Wiernicki Takes the Helm at ABS
New Leadership Will Chart the Class of the Future

On 1 May 2013, Christopher J. Wiernicki assumed the position of Chairman of ABS and ABS Group of Companies with the retirement of Robert D. Somerville from the position. The ABS and ABS Group Board of Directors voted at their respective April meetings to transfer the additional duties of Chairman to Wiernicki who also serves as ABS President and Chief Executive Officer.

“I appreciate the confidence expressed by the ABS and ABS Group Board of Directors in naming me Chairman,” Wiernicki says, “and I look forward to proving each day of my tenure that their trust has been well placed.”

With the expanding scope of classification in recent years, it is clear that the role of class will continue to change at an accelerated pace, and Wiernicki is optimistic about the organization’s ability to meet this challenge.

“ABS is determined to be the leader in defining the role of class in this new environment and will continue to partner with industry in targeted research and development efforts that address operational challenges in today’s exacting frontiers,” Wiernicki says. “Innovation will be the focus of ABS’ entire global technology program,” he says.

“Today’s playing field is being framed by regulatory initiatives, new technologies and customers who want their preferred class society to be better integrated with their operational and safety programs. ABS has to be positioned to continue to promote the security of life and property at sea and the natural environment in a constantly changing regulatory and technological environment,” he says.

Wiernicki is eager to take on the challenges that lie ahead. “My primary goal will be to ensure that ABS is at the forefront when it comes to providing the innovative products and efficient services that will define ABS as the class society of the future,” he says.

This transfer of responsibilities to Wiernicki from Somerville is the final step in a carefully planned leadership transition strategy that has been executed over the past two years.

“It is imperative that an organization of the size and complexity of ABS has a well-defined succession plan in place for all its senior executives and particularly so for the roles of Chairman, Chief Executive Officer, President and Chief Operating Officer,” said Somerville in announcing his decision to step down at the end of April after 43 years of service with the society.

“Over the last two years we have been implementing just such a strategy to ensure that our employees, our clients and all those who look to ABS will continue to receive a seamless and consistent development and delivery of the growing portfolio of safety-related services which we provide,” says Somerville.

Wiernicki, a 20-year veteran of ABS, joined the company in 1993 as Vice President of Engineering for the ABS Americas Division. Other senior positions include President and COO of ABS Europe Ltd., Chief Technology Officer of ABS, and President and COO of ABS Group of Companies, Inc.

Wiernicki holds a Bachelor of Science in Civil Engineering from Vanderbilt University, a Master of Science in Structural Engineering from George Washington University and a Master of Science in Ocean Engineering from Massachusetts Institute of Technology. Wiernicki is a graduate of the Harvard Business School Advanced Management Program.
At the annual ABS members meeting held in New York City, recently retired ABS Chairman Robert D. Somerville reported that “despite the uncertainties of the global economy and of the shipping and offshore markets, ABS turned in yet another record performance.”

In 2012, the ABS-classed fleet reached 193.5 million gross tons, a growth rate of more than 4 percent year-on-year. ABS also maintained its leading position in the global orderbook with 21 percent of all vessels on order designated for ABS class.

With nearly 70 percent of all vessels aged ten years or less, ABS has one of the youngest fleets showing a strong foundation for a successful future of the organization.

“ABS closed 2012 firmly entrenched as the second largest society in terms of gross tons in class and as the largest society in terms of new tonnage on order,” said ABS President and CEO Christopher J. Wiernicki, who assumed the position of ABS Chairman upon Somerville’s retirement. “Development and delivery of technically advanced products and superior service are the essential components of ABS’ position of leadership.”

ABS saw continued success in several key sectors of the marine industry. Market share for new construction containerships continued to grow year-on-year, ending 2012 with 26 percent of the orderbook, including 29 ultra large containerships. ABS also continued its strong presence in the LNG carrier sector with 22 percent of existing tonnage and 35 percent of tonnage on order – positioning ABS as the top classification choice for LNG newbuilds. In the bulk carrier market, ABS grew its overall tonnage by 11 percent and has nearly nine million gross tons on order.

“Looking forward, we will continue to develop innovative products and services that help our members and the industry in these challenging markets improve efficiencies, increase production and minimize downtime,” said Wiernicki. “As the class of the future, our efforts will become increasingly risk-based, technologically driven, holistically framed and integrated across the entire life cycle of vessels and offshore assets.”

In the offshore market, ABS began 2012 with a strong position and continued to lead in the mobile offshore drilling unit (MODU) and floating production unit sectors. The jackup market, where ABS continues to have the majority share, remained robust, with 13 ABS-classed jackups delivered in the course of the year and 60 new orders.

Throughout 2012, the growth in the offshore market centered on orders for new drillships. There were 31 new orders in 2012, with 23 awarded to ABS, including a large number of units earmarked for pre-salt drilling programs offshore Brazil. ABS ended 2012 with 51 drillships on the orderbook, equating to 68 percent of the new construction market.

ABS continues to thrive in the floating production, storage and offloading (FPSO) vessel market, closing out 2012 with 43 percent of the existing FPSOs and 35 percent of newbuilds.

“The positive direction of ABS is best highlighted by our orderbook as you see continued growth in nearly every market sector,” said ABS Executive Vice President and Chief Operating Officer Tony Nassif. “In 2012, ABS consolidated its position as the preferred classification society for new construction in both the marine and offshore markets.”

In the area of Port State Control, ABS maintained its position as a top performer with the United States Coast Guard and Paris and Tokyo MOUs in their annual reports on class-related detentions.
Robert D. Somerville retired as Chairman of ABS effective 30 April after 43 years of service with the classification society and a half century of involvement in the international shipping and offshore industries. Activities used the occasion to talk with Somerville about the changes he has witnessed, the future direction of classification and to recall some of the more memorable moments in an extraordinary career.

**Activities:** Do you have any regrets about your decision to retire?

**RDS:** There is a time for everything in life and it is now time for a new generation to take on the responsibilities of shepherding ABS through the inevitable challenges that lie ahead. So no, there are no regrets – many fond memories and many new opportunities for me to pursue, both personally and professionally.

**Activities:** Does that mean you will still have some involvement in the marine industry?

**RDS:** Whenever there is an opportunity for me to share my experience and the knowledge and insights I have gained over the years I will consider it, provided it leaves me with the time for my family. I am looking forward to that after so many years of extended periods away from home.

**Activities:** You have become known for the amount of traveling you have done on behalf of ABS. Why did you set yourself such punishing schedules?

**RDS:** ABS is an international organization. We have offices in 70 countries and clients in almost as many. In my time as President and as Chief Executive I always felt that I had no greater operational responsibility than to keep in as close touch as possible with our global staff and with our clients.

**Activities:** You specifically mention technical challenges yet you have also gone on record several times over the last few years referring to the broadening scope of a classification society’s responsibilities. How have these changed class from when you first joined ABS?

**RDS:** In the most important way, class has not, and hopefully never will change. Our mission at ABS is promoting the security of life and property and preserving the natural environment. That is the foundation for all our activities. What has changed in countless ways is the manner in which we do that. Technical advances have given us much more sophisticated tools to carry out those traditional aspects of our work. But perhaps the biggest change I have seen has been the manner in which the importance of the human element within maritime safety has expanded our responsibilities into completely new areas.

**RDS:** There is a time for everything as the Rule book was a fraction of what it is today. The ship types, and their structures were less complex, the tools possible with our global staff and with our clients.

The one thing to remember about the international shipping industry in particular, and to a growing extent the offshore industry as well, is that these are intensely personal industries. Yes, commercial considerations – particularly the quality of service delivered – always remain the paramount factor in winning and retaining clients but you can never underestimate the importance of personal relationships and the trust they evoke.

In many instances those relationships stretch back decades. I have many friends with whom those initial bonds were formed 30 or more years ago when I was a young surveyor and they were in junior operational management positions within their companies. Today they are some of the most prominent fleet operators in the world and the bonds that were formed all those years ago are stronger than ever.

But relationships wither if not nurtured. It was never a hardship for me to travel around the world to strengthen those relationships and to gain insight into the managerial, operational and regulatory challenges their companies were facing. That sort of feedback is essential if a classification society is to remain relevant, able to move quickly to identify the technical challenges of its clients and to respond by developing the new products or services that can help those clients overcome them.

In short order the ISM Code was followed by the ISPS Code which required our surveyors to further expand their competencies to auditing against security management standards. And this year they will also begin assessing vessels for compliance with the Maritime Labour Convention which takes us into much more detailed areas such as hours of work, the age of crew members and the living conditions of the accommodation spaces.

When I look back, I had a much clearer, and narrower, definition of my responsibilities when I was posted to my first field surveyor position than does a new ABS surveyor of today. The Rule book was a fraction of what it is today. The ship types, and their structures were less complex, the tools...
we had available were essentially a flashlight, a hammer, a hard hat and a notebook. The regulatory environment was far simpler and there was no requirement to directly assess the management of the vessel.

With that said, some things never change. Of course I would still mentally assess the management of the vessel from the time I first went up the gangway – it would shade the entire manner in which I would conduct the survey if the vessel appeared to have been poorly maintained or the officers and crew didn’t appear to know their stuff. And the key skillset of a successful surveyor – judgment based on knowledge and experience – is as important today as it has ever been.

**Activities:** You mention the regulatory response to the human element issue but does this affect class directly?

**RDS:** Very much so. We now have, and have had for many years, a very active Human Factors team within our Technology department. There is a strong crossover between technical evaluation of a design and the human element as it relates to safety. We have a wide range of Guides and Guidance Notes available addressing issues such as ergonomics, bridge design, the impact of vibration, noise, light and indoor climate on job performance and safety. And our Nautical Systems Division offers owners a wide range of software to help the crew on board to better manage virtually every aspect of the vessel’s operation, including the increasingly onerous task of recordkeeping to demonstrate compliance with both regulatory requirements and auditable industry standards.

**Activities:** In light of all these changes, would you still want to start out as a surveyor today?

**RDS:** Absolutely. I loved being a surveyor. It was, and still is a great job and, for those with wider aspirations, a stepping stone to a great career within the industry. In my travels around the world there is nothing I like better than to spend the evening with some of the surveyors, swapping stories and sharing experiences.

There is a great sense of camaraderie between surveyors, regardless of nationality perhaps because it is such a unique job that can be challenging, sometimes dangerous, always interesting, a lot of fun yet still carries with it the enormous responsibility of verifying that the vessel surveyed meets all the applicable standards.

Nothing has changed the fundamental question that every surveyor should ask himself before he signs off and leaves a ship – “Would I let my daughter sail on this ship?”

**Activities:** Yet sometimes surveyors don’t get everything right?

**RDS:** We are back to human nature. We can do everything we possibly can to keep all of our surveyors up to date with the latest Rule requirements, the newest regulations, the improvements in our own internal quality system; we can give them new, computer-based tools to assist them and yet, yes, there still will be occasional mistakes.

I have always cited our Port State Control record as the best public accounting of how well we are doing with the quality of our surveys. Our goal has always been a zero class-related detention record on a worldwide basis in every calendar year. We have got close, but we have never yet reached our goal. I fully expect that this pursuit will continue and that, in the not too distant future we will attain it.

**Activities:** Perhaps this is a related question. What do you see as the biggest threat to the classification sector?

**RDS:** Without a doubt it is our continued exposure to unlimited liability for simple negligence or omissions, particularly on the part of our surveyors. As I just indicated, it is inevitable that, on occasion, one of our 1,200 plus surveyors will miss something. Should that omission play even the slightest contributory role in a subsequent incident involving the vessel, particularly if the incident results in substantial oil pollution, the class society alone among all the members of the safety regime, can be exposed to a claim for which it is unable to limit its liability.
Such exposure for simple negligence is out of step with industry practice, whereby the owner, in particular, can limit liability. It also does not fit with any rational interpretation of the legal principle of equity. It simply makes no sense for a class society to be exposed to a billion dollar claim based on a duty for which the fee was no more than a few hundred dollars.

**Activities:** Are you referring to the *Prestige* case in which ABS was exonerated in the courts?

**RDS:** The *Prestige* was just the latest in what has been a series of attempts over many years to hold class accountable for the failures of others. Unfortunately, many of those attempts have been made against ABS as suit can be brought in the US which is, perhaps, the most litigious nation in the world. Other societies enjoy a far greater level of protection under their national legal infrastructure. Fortunately, every attempt to date to hold class liable in these cases has failed. But our past success in this area is no guarantee against future actions that can be enormously expensive to defend against and can be unwarrantedly damaging to a class society’s reputation.

**Activities:** Is there a way out of this dilemma?

**RDS:** It is my hope that ultimately the member nations of the IMO can recognize the unfairness of the current situation and adopt a convention that will extend reasonable protection under their national legal infrastructure. Fortunately, every attempt to date to hold class liable in these cases has failed. But our past success in this area is no guarantee against future actions that can be enormously expensive to defend against and can be unwarrantedly damaging to a class society’s reputation.

**Activities:** In its defense ABS has frequently pointed out that it is a not-for-profit organization whose activities are ultimately in the public interest. Is this organizational model still relevant in today’s environment?

**RDS:** Yes. I strongly believe that it is but I also acknowledge that it is a much more complex question than when I first joined ABS. At that time, I think without exception, all the larger class societies were either governmental or quasi-governmental agencies, foundations, charities or other versions of not-for-profits. At that time too, marine classification was either their sole activity or nearly so.

That complexion has evolved over the years. We still have a proportion of the current IACS members that are either governmental or quasi-governmental agencies. We remain a not-for-profit as it relates to our classification activity and Lloyd’s Register (LR) remains a charity. But we now have one society that is part of a large publicly traded company; others that, since classification activity is a minority part of their activities, have transitioned to taxable entities and other variations.

Several societies have aggressively pursued a policy of diversification which has reduced the proportionate share of marine classification within their overall portfolio. While it could be argued that this may have reduced their focus on the class side of their business, it cannot be disputed that it has immeasurably strengthened them from a financial viewpoint. That financial strength could then be used to strategically improve their position within the classification sector.

The response of ABS has been to pursue a degree of diversification to not only protect us against any such market-based attack but to also expand the overall range of products and the in-house skills we have available to enhance our core classification activities.

Nowhere is this more apparent than in our enhanced capabilities in the areas of risk assessment, an approach to safety that has long been used by more advanced shore-based industries but that has only more recently begun finding its way into the shipping and offshore sectors. For example, the IMO is now committed to using the principle of goal-based standards and the application of risk management to its future regulatory development.

Because of our earlier diversification into the area of risk assessment and management, ABS has been a leader in the adoption of risk principles to the development of class standards.

Going back to the original question with respect to the continuation of the not-for-profit aspect of ABS, the reason that I believe that this remains an effective approach to safety is that it forces us to maintain a very distinct separation between our class and non-class activities. I think it is essential that we be seen to do so if we are to maintain our integrity as an independent arbiter of marine safety.

I have noted a worrying tendency for some of the other prominent societies to blur this demarcation to the extent that they could be considered partners in developing a new design of ship or offshore structure that they then
review as a class society. Regardless of how conscientiously they may attempt to maintain the necessary appearance of impartiality, such a situation points to a conflict of interest that, in the long run, has the potential to seriously damage the reputation of the classification process to the detriment of us all.

**Activities:** Since you are talking about other class societies, what is your feeling about current and possible future attempts at consolidation between societies?

**RDS:** We will see if the regulatory authorities and the market response deem the proposed Det Norske Veritas (DNV)-Germanischer Lloyd (GL) merger to be a success. We tend to think of it as primarily a merger of classification societies but it should be borne in mind that the industrial activities of both organizations probably played as big or bigger role in spurring the proposed consolidation. As to the possibilities of other societies following suit, it has been, and will continue to be very difficult to orchestrate such mergers for a wide variety of reasons – organizational structures, corporate philosophies, national impediments and so on.

I do think there are opportunities for selective cooperative agreements between societies. These could range from as broad an approach as the various global alliances that have been crafted by the more prominent airlines to specific ventures such as the one between ABS and LR to produce common software for the common structural rules for bulk carriers and tankers.

**Activities:** Absent mergers, the fastest growing societies, on a proportional basis, seem to be the national societies in Asia. Can the western societies maintain their current positions given the emergence of Asia as the new economic powerhouse?

**RDS:** There is no doubt that Asia is the fastest developing area of the world. Every economic prediction has China becoming the world’s dominant economy by 2030 if not earlier.

The question is to what extent protectionist policies and national allegiances will distort the future classification market. Take the example of the Japanese class society which has the largest classed fleet to indicate what we should expect. It is probable that the Chinese and Korean societies will grow significantly over the coming years. We are also already seeing a trend on the part of China to expand its national flag fleet’s share of its own trade so I think it is reasonable to see a China dynasty of Chinese-built ships for Chinese owners for China’s trade classed with the national society within a relatively short time.

However, those same economic predictions forecast a constant increase in the overall volume of world trade as the global population expands. So we are not facing a situation where everyone is fighting for a bigger slice of an existing pie but rather a share of a much larger pie. Traditional shipping nations such as Greece will remain essential within world trade.

From an ABS perspective, we are very much an American organization in one key respect – we never shy away from competition provided it is based on a free, open and reciprocal market. We have demonstrated over the years that we are internationally competitive and our global structure and multi-national workforce will keep us competitive in every corner of the world.

**Activities:** As you move on from ABS, what will you remember most?

**RDS:** Without question it is the people that I have worked with or have known; remarkable people who have passed on so much to me from their mentoring and the way they have conducted themselves both professionally and personally. There has been quite a cast of characters who will be memorable for their actions, their love of life, their idiosyncrasies. There have been some of the finest professionals anyone could hope to work with. And many within the staff of ABS who have made my job so much easier because of their extraordinary dedication and commitment.

And there have been the clients who have entrusted ABS with the salekeeping of their vessels. In some cases I have had the privilege of working with two or three generations of the same family, each in turn as committed to the business of running their fleets. They have looked at their responsibilities within the family enterprise as one of custodianship for future generations and I have adopted that same philosophy towards my own time at ABS. I have been intent on strengthening the organization so that I could pass on to future generations one that is even stronger than the one that was handed to me.
As we wrestle today with the continued impact of a sluggish global economy, regulators are identifying new ways to help mitigate the impact of transportation on the environment. The future of environmental regulations, especially related to energy efficiency, and the need to optimize performance to improve returns will have the biggest impact on future vessel designs and operations.

The next generation of vessels and offshore assets must be designed to use cleaner fuel and to burn less of it, emit fewer harmful emissions and operate in an environmentally sensitive manner not only within sensitive regions, but wherever they transit or work. They also will have to address and contend with transport of invasive species and pathogens, and they will need to minimize generation of underwater noise that is considered harmful to aquatic species.

The lists of new environmental regulations seem to grow daily, and that trend will continue. These regulations are an inextricable component of business plans because meeting them in a cost-effective manner will allow more efficient operations. But improved operating efficiencies are only part of an effective path forward. There also is a need for companies to have access to a database that stores actions taken to meet regulations so they can demonstrate to authorities that they are actively addressing regulatory requirements. Future efficiencies will be driven by the ability to capture, analyze and act on a broad spectrum of operational data points.

Class stands at the crossroads of regulatory compliance and operational efficiency. While we must maintain our historic role of protecting life, property and the environment, the new realities require a shift as class moves from a primary role of certification into a more holistic role that includes verification of the next generation of safety and environmental systems and operational performance.

The class of the future will be fueled by the ability to gather real-time operational data that can be used to help assess performance and that can be integrated in developing tailored solutions for the unique challenges faced by operators around the world. There is no place in this rapidly changing landscape for a one-size-fits-all approach. Owners and operators seeking to address environmental requirements and maximize performance are looking to ABS for solutions that fit their specific needs.

ABS is taking the lead in addressing these challenges. We are increasing our investment in research and development, and we are adding human resources. ABS is positioned to meet the needs of the marine and offshore industries today and to help find solutions for tomorrow.

This issue of Activities touches on a number of initiatives that have been developed to help designers, builders, owners and operators manage the regulatory and performance expectations that will dictate future operations in the industries we serve.

No single organization can navigate the uncharted waters of the future alone. But collectively, industry, government, academia and class can create the innovative solutions that will be needed to answer future challenges. By using the resources at hand and investing in research, ABS will help asset owners optimize performance across the entire life cycle of their fleets while minimizing some of the most volatile cost points in operations. We know this can be achieved in an environmentally responsible manner, and we are committed to being a part of the solutions.
ABS Forms Operational & Environmental Performance Team

The global focus on marine and offshore performance issues is increasing,” says Christopher J. Wiernicki, ABS Chairman and CEO. “With the formation of this new group, ABS has substantially increased our ability to meet clients evolving operational and environmental needs.”

Howard Fireman, Vice President, Operational and Environmental Performance (OEP), will lead this new team. Fireman joins ABS from the US Navy, where over the past 35 years he was recognized as a leader in the areas of ship design, hull form optimization, total ownership cost management, systems engineering, design integration and operational support. He will oversee ABS’ energy efficiency, vessel performance and environmental programs efforts, approving product development and class service-related activities in these areas.

Fireman sees enormous potential for his group to have a global impact. “My goal is for the ABS Operational and Environmental Performance team to become a trusted advisor to owners, designers, operators and builders around the world,” Fireman says. “I am confident that this consolidated center of excellence will provide thought leadership and exciting innovations for our clients as well as the larger maritime and offshore industries.”

The hand-picked leadership team includes well-known contributors to the field of environmental and operations performance. Joining the group as Director of Energy Efficiency, Jan de Kat is a leader in the disciplines of ship dynamics and stability, vessel safety and operational performance. de Kat also brings significant experience in numerical and experimental methods to predict ship performance. Jakob Buus Petersen, who has a wealth of experience in vessel performance, ship maneuvering, seakeeping and offshore operations, joins ABS as Director of Vessel Performance.

Thomas Kirk, Director of Environmental Programs and his team will continue to focus on ballast water management, biofouling and air emissions with a key eye toward identifying cost-effective solutions.

The final member of the management team, Ah Kuan Seah heads the Global Performance Center in Singapore. The center will address industry needs for operational excellence and energy efficiency.

“This is the foundation for a new and energized solution suite for ABS that will redefine the future role of class,” Fireman says. “Other societies will no doubt be looking to pattern new services based on this precedent, but the superior resources ABS brings to bear will allow us to maintain the technology and innovative leadership the industry has come to expect from us. With the creation of this department, ABS is well positioned to respond quickly and effectively to the industry’s needs.”
ABS Announces Significant Investments in Singapore

In April 2013, ABS announced plans to expand its operational workforce and increase its research and development (R&D) efforts in Singapore. These initiatives demonstrate ABS’ ability to address challenging technology requirements for its marine and offshore operations not only in the Pacific region, but globally as well.

The Singapore Innovation and Research Center (SIRC) and the ABS Global Performance Center lay the foundation for ABS’ strategic initiatives. More importantly, these R&D efforts will help Singapore expand its global trade presence by focusing on the next generation of safety performance and management systems.

“Our organization recognizes the growing role that Singapore is playing in the marine and offshore industries,” says Christopher J. Wiernicki, ABS Chairman and CEO. “These initiatives will allow ABS to deliver more value in a country that is essential to regional development.”

SIRC, which will be led by Dr. Gu Hai, will expand upon its current R&D activity to include marine operations and performance management. According to Wiernicki, SIRC will leverage the success of the Singapore Offshore Technology Center and target innovative solutions that can be put to work across the marine and offshore industries.
SIRC will also be involved with the ABS-MPA Maritime Technology Professorship (MTP) Program at the Singapore University of Technology and Design (SUTD), which will promote marine and offshore-related research and education in Singapore. Through the MTP program, a professor or consultant with specialized knowledge in marine and offshore-related technologies will be appointed as the ABS-MPA Maritime Technology Chair Professor in SUTD to provide leadership across the university’s academic program.

At the same time, ABS’ Global Performance Center will address industry needs in operational performance and energy efficiency, assisting clients in solving operational challenges throughout the life cycle of a vessel or offshore asset. Ah Kuan Seah will serve as Director of the Global Performance Center. He will be supported by the Center’s Head of Energy Efficiency and Environmental Performance, Dr. Franck Violette and Head of Vessel Performance, Dr. George Wang.

“As an organization that has worked alongside industry, academia and government bodies in Singapore for more than 50 years, ABS recognizes the need for resources that can help Singapore expand its presence in global trade,” says Wiernicki. “The introduction of these initiatives reaffirms our longstanding commitment to Singapore, elevating its significance as an integral part of ABS’ future.”

Wiernicki also noted that both of these initiatives will expand the existing workforce, primarily through local recruitment of engineers, surveyors and researchers.
The marine industry is facing the challenges of identifying and integrating new technologies and practices to comply with stricter international, regional and national environmental requirements. One key objective of the regulations is to reduce the impact of air emissions from international shipping.

Regulatory authorities are taking action to reduce the contribution of the shipping industry towards SOx emissions and exhaust gas scrubbers are one option for meeting requirements. To support designers, owners and operators reviewing the viability of exhaust gas scrubbers to meet current and forthcoming regulations, ABS has released an advisory for Exhaust Gas Scrubber Systems.

As the industry seeks solutions for increasingly stringent low sulfur fuel requirements, owners and operators should fully understand the impact of the regulations and properly assess available technologies. Fuel switching, which is frequently utilized in emission control areas today, is not expected to be a viable option in the future. Exhaust gas scrubber systems, the use of higher-priced low sulfur fuels and alternative fuels are among the options available to address emission requirements, but challenges remain.

“Owners and operators mindful of stringent low sulfur fuel oil requirements are seeking cost-effective solutions that best meet their expected operating profile,” says ABS Vice President for Operational and Environmental Performance Howard Fireman. “This advisory highlights the relevant regulatory and technical considerations that should be taken into account when making decisions on how to comply with emissions requirements.”

When considering technology and practices to meet emissions regulations, ABS’ Operational and Environmental Performance team can be relied on to clarify the requirements and explain the available technologies, including potential safety concerns. The team helps owners and operators determine the appropriate course of action for their unique circumstances.

While exhaust gas scrubber systems are a generally permitted alternative to low sulfur fuels for meeting emissions requirements, limited commercial application experience exists within the maritime industry. Exhaust gas scrubbers offer the potential to meet SOx requirements while still burning traditional marine fuel oils. The advisory, developed by members within the ABS Technology department, seeks to inform owners and operators on the many aspects of regulatory and technical considerations in selecting appropriate systems.

In addition to the Exhaust Gas Scrubber Systems advisory, ABS has previously published the Fuel Switching Advisory Notice and the Guide for Propulsion and Auxiliary Systems for Gas Fueled Ships that can help assess and develop solutions to meet emissions requirements.

The Exhaust Gas Scrubber Systems advisory is available for download from the ABS website, www.eagle.org. Navigate to Resources, Publications and then utilize the search field to locate the advisory.
AIP Granted for Small LNG Carrier Innovative Design

The changing liquefied natural gas (LNG) landscape is creating potential markets for smaller LNG carriers, and French maritime engineering company Gaztransport & Technigaz (GTT) is developing technology that will help it penetrate the new market. The company has developed an innovative design for a 32,000 m³ capacity LNG carrier that will be able to access inland water routes, providing bunkering, feeder trade and archipelago trade in regions where the demand for LNG is growing. GTT has submitted its new design to ABS for approval in principle (AIP).

The reason for this innovation, according to Patrick Janssens, ABS Vice President for LNG, is the emergence of new markets that require smaller LNG carrier designs that can supply satellite terminals, industrial users and LNG bunkering stations. According to Janssens, GTT is one of the first companies to target this emerging market. “While a few membrane LNG carriers in the 20,000 m³ capacity range were built in the 1990s, this is the first new design to be introduced since that time,” he says.

ABS has granted AIP for the membrane system design based on ABS criteria contained in the Rules for Building and Classing Steel Vessels, the Guide for Building and Classing Membrane Tank LNG Vessels and the Guidance Notes on Strength Assessment of Membrane-Type LNG Containment Systems Under Sloshing Loads.

According to GTT, its small to mid-scale membrane-type LNG carriers have a compact and efficient design that provides the best ratio between cargo volume and gross tonnage and can be designed for any capacity. And the systems are suitable for single or twin-screw propulsion as well as dual-fuel engines with diesel-electric or diesel-mechanical systems. They also offer low harbor and operating costs.

GTT says there is no need for reliquefaction facilities for most operating profiles. Finally, the cargo tank design has operational advantages including minimum ballast water requirements and a cargo volume distribution with full flexibility.

As regional demands continue to evolve, ABS recognizes that working with industry to advance technology is critical.

“This technology will help balance regional demand, particularly in China, where several companies are evaluating LNG carriers in the range of 20,000 to 30,000 m³ for regional redistribution from large satellite terminals,” Janssens says.

According to ABS Chairman and CEO Christopher J. Wiernicki, it is critical for ABS to help the industry develop and employ technologies that will allow access to new markets. “To fill the vital role of class of the future, ABS has to provide the services the industry needs to adjust to changing operating conditions and markets,” he says. “Granting AIP to new technologies is an essential component of that future.”

According to Philippe Berterottière, GTT Chairman and CEO, “Proposing this innovative and efficient design affirms GTT’s capability to be a key player over the full range of LNG carrier sizes, noting that GTT is “very happy with the technological partnership with ABS on this project.”

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Japan Authorizes ABS as Recognized Organization

Japan’s Ministry of Land, Infrastructure, Transport and Tourism (MLIT) authorized ABS to serve as a Recognized Organization (RO) in December 2012. RO status allows ABS to provide statutory certification services to Japanese-flagged vessels on behalf of the government.

As an RO, ABS will work closely with the flag Administration of Japan, to verify that Japanese flag ships are in compliance with major international safety and pollution prevention conventions: the International Load Line, SOLAS and MARPOL Conventions. “Our status as a Recognized Organization of Japan is an acknowledgment of the professionalism of the entire ABS staff around the world in supporting the Japanese maritime industry and a testament of our commitment to the country,” says ABS Business Director for Japan Ken Okabayashi.

This authorization strengthens our global coverage and allows vessel owners and operators greater operational flexibility. With the organization’s global network of surveyors and engineers, ABS can offer comprehensive services for ABS-classed Japanese vessels and offshore assets.

ABS opened its first office in Japan in 1949 and has worked with the Japanese Government for more than six decades. Today, ABS operates four offices in Japan serving both Japanese owners and other clients constructing vessels and offshore assets in the country.

ABS Relocates Europe Maritime Operations

ABS is moving its regional maritime operations office in Europe from London to Hamburg, Germany. According to ABS Chairman and CEO Christopher J. Wiernicki, the reason for the move is twofold. “Northern Europe has become a key operating hub for the maritime industry,” he explains. “Relocating to Hamburg allows us to strengthen ABS’ key resources in the region and to be more responsive to client’s needs.”

With frontline decision makers closer to clients in Northern Europe, ABS will be able to improve regional service delivery. ABS Regional Vice President of Northern Europe Wolfgang Buttgereit, a 21-year ABS veteran, has returned to Germany to lead the Hamburg team. While his focus will be on the unique local challenges, Buttgereit also will be part of an extensive network of ABS resources that extends around the world. He will be able to draw on those resources to provide prompt and comprehensive local solutions and will have the opportunity to invest regional resources to help address global challenges.

In addition to the leadership skill Buttgereit brings to this new role, his personal work experience is a plus. “Wolfgang’s background in new construction will be a valuable contribution to ABS operations in the region,” Wiernicki says.

By expanding this office and drawing on the resources of more than 40 ABS offices in the area, the ABS Northern European regional marine operations group will be able to offer enhanced service support to its many clients in 24 countries across the region, says ABS Europe Division President and COO Kirsi Tikka.

“Expanding the ABS office allows us to better serve a critical maritime operations area.”
Acting as a catalyst for the maritime industry’s evolution towards more sustainable practices, Vessel operators know the value of safe and efficient operations, but a number of companies are ahead of the curve. In 2012, several leading maritime organizations distinguished themselves by being among the first to certify their Energy Management Systems using the ABS Guide for Marine Health, Safety, Quality, Environmental and Energy (HSQEEn) Management.


“In being among the first to get HSQEEn Certification, these companies have demonstrated their commitment not only to better fleet management, but to environmental responsibility that exceeds regulatory requirements,” says Dinesh Thareja, ABS Manager, Management Systems Certification.

ABS developed the HSQEEn Guide to help facilitate a progressive approach to integrated management systems at a time when energy efficiency and energy management are emerging as critical operational drivers. The HSQEEn requirements are based on ISO 50001:2011, which addresses energy management systems. The standard, a broad energy management tool, establishes an energy baseline, demonstrates energy reductions, creates energy goals and action plans, and helps owners and operators manage significant energy-consuming equipment.

“This certification recognizes the addition of energy efficiency to existing marine management systems,” explains Thareja. “It will provide a framework that promotes energy efficiency throughout the supply chain and allows for integration with other organizational management systems.”

One of the key objectives at ABS is to drive innovative solutions that will help owners and operators not only meet their operational and regulatory demands, but also help differentiate themselves as organizations. As the maritime industry comes under increased scrutiny in the areas of energy efficiency and emissions control, ABS will work to stay abreast of new regulatory requirements and business realities that will significantly impact operations.

EnMS Certification for TMS Tankers

ABS Quality Evaluations, a subsidiary of ABS, recently issued an energy management certification to TMS Tankers Ltd. for adopting the robust International Organization of Standard’s energy management systems requirements (ISO 50001).

The certification confirms that TMS Tankers operates under an advanced energy management system that requires it to establish an energy baseline, demonstrate energy reductions, create energy goals and action plans, and manage significant energy-consuming equipment. TMS Tankers exceeded maritime industry requirements for energy efficiency by establishing systems that will allow them to manage operations that align with increased environmental awareness.

“Organizations cannot control energy prices, government policies or the global economy; however, they can control and improve the way they manage energy today,” says ABS Quality Evaluations President Alex Weisselberg. “By implementing an ISO 50001 program, organizations like TMS Tankers can realize improved performance by optimizing the use of its energy sources.”

ISO 50001:2011 is an international standard specifying requirements for energy management systems; it can serve as a framework for any type of organization. When properly implemented, energy management systems can reduce greenhouse gas emissions and energy costs and improve operating performance.
Several new safety initiatives, led by John McDonald, ABS Vice President for Occupational Health and Safety (OH&S), are being rolled out to supplement ABS’ existing safety program. A number of the changes that are in the works will also help the organization comply with the Occupational Health and Safety Assessment Series (OHSAS) 18001 standard.

“Creating a healthy, safe and supportive environment for our employees is one of our top priorities,” says McDonald. “By implementing the criteria outlined by OHSAS 18001, ABS is taking a proactive approach to increase the organization’s safety awareness by implementing an internationally recognized safety standard to mitigate occupational health and safety risks that could potentially put our employees in harm’s way.”

OHSAS 18001 is an international occupational health and safety management system standard that focuses on hazard identification and safety management systems and includes a framework for organizations that are interested in complying with the standard. It is the result of a cooperative effort by a number of the world’s leading national standards bodies, certification bodies and specialist consultancies.

Employees and clients will see several new safety initiatives throughout the year. These include new training programs, procedural changes that better align with the OHSAS standard and updates to the ABS safety manual. In addition, a more sophisticated incident reporting system, incorporating hazard identification and risk assessment, will provide safety data that ABS employees can use to better plan for the tasks they are required to carry out.

“We’re measuring our current safety program and identifying ways to make it more robust so we can better align ourselves with clients who are currently in compliance with this standard,” says McDonald.

Conforming to the OHSAS 18001 standard is a significant step on the part of ABS toward improving its OH&S management system. “This long-term commitment will help promote a stronger safety culture and demonstrates to our clients that we comply with a specific set of safety standards because we value safety at every level of the organization,” says McDonald.

“Complying with the OHSAS 18001 standard indicates a strong commitment to safety, but more importantly, it shows our employees that ABS is focused on minimizing their exposure to harmful working conditions,” says ABS Chairman and CEO Christopher J. Wiernicki. “This standard demonstrates how much we value the safety and well-being of our employees.”

**What is OHSAS 18001?**

OHSAS 18001 is an Occupation Health and Safety Assessment Series for health and safety management systems that was developed in response to widespread demand for a recognized standard against which to be certified and assessed. It is the result of a concerted effort from a number of the world’s leading national standards bodies, certification bodies and specialist consultancies and is intended to help organizations control occupational health and safety risks.

It provides a framework for companies to identify and control health and safety risks, reduce the potential for accidents, help achieve compliance with health and safety legislation and continually improve safety performance.

Companies can apply OHSAS specifications to implement, maintain and improve occupational health and safety management systems to help minimize safety risks for employees.
Antares Naviera Obtains MLC Certification

Argentinian shipping company Antares Naviera recently received certification to the International Labour Organization (ILO) Maritime Labour Convention (MLC) for its Polaris tanker. Although MLC certification is not yet mandatory, Antares Naviera worked with ABS to verify that the Polaris complies with the requirements of the ILO MLC. This certification places Antares Naviera ahead of the curve, making the company part of a select group that is implementing MLC requirements before they become mandatory.

ABS certified Antares Naviera following an ILO MLC assessment that included a review of the company’s policies and procedures and examines how they are implemented on board a vessel. The goal of the assessment is to identify areas that could impede the vessel from achieving compliance. Specifically, the assessment included a review of the vessel’s documentation, an interview with onboard personnel and an inspection of the vessel’s living and working areas.

The ILO MLC, which sets out seafarers’ rights to decent work conditions in a wide range of areas, will go into effect globally on 20 August 2013. The ILO decision to create this new MLC resulted from a joint resolution in 2001 by the international seafarers’ and shipowners’ organizations and was supported by a number of governments.

It was designed to become a global instrument known as the fourth pillar of the international regulatory regime for quality shipping, complementing the key conventions of the IMO. 🌍


Ann Marie Reigrut, ABS Maritime Security Coordinator, fourth from left, presents the MLC 2006 certificate to Captain Damian Manes, on board the POLARIS as members of the crew look on.
China continues to be a significant growth region for ABS, where much of the organization’s expanding local involvement is built on establishing strong relationships with Chinese companies. On 22 January 2013, ABS took a step forward in its working relationship with Shanghai Bestway Marine Engineering Design Co. Ltd. (Bestway) with the official signing of a Memorandum of Understanding (MOU) for joint development of a 67,000 DWT bulk carrier design.

Bestway President Nan Liu and ABS Senior Vice President of Engineering K.M. Wong signed the MOU at a ceremony in Shanghai, where ABS established a divisional office in 2010 to better serve this dynamic and growing region.

“ABS has had a long-term business relationship with Bestway, and we will continue that relationship through this cooperation,” Wong says, noting that this agreement carries special significance for ABS because Bestway is one of the largest and strongest professional comprehensive research and design enterprises for merchant ship and offshore engineering in China.

By signing the MOU, ABS has agreed to help Bestway develop the design of a new bulk carrier that will meet the requirements for ABS class. As part of its commitment, ABS has agreed to provide technical support and advisory services throughout the project as well as plan review of the submitted design drawings. For its part, Bestway will conduct the necessary engineering calculations and analyses to develop the design, and prepare and submit the design plans and drawings for class review and approval.

“We are very pleased to be working more closely with Bestway and to be expanding ABS’ role in China,” Wong says.

In addition to establishing a divisional office in Shanghai, ABS created the ABS China Offshore Technology Center (COTC) in partnership with Shanghai Jiao Tong University in 2011 to work more closely with local industry and academia on joint research projects that will support development activities in the Greater China region and abroad.

Sustained investment in research and development will continue to extend the boundaries of what is possible, and research centers like the ABS COTC will facilitate regional partnerships that will continue to move the industry into new and challenging areas.
Huge volumes of oil and gas lie north of the Arctic Circle, an area that represents one of the most challenging operating environments in the world. These enormous reserves are the reason the oil and gas industry is advancing technologies to safely develop hydrocarbons in the Arctic offshore areas. Through a broad range of research and development (R&D) programs, ABS is working to help industry break the technology barriers that limit Arctic operations.

“In the last few years there has been an increasing interest in drilling and production operations in deeper waters and for an extended period in the Arctic and cold regions,” says ABS Harsh Environment Group Manager Han Yu. “ABS has identified industry needs, such as mooring in ice and winterization, and continues to play a leadership role in meeting the need for good guidance in this frontier.”

Part of providing good guidance is making sure classification work reflects industry needs. That was the reason ABS organized an Arctic workshop series to gather experts to discuss technology requirements.

“At these workshops, technology leaders from industry and academia can gather to share ideas and chart a way forward together,” explains John Dolny, Engineer at the Harsh Environment Technology Center (HETC).

ABS created the HETC in St. John’s on the campus of Memorial University of Newfoundland and Labrador (MUN) in 2009 as a joint entity that complements Memorial University’s strong naval architecture and ocean engineering program and ABS’ Arctic program initiatives. The Center supports the development of technologies for ships and offshore structures that operate in harsh environments, particularly the Arctic polar regions.

In 2012, the HETC hosted the first workshop of the year, where experts gathered to tackle corrosion issues such as coatings requirements, including current IMO (SOLAS) Regulations on the Performance Standard for Protective Coatings (PSPS).

At mid-year, ABS hosted an Arctic mooring workshop in Houston, where participants identified three topics of special interest for further study: the role of ice management in mooring system design, disconnection and reconnection devices; and practical guidance on global ice load prediction. ABS used the workshop forum to present results from its study on mooring systems in ice that included a state of technology survey on current industry standards, ice loading predictions, current industry designs and practices, mooring hardware and operation philosophy.

An October winterization workshop in St. John’s was organized to discuss issues including environmental criteria, existing experience, training and human issues. This event marked the first presentation of the risk-based approach to winterization that was developed through the HETC. Finally, a December meeting in Houston during the SPE-ATCE Arctic Technology Conference identified additional research subjects, including the need for global ice load models and full-scale measurement campaigns, ice load management and mooring in ice, and Arctic regulations and standards development.

“ABS will continue to collaborate with our industry partners to collect new ideas for Arctic drilling and production operations,” says James Bond, ABS Director of Shared Technology. “Our progress will be much more rapid if we are working together toward a common goal.”

Dan Oldford, Senior Engineer, HETC; James Bond, Director of Shared Technology; Han Yu, Harsh Environment Group Manager; Jessie Liu, Senior Engineer; John Dolny, Engineer, HETC
BSEE Standards Workshop Invites Industry Input

The Bureau of Safety and Environmental Enforcement (BSEE), the US Department of the Interior agency responsible for enforcing offshore regulations, held its first Domestic and International Standards Workshop in New Orleans on 14-15 November 2012. The two-day event brought together representatives from government and industry for a discussion of developments in offshore technology.

The November workshop was organized to give participants the opportunity to update BSEE on the status of newly proposed and existing standards and to answer questions that will help refine the organization’s interpretation and understanding of the regulations. Attendees were encouraged to share their views about the role BSEE might play in standards development, while BSEE representatives communicated their vision of how BSEE would be involved in the process. BSEE also made use of this forum to provide regulations updates.

Presentations included regional updates on the Gulf of Mexico, the Pacific Coast and Alaska; a status report on standards related to offshore; and reports from a broad representation of API committees focusing on offshore technologies such as structures, valves and wellheads, well control equipment, subsea production and completions equipment.

The forum concluded with a panel discussion that included a presentation on the role of class societies, which Bond presented on behalf of Bureau Veritas, Det Norske Veritas and Lloyd’s Register. Prepared by ABS Offshore Account Manager Luiz Feijo in cooperation with representatives from the other participating societies, the presentation explained the focus of class on the safety of human life, assets and the environment and presented the primary role of class – to verify structural strength and integrity and the reliability of systems that maintain essential services on board.

“It is important for government and industry organizations to be aware that because classification services cover the life cycle of an asset from concept to decommissioning, class societies are positioned to help the industry verify safe operations at every step and to validate through inspection that the assets continue to meet the standards to which they were designed,” Bond says.

Because class societies are independent, self-regulating and externally audited organizations, they can provide unbiased evaluation, Bond explains, noting this is the reason the majority of the world’s countries and organizations rely on class societies for safety and regulatory compliance.

BSEE plans for the Domestic and International Standards Workshop to be an annual dialogue that will promote robust collaboration among the management of standards development organizations, BSEE management, standards coordinators, classification societies and subject matter experts.

“This is an excellent opportunity for ABS to contribute its knowledge, experience and know-how to the standards development process in the US,” Bond says.
Pushing the boundaries of offshore operations has the potential to change the energy landscape. In its work to break down technology barriers to developing offshore wind energy, ABS is talking with industry and academia to find a way forward. Through a series of workshops, researchers at the ABS China Offshore Technology Center (COTC) in Shanghai are providing a platform for members from the offshore and academic communities to discuss their views on wind energy and other significant trends and developments that affect China’s offshore industry.

The COTC’s most recent workshop, held in December 2012, provided a forum for participants from leading universities and well-known design firms to discuss the technical challenges associated with producing energy from offshore wind power. Although this was the first workshop of its kind to be hosted by the COTC, it was patterned after the approach established by other ABS Technology Centers around the world.

“At these workshops, technology leaders from academic institutions and industry organizations are sharing their latest research findings with the hope of determining new ways to address the challenges currently affecting China’s offshore industry,” says Shewen Liu, ABS COTC Manager. “Our goal is to be a resource for both communities as they find a way to move forward.”

Eleven presenters from among the 42 attendees, including professors, graduate students and ABS researchers, shared research results from recent offshore wind energy projects, spawning discussion about progress to date that led to an open dialogue through which key technical issues for future work were identified.

Among the workshop presenters was ABS Offshore Technology Managing Principal Engineer Qing Yu, who presented the findings from recent ABS research projects on a floating offshore wind turbine and led the open discussion session at the workshop.

“This workshop created a great opportunity for sharing what we’ve done at ABS and for discovering firsthand the strides Chinese industry and universities are making in wind energy research,” Yu says, noting that domestic industry and the Chinese academic community can now build on the information that was shared during these discussions.

“This seminar was helpful in many ways,” Yu says, “not the least of which being that it allowed this group of specialists in the field to identify additional subjects for future research.”

Through workshops such as this, ABS will continue to provide a forum for discussion on topics of interest to the Chinese offshore oil and gas industry.
ABS is taking a leading role in helping designers, builders, owners and operators understand ballast water (BW) requirements, marine system and arrangement demands for both new construction and existing vessels.

“Proper management of a ship’s ballast water has been a major environmental challenge for the International Maritime Organization (IMO) and the global shipping industry,” says ABS Director, Regulatory Affairs Greg Shark. “It’s important for us to keep our clients informed about regulatory developments, particularly those related to BW treatment systems, due to the significant costs associated with the installation of these systems.”

During the Marine Environment Protection Committee’s (MEPC) 64th session held 1-5 October 2012 at IMO headquarters in London, several governments and international industry organizations raised concerns about implementing the Ballast Water Management (BWM) Convention. The BWM Convention would be an internationally binding instrument to control ship’s ballast water and sediments.

Discussions surrounding the ramifications of ballast water treatment system approval guidelines focused on the industry’s view that there is insufficient detail for assessing the adequacy of the treatment system relative to the operational needs of the vessels.

Also, the limited availability of approved ballast water treatment systems will be a challenge since there are an estimated 8,700 ships (with ballast capacity not more than 5000 m³) that will need to have an approved ballast water system.

Finally, the lack of a standardized ballast water sampling procedure has created additional concern surrounding the acceptability of water treated by an approved system.

“Shipowners need to thoroughly evaluate BWM systems since no single system fits all ship types or service,” says Shark. “Operational demands need to be weighed against the capabilities of – and technologies employed by – the system.”

Based on the concerns that were expressed during the MEPC session, the Committee agreed to develop a resolution to help ease the implementation of the Convention. ABS is participating in that development.

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<tr>
<th>Ballast Water Cpty (m³)</th>
<th>Keel Laying Date</th>
<th>D1=Exchange Standard, D2=Biological Standard</th>
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<td>*First Intermediate or Renewal Survey, whichever occurs first, after the anniversary date of delivery in the respective year</td>
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<td>≥2009</td>
<td>D2 (at delivery or entry into force, whichever is later)</td>
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<td>≥1,500 or ≤5,000</td>
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<td>D1 or D2</td>
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<td>&gt;5,000</td>
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<td>≥2012</td>
<td>D2 (at delivery or entry into force, whichever is later)</td>
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**Table Note:**

- **D1** = Exchange Standard
- **D2** = Biological Standard
- * = First Intermediate or Renewal Survey, whichever occurs first, after the anniversary date of delivery in the respective year.
Revised Noise Codes Standards Help Improve Work Conditions

The IMO Maritime Safety Committee (MSC) recently adopted the new Safety of Life at Sea (SOLAS) regulation II-1/3-12. This regulation will require new vessels to be designed and constructed to criteria that will help reduce onboard noise, minimizing potential noise induced hearing loss among seafarers.

ABS has been monitoring progress of this regulation, which enters into force on 1 July 2014. It establishes mandatory maximum noise level limits for machinery spaces, control rooms, workshops, seafarer accommodation areas and other spaces on board ships. The revised Code lowers the maximum noise level by approximately five decibels in many locations on board (e.g. the engine room, cabin space or recreational area). Although full application of the Code will differ from one vessel to another, the Code provides the basis for a design standard.

“The adoption of the revised Code is a proactive step for the safety and health of seafarers,” says Kevin McSweeney, Manager of ABS’ Safety and Human Factors Group. “These new levels represent a significant development of an industry standard that will help improve safety by providing the seafarer with a work (or rest) environment with minimal interference or annoyance from noise.”

Although various regulations and guidance documents have been issued to help control noise levels, the important point to remember is that no one noise level is appropriate for all spaces, McSweeney explains. Consideration needs to be given to the activities that occur within a space (sleep, reading, etc.), the communication requirements within the space (person-to-person such as bridge operations), and the seafarer’s expectation of the noise level.

ABS’ Crew Habitability Guides offer criteria not only for noise, but for other ambient environmental factors that can impact task performance such as whole-body vibration, indoor climate, general lighting and task lighting criteria. A team is working to revise the existing ABS Crew Habitability Guides to reflect the new mandatory noise limits.”

“Owners and operators have generally been following crew habitability guidelines and methodologies, so changing the design guidelines to accommodate appropriate noise levels should not be difficult to incorporate into designs,” McSweeney says, as long as noise control is considered early in the vessel design and arrangement. “Lowering the decibel level to those established by the Guides will improve seafarer performance and enhance crew comfort, enabling workers to use a space for its intended purpose with minimal interference from noise.”
A n effort spanning almost 15 years on the part of ABS and other members of the International Association of Classification Societies (IACS) to implement harmonized common structural rules (CSR) for the maritime industry is nearing completion.

The final harmonized rules are slated for initial submission to the International Maritime Organization (IMO) for audit in December 2013 and release by IACS in February 2014 and are undergoing the first round of revisions based on industry feedback.

The process began in late 2001 when ABS, Lloyd’s Register (LR) and Det Norske Veritas (DNV) spearheaded a proposal to standardize a wide number of mutually agreed upon initiatives covering survey and engineering. That endeavor culminated in April 2006 with the release of IACS’ rule sets: CSR for Tankers and CSR for Bulk Carriers.

“Although we were trying to coordinate the separate CSRs at the time, it was a huge undertaking. Therefore, sets of rules were developed in parallel,” says Gary Horn, Director, IACS Hull Panel. “The feedback received after their initial release suggested the CSRs be blended together where it made sense to do so and harmonized into one set of rules.”

Horn, who is completing his sixth year as chairman of the IACS Hull Panel, says the effort involves many people. “Eleven different teams comprising 69 people from various IACS class societies are refining the rules based on the feedback we received during the industry review period that ended in December 2012,” he explains.

The ABS contingent includes Kozo Abe, Senior Principal Engineer in Yokohama; Xiling Che, Principal Engineer in Shanghai; George Mani, Hull Engineering Manager in Busan; and Christina Wang, Director of Marine Technology along with Myong-Sup Lee, ABS Consultant in Houston. Dan Cronin, Manager of Marine Technology, is the ABS representative on the IACS Hull Panel, and Amanda Malarkey, Engineer, is the Hull Panel secretariat. "There
also are a great number of people working behind the scenes, such as our ABS division engineers, as well as two people in the Project Management Team,” Horn says.

ABS also has teams in Busan, Korea, and Shanghai, China, working with the harmonization project’s Consequence Assessment team in applying the CSRs to actual vessels.

“Even though the rules are not finished yet, these ABS teams are providing valuable, practical feedback to help the rules evolve into a good blend of sophistication and practicality,” says Horn.

In addition to recommendations received from ship design engineers, feedback came from owners and the IMO. “The owners are looking at the rules with the view of trying to increase their productivity and control maintenance issues,” says Horn. “Shipyards gave us input on designs, production and construction aspects of the rules while the IMO Maritime Safety Committee is reviewing the harmonized CSR in relation to the goal-based standards (GBS) that are due to come into force in 2016. We also have had an external advisory panel of industry and academic people giving us advice throughout the development process. IACS is taking all of this information into consideration for the revisions.”

Horn admits the process can be daunting. “It’s a tremendous process with a lot of work to be accomplished,” he says. “The schedule and travel can get crazy, but it’s also rewarding. We’re here to make a positive difference in safety while also protecting the environment. It’s been a long process but there definitely is a degree of satisfaction in what we’ve accomplished during that time.”

ABS and LR also have teams working jointly to develop new application software for the harmonized CSR. “These software engineers are helping us develop what we want in the software,” says Horn. “During the rule development phase, we have been using crude software tools and spreadsheets to apply the draft rules to vessels. We’ve had cross pollination among the rule developers, the software developers and engineering teams. All of these teams have excellent working relationships.”
Updated Requirements for DP Systems

Dynamic positioning (DP) system reliability is vital to safe offshore operations. With this industry need in mind, ABS has taken the necessary steps to release the ABS Guide for Dynamic Positioning Systems as a significant update to present classification requirements.

“DP reliability is particularly important in frontier areas, where deepwater drilling is reaching greater depths, and in challenging harsh-weather environments around the world,” says Ken Richardson, ABS Executive Vice President, Energy Project Development, noting that the vast majority of newbuild floating mobile offshore drilling units will have DP capability.

The ABS Guide includes several new notations, including the Enhanced System (EHS) notation, which encourages robust designs of DP systems by providing optional requirements. The multiple levels of EHS notation – for power, control and fire protection – provide owners with the flexibility to tailor the notation to the most important components of the system for the unit’s intended operations.

“ABS has provided standards for enhanced notations to guide clients in selecting the level of compliance for a vessel’s DP capability in this new Guide,” explains Richardson. “This broadens their notation choices and increases the likelihood of getting a unit outfitted with the most appropriate system for each application.”

Understanding that the demands within the offshore industry will require these newbuilds to work around the globe, the Guide also offers an optional notation for Station-Keeping Performance (SKP). The notation allows owners to select equipment based on North Sea conditions or to select environmental criteria specific to the intended areas of operation.

The Guide also includes detailed procedures for assessing available thrust, taking into account thruster interactions (thruster-thruster, thruster-hull, thruster-current), which is especially useful in the early stages of design.

“If the fundamentals of DP systems have remained the same since the technology was introduced, today’s systems are much more advanced,” Richardson says. “It’s important for our Rules and Guides to reflect the industry’s changing needs.”
Industry analysts have identified offshore wind as a major player within the mainstream renewable power generation sector. While the most rapid market expansion is taking place in Europe, major research efforts are being carried out in the US to investigate the plausibility of mixing wind energy into its national energy program.

“While various concepts of floating offshore wind turbines have been proposed in the past, it was not until recently that technological advances have made them viable solution for harnessing ocean energy resources,” says Qing Yu, ABS Managing Principal Engineer.

ABS has participated in a number of research and development projects investigating offshore wind energy, several of which were funded by the Bureau of Safety and Environmental Enforcement (BSEE). As part of one of these projects, ABS launched a technical feasibility study of floating wind turbines with the goal of determining how floating structures and moorings would be affected by the strong interactions among the wind turbine rotor, control system, floating platform and mooring/cable system and how different loading events could impact these systems.

“Floating offshore wind turbines are dramatically different from fixed offshore platforms because they show very different load and response characteristics from typical oil and gas platforms.” says Yu. “In order for us to have a better understanding of characteristic global responses of representative floating offshore wind turbine designs, we had to develop a design criteria based on the strong interaction between the different components of floating wind turbines.”

Those criteria can be found in the new ABS Guide for Building and Classing Floating Offshore Wind Turbine Installations and were determined through ABS’ analysis of conceptual designs of a monopole, a tripod and a jacket-type support structure. The development team also evaluated characteristic structural response of offshore wind turbines under hurricane conditions.

Three principle areas that the Guide addresses are floating support structure, the stationkeeping system, and onboard machinery, equipment and systems that are not part of the turbine Rotor-Nacelle Assembly. The new Guide also lays out the criteria necessary to obtain the +A1 Offshore Wind Turbine Installation (Floating) class notation for floating offshore wind turbine support structures, stationkeeping systems and onboard machinery and systems that comply with the requirements and conditions in the Guide.

“The state-of-the-art review and extensive case studies using the latest simulation techniques, coupled with ABS’ experience, were the basis for the design criteria specified in the Guide,” says Bret Montaruli, ABS Vice President, Offshore Technology.

“ABS has a great body of information and resources available globally that will be integral as the industry realizes the value of this renewable energy source,” says Montaruli.

Additional research is under way on the subject of floating offshore wind turbines. It is expected that the Guide and the calibrations carried out during the course of this project will lay the foundation for further development.
# 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. Subscribe online to receive email notifications when new publications or notices are available. The following listing reflects Rules and Guides Updates from 16 December 2012 to 30 April 2013.

## Recent Publications

<table>
<thead>
<tr>
<th>New</th>
<th>Guidance Notes on Job Safety Analysis for the Marine and Offshore Industries, April 2013 (Pub 198)</th>
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<td></td>
<td>Job safety analysis (JSA) is a risk assessment technique used to eliminate or reduce the occurrence of undesirable incidents during work tasks. ABS developed Guidance Notes to define a JSA process that aims to achieve a reduction in personnel injuries by establishing more effective work procedures, addressing the specific challenges faced by the marine and offshore industries. This publication is available for download or print on demand.</td>
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<tr>
<th>New</th>
<th>Guide for the Class Notation for Fire-Fighting Systems for On-Deck Cargo Areas of Container Carriers, April 2013 (Pub 199)</th>
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<td>This Guide has been developed to enhance the fire-fighting effectiveness for on-deck cargo areas of container carriers. This Guide is for the use of designers, builders, owners and operators in the marine industry and specifies the ABS requirements and criteria for obtaining the optional notations FOC (Fire-fighting On-deck Container) or FOC+ (Fire-fighting On-deck Container Plus). This publication is available for download or print on demand.</td>
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<td>The Guidance Notes address the process of identifying and assessing the effects of structural loads arising from accidental events using risk-based assessment techniques. The publication provides an overview of the approach that can be used to identify and assess the effects of accidental structural loads arising from hazards including dropped objects, vessel collisions, fire and blast. This publication is available for download or print on demand.</td>
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<td>ABS created the Guidance Notes to provide the marine and offshore industries with a tool to aid in the development and implementation of an effective management of change strategy to optimize existing safety and risk management efforts. This publication is available for download or print on demand.</td>
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<td>This Guide provides criteria for the design, construction, installation and survey of permanently sited floating offshore wind turbine installations. It addresses three principal areas: the floating support structure, the stationkeeping system and the onboard machinery, equipment and systems that are not part of the turbine rotor-nacelle assembly. This publication is available for download or print on demand.</td>
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<td>Due to the increased incorporation of thruster-assisted mooring in the design for mobile offshore units, ABS developed this Guide which contains criteria for the optional notations TAM and TAM (Manual). This publication is available for download or print on demand.</td>
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<tr>
<th>New</th>
<th>Guide for Portable Accommodation Modules, January 2013 (Pub 193)</th>
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<td></td>
<td>This Guide has been developed to provide a consolidated set of requirements for portable accommodation modules that may be installed on board a variety of vessels or offshore installations. This publication is available for download or print on demand.</td>
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<td>To assist the marine industry, ABS issued Guidance Notes and an accompanying template to provide practical assistance to shipmasters, operators and owners, shipbuilders, ship cleaning and maintenance operators, and other interested parties in the development of a biofouling management plan. This publication is available for download or print on demand.</td>
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<td></td>
<td>This Guide provides criteria for the design, construction, installation and survey of bottom-founded offshore wind turbine installations, which comprise permanently sited support structures and foundations of offshore wind turbines attached on and supported by the sea floor. This publication is available for download or print on demand.</td>
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<td>This Guide replaces ABS’ dynamic positioning (DP) system requirements currently included in the ABS Rules for Building and Classing Steel Vessels and the ABS Rules for Building and Classing Offshore Support Vessels. The Guide also provides criteria for new optional notations for enhanced systems (EHS) and stationkeeping performance (SKP). This publication is available for download or print on demand.</td>
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Recent Updates to ABS Rules & Guides

**NOTICES & CORRIGENDA – GENERIC RULES**

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<tr>
<th>Part</th>
<th>Rules Title</th>
<th>Change Notice Details</th>
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| Part 1 | Rules for Conditions of Classification (2013) | • Rule Change Notice 1, February 2013  
• Rule Change Notice 2, March 2013  
• Corrigenda, February 2013 |
| Part 2 | Rules for Materials and Welding (2013) | • Corrigenda, March 2013 |
| Part 7 | Rules for Survey After Construction (2013) | • Corrigenda, March 2013 |

**NOTICES & CORRIGENDA**

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<tr>
<th>Pub</th>
<th>Rules Title</th>
<th>Change Notice Details</th>
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| Pub 2 | Rules for Building and Classing Steel Vessels (2013) | • Rule Change Notice 1, January 2013  
• Corrigenda, March 2013 |
| Pub 4 | Rules for Building and Classing Steel Vessels for Service on Rivers and Intracoastal Waterways (2007) | • Corrigenda, March 2013 |
| Pub 5 | Rules for Building and Classing Steel Vessels Under 90 Meters (295 Feet) in Length (2012) | • Corrigenda, March 2013 |
| Pub 10 | Rules for Building and Classing Steel Barges (2009) | • Corrigenda, March 2013 |
| Pub 61 | Rules for Building and Classing High-Speed Craft (2013) | • Corrigenda, March 2013 |
| Pub 63 | Rules for Building and Classing Facilities on Offshore Installations (2012) | • Corrigenda, March 2013 |
| Pub 82 | Rules for Building and Classing Floating Production Installations (2013) | • Corrigenda, March 2013 |

Optimized for the iPad, the **ABS BOOKSHELF** app provides on-the-go access to the ABS library of Rules, Guides and Publications. Download for free from iTunes.
Notices & Corrigenda

- Rule Change Notice 1, February 2013
- Corrigenda, February 2013

- Corrigenda, March 2013

- Corrigenda, March 2013

- Corrigenda, March 2013

- Corrigenda, March 2013

- Rule Change Notice 1, February 2013

- Corrigenda, March 2013

- Corrigenda, March 2013

- Corrigenda, March 2013

- Corrigenda, March 2013

- Corrigenda, March 2013

- Corrigenda, March 2013

Pub 166 Guide for Compliance with the ILO Maritime Labour Convention, 2006 Title 3 Requirements (2009)
- Corrigenda, March 2013

- Rule Change Notice 1, January 2013
- Corrigenda, March 2013

- Rule Change Notice 1, February 2013
- Corrigenda, February 2013

- Corrigenda, February 2013

Address Changes

Australia
Perth
ABS Pacific Division
Australasia Regional Headquarters
Level 3, 30 Richardson Street
West Perth, WA, 6005, Australia
Tel: 61-8-9486-9909
Night Tel: 61-417-987-417
Fax: 61-8-9486-9910

Brazil
Rio de Janeiro
American Bureau of Shipping
Rua do Acre, 15 - 11º andar - Centro
Rio de Janeiro, RJ, 20081-000, Brazil
Tel: 55-21-2276-3535
Fax: 55-21-2518-1328
Email: ABSRio@eagle.org (Administration)
ABSRioDeJaneiro@eagle.org (Surveys)

Poland
Gdańsk
American Bureau of Shipping
Poland Sp. z o.o.
‘Olivia Tower’ Ale Grunwaldzka 472 A
Gdańsk, PL 80-309, Poland
Operations: 48-58-772-65-00
Fax: 48-58-772-65-01
Email: ABSGdynia@eagle.org

USA
Tampa, Florida
ABS Americas Division
2109 East Palm Avenue, Suite 102
Tampa, FL 33605 USA
Job safety analysis (JSA) is a risk assessment technique that companies in the marine and offshore industries use to identify safety hazards for personnel. For a JSA to be effective, it has to be thorough. Recognizing the need to cover the many facets of risk assessment, ABS recently released its Guidance Notes on Job Safety Analysis for the Marine and Offshore Industries.

The JSA Guidance Notes establish criteria for effective work procedures and provide best practices for setting up and maintaining a safety management system. Companies can use the Guidance Notes to create and implement a new JSA program or can apply the guidelines to optimize a safety program that is already in use.

“A well-conducted JSA identifies and addresses specific challenges that pose a threat to an individual’s safety,” says Todd Grove, ABS Chief Technology Officer. “By following the steps outlined in these Guidance Notes, companies not only have a process for uncovering potential threats, they have a tool that may also help to uncover more subtle safety risks that might not have previously been considered.”

ABS’ JSA Guidance Notes accommodate a wide range of companies’ needs by outlining the steps for both a formal and informal analysis. Both JSAs identify the potential safety, health and environmental hazards associated with an assigned task as well as the recommended risk control measures needed to reduce the identified risks. According to Maria Verzbolovskis, ABS Principal Engineer, Shared Technology, the main difference between the two is that the formal JSA requires documentation and an expanded level of detail.

“The steps outlined in the Guidance Notes for executing a JSA can be subdivided into as many steps as needed to understand the full spectrum of hazards that put personnel at risk,” says Verzbolovskis.

“Companies can modify the steps outlined in these Guidance Notes as much as necessary to identify pitfalls in their safety management systems and create a plan of action to reduce safety risks before the risks occur,” says Grove.

Once a company performs a JSA, the added value in using the ABS guidelines is that they provide specific information about JSA program monitoring, performance measuring and recommendations for electronic and paper-based recordkeeping and procedures for continual improvement.

At the 151st Annual Meeting of the Members of ABS, several new individuals were appointed to membership to help the organization fulfill its mission of promoting the security of life and property and preserving the natural environment.

The following members were elected to the ABS Council for a term throughout the duration of their appointments:
- Robert G. Clyne, ABS
- James G. Gaughan, ABS
- Maria F. O’Neill, ABS

The following individuals were elected to a five-year term as ABS Members:
- Dr. Akinori Abe, IHI Corporation
- Abdullah Al-Sulaiti, Qatar Gas Transport Co., Ltd.
- Yoichi Aoki, Tokyo Marine Asia Pte Ltd.
- Shunichi Arisaka, Kawasaki Kisen Kaisha, Ltd.
- John Baptist, AET UK Ltd.
- Ali Bekmezci, Bek’s Shipmanagement & Trading S.A.
- Hyon-Soo Bong, Hanjin Heavy Industries & Construction Co., Ltd.
- Virginia Cameron, XL Insurance America, Inc.
- Capt. Kurt R. Damkjaer, Nordic Tanker Marine
- Richard Decker, Chartis Global Marine
- Simon Doughty, Wallem Group Ltd.
- Cemil Ersoz, BEKS Shipmanagement and Trading S.A.
- James F. Farley, President, Kirby Offshore Marine, LLC
- Garrick Fletcher, Dockendale Ship Management DMC CO.
- Fernando Frimm, GustoMSC Inc.
- Yuri K. Gagaev, BKE Shelf Ltd.
- Ge Biao, CSC Jinling Shipyards
- Neil Glenn, Swire Pacific Offshore Operations (Pte) Ltd.
- Capt. Edgardo M. Gualberto, Malayan Towage & Salvage Corporation
The following individuals were elected to a one-year term on the ABS Nominating Committee:
• Nicolas A. Comninos, Phoenix Energy Navigation SA

The following individuals were elected to a three-year term on the ABS Offshore Technical Committee:
• Chow Yew Yuen, Keppel Offshore & Marine USA Inc.
• Dr. Jen-Hwa Chen, Chevron Shipping Co. LLC

- Gyung-Jin Ha, Hyundai Heavy Industries Co., Ltd.
- Yong Quan Huang, Hong Kong Ming Wah Shipping Co., Ltd.
- Bang-Eun Jeong, Daewoo Shipbuilding & Marine Engineering Co., Ltd.
- Henrik Karle, Atlantic Container Line Sweden AB
- Kim Kyung Soo, IMC Corp. Pte. Ltd.
- Jae-Ho Ko, Daewoo S.B. & Marine Engineering Co., Ltd.
- Dr. Robert Sun-Quae Lai, CSBC Corporation
- Palle Brodsgaard Laursen, Maersk Line, A.P. Moller – Maersk A/S
- Byung-Mo Lee, Daehan Shipbuilding Co., Ltd.
- Young-Man Lee, Daewoo Shipbuilding & Engineering Co., Ltd.
- Alan Lowry, Berge Bulk (Singapore) Pte Ltd.
- Andrew McAleer, MCA Associates, Inc.
- Raymond McNamara, AET Shipmanagement Pte., Ltd.
- Mok Kim Terng, Nam Cheong Limited, Nam Cheong Offshore Pte Ltd.
- Sunny Mok Weng Vai, Pacific Crest Pte., Ltd.
- Jose Mari Moraza, United Salvage & Towage (Phils.), Inc.
- David Ofer, Tanker Pacific Management (Singapore) Pte., Ltd.
- Choong-Heum Park, Samsung Heavy Industries Co., Ltd.
- Tae-Ho Park, STX Offshore & Shipbuilding Co., Ltd.
- Phua Cheng Tar, PCL Shipping Pte., Ltd.
- Marcelo Jullian Roig, Saam Remolques, S.A. DE C.V.
- Sugato Roy, Navig8 ShipManagement Pte., Ltd.
- Vladimir N. Shamanaev, BKE Shelf Ltd.
- Pete Strohla, Horizon Lines
- Dr. Stavros Tsolakis, DST Shipping Inc.
- Andy Tung, Orient Overseas Container Line Ltd.
- Wang Junze, Taizhou Kouan Shipbuilding Co., Ltd.
- RADM James A. Watson IV, USCG (Ret.), Bureau of Safety and Environmental Enforcement (BSEE)
- Wen Xue-dong, Qingdao Yangfan Shipbuilding Co., Ltd.
- Matthew R. Werner, Webb Institute
- Masakazu Yakushiji, Daiichi Chuo Kisen Kaisha
- Yang Yifeng, Taizhou Sanfu Ship Engineering Co., Ltd.
- Yong Kiam Sam, Sealink International Berhad
- Zhang Weiguo, Shandong Shipping Corporation

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• Chow Yew Yuen, Keppel Offshore & Marine USA Inc.
• Dr. Jen-Hwa Chen, Chevron Shipping Co. LLC
Dr. Sun Jiakang, Executive Vice President, Board Secretary, COSCO in Beijing, receives an ABS membership plaque from Richard Pride, ABS Greater China Division President and COO.
Christopher Perrocco, ABS Country Manager for Germany, looks on while Tilman Greiner, General Manager, Senior Vice President, MAN Diesel & Turbo SE, PrimeServ Hamburg, receives an ABS membership plaque from John Gallagher, ABS Vice President, Client Management.

Liu Hai-Jin, Board Director and CEO, New Century Shipbuilding (Group) Ltd., receives an ABS membership plaque from Wolfgang Buttgereit, ABS Regional Vice President of Northern Europe.

Jean Gould, ABS Vice President of External Affairs, receives an ABS membership plaque from Robert D. Somerville, ABS Chairman Emeritus.

Arthur Bowring, Managing Director, Hong Kong Shipowner Association, receives an ABS membership plaque from Richard Pride, ABS Greater China Division President and COO.

Christopher Perrocco, ABS Country Manager for Germany, looks on while Ingo Fischer, Managing Director, Ernst Jacob GmbH & Co. KG, receives an ABS membership plaque from John Gallagher, ABS Vice President, Client Management.

N. Pharr Smith, Senior Vice President, Operations Support, Rowan Companies, Inc., receives an ABS membership plaque from Kenneth Richardson, ABS Executive Vice President, Energy Project Development.

Jean Gould, ABS Vice President of External Affairs, receives an ABS membership plaque from Robert D. Somerville, ABS Chairman Emeritus.
Thomas Blenk, ABS Regional Vice President, Northern Pacific, presents an ABS membership plaque to Tom Roberts, Partner, Compass Marine.

Christopher Perrocco, ABS Country Manager for Germany, looks on while Uwe Koerber, Technical Director and Managing Director, Columbia Shipmanagement (Deutschland) GmbH, receives an ABS membership plaque from John Gallagher, ABS Vice President, Client Management.

Peter Ko, ABS Nantong District Manager, presents an ABS membership plaque to Wang Jian Sheng, President, Jiangsu New Yangzijiang Shipbuilding Co. Ltd.

Peter Tang Jensen, ABS Senior Vice President (left) and John Gallagher, ABS Vice President, Client Management (right), present an ABS membership plaque to Captain Hans Huisman, Senior Director, Newbuildings, E.R. Schiffahrt GmbH & Cie.

Christopher Perrocco, ABS Country Manager for Germany, looks on while Spyros N. Vlassapoulos, Managing Director, Hellespont Ship Management GmbH & Co. KG, receives an ABS membership plaque from John Gallagher, ABS Vice President, Client Management.

Wolfgang Buttgereit, ABS Regional Vice President, Northern Europe, presents an ABS membership plaque to Chen Guo-Rong, President, Jiangsu Rongsheng Heavy Industries Co. Ltd.
Captain Thorsten Buelow, Partner of JS Shipping Partners of Hamburg, receives an ABS membership plaque from Stephen Gumpel, ABS Regional Vice President, North America.

Christopher Perrocco, ABS Country Manager for Germany, looks on while Lutz Mueller, Chief Technology Officer, NSB Niederelbe Schiffahrtsges GmbH & Co. KG, receives an ABS membership plaque from John Gallagher, ABS Vice President, Client Management.

Wolfgang Buttgereit, ABS Regional Vice President, Northern Europe, presents an ABS membership plaque to Yuan Kai-Fei, Board Chairman, New Century Shipbuilding (Group) Ltd.

Rob Saltiel, President and CEO, Atwood Oceanic, receives an ABS membership plaque from Kenneth Richardson, ABS Executive Vice President, Energy Project Development.

James Liebertz, former ABS Pacific Division President and COO, receives an ABS membership plaque from Thomas Blenk, ABS Regional Vice President, Northern Pacific.

Christopher Perrocco, ABS Country Manager for Germany, looks on while Captain Thorsten Schablinski, Managing Director, Aquarius Marine Consulting GmbH & Co. KG, receives an ABS membership plaque from John Gallagher, ABS Vice President, Client Management.

Captain Thorsten Buelow, Partner of JS Shipping Partners of Hamburg, receives an ABS membership plaque from Stephen Gumpel, ABS Regional Vice President, North America.
Christopher Perrocco, ABS Country Manager for Germany, looks on while Harald Schlottfeldt, Managing Technical Director, Reederei F. Laeisz GmbH, receives an ABS membership plaque from John Gallagher, ABS Vice President, Client Management.

Jin Xin, President, Jiangsu Eastern Heavy Industries Co. Ltd., receives an ABS membership plaque from Wolfgang Buttgereit, ABS Regional Vice President, Northern Europe.

Christopher Perrocco, ABS Country Manager for Germany, looks on while Ulrich Schmidt, Managing Director, BG Verkehr, Dienststelle Schiffssicherheit, receives an ABS membership plaque from John Gallagher, ABS Vice President, Client Management.

Christopher Perrocco, ABS Country Manager for Germany, looks on while Dennis Brand, Director of Global Commercial Operations, Titan Salve, receives an ABS membership plaque from John Gallagher, ABS Vice President, Client Management.

Takashi Miyazaki, Division COO, Ship Aerospace Division (center), receives an ABS membership plaque as Yasuhiro Katsuyama, President, MC Shipping Ltd. and Keiichi Matsunaga, General Manager, Offshore and Gas Carrier Units, Mitsubishi Corporation look on.

Christopher Perrocco, ABS Country Manager for Germany, looks on while Gerald Hadaschik, Managing Director, Neptun Ship Design GmbH, receives an ABS membership plaque from John Gallagher, ABS Vice President, Client Management.
GLOBAL MANAGEMENT APPOINTMENTS

HEADQUARTERS

T. Ray Bennett recently assumed the position of Advisor to the Chairman. In this new role, Bennett will oversee special strategic projects for the organization.

Sudheer Chand’s new role as Director of Offshore Technology includes seeking out new technologies, helping to define ABS’ role with developing new technologies and helping to develop project proposals and business cases.

Robert Clyne has been named Vice President, General Counsel and Chief Compliance Officer with the responsibility of overseeing the global activities of the Legal department which services both ABS and ABS Group.

Marta Johnson has been named Vice President of Ethics and Compliance. Johnson joins ABS from CEVA Logistics, where she specialized in identifying risks in operations, mitigating exposure to risks and implementing, monitoring and enhancing compliance procedures and programs.

Paul Karam has assumed the role of Vice President and Chief of Staff. Karam will be responsible for overseeing corporate projects that improve operational capabilities and client relations.

Thomas Miller assumed the role of Advisor to the Chairman. In this new role, Miller is responsible for providing legal guidance on strategic initiatives and special projects.

John Ryder is the new Vice President, Human Resources. With more than 30 years of experience, Ryder has led HR organizations in the energy, power and engineering sectors. He recently served as Vice President of Human Resources for Champion Technologies, Inc.

Demetri Stroubakis has been appointed to the position Assistant Chief Surveyor, Materials and Equipment Certification and will be responsible for improving material and equipment procedures, instructions and reporting.

Jer-Fang Wu has relocated from Singapore to Houston. As Manager of Offshore Technology, he will take over coordination of the Singapore Innovation and Research Center, Brazil Offshore Technology Center, China Offshore Technology Center and Korea Energy Technology Center.

AMERICAS DIVISION

ABS recently established a Program Management Office (PMO) to assist the project teams in Brazil with managing resources, schedules and procurement activities. Sidney Bereicoa, Director of Engineering, South America, will lead the PMO with the title of Program Director. In this role, Bereicoa has responsibility for the overall performance of the newbuild program and for managing ABS’ communications.

EUROPE DIVISION

John Jude Gallagher has been promoted to Vice President of Offshore for the ABS Europe Division. Most recently he served as the Division’s Director for Offshore Technology and Business Development.

PACIFIC DIVISION

Akira Akiyama has been named Vice President of Japan and will be taking on the responsibility of leading the country’s operations and business development.
Newly Classed Vessels and Recent Contracts

GLORIOUS SAIKI, a 37,154 dwt bulk carrier, BC-A, SH, GRAB(25), SHCM, built by Saiki H I for T.H. Corp.

1 October 2012 to 31 January 2013
Newly Classed Vessels and Facilities

**TANKERS**

**AMERICAN PHOENIX**, 30,718 gt / 49,035 dwt, AB-CM, CSR, ES, VEC, R2+, built by BAE Systems Southeast Shipyards for Mid Ocean Tanker

**AQUILA**, 164,359 gt / 319,330 dwt, AB-CM, CSR, RES, ES VEC-L, GP, built by Daewoo Shipbuilding & Marine Engineering for Aquila Transportation

**ARMONIA**, 5,064 gt / 6,295 dwt, built by CSC Chongqing Dongfeng Shipbuilding for CSC Armonia

**ASIA GLORY**, 11,246 gt / 16,705 dwt, built by Jiangsu Longhai Shiplbuilding for United Way Shipping

**BUNGA LUCERNE**, 11,925 gt / 19,991 dwt, VEC, built by Fukuoka Shipbuilding for Orange Octans

**C. EXCELLENCY**, 160,705 gt / 313,990 dwt, AB-CM, CSR, VEC, TCM, BWE, GP, built by Hyundai H I for SS Triton A

**C. NOBILITY**, 160,705 gt / 313,990 dwt, AB-CM, CSR, VEC, TCM, BWE, GP, built by Hyundai H I for SS Triton B


**CHEMICAL AQUARIUS**, 11,383 gt / 18,045 dwt, VEC, TCM, built by Zhejiang Hangchang Shipbuilding Industry for Huarong Huiyin

**CHEMICAL LIBRA**, 11,383 gt / 18,042 dwt, VEC, TCM, built by Zhejiang Hangchang Shipbuilding Industry for Huarong Huiyin

**DELTA SEA**, 5,064 gt / 6,300 dwt, built by CSC Chongqing Dongfeng Shipbuilding for CSC Delta Sea

**EURO**, 81,314 gt / 157,539 dwt, AB-CM, CSR, VEC-L, TCM, BWE, ENVIRO, GP, built by Sungdong Shipbuilding & Marine Engineering for Awaye Trading

**FLAGSHIP ORCHID**, 42,208 gt / 74,577 dwt, VEC-L, TCM, AB-CM, CSR, ENVIRO, GP, built by Hyundai Mipo Dockyard for Flagship Orchid

**GMG 01**, 4,445 gt / 6,841 dwt, built by Shantou Shipping General for GMG Marine Singapore

**GMG 02**, 5,034 gt / 6,365 dwt, VEC, built by Zhenjiang Sopo Shipbuilding for GMG Marine Singapore

**HOUSTON**, 160,534 gt / 272,617 dwt, VEC-L, TCM, AB-CM, CSR, GP, built by Hyundai H I for Orient Navigation

**KAPPA SEA**, 5,064 gt / 6,341 dwt, built by CSC Chongqing Dongfeng Shipbuilding for CSC Kappa Sea

**NAVE CASSIOPEIA**, 42,341 gt / 74,711 dwt, AB-CM, CSR, VEC, TCM, BWE, ENVIRO, BP, built by Sungdong Shipbuilding & Marine Engineering for Rhodes Shipping

**NAVE CETUS**, 42,341 gt / 74,711 dwt, AB-CM, CSR, VEC, TCM, BWE, ENVIRO, BP, built by Sungdong Shipbuilding & Marine Engineering for Crete Shipping

**NECHES**, 57,244 gt / 105,276 dwt, AB-CM, CSR, VEC, TCM, built by Hyundai H I for DSS 3

**NISOS DELOS**, 61,320 gt / 115,697 dwt, AB-CM, CSR, VEC, TCM, BWE, BWT+, GP, built by Samsung H I for Bigal Shipping

**NISOS PAROS**, 61,320 gt / 115,723 dwt, VEC, TCM, AB-CM, BWE, CSR, GP, built by Samsung H I for Zenith Maritime

**NOVO**, 85,436 gt / 149,999 dwt, AB-CM, CSR, VEC-L, TCM, GP, SPMA, built by New Times Shipbuilding for Alta

**OCEAN SUPREME**, 11,999 gt / 16,616 dwt, Ice Class “IA”, NBLES, VEC, TCM, built by Liaoning Hongguan Shipbuilding for An Xing Shipping
GEORGE P, a 81,569 dwt bulk carrier, BC-A, AB-CM, CSR, GRAB(25), TCM, built by CSSC Guangzhou Longxue Shipbuilding for Sutong Marine.

DENSA SHARK, a 179,227 dwt bulk carrier, BC-A, TCM, GRAB(20), AB-CM, CSR, built by Hyundai H I for Shark Shipping and Trading.

STI AMBER, a 51,622 dwt tanker, VEC, TCM, AB-CM, BWE, CSR, ENVIRO, GP, SPMA, built by Hyundai Mipo Dockyard for STI Amber Shipping.

BULK CARRIERS

ADELANTE, 44,544 gt / 81,585 dwt, BC-A, AB-CM, CSR, GRAB(25), TCM, BWE, built by SPP Shipbuilding for Sameco

ALPHA PROGRESS, 43,721 gt / 81,407 dwt, BC-A, TCM, GRAB(25), AB-CM, BWE, CSR, built by Hyundai Samho H I for Contralto Shipholding

ALPHA VISION, 43,721 gt / 81,407 dwt, BC-A, TCM, GRAB(25), AB-CM, BWE, CSR, built by Hyundai Samho H I for Chandelier Navigation

ANANGEL ASPIRATION, 61,504 gt / 114,500 dwt, BC-A, TCM, GRAB(25), AB-CM, CSR, built by Shanghai Shipyard for Alnus Marine

ANANGEL CONQUEROR, 89,891 gt / 179,719 dwt, BC-A, AB-CM, CSR, GRAB(20), TCM, GP, built by Daewoo Shipbuilding & Marine Engineering for Meadow Marine

ASHOK, 82,271 gt / 106,432 dwt, BC-A, AB-CM, CSR, GRAB(20), TCM, BWE, GP, built by STX Dalian Shipbuilding for Essar Shipping

BEKS YILMAZ, 44,422 gt / 81,547 dwt, BC-A, TCM, GRAB(20), AB-CM, BWE, CSR, ENVIRO, GP, built by SPP Shipbuilding for Time Maritime

BULK GENIUS, 91,971 gt / 175,580 dwt, BC-A, TCM, GRAB(25), AB-CM, CSR, built by Zhejiang Jinhaiwan Shipyard for CLC Ship Chartering-Vi

CHINA PIONEER, 106,884 gt / 206,079 dwt, BC-A, TCM, GRAB(25), AB-CM, CSR, GP, built by Shanghai Waigaoqiao Shipbuilding for China Pioneer Shipping

CIC ROLACO, 91,971 gt / 175,641 dwt, BC-A, TCM, GRAB(25), AB-CM, CSR, built by Zhejiang Jinhaiwan Shipyard for Cape Fortune
FLORIANA, a 33,800 dwt bulk carrier, BC-A, AB-CM, CSR, GRAB(30), TCM, GP, built by 21st Century Shipbuilding for Transship Bulk.

JIN XIANG, a 61,414 dwt bulk carrier, BC-A, SHR, built by Oshima Shipbuilding for Jinxiang Marine.

FENGLI 12, a 30,009 dwt bulk carrier, BC-A, AB-CM, CSR, GRAB(20), TCM, built by Tsuji H I for Wisdom Shipping.
EVER LAUREL, a 8,000 teu containership, SH, SHCM, FL 25, TCM, BWE, ENVIRO, built by Samsung H I for Evergreen Marine.

EVER LAWFUL, 8,000 teu, SH, SHCM, FL25, TCM, BWE, ENVIRO, built by Samsung H I for Evergreen Marine.

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

MAERSK LINS, 8,700 teu, TCM, SH, SH-DLA, BWE, BWT+, ES, GP, SHCM, built by Daewoo Shipbuilding & Marine Engineering for Maersk Shipping.

MAERSK LONDRINA, 8,700 teu, SH, SH-DLA, SHCM, ES, TCM, BWE, BWT+, GP, built by Daewoo Shipbuilding & Marine Engineering for Maersk Shipping.

SHEN HAI, 147,210 m³, SH, SH-DLA, SHCM, FL40, NBLES, TCM, ENVIRO, built by Hudong-Zhonghua Shipbuilding for Shanghai LNG Shipping.


ATWOOD CONDOR, 31,198 gt, CDS, DPS-2, built by Jurong Shipyard for Alpha International Drilling.


AMARALINA STAR, 56,878 gt, DPS-3, SH-DLA, built by Samsung H I for Amaralina Star.

LAGUNA STAR, 56,878 gt / 57,488 dwt, SH-DLA, DPS-3, built by Samsung H I for Laguna Star.

TITANIUM EXPLORER, 67,825 gt, DLA, CDS, DPS-3, built by Daewoo Shipbuilding & Marine Engineering for Vantage Drilling Poland.

BEWS, built by Cuel for Chevron Offshore.

BEWV, built by Cuel for Chevron Offshore.

BEWW, built by Cuel for Chevron Offshore.

ERWZD, built by Cuel for Chevron Thailand Exploration & Production.

FUWP, built by Cuel for Chevron Thailand Exploration & Production.

JKWJ, built by Cuel for Chevron Thailand Exploration & Production.

LAWB, built by Cuel for Chevron Offshore.

NPWL, built by Cuel for Chevron Thailand Exploration & Production.

NPWM, built by Cuel for Chevron Thailand Exploration & Production.

NPWN, built by Cuel for Chevron Thailand Exploration & Production.

PMWN, built by Cuel for Chevron Thailand Exploration & Production.

SGWB, built by Cuel for Chevron Thailand Exploration & Production.

SGWC, built by Cuel for Chevron Thailand Exploration & Production.

YAWF, built by Cuel for Chevron Thailand Exploration & Production.

ERAWAN 2, 83,985 gt, FL 20, SH, SH-DLA, SHCM, built by IHI for Erawan 2 FSO.
Self Elevating Drilling Units
INDEPENDENCIA 1, 14,329 gt, built by Operadora Cicsa for Operadora Cicsa
SAR 202, 11,377 gt, CDS, built by Keppel Fels for Saudi Aramco

Self Elevating Units
KINOA 4307, 2,910 gt, HELIDK, PAS, built by PT United Sindo Perkasa for NaveTech Marine Services
ATWOOD MAKO, 10,679 gt, built by PPL Shipyard for Alpha Mako
JB 117, 6,873 gt, built by PT Graha Trisaka Industry for Jack-Up Barge Operations
JOE DOUGLAS, 10,411 gt, built by Letourneau Technologies for Rowan Companies
MAKASIB, 7,418 gt, built by Lamprell Energy for National Drilling
NEPTUNE, 5,125 gt, OPS-2, built by IHC Offshore & Marine for Geosea
ROBERT, 3,915 gt, OPS-1, built by Gulf Island Fabrication for Montco Offshore
UKRAINE, 10,350 gt, CDS, built by Keppel Fels for Offshore Drille 5
TERAS CONQUEST 6, 5,087 gt, built by Saigon Shipyard for Teras Conquest 6
SEAFOX 5, 19,697 gt, OPS-2, ENVIRO, GP, built by Keppel Fels for Seafox 5

Single Point Moorings
MBM21, built by Marine Engineer for Petroterminal de Panama
MBM22, built by Marine Engineer for Petroterminal de Panama

MISCELLANEOUS
Barges
ALIM B-39, 3,233 gt, built by Yizheng Xinyang Shipbuilding for PT Alim Shipping
ANGELINE 219-01, 3,151 gt, built by Taizhou Sanfu Ship Engineering for PT Pelayaran Dalam Negeri Atrind Marine Graha
B. NO. 250, 4,814 gt, built by Bollinger Marine Fabricators for Bouchard Ocean Services
BARGE 123, built by Servicios Industrial de La Marina for Autoridad Del Canal de Panama
CASPIAN EXPLORER, 11,086 gt, built by Daewoo Shipbuilding & Marine Engineering for KC Kazakh
CBR 797, 2,194 gt, built by Halimar Shipyard for Central Boat Rentals
CHARLES 211, 3,233 gt, built by Yangzhou Topniche Shipbuilding for PT Panca Merak Samudera
CHARLES 212, 3,233 gt, built by Yangzhou Topniche Shipbuilding for PT Panca Merak Samudera
DE SAL 15, 4,665 gt, built by Guangxin Shipbuilding & H I for Exportadora De Sal
DONGIL 505, 1,490 gt, built by Yangzhou Hanjiang Eastern Shipyard for Triton Offshore
DONGIL 506, 1,490 gt, built by Yangzhou Hanjiang Eastern Shipyard for Triton Offshore
DR. BONNIE W. RAMSEY, 2,724 gt, built by Zidell Marine for Harley Marine Services
EASTERN CONSTELLATION, 6,019 gt, built by Nanjing Yonghua Shipbuilding for Eastern Navigation
FC AVANT GARDE, 2,355 gt, built by PT Nexus Engineering for Accius Trading
FELS 30, 8,258 gt, built by Keppel Fels for Keppel Fels
FIORE 270 I, 3,150 gt, built by Taizhou Xing Gang Shipbuilding for PT Pelayaran Menatarama Pasifik Indah
GOLD TRANS 3001, 3,148 gt, built by Nantong Tongde Shipbuilding & Repairing for Fujian Zhonghe Machinery & Equipment
NEPTUNE, a 5,125 gt self elevating unit, built by IHC Offshore & Marine for Geosea.

GOLD TRANS 3002, 3,148 gt, built by Nantong Tongde Shipbuilding & Repairing for Fujian Zhongshe Machinery & Equipment
Gwendolyn, 2,161 gt, built by Conrad Industries for JR. Gray
Jascon 60, 1,712 gt, built by Taizhou Xing Gang Shipbuilding for Jem International
Jascon 61, 1,712 gt, built by Taizhou Xing Gang Shipbuilding for Jem International
Jmc 3336, 5,774 gt, built by Jiangsu Huatai Shipbuilding for Cashman Equipment
Kamal 22, 2,148 gt, built by Yangzhou Songchuan Shipbuilding for Kamal & Adel Sea Cargo
Kapuas Jaya 3116, 4,084 gt, built by Yizheng Xinyang Shipbuilding for PT Pelayaran Kapuas Jaya Samudera
Kapuas Jaya 3117, 4,084 gt, built by Yizheng Xinyang Shipbuilding for PT Pelayaran Kapuas Jaya Samudera
Kapuas Jaya 3118, 4,084 gt, built by Nantong Tong Sheng Shipbuilding for PT Pelayaran Kapuas
Kbu 5, 1,557 gt, built by Nanjing Yonghua Shipbuilding for PT Kumala Barito Utara
Kbu 6, 1,557 gt, built by Nanjing Yonghua Shipbuilding for PT Kumala Barito Utara
Kim Heng 2378, 1,472 gt, built by Yizheng Xinyang Shipbuilding for Kim Heng Marine & Oilfield
Kota Laksamana, 19,760 gt, built by Grade One Marine Shipyard for Pbjv Group
Lancar Iii, 4,080 gt, built by Nantong Tongcheng Ship Manufacturing for PT Dharmanalcar Sejahtera
Lancar V, 3,150 gt, built by Nantong Tongcheng Ship Manufacturing for PT Dharmanalcar Sejahtera
Limin Kst 3308, 6,110 gt, built by Jiangsu Huatai Shipbuilding for PT Limin Kst
Lintas Samudera 76, 3,074 gt, built by Nanjing Sandingli Ship Industry for PT Pelayaran Duta Lintas Samudera
Lintas Samudera 77, 3,074 gt, built by Nanjing Sandingli Ship Industry for PT Pelayaran Duta Lintas Samudera
Marabunta 11, 3,140 gt, built by Nanjing East Star Shipbuilding for PT Srikandi Armada Shipping
Maritim Perkasa 2320, 1,436 gt, built by PT Sumatera Maju Jaya Shipyard for PT Pelayaran Marindo Pacific
Maritime Honour, 5,960 gt, built by Jiangsu Zhongxu Shipbuilding H I for Maritime Alpha
Martin Leme XVII, 1,334 gt, built by Estaleiro Rio Maguari for Martin Leme Servicos Meritimos
Masada 18, 3,357 gt, built by Nanjing Yonghua Shipbuilding for PT Masada Jaya Lines
Masada 20, 3,357 gt, built by Nanjing Yonghua Shipbuilding for PT Masada Jaya Lines
Megatrans X, 2,007 gt, built by Taizhou Sanfu Ship Engineering for Ocean Express Marine
Megatrans XI, 2,007 gt, built by Taizhou Sanfu Ship Engineering for Ocean Express Marine
Mjl 301, 3,357 gt, built by Nanjing Yonghua Shipbuilding for PT Masada Jaya Lines
Mjl 302, 3,357 gt, built by Nanjing Yonghua Shipbuilding for PT Masada Jaya Lines
Pacific Installer, 12,248 gt, built by Boustead Penang Shipyard for Swire Pacific Offshore Operations
Par 10001, 4,257 gt, built by Nanjing Shunxin Ships for Paranave
PB 2506, 2,219 gt, built by Nanjing East Star Shipbuilding for PT Whs Global Mandiri
PB 2507, 2,208 gt, built by Nanjing Ding Feng Shipbuilding for PT Whs Global Mandiri

SEAFOX 5, a 19,697 gt self elevating unit, built by Keppel Fels for Seafoux.
PEGASUS 3, 3,140 gt, built by Nanjing East Star Shipbuilding for PT Sahuindo Marino Jaya

POLY 23, 2,166 gt, built by Nanjing East Star Shipbuilding for Omni Maritime

POMP-013, 1,469 gt, built by Guangdong Yuexin Ocean Engineering for P&O Maritime Holdings

POMP-014, 1,469 gt, built by Guangdong Yuexin Ocean Engineering for P&O Maritime Holdings

POMP-015, 1,469 gt, built by Guangdong Yuexin Ocean Engineering for P&O Maritime Holdings

POMP-016, 1,469 gt, built by Guangdong Yuexin Ocean Engineering for P&O Maritime Holdings

POMP-017, 1,469 gt, built by Guangdong Yuexin Ocean Engineering for P&O Maritime Holdings

POMP-018, 1,469 gt, built by Guangdong Yuexin Ocean Engineering for P&O Maritime Holdings

POMP-019, 1,469 gt, built by Guangdong Yuexin Ocean Engineering for P&O Maritime Holdings

POMP-020, 1,469 gt, built by Guangdong Yuexin Ocean Engineering for P&O Maritime Holdings

POMP-021, 1,469 gt, built by Guangdong Yuexin Ocean Engineering for P&O Maritime Holdings

POMP-022, 1,469 gt, built by Guangdong Yuexin Ocean Engineering for P&O Maritime Holdings

POMP-023, 1,469 gt, built by Guangdong Yuexin Ocean Engineering for P&O Maritime Holdings

POMP-024, 1,444 gt, built by Guangdong Yuexin Ocean Engineering for P&O Maritime Holdings

RTC 42, 3,435 gt, built by Southeastern New England Shipbuilding Corp. (Senesco) for Reinauer Transportation

RYAN 99, 3,071 gt, built by Yangzhou Yuanhang Shipbuilding for PT Pelayaran Ryan Samudra Adi Jaya

SAMUDRA VIII, 1,436 gt, built by PT Sumatera Maju Jaya Shipyard for PT Moro Citra Samudra

SINOSTRUCT 91, 3,540 gt, built by Nantong Tongde Shipbuilding & Repairing for Sinostruct

SK LINE 305, 10,159 gt, built by Fuzhou Xiayang Shipbuilding for Nam Cheong Dockyard

SKS 2501, 2,029 gt, built by Canuarta Starmarine for PT Setia Kencana Samudra

SLM 87, 1,941 gt, built by PT Boston Oriental Shipbuilding & Shipyard for Pelayaran Sinar Lautan Mutlara

SOEKAWATI 305, 3,065 gt, built by Taizhou Xing Gang Shipbuilding for PT Pelayaran Borneo Karya Swadiri

SOEKAWATI 358, 3,065 gt, built by Taizhou Xing Gang Shipbuilding for PT Pelayaran Borneo Karya Swadiri

SUZY-Q, 6,461 gt, built by Gulf Piping for Gulf Piping

SWIBER TRIUMPHANT, 10,412 gt, HELIDK, built by Yangzhou Hairun Shipbuilding and Engineering for Swiber Offshore Marine

TAT HONG 823, 2,200 gt, built by Pacific Marine & Shipbuilding for Tat Hong Offshore & Marine Services

TAUFIK 99, 3,071 gt, built by Yangzhou Yuanhang Shipbuilding for PT Pelayaran Ryan Samudra Adi Jaya

TCP 30-03, 3,071 gt, built by Yangzhou Topniche Shipbuilding for PT Transcoal Pacific

TCP 30-05, 3,071 gt, built by Yangzhou Topniche Shipbuilding for PT Transcoal Pacific

TERAS 3701, 6,829 gt, built by Jiangsu Hongqiang Marine H I for Teras 375

TERAS 3702, 6,812 gt, built by CCCC Bomesc Marine Industry for Teras 375

TERAS 3703, 6,834 gt, built by Jiangsu Huatai Shipbuilding for Teras 375

PACIFIC EXCELLENT, a 3,161 gt offshore support vessel, Fire Fighting Vessel Class 2, DPS-2, built by PRM Offshore H I for CSR Shipping.

RTC 42, a 3,435 gt oil tank barge, built by Southeastern New England Shipbuilding Corp. (Senesco) for Reinauer Transportation.

DEEPSTIM BRASIL II, a 5,914 gt offshore support vessel, DPS-2, built by North American Shipbuilding for Galliano Marine Service.
AMARALINA STAR, a 56,878 gt drillship, ëDPS-3, SH-DLA, built by Samsung H I for Amaralina Star.

TERAS 3705, 6,839 gt, built by Jiangsu Huatai Shipbuilding for Teras 375
TERAS 3706, 6,839 gt, built by Jiangsu Hongqiang Marine H I for Teras Offshore
TGH 2515, 2,208 gt, built by Nantong Tongbao Shipbuilding for PT WHS Global Mandiri
TGH 2516, 2,208 gt, built by Nantong Tongbao Shipbuilding for PT WHS Global Mandiri
TSP 31, 3,064 gt, built by Taizhou Kouan Shipbuilding for PT Trans Samudera Perkasa
TSP 32, 3,064 gt, built by Taizhou Kouan Shipbuilding for PT Trans Samudera Perkasa
TSP 31, 3,064 gt, built by Taizhou Kouan Shipbuilding for PT Trans Samudera Perkasa
TSP 32, 3,064 gt, built by Taizhou Kouan Shipbuilding for PT Trans Samudera Perkasa
UVM01, 2,212 gt, built by Nantong Tong Sheng Shipbuilding for Union Venture Marine
UVM02, 2,212 gt, built by Nantong Tong Sheng Shipbuilding for Union Venture Marine
WAHANA 258, 2,006 gt, built by PT Boston Oriental Shipbuilding & Shipyard for PT Wahana Wiratama Line
YOUSEF 20, 1,390 gt, built by Yangzhou Songchuan Ship Building for Kamal & Adel Sea Cargo
ZAMIL - L.B. 1, 3,836 gt, built by China Merchants H I for Zamil Group Holding

Government Vessels
AL-NOKHETHA, HSC patrol vessel, OE, built by Trinity Yachts for Naval Sea Systems Command
AL-SAFFAR, HSC patrol vessel, OE, built by Trinity Yachts for Naval Sea Systems Command
AL-SHOAIE, HSC patrol vessel, OE, built by Trinity Yachts for Naval Sea Systems Command
BAYAN, HSC patrol vessel, OE, built by Trinity Yachts for Naval Sea Systems Command
DAMMAM 13, towing vessel, 424 gt, built by Zamil Offshore Services for Saudi Seaports Authority
DAMMAM 14, towing vessel, 424 gt, built by Zamil Offshore Services for Saudi Seaports Authority
ICGS RAJ KIRAN, HSC patrol vessel, 356 gt, HSC, built by Garden Reach Shipbuilding & Engineering for Indian Coast Guard
KUBBAR, HSC patrol vessel, OE, built by Trinity Yachts for Naval Sea Systems Command
MRL 1, towing vessel, 100 gt, built by Zamil Offshore Services for Saudi Seaports Authority

AIVIQ, a 12,892 gt offshore support, vessel, HELIDK, Ice Breaker, Ice Class “A3”, Fire Fighting Vessel Class 2, Oil Recovery Capability Class 1, ëDPS-2, CCO-POLAR, built by North American Shipbuilding for Offshore Service Vessels.

AIQIV, a 1,289 gt offshore support, vessel, HELIDK, Ice Breaker, Ice Class “A3”, Fire Fighting Vessel Class 2, Oil Recovery Capability Class 1, ëDPS-2, CCO-POLAR, built by North American Shipbuilding for Offshore Service Vessels.

AMARALINA STAR, a 56,878 gt drillship, ëDPS-3, SH-DLA, built by Samsung H I for Amaralina Star.

BRAM BRASILIA, a 3,606 gt offshore supply vessel, ëDPS-2, built by Estaleiro Navship for Bram Offshore Transportes Maritimos.

Tugs, Workboats and OSVs
AIVIQ, 12,892 gt, HELIDK, Ice Breaker, Ice Class “A3”, Fire Fighting Vessel Class 2, Oil Recovery Capability Class 1, ëDPS-2, CCO-POLAR, built by North American Shipbuilding for Offshore Service Vessels
AMOJIL 61, 1,093 gt, built by Hin Lee (Zhuhai) Shipyards for Mohammad Al Moij
AMBROSUS TIDE, 3,404 gt, Fire Fighting Vessel Class 1, Oil Recovery Capability Class 1, ëDPS-2, built by Poet (China) Shipbuilding & Engineering for Indigo Fleet
BRAM BRASILIA, 3,606 gt, Fire Fighting Vessel Class 1, ëDPS-2, built by Estaleiro Navship for Bram Offshore Transportes Maritimos
BRAM BUZIOS, 3,606 gt, Fire Fighting Vessel Class 1, ëDPS-2, built by Estaleiro Navship for Bram Offshore Transportes Maritimos
CAROLINE TIDE III, 3,404 gt, Fire Fighting Vessel Class 1, Oil Recovery Capability Class 1, ëDPS-2, built by Poet (China) Shipbuilding & Engineering for Poet Shipbuilding & Engineering
CARR TIDE, 3,601 gt, Fire Fighting Vessel Class 1, ëDPS-2, built by Fujian Mawei Shipbuilding for Vermillion Fleet
DEEPSTIM BRASIL II, 5,914 gt, ëDPS-2, built by North American Shipbuilding for Galliano Marine Service
DELTA SKY, 1,528 gt, built by Guangzhou South China Shipbuilding for Delta Sky
DUTCH BLUE, 1,159 gt, built by NantongMee Lee Cheong Tongbao Shipbuilding for Roro I
EL CHALLEN, 1,197 gt, Fire Fighting Vessel Class 1, built by Cheoy Lee Shipyards for Navegacion Y Technologia Maritima
GERARD TIDE, 3,601 gt, Fire Fighting Vessel Class 1, $\text{DPS-2}$, built by Fujian Mawei Shipbuilding for Indigo Fleet
HARVEY CHAMPION, 3,912 gt, Fire Fighting Vessel Class 1, $\text{DPS-2}$, NBLES, ENVIRO, GP, built by Eastern Shipbuilding for Harvey Gulf International Marine
HERCULES, 3,555 gt, Fire Fighting Vessel Class 1, Oil Recovery Capability Class 1, $\text{DPS-2}$, built by Poet Shipbuilding & Engineering for Poet Shipbuilding & Engineering
JACK EDWARDS, 3,242 gt, Fire Fighting Vessel Class 1, $\text{DPS-2}$, built by North American Shipbuilding for Galliano Marine Service
KELLY ANN CANDIES, 4,459 gt, $\text{DPS-2}$, built by Candies Shipbuilders for Otto Candies
KESTREL K, 2,756 gt, Fire Fighting Vessel Class 1, $\text{DPS-2}$, built by Guangzhou Hangtong Shipbuilding & Shipping for GMG Marine
MEGA BAKTI, 3,549 gt, $\text{DPS-2}$, TCM, built by Keppel Singmarine for Target Resources Sendirian Berhad
MP VALOUR, 1,709 gt, Fire Fighting Vessel Class 1, $\text{DPS-1}$, built by PT Marcopolo Shipyard for Marcopolo Offshore
NESSO II, 2,899 gt, Fire Fighting Vessel Class 1, $\text{DPS-2}$, built by Fujian Southeast Shipyard for Slolk Nigeria
OCEAN WAVE, 1,258 gt, Fire Fighting Vessel Class 1, $\text{DPS-2}$, built by Bollinger Marine Fabricators for Vessel Management Services
P&O CEIBO, 1,052 gt, built by Guangdong Yuexin Ocean Engineering for P&O Maritime Services
PACIFIC EXCELLENT, 3,161 gt, Fire Fighting Vessel Class 2, $\text{DPS-2}$, built by PRM Offshore H I for CSR Shipping
PACIFIC SUPERIOR, 3,161 gt, Fire Fighting Vessel Class 2, $\text{DPS-2}$, built by PRM Offshore H I for Natuna Richfield Marine
PAUL A. CALLIAS, 1,158 gt, $\text{DPS-2}$, built by Master Boat Builders for Abdon Callais Offshore
POSH COURAGE, 2,736 gt, Fire Fighting Vessel Class 1, $\text{DPS-2}$, ES2020, built by Paxocean Engineering Zhuhai for Starling Shipping
RAWABI 3, 1,678 gt, Fire Fighting Vessel Class 1, $\text{DPS-1}$, built by Fujian Southeast Shipyard for Rawabi Swiber Offshore Services
RAWABI 4, 1,678 gt, Fire Fighting Vessel Class 1, $\text{DPS-1}$, built by Fujian Southeast Shipyard for Rawabi Swiber Offshore Services
RAWABI 5, 1,678 gt, Fire Fighting Vessel Class 1, $\text{DPS-1}$, built by Fujian Southeast Shipyard for Rawabi Swiber Offshore Services
RAWABI 6, 1,678 gt, Fire Fighting Vessel Class 1, $\text{DPS-1}$, built by Fujian Southeast Shipyard for Rawabi Swiber Offshore Services
RAWABI 7, 1,678 gt, Fire Fighting Vessel Class 1, $\text{DPS-1}$, built by Fujian Southeast Shipyard for Rawabi Swiber Offshore Services
RAWABI 8, 1,678 gt, Fire Fighting Vessel Class 1, $\text{DPS-1}$, built by Fujian Southeast Shipyard for Rawabi Swiber Offshore Services
ROBERT ADAMS, 3,242 gt, Fire Fighting Vessel Class 1, $\text{DPS-2}$, built by North American Shipbuilding for Galliano Marine Service
ROGER WHITE, 3,242 gt, Fire Fighting Vessel Class 1, $\text{DPS-2}$, built by North American Shipbuilding for Legacy Leader
S.C.I. AHIMSA, 2,048 gt, Fire Fighting Vessel Class 1, $\text{DPS-1}$, built by Cochin Shipyard for The Shipping Corporation of India
SEACOR WARRIOR, 3,601 gt, Fire Fighting Vessel Class 1, $\text{DPS-2}$, built by Fujian Mawei Shipbuilding for Seabulk Overseas Transport
SK LINE 65, 1,678 gt, Fire Fighting Vessel Class 1, $\text{DPS-1}$, built by Fujian Southeast Shipyard for Nam Cheong International

SAMCO TAIGA, a 314,249 dwt tanker AB-CM, CSR, NIBS, TCM, BWE, ENVIRO, GP, SPMA, built by Hyundai Samho HI for Samco Iota.

MP VALOUR, a 1,709 gt tug supply and firefighting vessel, Fire Fighting Vessel Class 1, $\text{DPS-1}$, built by PT Marcopolo Shipyard for Marcopolo Offshore.

SK LINE 65, a 1,678 gt offshore support vessel, Fire Fighting Vessel Class 1, $\text{DPS-1}$, built by Fujian Southeast Shipyard for Nam Cheong International.
SK LINE 66, 1,678 gt, Fire Fighting Vessel Class 1, DPS-1, built by Fujian Southeast Shipyard for Nam Cheong International
SK LINE 71, 1,678 gt, Fire Fighting Vessel Class 1, DPS-1, built by Fujian Southeast Shipyard for Vega Crusader
SOC ENDEAVOUR, 3,914 gt, DPS-2, built by Zhejiang Shenzhou Shipbuilding for KOI Marine
STIM STAR ARABIAN GULF, 2,212 gt, DPS-1, built by Bollinger Shipyards for Wells Fargo Bank Northwest
SUPERSTAR 42,557, 1646 gt, built by Nanjing East Star Shipbuilding for Bue Caspian
VEGA CORONA, 1,680 gt, Fire Fighting Vessel Class 1, DPS-1, built by Fujian Southeast Shipyard for Vega Corona
VEGA JUNIZ, 1,678 gt, Fire Fighting Vessel Class 1, DPS-1, built by Fujian Southeast Shipyard for Vega Juniz
VOS ATHOS, 1,678 gt, Fire Fighting Vessel Class 1, Oil Recovery Capability Class 2, DPS-2, built by Fujian Southeast Shipyard for Offshore Support Vessels 20
VOS ATLANTA, 1,678 gt, Fire Fighting Vessel Class 1, Oil Recovery Capability Class 2, DPS-1, built by Fujian Southeast Shipyard for Offshore Support Vessels 14
WEYLAND TIDE, 2,605 gt, Fire Fighting Vessel Class 1, DPS-2, built by Guangdong Yuxin Ocean Engineering for Indigo Fleet
WINPOSH RESOLVE, 2,588 gt, Fire Fighting Vessel Class 1, ES 2020, DPS-2, built by Paxocean Engineering Zhuhai for PT Win Offshore
ZAMIL 401, 1,241 gt, built by Zhongshan Jinhui Ship Repair & Building Factory for Zamil Offshore Services

Yachts
ACHILLES F, 499 gt, built by San Lorenzo for Banque Populaire Cote D’Azur
ALLOYA 40, 338 gt, built by San Lorenzo for Alloya
ARETI, 916 gt, built by Trinity Yachts for Areti
ENTERPRISE, 410 gt, built by Perini Navi for Rainbow Peak
GALACTICA PLUS, 200 gt, built by Heesen Yacht Builders for Sea Wave Thirty Four
OPTION B, 299 gt, built by Azimut - Benetti for Option B
RAHIL, 928 gt, ES, built by T. Mariotti for Jana
WESTPORT 40 M, 333 gt, built by Westport Shipyard for Westport Shipyard

Others
BLUEWATER CHIEF, HSC crew boat, 684 gt, DPS-2, built by Gulf Craft for Gulf Offshore
FAST RUNNER, HSC crew boat, 447 gt, DPS-2, built by Breaux Bros Enterprises for Nautical Solutions
FOS VIRGO, high speed craft, safety and standby vessel, 818 gt, HSC, Fire Fighting Capability, DPS-1, built by Sam Aluminium Engineering for PT Fast Offshore
GODRI EMPAT, landing craft, 1,999 gt, built by Sealink Engineering & Slipway for Sealink
GODRI TIGA, landing craft, 1,999 gt, built by Sealink Engineering & Slipway for Sealink
PAC SCHEDAR, general cargo and container carrier, 21,094 gt, SH, SHCM, built by Zhejiang Hongguan Shipbuilding for Schedar Shipping
QUEEN VICTORIA II, HSC crew boat, 257 gt, built by Penguin Shipyard International for Awairtse Nigeria
ROYAL SESA, general cargo carrier, 4,800 gt, built by Chengxi Shipyard for Sesa Goa
TRITON 3300-1, passenger submersible, built by Triton Submarines for Beta Maritime
Recent Class Contracts

**TANKERS**
Four 30,000 gt / 50,179 dwt for Piedmont Enterprises at SPP Shipbuilding
Three 177,000 gt / 319,000 dwt at Shanghai Waigaoqiao Shipbuilding
Three 161,300 gt / 318,451 dwt at Hyundai H I
Two 165,000 gt / 319,000 dwt at Daewoo Shipbuilding & Marine Engineering
Two 44,300 gt / 72,800 dwt for Sun Enterprises at Hyundai H I
One 57,200 gt / 92,797 dwt for Densa Denizcilik Sanayi Ve Ticaret at Hyundai H I

**BULK CARRIERS**
Four 47,000 gt / 87,000 dwt for Foremost Maritime at Hudong-Zhonghua Shipbuilding
Two 35,000 gt / 61,000 dwt at Iwagi Zosen
Two 23,900 gt / 34,800 dwt at Hyundai Mipo Dockyard
One 35,000 gt / 61,000 dwt at Shin Kasado Dockyard
One 23,000 gt / 37,000 dwt at Imabari Shipbuilding

**GAS CARRIERS**
Four 172,000 m³ for ExxonMobil Development at Hudong-Zhonghua Shipbuilding
Two 160,000 m³ at Daewoo Shipbuilding & Marine Engineering
Two 160,000 m³ at Samsung H I
One 162,000 m³ at Hyundai H I
One 82,000 m³ at Hyundai H I

**OFFSHORE**
**Self Elevating Unit**
One 5,000 gt at COSCO Nantong Shipyards

**Single Point Mooring**
One at Gulf Piping

**MISCELLANEOUS**

**Barges**
Four 7,630 gt at Jiangsu Hongqiang Marine H I
Four 1,250 gt for Poet Shipbuilding & Engineering at Nantong Tiannan Shipyards
Two 2,670 gt for Pacific Crest at Poet Shipbuilding & Engineering
Two 1,800 gt at Nantong Gangzhy Shipping Manufacturing
One 10,500 gt for PT Eka Nusantara Line at K S Yanase Industries
One 4,368 gt at Jingjiang Nanyang Shipbuilding
One 2,550 gt at Poet Shipbuilding & Engineering
One 1,700 gt for Charleston Heavy Lift at Metal Trades

**Passenger Vessel**
Four 5,300 gt at Bharati Shipyards

**Yacht**
One 500 gt at Overmarine Due

**Other**
One underwater system at Pressafe
We Welcome Your Thoughts

Activities is intended to provide our members and clients with ABS views, news and research. Editorial content is gathered from ABS engineering and field offices around the globe.

To comment, please contact Jean Gould, Vice President, External Affairs, at tel: 1-281-877-5850 or email CorporateCommunications@eagle.org.

The mission of ABS is to serve the public interest as well as the needs of our clients by promoting the security of life and property and preserving the natural environment.

ON THE COVER

GTT received approval in principle for its design for a 32,000 m³ capacity LNG carrier that will be able to access inland water routes, providing bunkering, feeder trade and archipelago trade in regions where the demand for LNG is growing. Photo courtesy of GTT.