
- KATAPATAN 2, 4,267 gt, built by Yangzhou Hairun Shipping for Inte Marine
- KEPLIFT III, 1,850 gt, built by Keppel Nantong Shipyard for Nusa Maritime
- LAMNALCO 1, 3,105 gt, built by Nanjing Ding Feng Shipbuilding for QSA Marine & Logistics
- LAMNALCO 3, 3,105 gt, built by Nanjing Shunxin Ships for QSA Marine & Logistics
- LAMNALCO 4, 3,105 gt, built by Jiangdu Xin Cheng Shipyard for QSA Marine & Logistics
- LION TOLL FC 6, 2,460 gt, built by PT Karimun Sembawang Shipyard for PT SK Pelayaran Indonesia
- LUISE, 4,103 gt, built by Unithai Shipyard & Engineering for Wartsila Finland Oy Power Plants
- MHKL 36, 3,151 gt, built by Taizhou Sanfu Ship Engineering for Putra Bulian Shipping & Trading
- MITRA 01, 3,151 gt, built by Taizhou Sanfu Ship Engineering for PT Kartika Cahaya Semesta
- MM NEWFOUNDLAND, 2,165 gt, built by Signal International for McKeil Marine
- NAGA BIRU, 1,445 gt, built by BT Nanindah Mutiarra Shipyard for PT Dowell Anadrill Schlumberger
- NEWCRUZ 331, 3,151 gt, built by Nanjing Nanjiang Shipbuilding for Swiber Offshore Marine
- NICOLE 01, 3,222 gt, built by PT Jasamarin Engineering for Sin Leong Sieng Hardware & Machinery
- NOBEL SEA 231, 1,429 gt, built by Nantong Tongde Shipbuilding & Repairing for PT Perusahaan Rusianto Bersaudara
- NOBEL SEA 232, 1,429 gt, built by Nantong Tongde Shipbuilding & Repairing for PT Perusahaan Rusianto Bersaudara
- OCEANUS, 7,913 gt, built by Gunderson Marine for Ulysses
- OSPREY VALIANT, 6,969 gt, built by Nantong Tongde Shipbuilding & Repairing for Poet Shipbuilding & Engineering

OTTO 5, 10,413 gt, built by Nantong Hongqiang Marine H I for Otto Marine

P-12, 1,611 gt, built by Industrias Astivik for Transportes Logisticos Portuarios

PARTA JAYA 3006, 3,060 gt, built by Yangzhou Hairun Shipping for Sinosin Sentosa

PB 2503, 2,212 gt, built by Nanjing East Star Shipbuilding for Putra Bulian Shipping & Trading

PB 2505, 2,212 gt, built by Nanjing East Star Shipbuilding for Putra Bulian Shipping & Trading

PB 3015, 3,071 gt, built by Jantong Jinjian Shipbuilding & Repairing for Putra Bulian Shipping & Trading

PCI 401, 1,356 gt, built by Nantong Tongde Shipbuilding & Repairing for PT Tirta Samudra Emas

PCI 402, 1,356 gt, built by Nantong Tongde Shipbuilding & Repairing for PT Tirta Samudra Emas

PCI 403, 1,356 gt, built by Nantong Tongde Shipbuilding & Repairing for PT Tirta Samudra Emas

PCI 404, 1,356 gt, built by Nantong Tongde Shipbuilding & Repairing for PT Tirta Samudra Emas

PORNPIYACHARN, 2,133 gt, built by Yangzhou Hairun Shipping for Sinosin Sentosa

POSH GIANT II, 9,771 gt, built by Jingjiang Nanyang Shipbuilding for Semco Salvage

RMN 375, 3,147 gt, built by Nanjing Shunxin Ships for Putra Bulian Shipping & Trading

RMN 381, 3,147 gt, built by Jingjiang Nanyang Shipbuilding for Poet Shipbuilding & Engineering

RMN 382, 3,147 gt, built by Nantong Tiannan Shipyard for Poet Shipbuilding & Engineering

RTC 62, 4,533 gt, built by Southeastern New England Shipbuilding for Reinauer Transportation

SAUJANA TIGA, 8,508 gt, built by PT Miclyn Shipbuilding & Engineering for Dutamadu

SOEKAWATI-20, 3,151 gt, built by Yangzhou Hairun Shipping for PT Pelayaran Borneo Karya Swadiri

SOEKAWATI-707, 3,151 gt, built by Yangzhou Hairun Shipping for PT Pelayaran Borneo Karya Swadiri

SOEKAWATI-2701, 2,130 gt, built by Nanjing Suopu Shipbuilding for PT Pelayaran Borneo Karya Swadiri

SOEKAWATI-2702, 2,130 gt, built by Nanjing Suopu Shipbuilding for PT Pelayaran Borneo Karya Swadiri

SS3309, 4,256 gt, built by Nantong Tong Sheng Shipbuilding for Sinosin Sentosa

SUPPORT 4, 2,133 gt, built by Jinsheng Ships Manufacture for PT WHS Maritime Investments

SUPPORT 11, 2,133 gt, built by Jinsheng Ships Manufacture for Tonoto Shipyard

SWIBER PJW3000, 40,612 gt, built by Shanghai Zhenhua H I for PJW 3000

TAT HONG 818, 4,975 gt, built by Pacific Marine & Shipbuilding for Pacific Marine & Shipbuilding

TERAS 333, 4,952 gt, built by Yangzhou Hairun Shipping for President Marine

TETRA HEDRON, 19,902 gt, built by Nantong Mee Lee Cheong Tongbao Shipbuilding for Tetra Applied Technologies

TGH 2302, 1,468 gt, built by Jiangsu Huatai Shipbuilding for Putra Bulian Shipping & Trading

TGH 2303, 1,468 gt, built by Jiangsu Huatai Shipbuilding for Putra Bulian Shipping & Trading

TGH 2305, 1,468 gt, built by Jiangsu Huatai Shipbuilding for Putra Bulian Shipping & Trading



GMS ENDEAVOUR 6102, a 5,087 gt self elevating drilling unit, ~~✱~~DPS-2, built by Gulf Marine Services for Gulf Marine Services.



KWK LEGACY, a 179,687 dwt bulk carrier, BC-A, TCM, GRAB(25), AB-CM, CSR, GP, RRDA, built by Daewoo Shipbuilding & Marine Engineering for Jade Bulk Carriers.



SANKO NOBLE, a 19,991 dwt oil and chemical tanker, VEC, RRDA, built by Fukuoka Shipbuilding for Noble Chemicalship.



USNS WASHINGTON CHAMBERS, a 43,758 gt T-AKE vessel, Ice Class C0, ✕RC 3, NIBS, R1, VEC, SH-DLA, built by General Dynamics NASSCO for Military Sealift Command.



BETTY PFANKUCH, a 3,764 gt offshore support vessel, Fire Fighting Vessel Class 1, ✕DPS-2, built by Eastern Shipbuilding for Aries Marine.

TGH 2306, 1,468 gt, built by Jiangsu Huatai Shipbuilding for Putra Bulian Shipping & Trading

TOLL HOBART, 2,350 gt, built by Nanjing Yonghua Shipbuilding for Toll Logistics

TRUST LINE 999, 2,212 gt, built by Jinsheng Ships Manufacture for Putra Bulian Shipping & Trading

TSA 2301, 1,434 gt, built by Taizhou Sanfu Ship Engineering for Tug & Barge Services

TSA 2302, 1,434 gt, built by Taizhou Sanfu Ship Engineering for Tug & Barge Services

TSA 2303, 1,434 gt, built by Taizhou Sanfu Ship Engineering for Tug & Barge Services

UR 171, 6,969 gt, built by Nantong Tongde Shipbuilding & Repairing for Poet Shipbuilding & Engineering

W.J. MARSTON, 1,324 gt, built by Sundial Marine for Hickey Marine

WEEKS 2220, 1,337 gt, built by C & C Marine and Repair for Weeks Marine

WESTSEA 99, 5,844 gt, built by Yangzhou Hairun Shipping for C & D Prosper (Hong Kong) Shipping

WESTSEA 3005, 3,955 gt, built by Jiangsu Sunhoo Shipbuilding for Cashman Equipment

WESTSEA 3006, 3,955 gt, built by Jiangsu Sunhoo Shipbuilding for Cashman Equipment

WINBUILD 1472, 1,468 gt, built by Jiangsu Soho Marine H I for Pac-Orient Maritime

WINBUILD 1491, 1,468 gt, built by Nantong Tongbao Shipbuilding for PT Tirta Samudra Emas

WINPAN CB1, 6,019 gt, built by Nanjing Yonghua Shipbuilding for PT Winpan Offshore

Government Vessels

ASFAN, 335 gt, Fire Fighting Capability, built by Zamil Offshore Services for Royal Saudi Naval Forces

CHARLES W. HEALD, 390 gt, built by Southwest Shipyard for Texas Dept of Highways & Public Transportation

DHAHBAN, 335 gt, Fire Fighting Capability, built by Zamil Offshore Services for Royal Saudi Naval Forces

FERDINAND R. HASSLER, 809 gt, built by VT Halter Marine for NOAA Office of Marine & Aviation Operations

ROCK ISLAND, 132 gt, built by Patti Marine Enterprises for US Army Corps of Engineers

STEPHENSON II, 53 gt, built by Patti Marine Enterprises for US Army Corps of Engineers

USNS WASHINGTON CHAMBERS, 43,758 gt, Ice Class C0, ✕RC 3, NIBS, R1, VEC, SH-DLA, built by General Dynamics NASSCO for Military Sealift Command

YT 805, 352 gt, built by J M Martinac Shipbuilding for Commander Navy Region NW

Tugs, Workboats and OSVs

ACO JESSICA MOORE, 1,158 gt, ✕DPS-2, built by Master Boat Builders for Abdon Callais Offshore

ASL SCORPIO, 1,730 gt, Fire Fighting Vessel Class 1, ✕DPS-1, built by PT ASL Shipyard for PT ASL Shipyard

ATEF TIDE, 1,476 gt, Fire Fighting Vessel Class 1, ✕DPS-2, built by Guangxin Shipbuilding & H I for Blue Fleet

BAILEY TIDE, 3,601 gt, Fire Fighting Vessel Class 1, ✕DPS-2, built by Fujian Mawei Shipbuilding for Platinum Fleet

BELUGA 1, 2,437 gt, Fire Fighting Vessel Class 1, ✕DPS-2, built by Zhongshan Jinhui Ship Repair & Building Factory for Beluga 1

BETTY PFANKUCH, 3,764 gt, Fire Fighting Vessel Class 1, ✕DPS-2, built by Eastern Shipbuilding for Aries Marine

BLUE TARPON, 4,957 gt, ✕DPS-2, built by North American Shipbuilding for Nautical Solutions

BOURBON LAZURIT, 1,733 gt, Fire Fighting Vessel Class 1, \times DPS-2, built by Zhejiang Shipbuilding for Bourbon Offshore

BOURBON LIBERTY 238, 1,733 gt, Fire Fighting Vessel Class 1, \times DPS-2, built by Zhejiang Shipbuilding for Bourbon Liberty

BOURBON LIBERTY 239, 1,733 gt, Fire Fighting Vessel Class 1, \times DPS-2, built by Zhejiang Shipbuilding for Bourbon Liberty

BOURBON LIBERTY 240, 1,733 gt, Fire Fighting Vessel Class 1, \times DPS-2, built by Zhejiang Shipbuilding for Bourbon Liberty

BOURBON LIBERTY 241, 1,733 gt, Fire Fighting Vessel Class 1, \times DPS-2, built by Zhejiang Shipbuilding for Bourbon Liberty

BOURBON LIBERTY 242, 1,733 gt, Fire Fighting Vessel Class 1, \times DPS-2, built by Zhejiang Shipbuilding for Bourbon Liberty

BOURBON LIBERTY 243, 1,733 gt, Fire Fighting Vessel Class 1, \times DPS-2, built by Zhejiang Shipbuilding for Bourbon Liberty

BOURBON LIBERTY 244, 1,733 gt, Fire Fighting Vessel Class 1, \times DPS-2, built by Zhejiang Shipbuilding for Bourbon Liberty

BOURBON LIBERTY 245, 1,733 gt, Fire Fighting Vessel Class 1, \times DPS-2, built by Zhejiang Shipbuilding for Bourbon Liberty

BOURBON LIBERTY 248, 1,733 gt, Fire Fighting Vessel Class 1, \times DPS-2, built by Zhejiang Shipbuilding for Bourbon Liberty

BRAM BRASIL, 3,606 gt, Fire Fighting Vessel Class 1, \times DPS-2, built by Estaleiro Navship for Bram Offshore Transportes Maritimos

CREST EMPEROR, 2,558 gt, Fire Fighting Vessel Class 1, \times DPS-2, built by Tongfang Jiangxin Shipbuilding for Pacific Crest

DUYONG SATU, 1,297 gt, Fire Fighting Vessel Class 1, built by Sealink Engineering & Slipway for Sealink

HALUL 60, 1,951 gt, Fire Fighting Vessel Class 1, \times DPS-2, built by Boustead Penang Shipyard for Sealink Resources

HIMS 11, 1,292 gt, built by GMG Shipbuilding & H I for Valueright International

INTERBREEZE, 1,674 gt, Fire Fighting Vessel Class 1, \times DPS-1, built by Fujian Southeast Shipyard for Intermarine de Panama

JAYA AMETHYST, 1,458 gt, Fire Fighting Vessel Class 1, \times DPS-1, built by Guangzhou Hangtong Shipbuilding & Shipping for Airia Jaya Marine

KING OF CALABAR, 1,291 gt, Fire Fighting Vessel Class 1, \times DPS-1, built by ABG Shipyard for Pacific First Shipping

KITTIWAKE, 1,794 gt, Fire Fighting Vessel Class 1, \times DPS-1, built by Fujian Southeast Shipyard for PT Baruna Raya Logistics

KOSARCA TIDE, 3,393 gt, Safety Standby Service GR B 145, Fire Fighting Vessel Class 1, Oil Recovery Capability Class 1, \times DPS-2, built by Jingjiang Nanyang Shipbuilding for Orange Fleet

KPV REDANG, 3,719 gt, \times DPS-2, built by Nam Cheong Dockyard for Redang

LIZZY K, 1,714 gt, Fire Fighting Vessel Class 1, \times DPS-1, built by Jiang Men Hongda Shipyard for Intan Oceans

MARIDIVE 702, 2,379 gt, Fire Fighting Vessel Class 1, \times DPS-2, built by Jiangsu Zhenjiang Shipbuilding for Maridive & Oil Service

MARIDIVE 703, 2,379 gt, Fire Fighting Vessel Class 1, \times DPS-2, built by Jiangsu Zhenjiang Shipbuilding for Maridive & Oil Service

NAOMI SUNBRIGHTS, 1,706 gt, Fire Fighting Vessel Class 1, \times DPS-1, built by Nam Cheong Dockyard for PT Pelayaran Sumatra Wahana Perkasa

OLIN CONQUEROR, 2,555 gt, Fire Fighting Vessel Class 1, Oil Recovery Vessel Class 2, \times DPS-2, built by Estaleiro Navship for Bram Offshore Transportes Maritimos

ORANDA 1, 3,914 gt, \times DPS-2, built by Zhejiang Shenzhou Shipbuilding for Oranda 1

OSG HORIZON, 2,209 gt, built by VT Halter Marine for OSG Ship Management

PACIFIC PALLADIUM, 1,986 gt, Fire Fighting Vessel Class 1, \times DPS-1, built by PRM Offshore H I for South Sumatra Richfield Marine

PACIFIC PEACOCK, 1,329 gt, built by Qingdao Qianjin Shipyard for Swire Pacific Offshore Operations



BLUE TARPON, a 4,957 gt offshore support vessel, \times DPS-2, built by North American Shipbuilding for Nautical Solutions.



HALUL 60, a 1,951 gt offshore support vessel, Fire Fighting Vessel Class 1, \times DPS-2, built by Boustead Penang Shipyard for Sealink Resources.



OSG HORIZON, a 2,209 gt towing vessel built by VT Halter Marine for OSG Ship Management.



MARIDA, a 93,268 dwt bulk carrier, BC-A, TCM, GRAB(20), AB-CM, CSR, PORT, RRDA, built by Jiangsu New Yangzi Shipbuilding for Marida Navigation.



YOGI, a 1,028 gt yacht, built by Proteksan Turkuaz Yat San AS for LOV NB 49.



CONTI PYRIT, a 56,956 dwt bulk carrier, BC-A, CSR, ES GRAB(20), TCM, AB-CM, RRDA, built by Taizhou Sanfu Ship Engineering for Conti 168 Schiffahrts-GMBH & Co Bulker KG "Conti Pyrit".

POSH COMMANDER, 3,261 gt, Fire Fighting Vessel Class 1, \times DPS-2, built by Universal Shipbuilding for Condor Shipping

POSH RESOLUTE, 2,588 gt, Fire Fighting Vessel Class 1, \times DPS-2, built by Paxocean Engineering Zhuhai for Pacc Offshore Holdings

SHARK-51, 1,161 gt, built by Nanjing East Star Shipbuilding for Arabia Gulf Mechanical Services & Contracting

SHARK 52, 1,161 gt, built by Nanjing East Star Shipbuilding for Arabia Gulf Mechanical Services & Contracting

SHARK 54, 1,161 gt, \times DPS-1, built by Jiangsu Zhenjiang Shipyard for Arabian Gulf Mechanical Services & Contracting

SHEPHERD TIDE, 3,601 gt, Fire Fighting Vessel Class 1, \times DPS-2, built by Fujian Mawei Shipbuilding for Tidewater Marine

SMIT LABUAN, 1,696 gt, Fire Fighting Vessel Class 1, \times DPS-2, built by Guijiang Shipbuilding for Smit Singapore

STANFORD CARACARA, 1,393 gt, Fire Fightig Vessel Class 1, \times DPS-1, built by Fujian Mawei Shipbuilding for Stanford Caracara

TABLATE TIDE, 1,678 gt, Fire Fighting Vessel Class 1, \times DPS-1, built by Fujian Southeast Shipyard for Platinum Fleet

TOPAZ KHUBAYB, 1,678 gt, Fire Fighting Vessel Class 1, \times DPS-1, built by Fujian Southeast Shipyard for Topaz Khubayb

VOS ACHILLES, 1,678 gt, Fire Fighting Vessel Class 1, \times DPS-1, built by Fujian Southeast Shipyard for Offshore Support Vessels

VOS APHRODITE, 1,678 gt, Fire Fighting Vessel Class 1, \times DPS-1, built by Fujian Southeast Shipyard for Offshore Support Vessels

VOS THEIA, 1,678 gt, Fire Fighting Vessel Class 1, \times DPS-1, built by Fujian Southeast Shipyard for Offshore Support Vessels

Yachts

ANGEL'S ONE, 299 gt, built by Azimut-Benetti for ATP Marin

BATTAL, 299 gt, built by Azimut-Benetti for Redcane

CAROL, 499 gt, built by San Lorenzo for Leasint

CARPE DIEM, 749 gt, built by Trinity Yachts for Julada

FIDELIS, 496 gt, built by Perini Navi for Hathmore

GENE MACHINE, 333 gt, built by Westport Shipyard for Gene Machine

ILLUSION I, 499 gt, built by Azimut-Benetti for Mirage Leasing

MY JOHANNA, 454 gt, built by Azimut-Benetti for Bamburgh

QUINTA ESSENTIA, 781 gt, built by Heesen Yacht Builders for Molly Enterprises

SATORI, 499 gt, built by Heesen Yacht Builders for Benson Pacific West

SHARQ, 488 gt, built by Overmarine Due for Qatar National Hotel

TOLD U SO, 456 gt, built by Azimut-Benetti for Molory Yachting

YOGI, 1,028 gt, built by Proteksan Turkuaz Yat San AS for LOV NB 49

ZALIV III, 498 gt, built by Mondo Marine for Alynore Leasing

Others

AARON S. MCCALL, 496 gt, high speed crew boat, built by Gulf Craft for Seacor Marine

AL MOJIL 50, 236 gt, high speed crew boat, built by PT Kimseah Shipyard for Penguin Shipyard International

COMET-1, 27 gt, high speed crew boat, built by Southern Hemisphere Ships for Rich Marine Services

COMET-2, 27 gt, high speed crew boat, built by Southern Hemisphere Ships for Rich Marine Services

COMET-3, 27 gt, high speed crew boat, built by Southern Hemisphere Ships for Rich Marine Services

CORMORAN, 45 gt, high speed pilot launch, built by Servicio Industrial de la Marina for Cosmos Agencia Maritima

CSI-ADS1, diving system, built by Lexmar Engineering for Pacific Crest

CSI-SDS1, diving system, built by Lexmar Engineering for Crest Subsea International



CMB VIRGINIE, a 32,519 dwt bulk carrier, BC-A, AB-CM, CSR, GRAB(20), TCM, RRDA, built by Jiangsu Lanbo Shipbuilding for Bohandymar.

DEEP-C, manned submersible, built by SEAmagine Hydrospace for SEAmagine Hydrospace

FOS LEO, 785 gt, high speed safety and standby vessel, built by Sam Aluminum Engineering for Fast Offshore Supply

GEOTIGER 2, 52 gt, high speed research vessels, built by Allen Marine for Advanced Seismic Technology

GEOTIGER 3, 52 gt, high speed research vessels, built by Allen Marine for Advanced Seismic Technology

GEOTIGER 4, 52 gt, high speed research vessels, built by Allen Marine for Advanced Seismic Technology

HAWAYA, 1,070 gt, landing craft, built by Josefa Slipways for Liwa Marine Services

JANSON R. GRAHAM, 498 gt, high speed crew boat, built by C & G Boat Works for Graham Gulf

K SAT 03, diving system, built by Hallin Marine Singapore for Kreuz Shipbuilding & Engineering

MERMAID, diving system, built by Lexmar Engineering for Mermaid Offshore

OSS/ACS/08, diving systems, built by Lexmar Engineering for Offshore Subsea Works

OSS/ACS/09, diving systems, built by Lexmar Engineering for Offshore Subsea Works

PACIFIC FINDER, 3,434 gt, seismic research vessel, Ice Class "D0", built by Singapore Technologies Marine for Swire Pacific Offshore Operations

PEACOCK DUA, 152 gt, high speed crew boats, built by Strategic Marine for PT Baruna Raya Logistics

PEACOCK SATU, 152 gt, high speed crew boats, built by Strategic Marine for PT Baruna Raya Logistics

PEACOCK TIGA, 152 gt, high speed crew boats, built by Strategic Marine for PT Baruna Raya Logistics

PELICAN GRAND, 236 gt, high speed crew boat, built by Penguin Shipyard International for Pelican Offshore Services

SAIPEM FDS2, 33,622 gt, pipe laying & crane vessel, built by Samsung H I for Saipem Portugal Comercio Maritimo

SAT V, diving system, built by CCC (Underwater Engineering)

SAT-12, diving system, built by Hallin Manufacturing Services for Hallin Diving Services

SC GLORY 2, 236 gt, high speed crew boat, built by Penguin Shipyard International for SC Offshore

SC GLORY 3, 236 gt, high speed crew boat, built by Penguin Shipyard International for Pelican Offshore Services

SMS VALIANT, 244 gt, high speed crew boats, built by Sam Aluminium Engineering for PT Wintermar

SMS VENTURE, 244 gt, high speed crew boats, built by Sam Aluminium Engineering for PT Wintermar



OVERSEAS MARTINEZ, a 46,653 dwt crude and oil product tanker, SH, SHCM, ES, VEC, RRDA, built by Aker Philadelphia Shipyard for ASC Leasing.



MATISSE, a 34,416 dwt bulk carrier, BC-A, AB-CM, GRAB(20), TCM, GP, CSR, RRDA, built by SPP Shipbuilding for Matisse Shipping.



ANTONELLA LEMBO, a 93,257 dwt bulk carrier, BC-A, AB-CM, CSR, GRAB(20), PORT, TCM, RRDA, built by Jiangsu New Yangzi Shipbuilding for Fertilis.



STORNES, a 39,353 dwt bulk carrier, BC-B, SH, SHCM, TCM, built by Yantai CIMC Raffles Shipyard for Van Oord Marine Services.

Recent Class Contracts

TANKERS

Five 81,000 gt/157,000 dwt for Cardiff Marine at Jiangsu Rongsheng H I
 Four 5,000 gt/7,000 dwt at Wenling Xianfeng Shipyard
 Two 160,000 gt/320,000 dwt at New Times Shipbuilding
 Two 161,500 gt/317,396 dwt at Hyundai H I
 Two 70,000 gt/163,000 dwt at New Times Shipbuilding
 Two 81,200 gt/158,269 dwt at Hyundai H I
 Two 45,500 gt/75,000 dwt for Navios Tankers Management at Sundong Shipbuilding & Marine Engineering
 One 62,400 gt/112,070 dwt at Hyundai H I
 One 50,000 gt/85,000 dwt for PT Pertamina at New Times Shipbuilding

BULK CARRIERS

Three 37,500 gt/75,187 dwt at Shanghai Shipyard
 Two 62,794 gt/76,494 dwt for Euroceanica at SPP Shipbuilding
 Two 44,000 gt/81,407 dwt for Alpha Tankers & Freighters at Hyundai Samho H I
 One 91,000 gt/176,000 dwt at Shanghai Jiangnan-Changxing Shipbuilding
 One 65,540 gt/81,547 dwt for Time Maritime at SPP Shipbuilding
 One 45,259 gt/82,000 dwt for Prosperous Union Holding at CSSC Guangzhou Longxue Shipbuilding
 One 45,054 gt/82,000 dwt at Jiangsu New Yangzi Shipbuilding
 One 44,000 gt/82,000 dwt at Yangfan
 One 40,200 gt/74,882 dwt for Mi-Das Line at Sasebo H I
 One 40,600 gt/74,702 dwt at Sasebo H I
 One 32,300 gt/57,000 dwt at Jiangsu Hantong Ship H I
 One 22,800 gt/37,000 dwt for Star Bulk Carrier at Saiki H I
 One 21,000 gt/34,000 dwt at Dae Sun Shipbuilding
 One 17,070 gt/28,000 dwt for stock at Imabari Shipbuilding

OFFSHORE

Column Stabilized Units

One 7,000 gt/1,000 dwt for Marine Assets at Fujian Mawei Shipbuilding

Drill Ships

Three 59,000 gt for Seadrill Offshore at Samsung H I

Self Elevating Drilling Units

One 5,000 gt for CS Liftboats at Gulf Island Fabrication

MISCELLANEOUS

Barges

Forty-eight 2,000 gt for P & Q Maritime at Yuexin Shipbuilding
 Four 1,430 gt for Fujian Zhongshe Machinery & Equipment at Nantong Tongde Shipyard
 Four 1,430 gt for PT BRM Marine at Nantong Tongde Shipyard
 Three 5,000 gt at Nantong Jinjian Shipbuilding & Repairing
 Three 3,151 gt for Poet Shipbuilding & Engineering at Nantong Tiannan Shipyard
 Three 2,312 gt at Tongzhou Huaya Shipbuilding
 Two 13,270 gt for Seadrill Tender Rig at COSCO Nantong Shipyard
 Two 6,900 gt for Pacific Crest at Nantong Tong Sheng Shipbuilding
 Two 6,157 gt for Asian Shipping at Wujiang Soho Xincheng Shipyard
 Two 3,150 gt for Seabridge Marine at Yangzijiang Shipyard
 Two 2,971 gt at C & C Marine and Repair
 Two 2,500 gt at Nantong Hongqiang Marine H I

Two 2,155 gt for Canal Barge at Gulf Island Fabrication
 Two 2,139 gt at Halimar Shipyard
 Two 2,125 gt at Nantong Tongde Shipbuilding & Repairing
 Two 2,000 gt for Pac-Ocean Shipping & Trading at Nantong Tongbao Shipbuilding
 Two 1,332 gt for Weeks Marine at C & C Marine and Repair
 One 5,500 gt for Pacific Crest at Nantong Tong Sheng Shipbuilding
 One 5,500 gt at Nantong Hongqiang Marine H I
 One 5,000 gt at Nantong Tongcheng Ship Manufacturing
 One 4,900 gt for Bouchard Ocean Services at Bollinger Marine Fabricators
 One 4,470 gt for Dyna-Mac Engineering Services at Paliy Marine & Offshore Engineering
 One 4,370 gt for Asian Shipping at Wujiang Soho Xinsheng Shipyard
 One 4,286 gt for Resolve Marine at Corn Island Shipyard
 One 1,465 gt at Tongzhou Huaya Shipbuilding

Government Vessels

Six 168 gt for US Army Corps of Engineers at Basic Marine
 Three 600 gt for US Army Corps of Engineers at Conrad Industries
 One 1,140 gt at Garden Reach Shipbuilding & Engineering

Tugs, Workboats and OSVs

Four 1,678 gt at Yuexin Shipbuilding
 Three 2,000 gt at Bordelon Marine
 Three 1,678 gt for Offshore Support Vessels 10 at Fujian Southeast Shipyard
 Two 4,500 gt for Tidewater Marine at Bay Shipbuilding
 Two 3,470 gt for Teras Offshore at Universal Shipbuilding
 Two 3,350 gt at GMG Shipbuilding & H I
 Two 2,340 gt at Poet Shipbuilding & Engineering
 Two 1,690 gt at Fujian Huahai Shipbuilding
 Two 1,600 gt at GMG Shipbuilding & H I
 Two 1,163 gt at Hin Lee (Zhuhai) Shipyard
 One 3,396 gt for Harvey Gulf International Marine at Eastern Shipbuilding
 One 2,998 gt for Galliano Marine Service at North American Shipbuilding
 One 2,500 gt for Multivest Enterprises at Guangzhou Hangtong Shipbuilding
 One 2,200 gt at Eastern Shipbuilding
 One 1,600 gt at Jingjiang Nanyang Shipbuilding
 One 1,600 gt at Poet Shipbuilding & Engineering
 One 1,200 gt for Smit at Guijiang Shipbuilding

Yachts

One 500 gt at Azimut-Benetti
 One 500 gt at San Lorenzo
 One 484 gt at Sarp Yat
 One 400 gt at Italyachts

Others

Two 7,800 gt general cargo carrier for V M Salgaocar & Brother at Nantong Tongmao Shipbuilding
 One 13,690 gt floating dry dock at Chengxi Shipyard
 One underwater system for Oceaneering International at Arc Controls



GAS CERBERUS, a 5,016 m³ liquefied gas carrier, SHR, SHCM, FL (25), built by Kanrei Shipbuilding for Carinthia.



PACIFIC QUARTZ, a 47,941 dwt crude oil and product tanker, SHR, VEC-L, GP, RRDA, built by Iwagi Zosen for Kairasu Shipping.



BOTTIGLIERI FLAVIO BORRIELLO, a 93,222 dwt bulk carrier, BC-A, AB-CM, CSR, GRAB(20), PORT, TCM, built by Jiangsu New Yangzi Shipbuilding for Giuseppe Bottiglieri Shipping.



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ON THE COVER

Starting as early as 1 January 2013, new vessels will need to be designed to mandatory Energy Efficiency Design Index (EEDI) baseline values for energy efficiency.

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