



2025

ANNUAL REVIEW

SMART SOLUTIONS.
SAFER SEAS.



CONTENTS

4	CHAIRMAN'S MESSAGE	62	TALENT DEVELOPMENT
8	INDUSTRY LEADING SAFETY AND QUALITY	64	Developing the Talent Pipeline
10	Safety Leadership	64	Training
10	ABS Safety Performance	66	Career Development
11	Occupational Health and Safety Performance	67	Aspire Program
12	Quality Performance	67	University Relations
13	ABS Group of Companies, Inc. Safety Performance	68	ABS CORPORATE GOVERNANCE
14	INDUSTRY LEADING PERFORMANCE	70	Board of Directors
18	EVOLVING MARITIME WORKFORCE	70	Corporate Officers
20	Helping Build a Future-Proof Workforce	71	Advisory Council
24	GLOBAL MARINE	72	ABS GROUP OF COMPANIES, INC.
26	Leading Innovation in Ship Design	74	Powered by People, Driven by Safety
28	Continuing a Legacy of Safety Leadership	75	Protecting Asset Performance for Resilient Operations
29	Honoring Those Who Take Safety to Heart	78	Defending the Nation's Critical Infrastructure
30	SUSTAINABILITY AND TECHNOLOGY	79	Leading Process Safety and Mechanical Integrity Best Practices
32	Helping Bring the Future of Maritime to Life	82	Supporting the Reliability Transformation
34	Powering Maritime's Digital Transformation	83	Business Assurance and Certification Services
36	Guiding the Evolution of Nuclear Energy for Maritime	85	Smart Industrial Solutions. Safer Operations. Stronger Supply Chains.
39	Supporting Safer Deployments for Electrification and Alternative Fuels	86	ABS GROUP OF COMPANIES, INC. CORPORATE GOVERNANCE
42	GLOBAL OFFSHORE	88	Board of Directors
44	Continuing to Lead Safer Technology Development in the Offshore Sector	89	Corporate Officers
46	Aiding Development of the Carbon Value Chain	90	ABS WAVESIGHT
47	Advancing the Technology of Offshore Spaceports	92	Leading Industry into a New Era of Digital Partnering
48	Driving Innovation in Offshore Cyber Defense	96	ABS WAVESIGHT CORPORATE GOVERNANCE
48	Technology Leadership in the Renewables Sector	98	Board of Managers
50	GLOBAL GOVERNMENT	99	Officers
52	Supporting the United States Government		
58	Supporting International Governments		



CHAIRMAN'S MESSAGE



John McDonald

Chairman and CEO, ABS
Chairman of ABS Affiliated Companies

The maritime industry is experiencing a fundamental shift driven by technology. Artificial intelligence (AI), automation, digital systems and advanced analytics are being deployed at scale and are altering core engineering and operational practices. This is not about isolated innovations. It is about the rapid convergence of technologies into integrated systems that change how ships function across their entire life cycle.

Across the fleet and the shipyard, we are seeing the physical and the digital begin to merge. Sensors are delivering continuous insight into asset conditions. Digital twins are providing dynamic, system level understanding. Machine learning and computer vision are enabling pattern recognition, fault prediction and informed decision-making at speeds and levels of consistency not previously possible. Individually these tools offer incremental benefit. Together, they are changing the economics, reliability and safety performance of maritime operations.

This Annual Review highlights how ABS spent 2025 harnessing the potential of these changes for the benefit of our clients and members. Our focus is, as it has always been, on translating technological innovation into practical, verifiable improvements in safety, reliability and performance. As systems become more complex and more connected, the need for independent technical assurance, rigorous engineering judgment and trusted guidance has never been greater.

This technological shift is driving a fundamental transformation in maintenance and operations. During the year, we delivered significant steps on the path toward condition-based maintenance (CBM). This marks a clear move away from reactive response and fixed schedules,



CHAIRMAN'S MESSAGE

In terms of our safety performance, in 2025, ABS again achieved the industry's lowest lost-time injury rate, with zero recorded lost-time incidents (LTIs), meaning that, since January 2023, ABS has accumulated more than 15 million hours worked without an LTI.



Lost-Time Incidents (LTIs)

ABS again achieved the industry's lowest lost-time injury rate, with zero recorded lost-time incidents.

Our hull and machinery casualties were again the lowest by far of all our competitors, as they have been for 16 years running, and we maintained our global leadership and the number one position in all three major Port State Control regions, which we have held since 2017.

Last year saw rapid progress by ABS across a wide range of technical domains. These include alternative fuels, nuclear applications, autonomous and semi-autonomous systems, workforce development and advanced digital technologies. In each area, collaboration has been essential.

New concepts have been guided from early design through validation. Emerging technologies have been assessed and matured. Proven technologies have continued to evolve. All of this work has been carried out with safety as the unifying principle.

ABS continued to work with the industry to remove barriers to the adoption of small modular reactors at sea. This is potentially game changing technology, which we helped advance through a series of partnerships with pioneers in the field, focusing on floating nuclear power plants. Likely among the first use cases for the technology, these facilities have the potential to provide clean electricity and heat to coastal facilities and communities.

ABS also supported landmark initiatives across carbon capture, transport and storage, advancing development of the carbon value chain. One of these was our approval in principle (AIP) for an ammonia floating production, storage and offloading (FPSO) unit that can support production of blue ammonia by using onboard carbon capture technology. We also issued industry-leading guidance on *Offshore Floating CO₂ Injection Facilities*, followed by AIP for an innovative design of a LCO₂ floating storage and injection unit capability of sequestering 10 million tonnes of CO₂ annually.

We are witnessing remarkable diversification in the offshore industry, with our team supporting innovations across spaceports, floating nuclear data centers and turbines just to name a few. And there was innovation in more established areas, for example, with the *Liza Unity* FPSO becoming the first in the world to meet the standard for our SUSTAIN-2 notation.



INDUSTRY LEADING SAFETY AND QUALITY

10

Safety Leadership

10

ABS Safety Performance

12

Quality Performance

11

Occupational Health and Safety Performance

13

ABS Group of Companies, Inc. Safety Performance

INDUSTRY LEADING SAFETY AND QUALITY

SAFETY LEADERSHIP

At ABS, safety is the lens through which every action is evaluated, every risk assessed and every decision made. This principle has continually guided the organization for more than 160 years, forming the foundation for its reputation as a maritime safety leader, earned through demonstrated performance across vessels, offshore units, shipyards and industrial sites worldwide. ABS empowers

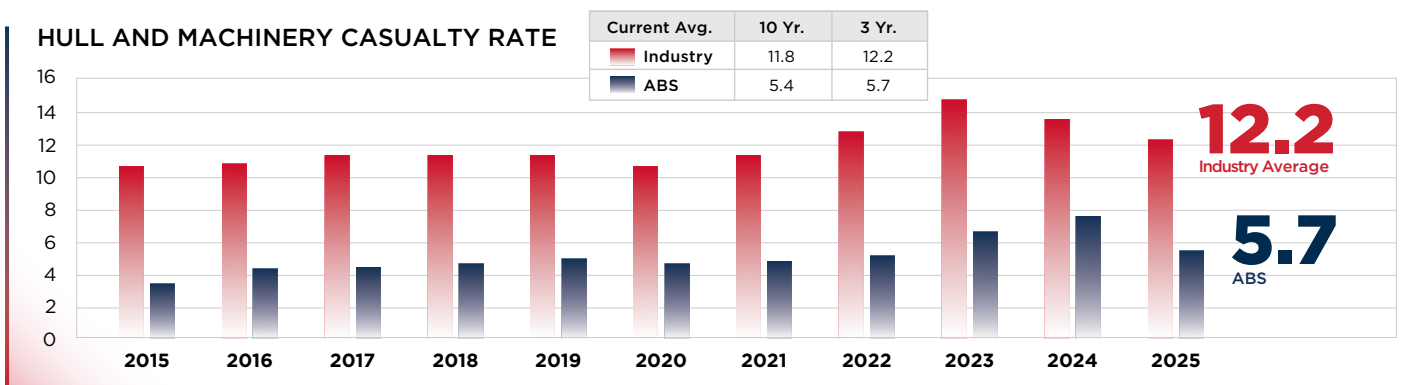
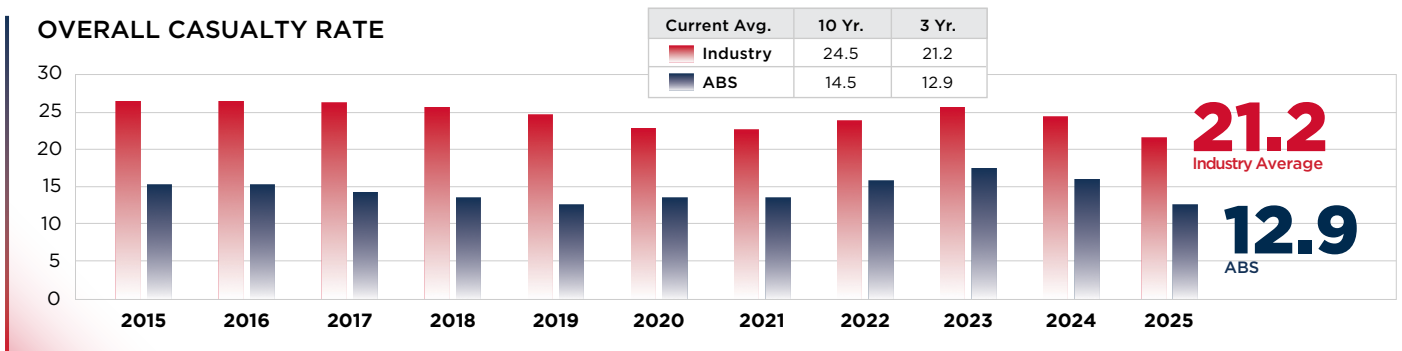
its employees with the knowledge, tools and authority to maintain safety in every environment, building a culture where continuous improvement is essential. The organization’s commitment reflects a foundational conviction: that safety excellence is both a professional obligation and an endless pursuit, demanding vigilance at every level, every day.

ABS SAFETY PERFORMANCE

ABS is a global Health, Safety, Quality and Environmental (HSQE) leader, driven by a strong commitment to safety in every aspect of its operations. That commitment comes to life through regular engagement at every level, as personnel in the field conduct weekly safety meetings while office personnel gather monthly to address location-specific safety issues and explore elements of the annual safety theme.

In 2025, the safety theme was “Take 5 in 2025,” a renewal of the time-tested “Take 5” initiative originally introduced in 2013. The program is designed to enhance our safety culture by encouraging everyone to “Take 5” steps to assess activities and surroundings for potential hazards before starting any task. Those five steps are: Look, Think, Recognize, Control and Begin.

In 2025, ABS issued 44 Health and Safety Ambassador Awards to employees identified by their peers as safety ambassadors in their respective locations. An additional 12 Golden Eagle Health and Safety Awards recognized employees worldwide who were nominated by colleagues for their dedication to a proactive health and safety program. ABS also issued five Chairman’s Safety Awards to offices across the globe for their health and safety performance and for outstanding achievements in strengthening the ABS safety culture. These awards reflect the organization’s safety-driven culture and underscore the dedication of ABS employees who maintain rigorous safety practices and awareness every day, validating the effectiveness of the organization’s safety methodology.



INDUSTRY LEADING SAFETY AND QUALITY

QUALITY PERFORMANCE

Through 2025, the organization’s focus on industry fundamentals allowed ABS to grow its classed fleet to 312 million gross tons (m gt); strengthen its leading position in existing fleet and orderbook share; maintain industry leadership across the entire global offshore market; and continue to guide the industry in safety.

In 2025, ABS continued high-quality service delivery to a global client base. ABS maintained its leading position on overall Port State Control (PSC) performance, being the top-performing Recognized Organization (RO) in the three most active PSC regions of the world since 2017.

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U.S. Coast Guard (USCG)

ABS maintained zero RO-related detentions for the last 17 years.

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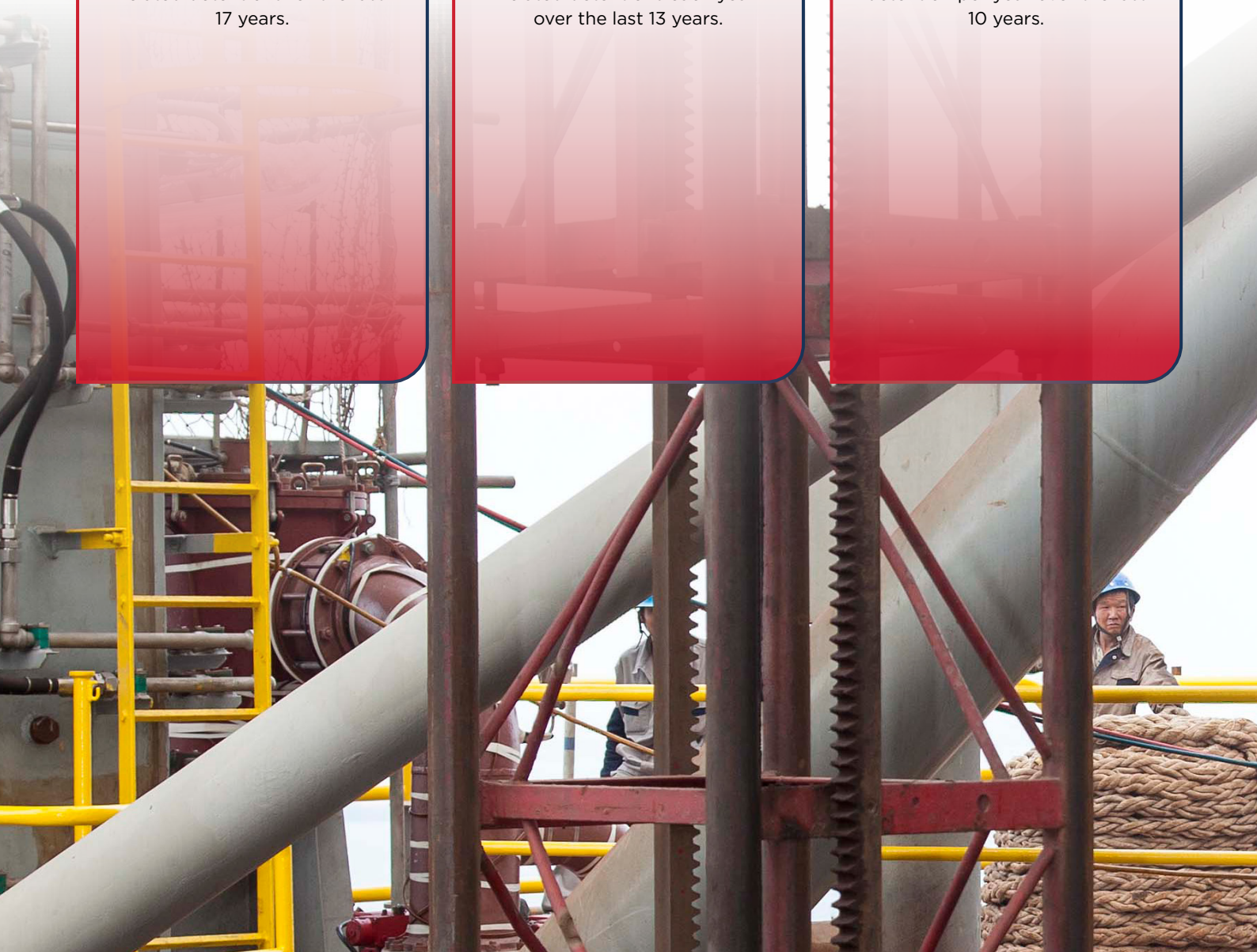
Paris MoU

ABS had one or fewer RO-related detentions each year over the last 13 years.

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Tokyo MoU

ABS averaged one RO-related detention per year over the last 10 years.

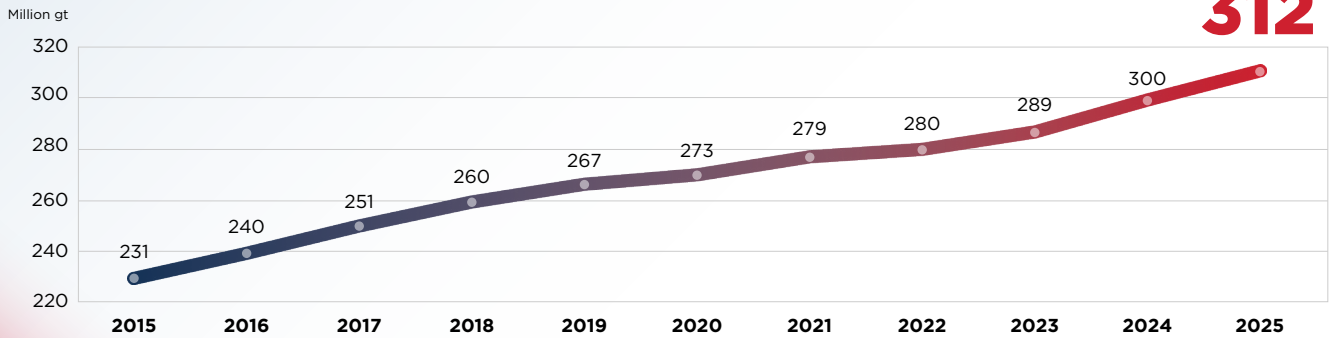


INDUSTRY LEADING PERFORMANCE

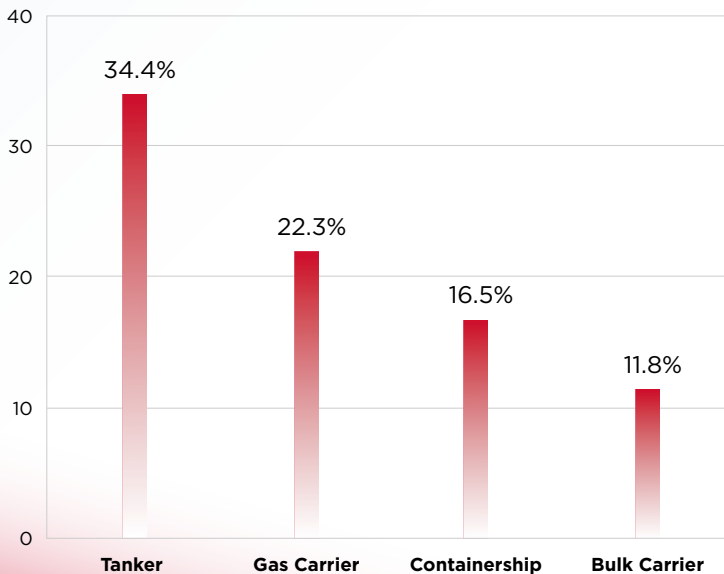


INDUSTRY LEADING PERFORMANCE

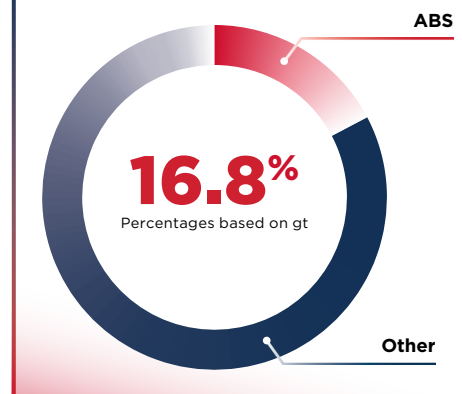
EXISTING FLEET 2025



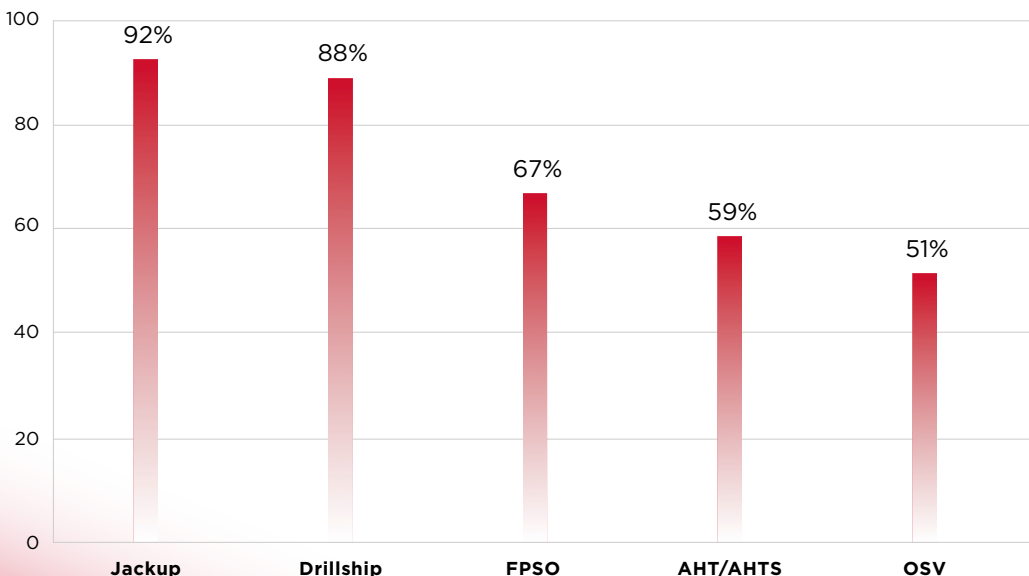
MARINE ORDERBOOK SHARE 2025



EXISTING FLEET 2025



OFFSHORE ORDERBOOK SHARE 2025





EVOLVING MARITIME WORKFORCE

20

Helping Build
a Future-Proof
Workforce



EVOLVING MARITIME WORKFORCE

HELPING BUILD A FUTURE-PROOF WORKFORCE

The maritime workforce is at a turning point. Digital tools, robotics and artificial intelligence (AI) are making operations safer and decisions smarter. However, they also require continuous upskilling and lifelong learning to ensure skills keep pace with technological development.

Recognizing that many seafarers are not yet prepared, ABS spent 2025 working with industry partners to expand training, education and technology pathways that help seafarers and shoreside teams thrive in this new era.

Several Singapore-based ABS initiatives in 2025 underscored this new reality. In March, ABS and the Singapore Institute of Technology (SIT) formalized their longstanding collaboration with the signing of a memorandum of understanding (MOU) on the advancement of innovation in applied research and enhanced talent development for the marine and offshore industries. The collaboration focuses on research into next-generation vessel system design, including ship power simulations with hardware in the loop, shore-to-ship charging technologies and augmented and virtual reality (VR) tools for visualizing simulated scenarios. It also promotes professional development through SIT's Industrial Doctorate and Industrial Master's (IDIM) programs.

Singapore has invested heavily in education and technology development for maritime, exemplified by its Maritime Energy Training Facility (METF). In March, ABS and the Maritime and Port Authority of Singapore (MPA) renewed a multiyear MOU to collaborate on research and development, talent development, workforce skills, regulatory alignment and support for maritime startups. A centerpiece of the agreement is the ABS Singapore Maritime Safety Center, a training and education facility that will support the METF through use of cutting-edge technologies and immersive learning in both established and emerging maritime disciplines. Its curriculum will use advanced tools such as high-fidelity computer simulations

and game-based training systems to recreate realistic onboard scenarios without putting anyone at risk. This focus is critical as the industry confronts new safety risks tied to evolving energy sources, including alternative fuels, batteries and nuclear power.

The Singapore Maritime Safety Center is the third in a global network of state-of-the-art safety training centers dedicated to helping the industry address the challenge of developing a digitally-literate workforce with the skills to operate next-generation vessels, offshore assets and marine equipment. The other centers are in Athens, Greece (see spotlight), which also launched in 2025, and in Doha, Qatar, opened in 2024. The centers all leverage the latest digital technologies and simulation-based training to build skills across both ABS and the wider maritime workforce.

The ABS Maritime Safety Center in Singapore, the ABS Hellenic Ship Safety Center in Athens, and the LNG Academy in Doha leverage the ABS MetaSHIP Fleet, powered by Orka. These simulations let students log extensive experience in core operations and emergency response, including ISM emergency preparedness, virtual drills, hazardous zone identification, cargo operations and critical skills for alternative fuel systems, all while building situational awareness in a consequence-free environment.

In October, ABS advanced its training and education strategy by signing an agreement to purchase the MetaSHIP intellectual property and related vessel simulator software from Orka Informatics. The acquisition, a key element in the growth plan for ABS Training Solutions, will support the expansion of highly realistic, game-based digital training that can be delivered on board, in port, at company sites or in ABS high-tech learning centers. The deal also includes the ODENES platform, which supports MetaSHIP by tracking training completions and generating reports.



EVOLVING MARITIME WORKFORCE

HELPING BUILD A FUTURE-PROOF WORKFORCE

ABS is helping the maritime workforce adapt to technology-driven change both at sea and in the shipyard. One powerful example is the emerging role of humanoid robots in ship construction and repair. How human workers will interact with intelligent systems will be pivotal to successful and safe deployments. Understanding these challenges was a key driver in ABS entering a groundbreaking collaboration with Houston-based robotics company Persona AI, signing an MOU in September to develop inspection technologies for the company's humanoid robot platform (see spotlight).

Beyond humanoid robotics, ABS is advancing other smart and automated technologies in shipyards. In May, ABS and HD Hyundai Mipo (HMD) signed a joint development

project for digital manufacturing-based automation equipment for shipyards. The agreement creates a framework for applying smart technologies across HMD's shipyard operations, using the ABS *Guide for Smart Technologies for Shipyards* to pinpoint improvement opportunities and chart a path toward certifications such as Product Design Assessment and Manufacturing Assessment. Soon after, HD Hyundai Samho signed an MOU with ABS to advance an AI-based smart shipyard. The collaboration focuses on process improvements driven by AI, automation and robotics, recognizing the potential of these technologies to transform safety, quality and efficiency in shipbuilding.

SPOTLIGHT

ABS Teams with Persona AI to Bring Humanoid Robots to Shipyards

A groundbreaking collaboration to develop inspection technologies for Persona AI's humanoid robot platform that enhances productivity and safety in shipyards was formalized in September with the signing of a memorandum of understanding (MOU) between ABS and Persona AI.

The initiative will focus on adapting Persona AI's humanoid robots, based in part on NASA's robotic hand technology, for a range of shipyard tasks. Unlike traditional industrial robots, humanoid robots are uniquely suited to operate in shipyards designed for human workers, offering flexibility and mobility in complex, confined or ergonomically challenging spaces.

Under the MOU, ABS and Persona AI will collaborate on a series of joint development projects, collecting data to support classification during ship construction. Ultimately, it will support development of new ABS standards for the types and quality of data required to support digital and remote survey techniques. These standards will not only guide future robot designs but also help understand how to collect, evaluate and apply robotic data for certification and compliance.

Nic Radford, CEO and Co-Founder of Persona AI, said, "Partnering with ABS, the global authority on maritime standards, demonstrates that humanoid robotics are no longer a distant concept but on a path toward certified reality, set to transform how this industry builds, innovates and competes."



GLOBAL MARINE

26

Leading Innovation
in Ship Design

28

Continuing a Legacy
of Safety Leadership

29

Honoring Those
Who Take Safety to
Heart



GLOBAL MARINE

Innovation in the global marine sector is moving faster than ever, and ABS is helping set the pace. From groundbreaking vessel concepts and nuclear-powered designs to new safety tools and training, ABS works closely with industry leaders to bring the next generation of safer, smarter vessel designs to life. This leadership helped make ABS the world's top class society by gross tonnage in 2025.

LEADING INNOVATION IN SHIP DESIGN

ABS offers programs and processes that help designers, shipyards and owners develop technologies and vessel designs under the umbrella of safety. A cornerstone of that work is the approval in principle (AIP) process, an intermediate review that confirms the feasibility of novel concepts. This helps the maritime community turn advanced designs into reality with safety compliance at the center. This step is especially critical for electrification and fuel technologies such as liquefied natural gas (LNG), methanol and ammonia.

In September, HD Hyundai Heavy Industries (HD HHI) and HD Korea Shipbuilding & Offshore Engineering (HD KSOE) received an AIP for the concept design of a 16,000 TEU containership driven by an electric propulsion system. The design concludes phase one of an ambitious project to develop energy storage systems and high-efficiency propulsion drives that can accelerate the commercialization of alternative energy for ships.

Liquefied natural gas (LNG) technology also saw meaningful innovation. ABS awarded an AIP to HD Hyundai Mipo for a 30,000 cubic meter (m³) LNG carrier concept that can operate both as a tanker and a bunkering vessel, giving operators flexibility to respond to changing market demand as global LNG use continues to grow.

Liquefied carbon dioxide (LCO₂) carrier technology also advanced in response to growing carbon capture and storage activity and rising regulatory pressure to build out the carbon value chain. In May, ABS awarded an AIP to Overseas Shipholding Group for the preliminary design of a 20,000 metric tons (mt) LCO₂ barge, part of an integrated tug-barge concept in support of the Tampa Regional Intermodal Carbon Hub. The project aims to receive, store and process emissions from Florida industries for transport to sequestration sites. Soon after, ABS issued an AIP to Knutsen NYK Carbon Carriers for a novel 40,000 m³ LCO₂ carrier that would transport and store LCO₂ at near ambient temperatures under elevated pressure, a first-of-its-kind approach that should reduce cooling needs and support larger carrier designs.

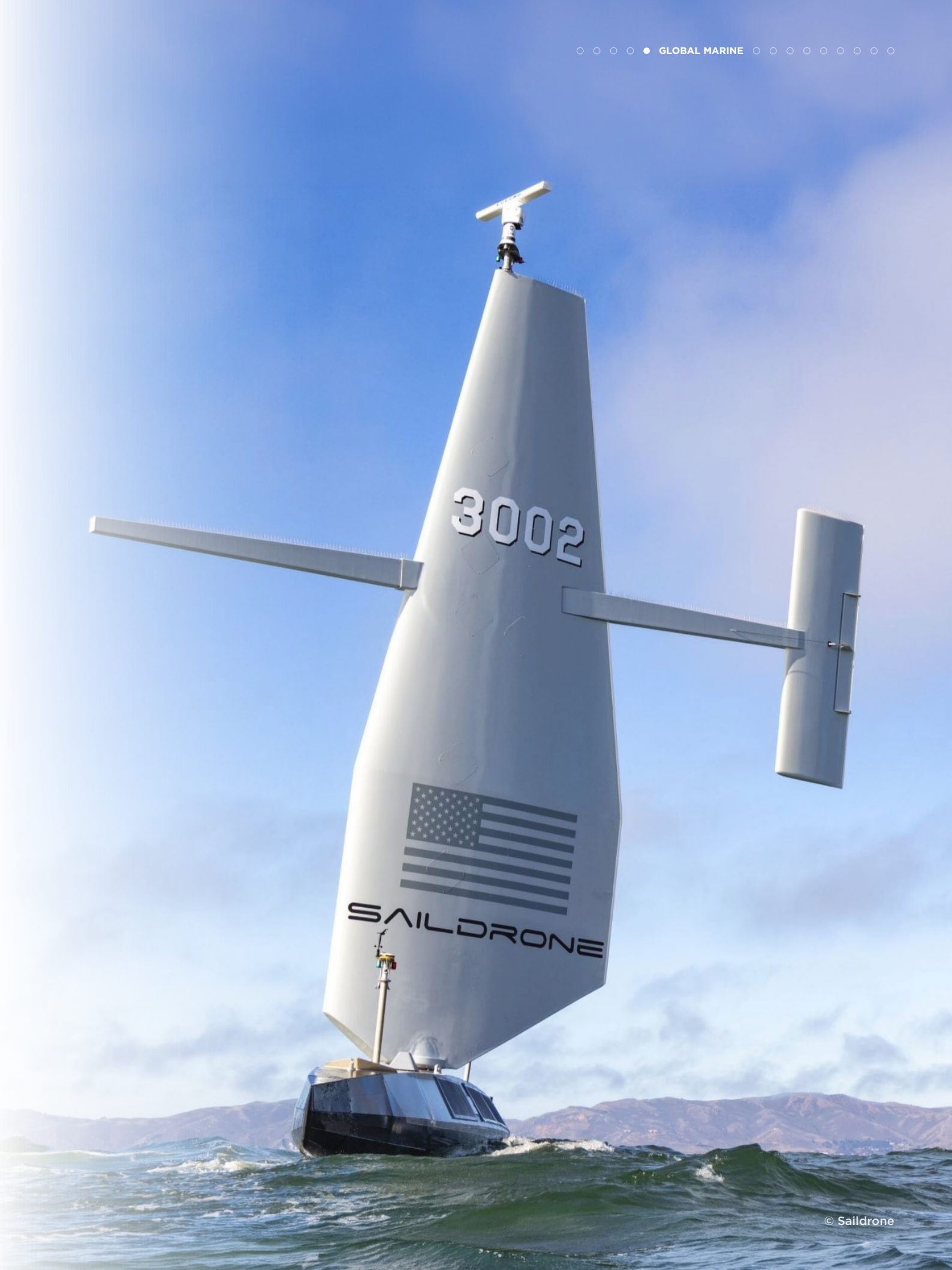
SPOTLIGHT

ABS Classes the World's Largest Unmanned Surface Vehicle

In August, ABS awarded classification to the Saildrone Surveyor, a fully autonomous deepwater unmanned surface vehicle (USV).

At 20 meters long and capable of unmanned operations across all the world's oceans, the Surveyor breaks new ground. The Surveyor is the largest class of USVs from Saildrone, a provider of maritime security, ocean mapping and meteorological and oceanographic data using unmanned autonomous assets.

The Surveyor is capable of long-endurance missions in the open ocean, collecting deep-ocean bathymetry and performing a wide range of maritime domain awareness tasks. This milestone follows the 2023 classification of the smaller 10-meter Voyager, designed for persistent surveillance in coastal and near-shore waters. Saildrone USVs, while capable of fully autonomous operations, are monitored around the clock by the company's global Mission Management team.



GLOBAL MARINE

CONTINUING A LEGACY OF SAFETY LEADERSHIP

In 2025, ABS raised the bar for containership safety by enhancing its CLP-V(PARR) class notation with a seasonality factor and a route-splitting approach, giving operators a new way to assess safety while optimizing loading on each leg of a voyage. The notation combines a computerized lashing program with mandatory parametric roll guidance, helping operators address a destabilizing phenomenon that has caused serious incidents in the past.

In July, ABS advanced bulk carrier operations with an AIP for Lemissoler's innovative watertight hatch cover design for gearless bulk carriers such as capesize and kamsarmax vessels. The concept proposes improved hatch cover watertightness through a new seal arrangement that allows ships to operate at reduced freeboard and carry more cargo with improved energy efficiency.

Safety training remains a core imperative for ABS, which has introduced a range of industry-leading advances in this field. In December, ABS launched a web-based learning platform to strengthen safety training for commercial fishermen. The system is the result of a four-year effort sponsored by the Commercial Fishing Occupational Safety Research program of the National Institute for Occupational

Safety and Health under the U.S. Department of Health and Human Services. It addresses six major categories of safety risk related to fishing vessel dynamic stability and uses realistic interactive simulations to build situational awareness and decision-making skills in stressful high-risk conditions at sea. The platform is now part of the long-term course offerings of the Alaska Marine Safety Education Association.

The announcement followed another important development in Alaska. In October, ABS expanded support for the state's maritime industry by establishing a physical presence in Anchorage at the Port of Alaska, the state's central transportation hub and the entry point for 75 percent of Alaskan imports.



HONORING THOSE WHO TAKE SAFETY TO HEART

ABS actively recognizes individuals and organizations whose actions advance lifesaving, safety and the wider maritime community. In June, ABS continued this tradition by sponsoring a ceremony honoring the contributions made by Norwegian shipowners and seafarers to the Automated Mutual Assistance Vessel Rescue (AMVER) reporting system. Sponsored by the U.S. Coast Guard (USCG) since 1958, AMVER coordinates responses to distress calls at sea

and requests nearby vessels to divert and support search and rescue efforts. At the 2025 ceremony, 259 vessels and 24 Norwegian shipowners and operators received the traditional colored pennants recognizing their selfless commitment to assisting all in danger at sea. During the event, the USCG also presented a special Certificate of Merit to two Norwegian captains for their role in a dramatic rescue of American seafarers in 1980.



SUSTAINABILITY AND TECHNOLOGY

32

Helping Bring the Future of Maritime to Life

34

Powering Maritime's Digital Transformation

36

Guiding the Evolution of Nuclear Energy for Maritime

39

Supporting Safer Deployments for Electrification Alternative Fuels

SUSTAINABILITY AND TECHNOLOGY

ABS is working alongside the maritime industry at a moment of rapid change, helping owners and operators manage growing complexity in operations, technology and regulation. Today, the focus is on turning emerging digital tools and new energy technologies into practical solutions that support regulatory compliance, emissions reduction and operational efficiency.

Drawing on deep technical expertise, ABS is helping shape cutting-edge technologies through robust in-house research and development and close collaboration with industry, academia and government bodies. In 2025, that work advanced next-generation digital systems, new fuel and energy pathways, and advanced safety practices that will help define the fleet of the future and support the industry through its next wave of transformation.

HELPING BRING THE FUTURE OF MARITIME TO LIFE

In 2025, ABS deepened its role at the intersection of industry and academia to help solve some of the sector's toughest technical challenges. In March, ABS and leading maritime players joined the Massachusetts Institute of Technology (MIT) Maritime Consortium, an initiative that brings academia and industry together to develop advanced technologies that can transform the sector. The consortium is focused on areas such as alternative fuels, nuclear power, data-powered strategies for efficient operations and decision-making, autonomy, and cybersecurity, as well as onboard manufacturing of spare parts.

Several publications released during the year underscored the industry-leading insight and guidance provided by ABS. In February, the European Maritime Safety Agency (EMSA) published the final two reports in a series of six produced by ABS. A 360-degree analysis of nuclear power and synthetic fuels, specifically the renewable e-fuels of e-diesel, e-methane and e-methanol, completes a multiyear project for EMSA designed to support the European Commission, the member States, the shipping sector and European ports. Each report features analyses using various criteria such as greenhouse gas impact, sustainability, availability, scalability, techno-economic aspects, regulations, risk and safety. Previous reports examined biofuels, ammonia, hydrogen and wind-assisted propulsion.

Then, in November, ABS published *Retrofits for Energy and Emissions Improvements*, an analysis providing critical insights into the impact of retrofitting, accompanied by classification and statutory requirements and best practices for implementation. Building upon the conclusions presented in the ABS 2025 Outlook, *Beyond the Horizon: Vision Meets Reality*, the report aims to help the maritime sector navigate today's increasingly complex web of both regulations and compliance solutions, sorting out potential conflicts and problems in order to aid decision-making and development of effective compliance strategies.

Collaborative research transforms aspirations into practical solutions, uniting key players to identify what's achievable and develop the technologies to get there. In 2025, ABS formalized several such partnerships through memorandums of understanding (MOUs), targeting advances in a wide range of areas.

In March, ABS and Singapore-based Pacific International Lines (PIL) signed an MOU establishing a framework for cooperation on projects related to new technologies, sustainability and safety management systems. Under the agreement, ABS and PIL will exchange technical knowledge and jointly explore innovative concepts. In addition, the ABS Singapore Innovation Research Center will provide modeling and simulation support for PIL's new vessel constructions and existing vessel retrofits.

Hydrogen serves as an essential building block for several alternative fuels. However, shipborne transportation of liquefied hydrogen, which is stored at -253° C, is a technology that has not yet been deployed at scale due to significant technical and economic difficulties. That is why, in May, ABS and the Hydrogen Ship Technology Center at Pusan National University signed an MOU for a joint research and development project aimed at liquid hydrogen carriers and cryogenic engineering. The agreement establishes a cooperative framework for both organizations to share resources and expertise to help develop a liquid hydrogen carrier and hydrogen propulsion systems.

In August, ABS and Saronic Technologies signed an MOU agreeing to cooperate on projects relating to improving technical requirements for autonomous surface vessels (see spotlight). A month later, ABS, the University of Michigan, the Singapore Institute of Technology and Singapore-based Sea Forrest Technologies signed an MOU directed at electrification and technology development of batteries for maritime applications.

SUSTAINABILITY AND TECHNOLOGY

HELPING BRING THE FUTURE OF MARITIME TO LIFE

Recognizing that classification is an integral part of the shipbuilding workflow, ABS and Siemens Digital Industries Software signed an MOU in November to accelerate the digital transformation of classification processes. The agreement establishes a framework for collaboration on projects including class rule application during 3D design, model-based verification, digital twin integration and secure data exchange between ship designers and class. It also addresses joint research projects, workshops and efforts to advance product life-cycle management technology. Also in November, ABS and the Korean Agency for Technology and Standards signed an MOU to explore the international standardization of smart ship and shipyard technologies related to shipbuilding and ship maintenance, repair and overhaul.

Finally, in December, ABS, ENEOS Corporation, Nippon Yusen Kabushiki Kaisha (NYK Line) and SEACOR Holdings Inc. announced a joint study to develop a methanol bunkering and supply chain network along the U.S. Gulf Coast. The four parties aim to establish the first commercial-scale, ship-to-ship methanol bunkering operations in the U.S. Low-carbon methanol produced from renewable or bio-based sources is gaining attention as a next-generation marine fuel due to its easy handling as a liquid at ambient temperature and pressure, as well as its potential to reduce emissions.

Increasing demand from shipowners for ABS services in Singapore prompted ABS to invest in an expanded regional head office housing industry-leading research and development capabilities. Opened in April during Singapore Maritime Week, the world-class facility brings together the ABS Singapore Innovation and Research Center, the

ABS Global Electrification Center and one of five ABS Global Sustainability Centers under one roof, driving collaboration and accelerating innovation. The location will also include a new Operation Center to support expanded remote survey capabilities in the Pacific region, providing clients one-stop access to specialists focused on keeping their fleets at the forefront of safety and compliance performance. With Singapore at the center of global shipping, the facility represents a commitment to investing in cutting-edge capabilities that support clients' rapidly evolving needs in the region.

The Middle East is another key piece of a global network of services and innovation. In October, ABS launched the Saudi Arabia Technology Center in Dammam during the Saudi Maritime Logistics Congress, establishing a pioneering research hub dedicated to smart systems, robotics, artificial intelligence (AI) and advanced digital technologies. Aligned with Saudi Vision 2030, the center supports the Kingdom's maritime strategy for global leadership in shipping and will serve as a hub for advancing technologies that address operational and regulatory challenges. The center will develop industry partnerships with vessel operators, shipyards, manufacturers and regulators to co-create innovative solutions, while also collaborating with leading Saudi universities to train and prepare the next generation of maritime professionals. The Transport General Authority (TGA), as the Kingdom's maritime flag State, played a central role in the center's development, reinforcing Saudi Arabia's commitment to embracing innovation, strengthening safety and developing future generations of maritime professionals while solidifying its leadership role in the global maritime industry.

POWERING MARITIME'S DIGITAL TRANSFORMATION

Digitalization is emerging as a critical enabler for the next wave of improvements in safety, sustainability and operational performance. In this environment, ABS is focused on supporting the industry's ongoing transformation into a data-driven world.

October saw a significant step forward in the digitalization of the maritime world with the release of ABS EagleTwin™, a web-based, structural digital twin solution designed to tackle some of the key challenges of offshore asset management and inspection planning. Tailored to repair and inspection operations for floating production, storage and offloading (FPSO), floating liquefied natural gas (FLNG) and floating storage and regasification units (FSRUs), EagleTwin uses an interactive 3D digital representation that integrates inspection and class data. It

connects with any computerized maintenance management system and provides a comprehensive picture of structural health and real-time insights into asset conditions and risk factors, supporting informed decision-making and early detection of potential issues.

Smart technologies are reshaping maintenance strategies across the maritime industry. In November, ABS issued a SMART (MHM) Tier 2 Product Design Assessment (PDA) to Samsung Heavy Industries (SHI) for its SCBM computer-based maintenance system. This PDA certifies that SCBM, a smart ship solution that applies AI to provide anomaly detection and machinery diagnostics, meets the rigorous standards in the ABS *Guide for Smart Functions for Marine Vessels and Offshore Units*.

SUSTAINABILITY AND TECHNOLOGY

POWERING MARITIME'S DIGITAL TRANSFORMATION

Soon after, ABS awarded Japan's Monohakobi Technology Institute (MTI) an AIP for the Action Planning and Execution System (APEX-auto), a framework for life-cycle management of autonomous navigation systems. The AIP completes a collaboration between ABS and MTI in which APEX-auto was analyzed using the System-Theoretic Process Analysis (STPA) method. This method is an innovative hazard analysis technique applied to autonomous vessel applications and complex systems such as those installed on fully electric and other highly sophisticated ship types.

In April, Hanwha Ocean received the ABS SMART (SHM) Tier 3 AIP for an advanced hull monitoring system designed to estimate structural damage to ships and offshore assets during operation, supporting decisions on maintenance timing to maintain safety. ABS SMART (SHM) Tier 3 recognizes systems that use hull sensors and advanced algorithms to generate structural health insights at critical locations, even at locations where no sensors are present.

In May, ABS awarded a SMART (SHM) Tier 1 AIP to Light Structures for a new sensorless hull monitoring concept named ARGUS-VM. The Tier 1 AIP recognizes that a concept complies with the functional and system requirements listed in the *ABS Guide for Smart Functions for Marine Vessels and Offshore Units*. Unlike traditional hull monitoring systems that use physical strain sensors, ARGUS-VM provides virtual measurements of hull responses using vessel data from existing onboard systems. While sensorless systems like ARGUS-VM do not deliver the

high-fidelity insight of fully sensor-equipped solutions, they provide a powerful and scalable entry point for users to integrate structural health awareness into their operations.

Autonomous propulsion assistance was the subject of an AIP awarded in October to HD Hyundai Group for VesselWise, a technology for optimizing propulsion to improve fuel efficiency and enhance operational stability. Developed for LNG carriers, VesselWise aims to optimize performance of such critical machinery as air lubrication systems, wind propulsion technology and generator engines by leveraging real-time data from each component to create optimal control scenarios.

Samsung Heavy Industries (SHI) received two AIPs in October for digital technology advances. The first covered a novel wireless fire and gas detection system that, instead of using conventional power cables, uses a vessel's metal structure as a low-voltage power transmission medium. Signals from fire detection and alarm devices are converted into magnetic waves and transmitted wirelessly along the ship's metal surface to the control station. The unique approach aims to overcome common challenges such as shadowing, signal interference, absorption and reflection found in traditional wireless systems that rely on air as the transmission medium. The second AIP was awarded for the Samsung Remote Operation Center, a remote operation management solution designed to enhance the efficiency and safety of maritime and offshore assets by remotely managing auxiliary and industrial processes, cargo handling and ballast and trim machinery functions.

GUIDING THE EVOLUTION OF NUCLEAR ENERGY FOR MARITIME

Nuclear power is emerging as a practical source of abundant, efficient energy for maritime operations and coastal regions facing growing energy demands. In 2025, ABS advanced research, collaboration and approval processes that are helping position nuclear technology as a viable solution for the marine and offshore sectors.

In July, ABS, Core Power and Athos Energy formed a consortium to evaluate the potential of positioning floating nuclear power plants (FNPPs) to meet the energy demands of islands, ports and coastal communities in the Mediterranean Sea. The group is researching how FNPPs can unlock applications including grid-scale electricity delivery to remote locations, emission-free energy for ports and reliable clean power for desalination plants. The ABS Global Ship Systems Center in Athens is leading an

economic, social, technological, legal and environmental study assessing the feasibility of floating nuclear power in the region. The main deliverable will be an open-access white paper for use by industry, policymakers and government.

Small modular reactors (SMRs) are also gaining traction as a power source for ships and floating platforms. In October, ABS and the Korea Research Institute of Ships & Ocean Engineering (KRISO) signed an MOU to cooperate on the application of SMRs in the marine and offshore sectors, establishing a framework for information exchange and research cooperation related to concept designs for an SMR-powered ship and a floating SMR electric power generation platform (see spotlight).

SPOTLIGHT

ABS and KRISO Join Forces to Focus on Small Modular Reactors

In October, ABS and the Korea Research Institute of Ships and Ocean Engineering (KRISO) signed an MOU to cooperate on the application of small modular reactors (SMRs) in the marine and offshore sectors. The agreement establishes a framework for both organizations to exchange information and engage in joint research projects related to concept designs for an SMR-powered ship and a floating SMR power generation platform. Also among the objectives are identifying and developing applicable regulatory guidelines and international standards.

Small modular reactors have a generating capacity of up to 300 megawatts electrical (MWe) and are typically designed to be assembled on site from prefabricated components. They are expected to be useful in a range of applications such as power generation, hydrogen production, district heating and freshwater production. KRISO had previously launched a research program aimed at developing core technologies for SMRs for ships and floating power generation platforms. Keyyong Hong, President of KRISO, said, "Our institute is dedicating its research capacity to the development of marine decarbonization technologies, with a particular focus on advancing the application of SMRs to ships and



Patrick Ryan, ABS Senior Vice President and Chief Technology Officer, and Keyyong Hong, President of KRISO.

offshore plants. Through this MOU, the integration of ABS' and KRISO's leading technological expertise and a well-defined division of roles will accelerate progress in core SMR technologies and secure excellence in this emerging field."

SUSTAINABILITY AND TECHNOLOGY

GUIDING THE EVOLUTION OF NUCLEAR ENERGY FOR MARITIME

Research published in June addressed another emerging application: using nuclear power to support the rapidly growing number of data centers. *Pathways to a Low Carbon Future: Floating Nuclear Power Data Centers* details design considerations for a floating data center that would use large river estuaries or coastal waters as a heat sink for both servers and SMRs on board a purpose-built barge. The concept could mitigate certain risks and reduce strain on local grids. The study provides important insight into heat and energy management for both servers and reactors, weight distribution, structural considerations and other design features that will assist future Rules development.

ABS issued three significant AIPs for maritime applications for nuclear energy during the year. In February, ABS awarded an AIP to HD Korea Shipbuilding & Offshore Engineering (HD KSOE) for a nuclear-powered 15,000 twenty-foot equivalent unit (TEU) containership design. The concept uses a molten salt reactor for heat and a

supercritical carbon dioxide system for power generation, leveraging the latest small modular reactors now in the demonstration phase that offer significant safety advances over conventional reactors.

Much like the concept for floating nuclear power data centers, floating nuclear power plants show promise for coastal power grids, shoreside industries and island communities. In June, ABS issued an AIP to HD Hyundai Heavy Industries (HHI) and HD KSOE for a concept of a floating small modular reactor-powered power module (see spotlight).

In December, an FNPP designed by SHI, known as the FSMR, received ABS AIP. The design features two SMRs developed by the Korea Atomic Energy Research Institute (KAERI) and introduces a compartment approach that separates the reactor and power generation functions, allowing the use of a variety of different SMR types.

SPOTLIGHT



Approval in Principle Helps HHI and HD KSOE Develop a New Nuclear Concept

Modern, advanced nuclear technologies require lower enrichment fuels than their predecessors and offer lower risk profiles than traditional reactor systems. As a result, floating nuclear power facilities are showing increasing promise for delivering electricity to power grids, shoreside industries and island communities, among other emerging applications.

In 2025, ABS issued approval in principle (AIP) to HD Hyundai Heavy Industries (HHI) and HD Korea Shipbuilding & Offshore Engineering (HD KSOE) for a concept of a floating small modular reactor-driven power module designed to generate electricity offshore and near shore. The AIP is the latest step in a long-running collaboration between HD KSOE and ABS on nuclear technologies, which includes a floating nuclear powered barge designed in 2023 and a 15,000 TEU nuclear-powered containership that was also awarded an AIP this year.

ABS completed design reviews based on the ABS *Requirements for Nuclear Power Systems for Marine and Offshore Applications*, the world's first comprehensive set of rules for the commercial maritime application of nuclear power.

Kwang-Sik Won, Senior Executive Vice President of HD HHI Offshore Business Division, with Patrick Ryan, ABS Senior Vice President and Chief Technology Officer, at the 2025 Offshore Technology Conference in Houston, Texas.

SUSTAINABILITY AND TECHNOLOGY

SUPPORTING SAFER DEPLOYMENTS FOR ELECTRIFICATION AND ALTERNATIVE FUELS

SPOTLIGHT



ABS Delivers Industry-Leading Analysis of Safety Risks of Advanced Battery Technologies

The latest battery technologies have great potential to enable electrification, to support integration of alternative fuels into current fleets and to help manage fuel costs. At the same time, certain battery chemistries introduce heightened fire and thermal runaway (TR) risks that must be carefully addressed in design and operation.

That is why ABS explored the safety issues surrounding batteries in *Emerging Battery Technologies in the Maritime Industry Volume II*. The report examines the inherent safety risks associated with emerging battery systems, particularly TR and gas emissions.

The report explores the latest advancements in technologies including lithium-ion (Li-ion) and six different next-generation batteries. It evaluates the maturity, benefits and challenges of energy storage systems for marine and offshore applications. Delivering actionable insights for the safe implementation and development of comprehensive safety strategies, the report is a critical resource for operators incorporating batteries into their fleets.

GLOBAL OFFSHORE

44

Continuing to Lead Safer Technology Development in the Offshore Sector

46

Aiding Development of the Carbon Value Chain

47

Advancing the Technology of Offshore Spaceports

48

Driving Innovation in Offshore Cyber Defense

48

Technology Leadership in the Renewables Sector

GLOBAL OFFSHORE

In 2025, ABS worked at the cutting edge of offshore energy, helping advance new concepts in floating production, floating nuclear power, offshore spaceports, the carbon capture value chain and renewable energy. Across these emerging technologies, ABS focused on helping the industry convert innovative ideas into safer, more practical solutions that can be deployed at scale.

That vision has helped ABS take the leading role across the existing offshore fleet and orderbook, including jackups, drillships, floating production, storage and offloading units (FPSOs) and support vessels. This combination of scale, operational experience and technology qualification expertise has positioned ABS to help clients improve safety and reliability while opening new chapters in offshore development.

CONTINUING TO LEAD SAFER TECHNOLOGY DEVELOPMENT IN THE OFFSHORE SECTOR

ABS approval in principle (AIP) certificates play a critical role in bringing new offshore energy concepts to market by demonstrating their technical viability to investors and insurers. By providing an independent review focused on safety and feasibility, ABS can help de-risk major project proposals that depend on unproven technologies and give stakeholders greater confidence to move forward with investment decisions.

In 2025, a number of AIPs were issued for innovations and advancing technologies. In January, ABS awarded an AIP to MODEC and Toyo Engineering Corporation for the design of an ammonia FPSO unit that can support production of blue ammonia by using onboard carbon capture technology. Blue ammonia is produced by combining hydrogen, which is derived as a byproduct of carbon dioxide (CO₂) that has been captured and stored with nitrogen.

Blue ammonia was also the focus of an AIP issued later in the year to SBM Offshore. That concept involves a novel floating ammonia production and storage unit that converts extracted natural gas into ammonia while capturing CO₂ emissions. SBM Offshore also received an AIP for its NearZero FPSO design, a concept that would employ low-carbon technologies to reduce emissions by up to 80 percent, giving the unit a near-zero Scope 3 carbon emissions profile.

A novel floating unit was also the subject of an AIP issued to Samsung Heavy Industries (SHI) for the design of a multipurpose floating liquefied natural gas (FLNG) production facility for deepwater operations. Named the MLF-O, the design features a special cargo hold configuration that minimizes sloshing, allows the unit to contain up to 220,000 cubic meters (m³) of product and optimizes the facility for service in wave heights of 9 meters.

Another structural advance for floating assets was recognized in an AIP awarded to Petrobras in November for its innovative “sandwich hull” concept for FPSO storage tanks. Instead of traditional internal stiffening through steel structure, this concept uses sandwich-type structural elements, specifically steel-concrete-steel layered panels, for longitudinal and transverse structural members inside the hull. These sandwich panels provide structural support while keeping the interior surfaces of the storage tanks free of obstructions. This can reduce the need for people to enter tanks for cleaning and survey operations, leaving those tasks to robots, drones and remote-controlled equipment.

In December, ABS issued an AIP to Hanwha Ocean for remote-control functions for FPSOs. By enabling continuous data acquisition, advanced analytics and predictive insights, remote operation technologies are redefining how offshore assets are monitored and managed. These capabilities enhance health, safety and quality compliance and create new opportunities to optimize performance through real-time decision-making and automated control.

Safety leadership involves supporting ongoing operations as well as encouraging innovation. This was underscored in two achievements during 2025. In March, the ABS-classed FPSO *Liza Unity*, which in 2021 became the world’s first FPSO to receive the ABS SUSTAIN-1 class notation, became the first FPSO to receive the next-level SUSTAIN-2 class notation (see spotlight). Then, in May, building on the long track record of the ABS Harsh Environment Technology and Digital Research Center in Canada, which for years has supported Canadian developments in Arctic waters, the Norwegian FSO Group contracted ABS Class for a new ice-class offshore support vessel preliminarily named *Sea Dragon*.

SPOTLIGHT

Liza Unity Becomes World’s First FPSO to Receive ABS SUSTAIN-2 Notation

In March 2025, the ABS-classed *Liza Unity* continued to achieve industry firsts by becoming the industry’s first FPSO to receive the SUSTAIN-2 notation. The vessel was also first to receive the SUSTAIN-1 notation in 2021, recognizing such sustainability-related aspects of operation as pollution control and waste management. The SUSTAIN-2 notation recognizes additional attributes, such as the usage of low-carbon fuels and human-centered design.

The SUSTAIN-2 notation also recognizes an asset’s continuous self-improvement according to the vessel

sustainability program developed by ABS to help fleets meet the environmental and human elements requirements contained in the Sustainable Development Goals (SDGs) set forth by the United Nations.

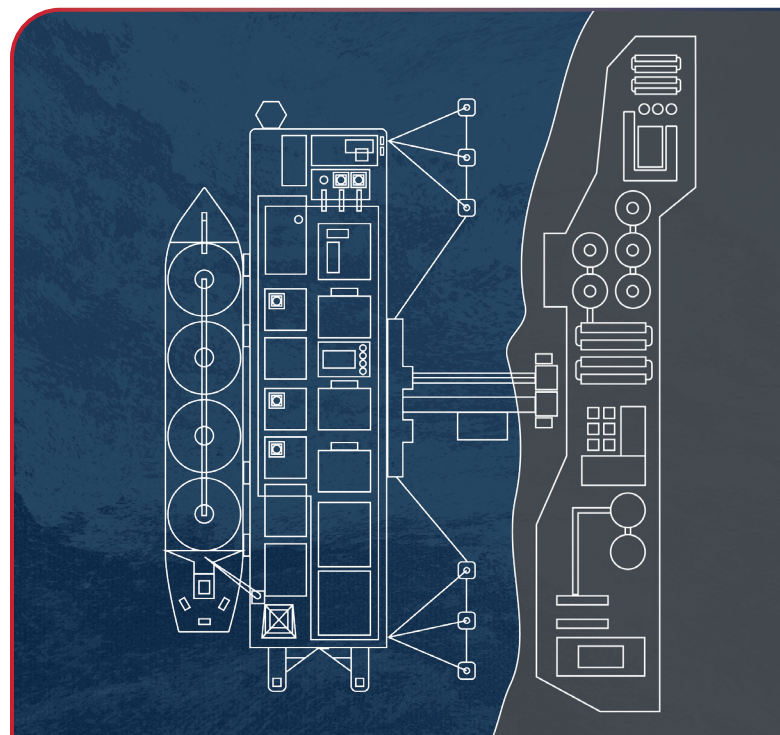
Liza Unity FPSO is owned by ExxonMobil Guyana Limited and operated by SBM Offshore. The second FPSO built for ExxonMobil’s Stabroek Block development in Guyana, it has an installed production capacity of approximately 220,000 barrels of oil per day.



© SBM Offshore

ABS continued to help offshore operators address practical safety and reliability challenges in 2025, providing essential guidance that supports better decisions about how assets are designed, maintained and powered. The industry-first *ABS Guide for Modified Tank Entry Program* provides direction for extending internal tank examinations from the typical five-year cycle to a 10-year cycle and beyond. This can help maximize uptime for site-dependent floating assets that often remain in place for many years, and by reducing the frequency of a potentially hazardous activity without compromising structural integrity, has the potential to enhance overall safety performance.

In *Powering Near Shore FLNG Installations from an External Source*, ABS evaluates external power configurations for manned, near shore FLNG units, delving into such core design considerations for external power systems, such as power cable configurations, equipment integration and emergency preparedness. Using a goal-based standards approach, the report sets clear design goals, functional requirements and risk criteria for integrating external power – supporting safety, reliability and compatibility across diverse configurations.



GLOBAL OFFSHORE

AIDING DEVELOPMENT OF THE CARBON VALUE CHAIN

Technologies across the carbon capture value chain are evolving rapidly, opening new possibilities for how CO₂ can be captured, transported and stored. Two significant 2025 milestones supported that development. In June, ABS published the *Offshore Floating CO₂ Injection Facilities* report, which analyzes the offshore technologies that can support carbon capture and storage (see spotlight). In September, ABS granted an AIP to MODEC for the

innovative design of a liquefied CO₂ (LCO₂) floating storage and injection unit (FSIU) for offshore carbon sequestration. As designed, the vessel would have a minimum tank storage capacity of 100,000 m³ and the capability of injecting 10 million tonnes of CO₂ annually, eliminating the need for onshore LCO₂ storage facilities.

SPOTLIGHT



ABS Publishes Analysis of Offshore Injection Technologies for Carbon Capture and Storage

Interest in applying proven offshore technologies to support the carbon capture and storage (CCS) value chain continued to grow in 2025, with particular focus on carbon dioxide (CO₂) injection techniques used in enhanced oil recovery and on the emerging concept of floating storage and injection units (FSIUs). These units are showing promise as a means of processing CO₂ and injecting it into depleted wells for permanent storage.

The concept is attractive because the use of depleted offshore reservoirs leverages existing subsurface data and provides access to deep, secure storage space. Current FSIU concepts include designs that can store and inject up to 10 million tonnes of CO₂ per year, which could make CCS scalable, flexible and viable, especially in regions without existing onshore infrastructure or where shore support is constrained.

To support this emerging technology and potential projects, ABS published the technical paper *Offshore Floating CO₂ Injection Facilities*, which analyzes the technologies that can be used in a floating injection scenario.

ADVANCING THE TECHNOLOGY OF OFFSHORE SPACEPORTS

Technology for the commercial use of offshore space launch and recovery advanced in December, when ABS granted an AIP to Seagate Space for the design of an innovative unmanned semisubmersible launch platform. Named *Gateway-S*, the novel design proposes a new kind of floating spaceport that can be configured for launch or recovery and can be broken down into container-sized modules for transport by ship, rail or truck. ABS

published the world's first requirements addressing the unique challenges of offshore spaceports two years ago. The *Gateway-S* platform was approved under the ABS *Requirements for Offshore Spaceports* and the *Rules for Building and Classing Offshore Units*.



GLOBAL OFFSHORE

DRIVING INNOVATION IN OFFSHORE CYBER DEFENSE

Cyber resilience is critical for nearly every marine and offshore asset in service today, because any system that receives data or has onboard computers can be a potential target for cyberattack or cyber-induced problems. In June, ABS granted an AIP to Hanwha Ocean for a cybersecurity solution designed to protect critical infrastructure aboard FPSOs. The development was produced under a multiyear agreement between ABS and Hanwha Ocean to collaborate on bringing innovative, advanced offshore technologies online.

Three months later, three, self-elevating offshore units owned by Saudi Arabia-based Jana Marine Services became the industry's first offshore assets to receive the

ABS CR-Ex cyber resilience notation for existing vessels. Named Jana 505, 508 and 509, the units were designed to align with Saudi Arabia's Vision 2030 plan for sustained economic development, in which cybersecurity is a key element. The CR-Ex notation, part of the *ABS Guide for Cybersecurity Implementation for the Marine and Offshore Industries, CyberSafety® Volume 2*, sets out requirements for operational technology control systems and related information technology systems on commercial vessels and offshore assets.

TECHNOLOGY LEADERSHIP IN THE RENEWABLES SECTOR

Many current advances in the renewables sector are concepts at various stages of design, but one notable 2025 project illustrates that extent of physical progress. In August, the first Jones Act plug-in hybrid offshore wind service operations vessel in the United States was launched. Christened *ECO Liberty*, the 262-foot ABS-classed vessel was built by Edison Chouest Offshore (ECO) at its LaShip shipyard in Louisiana. ECO will own and operate the vessel for Equinor, Norway's state-owned energy company.

Early in the year, another advanced design moved closer to reality when ABS approved the front-end engineering design (FEED) documents for a deepwater floating offshore wind platform from ECO TLP and MOCEAN-Offshore BV. The design features slip-formed cylindrical concrete hulls secured by a variety of anchor types, which, combined with a hybrid spar tension-leg mooring system, would give a floating wind installation a smaller seafloor footprint than possible with traditional catenary mooring systems. The FEED approval allows the design to move into commercialization for site-specific projects.

A series of AIPs awarded throughout the year shows that floating offshore wind continues to attract interest from the global energy community. The year began with an AIP issued to CNBA, a subsidiary of Bouygues Construction, for the OO-STAR floater, a semisubmersible wind foundation developed to support the world's largest wind turbines in harsh offshore environments. Soon after, ABS issued a Statement of Maturity, an advanced stage of the new technology qualification process, for a floating

wind platform design from Aikido Technologies. As part of the process, ABS witnessed a successful upending demonstration of a 1:4-scale model that confirmed the design's ability to quickly deploy from its collapsed transportation configuration into an upright, floating configuration. ABS awarded an AIP for the technology in 2022 and worked closely with Aikido throughout its development.

As the year progressed, ABS signed a memorandum of understanding (MOU) with the Floating Offshore Wind Power Technology Research Association of Japan (FLOWRA) for collaboration on development of new technologies for floating wind. ABS also issued an AIP to Seatrium for a semisubmersible floating column foundation for 15-megawatt (MW) turbines. Hanwha Ocean received an AIP for WindHive 15-H3, a semisubmersible concept for supporting 15 MW turbines on three hexagonal columns (see spotlight). Encomara received an AIP for its novel Squid system, which adapts proven disconnectable mooring technology to support floating wind developments.

In addition, ABS awarded two AIPs to SHI. The first covered SnapWind Float, a semisubmersible-type floating wind turbine with a passive ballast system and optimized mooring for stability in harsh environments. The second addressed HyfloWind Float, a hybrid floating base whose concrete-based steel composite design is intended to make manufacturing feasible in locations with limited steel fabrication capabilities.

SPOTLIGHT

ABS Awards Approval in Principle for a Floating Turbine Foundation Designed by Hanwha Ocean

Floating offshore wind power is projected to play a growing role in the global energy landscape. Many companies are acting on that potential, investing in research and development projects and advancing designs that have produced a wave of innovative concepts seeking class approvals.

In July, ABS issued an AIP to Hanwha Ocean for the conceptual design of a semisubmersible-type floating offshore wind turbine foundation named WindHIVE 15-H3. Supported by three hexagonal columns, the unit is designed to support 15 MW offshore wind turbines with a rotor diameter of 240 meters. According to Hanwha, the design optimizes structural stability and weight, and the hexagonal configuration simplifies column interconnections.



Rob Langford, ABS Vice President, Global Offshore Renewables, with Philippe Levy, President, Offshore Business, Hanwha Ocean, at the 2025 Offshore Technology Conference in Houston, Texas.



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GLOBAL GOVERNMENT

52

Supporting the
United States
Government

58

Supporting
International
Governments



GLOBAL GOVERNMENT

From frontline naval fleets to public service vessels, governments around the world engage ABS for marine classification, technical support and a wide range of analysis and advisory services that strengthen the safety, security, efficiency and sustainment of their marine transportation systems.

SUPPORTING THE UNITED STATES GOVERNMENT

ABS maintains a distinctive role in supporting the United States (U.S.) government maritime mission. By U.S. law, ABS is designated as the classification organization for U.S. government vessels. ABS also works with the U.S. Coast Guard (USCG) as a Recognized Organization, aligned with its focus on safety, security and environmental protection. Across the federal landscape, agencies engage ABS for class-related support and a broad range of technical analysis and advisory services tied to fleet maintenance, operations, shipbuilding expertise and maritime policy. ABS is also an established provider of contract research and development (R&D) conducted under grants and cooperative agreements. This R&D work covers traditional marine engineering along with alternative energy development in the maritime domain, cybersecurity for vessels and port facilities, advanced manufacturing technology and other priority areas.

ABS delivered a historically strong year in government services, as reflected in the following sections. Two highlights stand out:

- **Initiating Work with the U.S. Navy's Maritime Industrial Base Team.** ABS began contracted work supporting the newly established Maritime Industrial Base (MIB) Program, which leads the U.S. Navy's (USN's) efforts to revitalize America's shipbuilding and repair industry. The MIB has key lines of effort in strengthening supply chains; modernizing facilities and infrastructure; addressing education, training and workforce

development issues; expanding the use of commercial standards and practices; and leveraging and expanding advanced manufacturing technology. ABS can be a unique partner for supporting the MIB in all of these areas and has begun contracted work on specific high priority topics of interest to the MIB team.

- **Operationalizing the U.S. Center for Maritime Innovation.** In 2025, ABS transitioned the U.S. Maritime Administration's (MARAD's) U.S. Center for Maritime Innovation (USCMI) from concept to a fully operational national platform, establishing the governance, operating procedures and collaborative infrastructure needed to drive maritime innovation at scale. As Secretariat for the USCMI, ABS successfully launched and convened a robust portfolio of technical working groups, engaging government, industry, academia and international partners to shape a forward-looking, multiyear research agenda. ABS also delivered a website (www.uscml.org), secured collaboration workspaces, and standardized project and co-funding frameworks — laying the foundation for rapid project execution once authorized. Throughout the year, ABS amplified USCMI's visibility through sustained outreach at major maritime forums and direct engagement with federal agencies, strengthening alignment with Administration priorities. Collectively, these milestones position USCMI as a trusted, ready-to-execute hub for advancing U.S. maritime competitiveness, resilience and innovation.



GOVERNMENT FLEET SUPPORT

In 2025, ABS advanced its long-standing support to Military Sealift Command (MSC), one of the largest fleets under ABS classification in the world. Four additional MSC vessels were enrolled in the condition-based program (CBP), a maintenance planning and monitoring program that enhances life-cycle sustainment, with pre-enrollment underway for three more. In preparation for CBP, ABS and MSC completed Virtual Vessel Alignment across all CBP-enrolled vessels, laying the groundwork for seamless data sharing and integration to support efficient machinery service status monitoring.

ABS provided critical class services to several MSC shipbuilding projects in 2025, including the John Lewis-class fleet oilers, expeditionary sea base, towing and salvage tugs and expeditionary fast transport projects. ABS also received commitments to deliver class services for multiple MSC vessel acquisition projects, including accommodation barges, barracks barges, submarine tender and the new block of John Lewis-class fleet oilers. In parallel, ABS supported cybersecurity across the MSC fleet, assisting MSC in achieving cybersecurity notations that resulted in Authority to Operate (ATO) certifications for several operational technology (OT) systems.

2025 marked the third year of a multiyear contract with Naval Sea Systems Command (NAVSEA) for technical and engineering support services. The contract establishes a framework for expanded ABS support to the USN for classification, class-related work, certification, life-cycle support and technical advisory services across multiple programs and classes of maritime assets and systems. It also provides direct access to ABS for Navy Ship Design Managers, Technical Warrant Holders and many other organizations. During the year, USN engaged ABS to review several new ship design and construction programs and to collaborate with NAVSEA on surface ship bridge design standards. Under this contract mechanism, ABS delivered Rules training courses and enabled enhanced ship design information sharing through the ABS MyFreedom™ Client Portal.

ABS support to the USCG in 2025 focused mostly on classification and class-related work for several new construction programs, including the Polar Security Cutter, the Offshore Patrol Cutter and the Waterways Commerce Cutter programs. ABS also continued to support the longstanding Fast Response Cutter acquisition program, with two additional cutters awarded in 2025 and several more expected in coming years. Through the multiyear technical support services contract established in 2023, ABS provided enhanced design review and specialized

technical support to several of these projects. ABS also supported affiliate ABS Group in developing machinery and auxiliary equipment digital twins for a key USCG initiative to deploy condition-based maintenance processes and technology for the Fast Response Cutter class platform. The collaboration also contributed root cause analysis for MARAD's Sealift fleet.

With MARAD, ABS continued to provide class and class-related services to the Strategic Sealift and Ready Reserve fleets. ABS provided class services in support of MARAD's National Security Multi-Mission Vessel (NSMV), *State of Maine*, the third of five purpose-built state-of-the-art training vessels built for the U.S. state maritime academies. ABS also provided class services for the remaining two NSMVs, with the final hull, destined for California State University Maritime Academy, having its keel laid in March of 2025.

ABS continued support for the National Oceanic and Atmospheric Administration (NOAA) during an important phase of new vessel acquisitions that includes two new classes: the AGOR Variant (Class A), with a primary mission of oceanographic monitoring, research and modeling, and Class B, focused on ocean mapping and nautical charting. The AGOR variant was under new construction attendance by ABS in 2024, while the Class B program made significant progress in 2025, including keel laying for *Surveyor* and *Navigator*, two new charting and mapping vessels expected to join the NOAA fleet as early as 2027. In addition to new construction support, ABS provided subject matter expertise for a special feasibility study to further develop deep ocean survey capabilities for *Discoverer*, the second hull in the Class A series.

In addition to the above, ABS continued to provide class and class-related support to government fleets with the U.S. Army Corps of Engineers, Army Watercraft Division, NSF/UNOLs and state government ferry programs. ABS also provided early program support to the Alaska Marine Highway System's next-generation ocean class passenger and vehicle ferry.

ABS also supported multiple uncrewed surface vessel (USV) designers and builders in 2025. The notable increase in activity compared with previous years reflects growing government interest in autonomous technology capabilities and the push for rapid testing and development. ABS is working with the industry to apply the ABS *Requirements for Autonomous and Remote Control Functions* during classification activities.

GLOBAL GOVERNMENT

SUPPORTING THE UNITED STATES GOVERNMENT

CONTRACT R&D SUPPORT

ABS elevated its contracted R&D portfolio and activity in 2025, breaking innovation barriers, accelerating technology readiness, and strengthening long-term partnerships across government, academia, national laboratories, and industry. Since launching this collaborative research model in 2020, ABS has cultivated a globally connected research ecosystem that consistently translates innovation into operational impact.

Digitalization

- ABS advanced a transformative research initiative with the Navy Shipbuilding Research Program (NSRP), progressing from concept to demonstrated capability in the use of ship failure and condition data to improve fleet sustainment and shipyard performance. The project delivered actionable guidance for integrating data sets, analytics and decision support workflows focused on high-risk ship systems that drive cost and schedule challenges. Completed phases, which were presented at the Society of Naval Architects and Marine Engineers (SNAME) Maritime Convention, validated the approach and established a strong foundation for reducing unplanned work, improving availability outcomes and enhancing readiness. Building on this progress, ABS and NSRP are now transitioning results into broader adoption through a formal guidance document, industry webinars and a comprehensive NSRP final report. This research positions data analytics as a practical, repeatable tool for more predictable and resilient ship construction and sustainment.
- Supported by the Department of Energy's (DOE's) Advanced Research Projects Agency–Energy (ARPA E), ABS advanced the development of a next-generation decision support platform for intermodal maritime freight transportation (IFT). Building on early research, the project progressed in 2025 from conceptual design to an integrated, system level modeling capability that captures real world operational constraints and customer priorities. The tool evaluates the full life cycle and network wide impacts of alternative fuels, enabling optimized fuel mix and routing strategies that balance energy optimization, cost and resiliency. Extensive engagement with freight, rail and port stakeholders refined assumptions and validated model outputs. This input helped ensure the platform reflects industry-driven decision-making needs and positions it as a practical asset for infrastructure planners and policymakers.



Applied Research

- Funded by the California Energy Commission (CEC), ABS continued supporting Cal Poly Humboldt’s research on mooring sensors to advance environmental and system-monitoring technologies, as well as the University of Maine’s innovative mooring front-end engineering design (FEED) study. In both efforts, ABS provided engineering design review and new technology qualification (NTQ) support to help advance and validate outcomes.
- Supported by the DOE and directed by the Pacific Ocean Energy Trust, the U.S. Testing Expertise and Access to Marine Energy Research (TEAMER) program accelerates the viability of marine renewables by providing access to the nation’s best facilities and expertise. ABS provided support on six projects to provide NTQ services, engineering analysis, numerical modeling and simulations. ABS has provided support to Hydrokinetic Energy Corporation, Hawaii Ocean Power Solutions, E-Wave Technologies, University of Michigan, Mississippi State University and CalWave Power Technologies to help further advance their marine energy technology.
- Building on its leadership in offshore innovation, ABS completed approval in principle (AIP) support for the Intelligent Mooring System (IMS) in collaboration with PCCI. ABS assessed the system’s safety, structural integrity and functional performance, verifying compliance with applicable industry standards while supporting rapid engineering advancement. This work strengthened the technical readiness of the IMS concept, advanced the integration of real-time data acquisition into IMS design and established a strong foundation for future data-driven optimization and deployment in challenging offshore environments.
- ABS advanced a strategic NSRP initiative that is helping transform how naval vessels are built, maintained and modernized by accelerating the integration of additive manufacturing (AM) into the USN’s shipbuilding and sustainment enterprise. Through close collaboration with government and industry partners, including NAVSEA, the Office of Naval Research and the Defense Advanced Research Projects Agency, ABS made meaningful progress in advancing process validation and part qualification pathways that enable AM to transition from research to fleet application. This work addressed critical barriers to adoption by aligning engineering rigor, digital innovation and safety requirements, while supporting faster production and repair timelines. By helping establish foundational guidance and “rules of the road” for AM implementation, the innovation moves beyond the laboratory and delivers tangible readiness, resilience and life-cycle benefits to the naval fleet.
- ABS successfully completed applied research activities for the Deeply Embedded Ring Anchor (DERA) system through a comprehensive Hazard Identification (HAZID) workshop conducted in partnership with Deep Anchor Solutions Inc. The effort systematically evaluated safety and operational risks across the full DERA life cycle, from design and fabrication through installation, operation and decommissioning and produced actionable risk mitigation measures. This applied research advanced the technical readiness of DERA by validating its performance advantages, informing safety by design improvements and strengthening its alignment with regulatory expectations. The completed work directly supports commercialization and industry adoption of DERA as a viable anchoring solution for next-generation floating offshore wind projects.



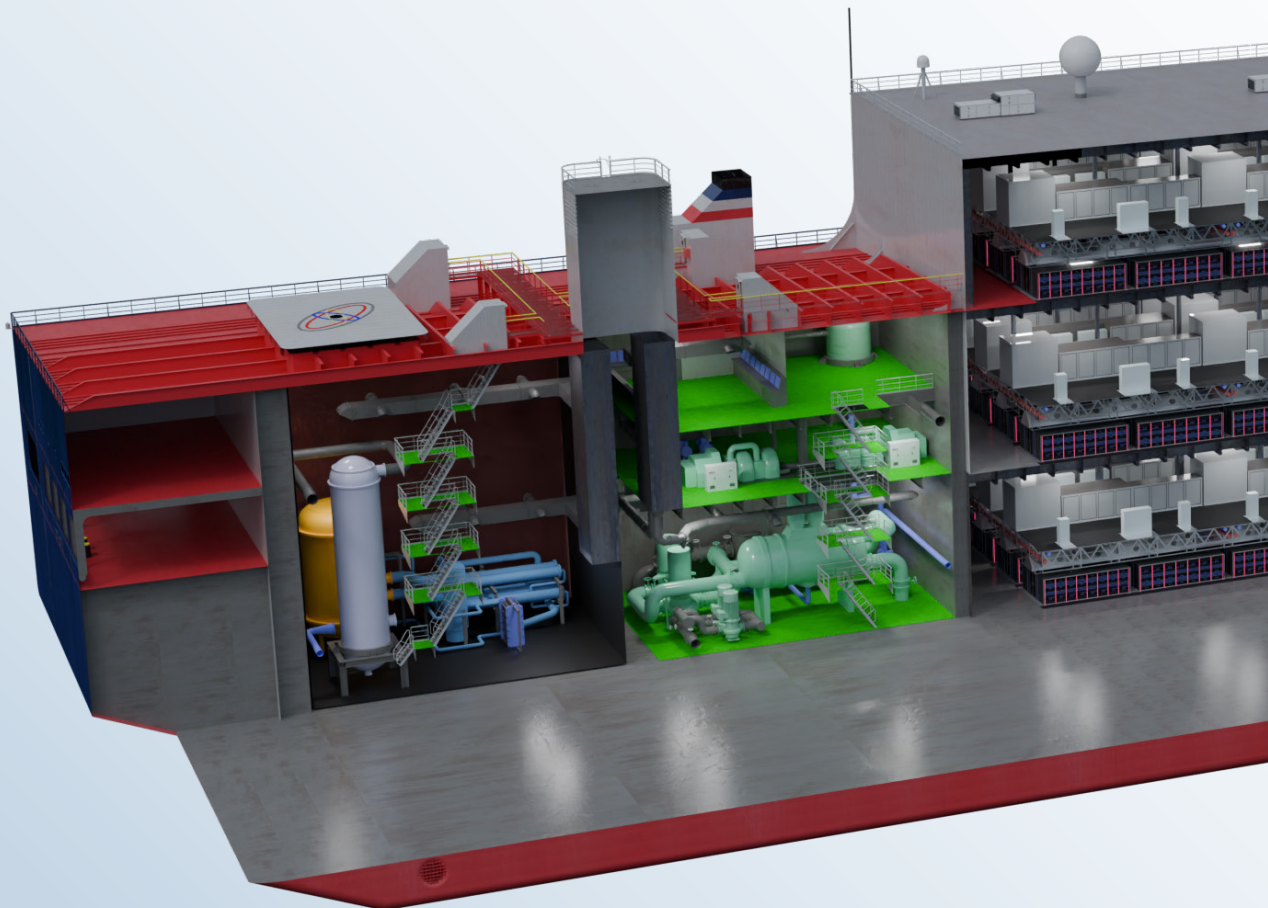
Saronic’s autonomous ship Marauder under construction at the company’s shipyard in Franklin, Louisiana.

GLOBAL GOVERNMENT

SUPPORTING THE UNITED STATES GOVERNMENT

Energy Security

- Originally awarded by the National Academy of Sciences, Engineering and Medicine (NAEM) in 2023, the energy project off the southern coast of the U.S. achieved key milestones in 2025 as ABS conducted in-depth analyses of evolving operational and safety risks associated with a shift in the regional energy landscape. Throughout the year, ABS identified critical changes affecting the region's safety environment and assessed gaps within the existing Safety Management Framework. This work produced forward looking insights into emerging risks tied to new technologies and evolving energy systems. In 2025, ABS developed actionable recommendations to proactively adopt safety management practices, enabling regulators and industry stakeholders to better anticipate challenges and strengthen resilience during this ongoing transformation.
- Supported by DOE, ABS led the Accelerated Nuclear Demonstration initiative to materially compress the deployment timeline for advanced nuclear reactor technologies in commercial maritime applications. Throughout 2025, the project moved beyond foundational analysis to deliver actionable frameworks, deployment pathways and business case insights informed by direct input from maritime operators, regulators and technology developers. This work clarified integration challenges, regulatory considerations and infrastructure requirements, translating customer and stakeholder insights into practical guidance for early demonstrations. Through targeted collaboration and industry engagement, the initiative has advanced microreactors and small modular reactors as credible and competitive energy solutions, strengthening U.S. leadership and enabling secure, high endurance maritime power capabilities.
- In 2025, ABS was awarded supporting roles in two federal grants issued under the Environmental Protection Agency's (EPA) Clean Ports Program. ABS, in collaboration with the Detroit/Wayne County Port Authority and the University of Michigan is leading a feasibility and planning study for the case of power barge operations throughout the widespread 18 terminals located within the Port Authority's jurisdiction. ABS, in collaboration with the Port of Seattle and Maritime Blue, is also leading a methanol bunkering feasibility study investigating the achievability of a methanol bunkering barge providing services to the Ports of Seattle and Tacoma terminals.

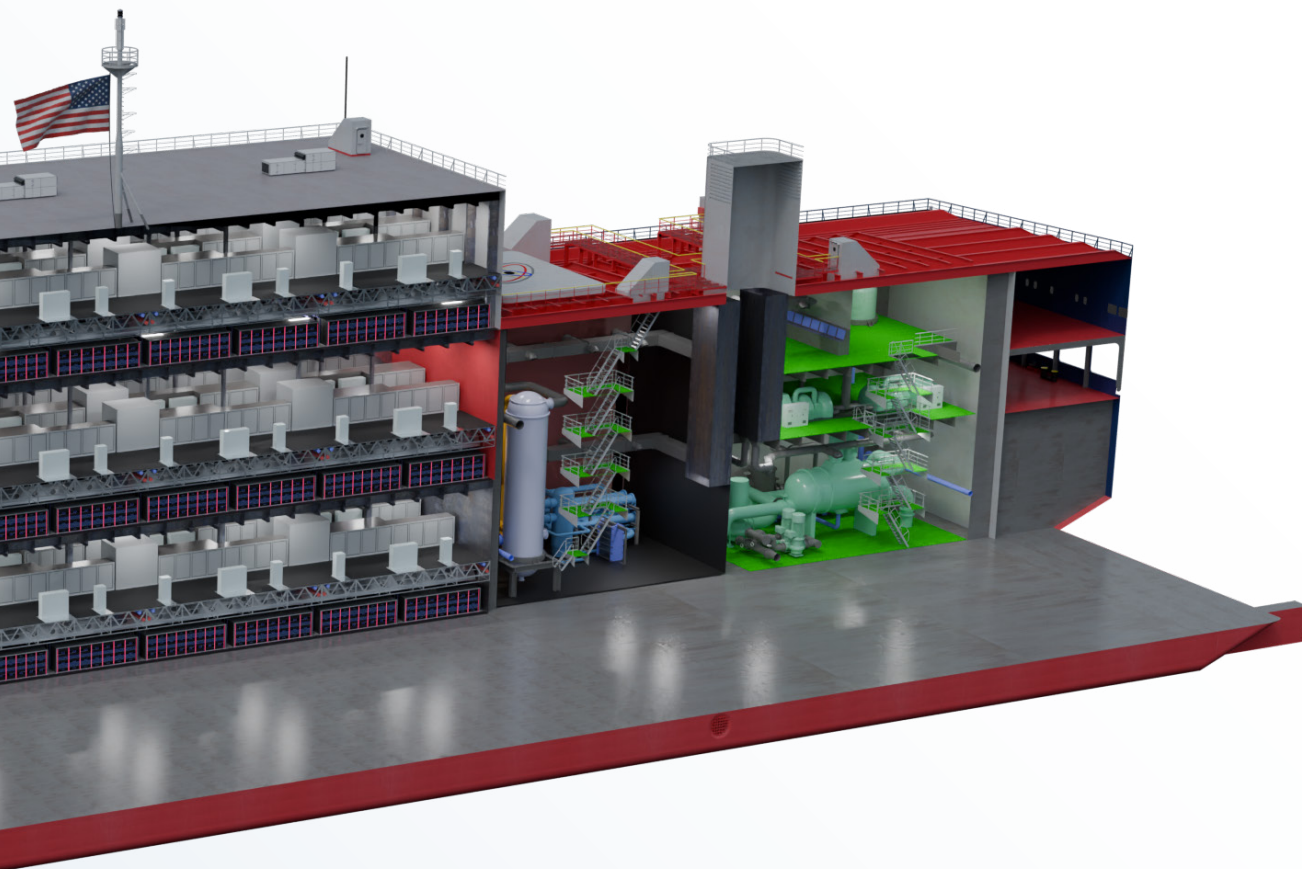


Offshore Safety

- ABS, through a cooperative agreement with the Bureau of Ocean Energy Management (BOEM), led an innovative project to provide a baseline estimate of spill occurrence rates to support planning and risk assessment on the national Outer Continental Shelf (OCS). Working alongside affiliate ABS Consulting, ABS compiled and cleaned an oil spill database and applied machine learning (ML) models to analyze the data and provide results.
- ABS successfully kicked off five new research projects funded by the Ocean Energy Safety Institute (OESI), focused on improving safety across the oil and gas, wind and marine energy industries. The projects include: (1) development of a predictive tool to assess fixed wind foundation integrity under multihazard dynamic loading; (2) integration of wave energy converters with subsea energy storage; (3) development of a comprehensive marine energy safety framework; (4) machine learning-driven analysis of fire incidents on offshore facilities; and (5) development of a predictive

monitoring tool for offshore lifting equipment. Collectively, these projects are expected to bolster the resilience and sustainment of the U.S. maritime and offshore energy sectors by introducing cutting-edge technologies and methodologies that address current challenges and anticipate future needs.

- Awarded by NASEM in 2023, ABS continued to make substantial progress on a project focused on integrating safety assessment activities into Safety and Environmental Management Systems (SEMS). During 2025, ABS advanced the development and evaluation of multiple methodologies designed to systematically embed safety assessments into organizational processes. This work strengthened the practical application of safety culture principles, supported measurable reductions in unsafe behaviors, and enhanced organizational safety performance. Leveraging safety culture toolbox research conducted for the Bureau of Safety and Environmental Enforcement and NASEM, ABS refined tools and approaches that will improve safety culture activities and inform future safety assessments across diverse industries.



GLOBAL GOVERNMENT

SUPPORTING INTERNATIONAL GOVERNMENTS

CANADA

In 2025, ABS continued to provide strong support to the Canadian Coast Guard (CCG) under the Delegated Statutory Inspection Program (DSIP) contract. The CCG now has 122 vessels enrolled in DSIP with ABS, including 31 of its largest ships fully in class. This is up from 119 vessels enrolled in 2024 and reflects continued growth in CCG participation in DSIP with ABS.

Throughout 2025, 148 emergent tasks were raised and performed under the DSIP contract. These ranged from engineering reviews of modifications to existing systems to vessel life extension (VLE) projects, as well as surveys associated with damage, modifications and attendance during VLE and extended refit periods.

ABS continued providing support to the Royal Canadian Navy (RCN) in 2025 under the ninth year of the 25-year Non-Combatant Classification Society Services (NCCS) contract. Of the 82 assets under ABS oversight, 18 are fully in class. The total is up from 78 assets in 2024, reflecting the growing scope of ABS support to the RCN.

Highlights for 2025 include:

- The last two Harry DeWolf-class Arctic offshore patrol vessels, *Frederick Rolette* and *Robert Hampton Gray*, were delivered to the RCN and are in the process of transferring class to ABS, marking significant progress toward the completion of class under ABS oversight.
- ABS continues to perform class services for the construction of the final two of four naval large tugs (NLT) being built by Ocean Industries. The third NLT, *Canso*, is on track for its scheduled delivery in 2026, and the final NLT, *Stella Maris*, is expected to be delivered in late 2026, building on the two tugs already delivered in 2024.

Throughout 2025, a total of 56 emergent tasks were completed under the NCCS contract, including engineering reviews of existing systems, advanced structural assessments for a specific fleet, determination of safe speed in ice, and surveys of damage and modifications. This total represents a 23 percent increase over 2024 and reflects greater reliance on ABS for emergent engineering and survey support.

For Transport Canada in 2025, ABS continued to collaborate with Canadian domestic shipping partners on eight projects assessing efficiency improvement technologies for shipping on the Great Lakes and the St. Lawrence Seaway. Working with shipowners Fednav, Groupe Desgagnés, Algoma Central Corporation and

Oceanex, the projects again focused on characterizing the benefits of wind assist on the Great Lakes, shore power options and the use of batteries, fuel cells and methanol as a fuel. Building on the work initiated in 2024, ABS led these projects, further expanding the understanding of the feasibility and value of these technologies in the Canadian marine industry context and moving from initial assessments toward more mature, implementation-focused insights.

ABS was awarded tasks to continue development of the International Maritime Organization (IMO) carbon intensity indicator (CII) calculation methodology for the Canadian domestic fleet. The need for Canadian-unique factors is particularly apparent on the Great Lakes, where self-unloaders dominate a landscape characterized by short transit times, operation through many locks and frequent unloading at minimal-infrastructure facilities. Building on the foundational work started in 2024, the regulations are now in effect, with ABS recognized as a key contributor to their development — demonstrating a clear progression from analysis and proposal to implementation.

In 2025, ABS was also awarded tasks to study the extent and makeup of exhaust gas scrubber system use in Canadian waters, completing a comprehensive study for Transport Canada that has become the basis for ongoing policy discussions. This new line of work, introduced in 2025, expands the role of ABS in supporting Transport Canada on environmental performance and air emissions policy beyond the efficiency and CII-focused activities highlighted in 2024.

Contract R&D Support for Canada

ABS supports Canadian government projects with specialists providing subject matter and technical expertise. Working through the ABS Technology, Harsh Environment Technology and Digital Research Center (HET&DRC) in St. John's, ABS conducted several notable R&D projects in 2025.

- **Support to Royal Canadian Naval Vessel HMCS Margaret Brooke:** HET&DRC provided detailed environmental preparation for operations in the Antarctic region. This included analysis of sea ice, air and sea surface temperatures, ice accretion potential and wave statistics for the Drake Passage.
- **Completion of Defence Research and Development Canada (DRDC) Polar Operational Limit Assessment Risk Indexing System (POLARIS) and Safe Speed Analysis Project:** Building on work initiated in 2024, HET&DRC finalized a major research effort for DRDC. Key accomplishments included:
 - » Contributing to the development of the NATO AVT-367 final report
 - » Producing vessel-specific POLARIS risk values for arctic and offshore patrol vessels (AOPVs), Kingston-class and Halifax-class vessels
 - » Completing a technical assessment of safe operating speeds in ice for the same fleet classes
- **Environmental Analysis for RCN's HMCS William Hall Participation in Operation Nanook:** Delivered environmental intelligence products, including sea ice conditions, air and sea temperatures and ice accretion assessments to support Arctic readiness.
- **Department of National Defence (DND) IDEaS Success — ICESIGHTS Project:** HET&DRC secured a major research win through the DND's IDEaS program, advancing the ICESIGHTS project focused on next-generation ice analytics.
- **Industrial and Regional Benefits (IRB) Project with Memorial University:** Initiated a multiyear innovation initiative with Memorial University supporting the development of ICESIGHTS. Though not directly a government contract, it contributes to Canada's marine research ecosystem and IRB commitments.

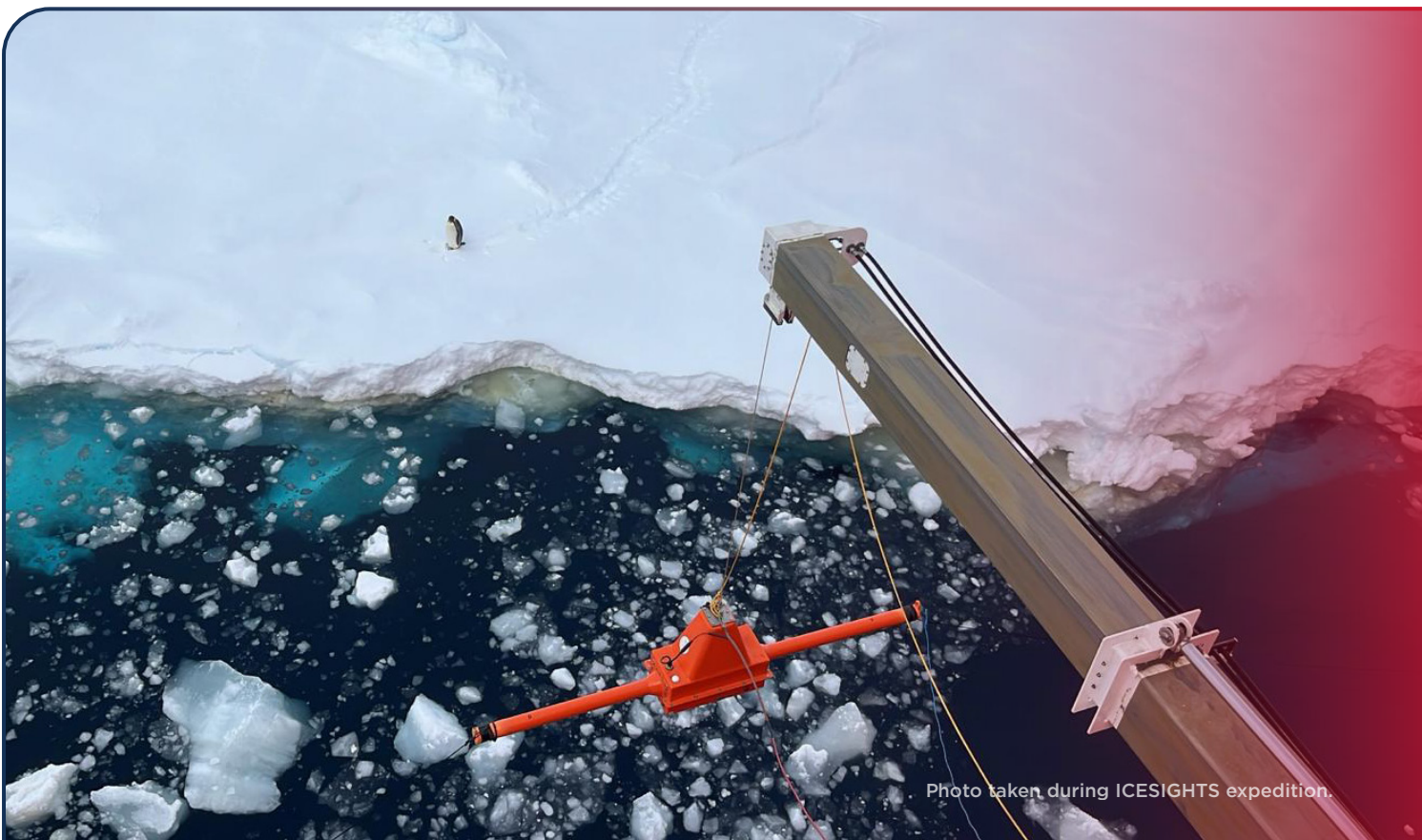


Photo taken during ICESIGHTS expedition.

GLOBAL GOVERNMENT

SUPPORTING INTERNATIONAL GOVERNMENTS

INTERNATIONAL CONTRACT R&D SUPPORT

In 2025, ABS continued to be actively engaged in supporting maritime research and innovation in Europe through a broad portfolio of projects under Horizon Europe and other key initiatives. These activities directly supported the digitalization, health and safety and sustainment objectives of the European maritime sector, contributing to the European Union's Green Deal targets, the United Nations Sustainable Development Goals and the competitiveness of Europe's waterborne transport ecosystem. In 2025, ABS supported several noteworthy R&D projects in Europe.

- Completed major projects on alternative fuels and onboard safety, including NH₃CRAFT and Healthy Ship 4U (HS4U). In NH₃CRAFT, ABS provided technical advice, risk assessment and simulation support to help design next-generation, high-capacity ammonia fuel storage solutions. In HS4U, ABS led project management and coordination and provided regulatory and classification expertise to enhance infection prevention and control on large passenger and cruise ships.
- Strengthened industry guidance on ammonia and methanol as marine fuels by leading the EMSA Study Investigating the Safety of Ammonia as Fuel on Ships, where ABS covered project management, technical work, risk assessment and development of guidance and requirements. ABS also supported the UK Energy Institute HSSE for NH₃ & MeOH project through literature review and technical workshop facilitation alongside ABS Consulting.
- Advanced innovative energy solutions at sea through BlueBARGE, where ABS led and coordinated the consortium to design and qualify a modular offshore cold ironing power barge. ABS also contributed to LH₂CRAFT in the approval of next-generation, large-scale liquid hydrogen containment systems, and supported BAMBOO by developing technology qualification roadmaps and certification concepts for floating offshore solar.

- Promoted efficient shipbuilding and circularity via ECOSHIPPYARD (ESY), where ABS provided regulatory and classification guidance, led validation of a ship “material passport” and advised on shipyard environmental performance indicators and non-operational impacts.
- Accelerated the safe adoption of alternative fuels in SAFeCRAFT, with ABS providing regulatory and classification advice, issuing AIP for onboard integration of hydrogen and other alternative fuel technologies and identifying key safety factors across multiple vessel types.
- Enhanced efficient, digitalized operations and port climate resilience through SAFARI, FLEETfor55 and TwinShip. Across these initiatives, ABS contributed classification expertise to climate-resilient port infrastructure, supported a digital decision-support platform for cost-effective energy efficiency measures aligned with Fit for 55 and led framework requirements for a digital twin-based decision support system targeting emissions.
- Supported the safe deployment of emerging power storage technologies in the POSEIDON project through regulatory review, risk assessment and safety-focused reporting for novel marine energy storage concepts.



TALENT DEVELOPMENT

64

Developing the Talent Pipeline

64

Training

66

Career Development

67

Aspire Program

67

University Relations



TALENT DEVELOPMENT

DEVELOPING THE TALENT PIPELINE

Evolving technologies, including the adoption of artificial intelligence (AI)-assisted workflows, are continually redefining how people work. As change persists, ABS remains well positioned to equip its workforce with the skills and knowledge to maintain a market-leading position. The core engineering and technology competence of the organization's people, and the wealth of experience they bring to problem-solving, form a key differentiator. This strength and the people behind it will be enhanced by AI. Problem solving, critical thinking and how to rapidly understand, master and adopt new technologies are key points of emphasis in career development planning for the organization.

That's why ABS is focused on developing an employee base that is best in class through continuous learning, training and preparation in support of a long-standing commitment to set standards of excellence as a leader in maritime safety, now and in the future. ABS continually looks for ways to enhance employees' skills in areas like learning agility and developing a growth mindset. Both of those skills help unlock future potential for learning and growth in employees.

In 2025, ABS completed a major revision of its annual performance process for employees, pivoting from a competence-based assessment to a goal-based

assessment. This helped focus employees on supporting the strategy and mission of ABS, while achieving specific performance and development goals. The process is flexible and allows goals to be cascaded from the enterprise level or local leadership, or to be created by the employees themselves with manager review and approval. This allows for a combination of setting measurable standards for employees while allowing individual variance where needed to build on strengths or close development gaps.

The ABS team remains committed to the organization's mission and the SPIRIT of ABS, which stands for Safety, People, Integrity, Reliability, Innovation and Teamwork, underpinned by Quality. That SPIRIT serves as the foundation for career development at ABS.

As an organization committed to investing in and cultivating a sustainable, multiskilled talent pipeline across a broad range of disciplines — traditional marine and offshore architecture, engineering studies, computer science, data analytics, sustainability and digital transformation — ABS is well-prepared and ready to meet the challenges of an evolving industry. The organization's robust internal career development efforts are aligned to leading practices and designed to provide a balance of development activities for employees, using a combination of on-the-job experience, mentoring, coaching and formal training.

TRAINING

In 2025, ABS continued to expand its learning capabilities. More than 200,000 formal training hours were completed by ABS employees during the year as they continued to develop skills for the future in topics such as emerging technologies, cyber resilience and goal-based standards. More than 80 percent of these training hours were completed by ABS surveyors, engineers and auditors obtaining new qualifications core to ABS client services.

In February 2025, ABS sent a Voice of Employee (VOE) survey to more than 2,000 engineers, surveyors and auditors, consisting primarily of Likert-style questions along with demographic items and optional open-text responses. More than 900 anonymous participants responded, resulting in a response rate of 40 percent, a strong rate compared to typical survey response ranges. ABS used the survey results, along with internal employee data, to identify trends, patterns and areas for enhancement.

Learners clearly value and appreciate the strong support and high-quality solutions ABS provides, highlighting that

the learning solutions are current, engaging and relevant to their work.

ABS used their feedback to expand offerings and launch several new solutions, including giving learners the ability to create their own training and introducing a new podcast-based learning lane.

Recognizing the ABS MetaSHIP, powered by Orka, as a valuable training tool, ABS is also leveraging it to enhance surveyor training. The platform allows surveyor trainees to engage in realistic scenarios, including interacting with the vessel, inspecting equipment, taking photographs, reviewing certificates and documenting survey notes. This is all in a safe, simulated environment that supports consistent, repeatable learning and builds proficiency with increasingly complex systems.

The CONNECT program, which ABS launched in 2024, uses innovative methods to bridge the gaps between engineering expertise and surveyor skills through interactive workshops, knowledge sharing and technical

case study reviews. This three-day program is held in all regional ABS Academies and encourages networking among attendees and those from numerous local departments while providing valuable platforms for information exchange and the latest industry insights. In 2025, 62 classes were held with 564 employees participating.

ABS also continued hosting Engage, a four-day program held at the corporate headquarters in Spring, Texas, for surveyors, engineers, auditors and other key departmental units. The program offers participants the opportunity to network and learn from each other's experiences while gaining insights into current business goals and initiatives, available products, tools and resources, as well as

information about how to improve client service delivery. In 2025, nine classes were held for 245 employees.

To drive continuous growth and development among the workforce, ABS introduced the Professional Development Hours (PDH) program in 2024. The program tracks the completion of technical training hours by ABS surveyors, engineers and auditors. Through this program, employees and their managers develop the skills most pertinent to their roles, and ABS meets the requirements for ongoing training as stipulated in IACS PR 7, PR 10 and PR 10B. Our learners obtained 189,010 PDH credits through the program in 2025.



Singapore Training Center

TALENT DEVELOPMENT

CAREER DEVELOPMENT

ABS offers employees two award-winning career development programs that are supported throughout the enterprise. These two programs, originally introduced in 2020, continue to give ABS employees access to the most current tools and resources to support their professional growth. The Beacon Career Development Program is an open enrollment series focused on skill building in specific topics and areas, such as AI literacy and prompt engineering. The modules, which include web-based training, peer-to-peer learning and applied learning in their own work settings, attracted 471 participants in 2025 — a 29 percent increase from 2024.

The award-winning Propel Accelerated Leadership Development Program continues to thrive with more than 40 new participants added in 2025. Propel offers tailored development opportunities for high-potential employees. As of year-end 2025, a total of 336 employees from around the world have expanded their careers and capabilities through targeted assignments, projects and training delivered as part of the Propel program.

Additionally, since it was launched in 2020, the internal career development web pages have been visited more than 300,000 times by ABS employees looking for information or resources. The pages are continually updated and refreshed with new information on programs, helping ensure our employees remain engaged with fresh career development offerings.

In partnership with the Texas A&M Mays School of Business Executive Education Center, ABS launched the “Manager of Managers” (MoM) program, a new executive education program for mid-level management. The MoM program is a one-week intensive program for senior managers and directors focused on helping these critical leaders learn in an academic setting from top-tier academics and professionals. In 2025, two cohorts went through the program, totaling 36 mid-level leaders from around the globe.

The successful launch of the Management Accelerator (MA) program for new first-line supervisors and the Management Excellence (MX) program for experienced first-line supervisors continues to be well received in the business, and the programs continued in 2025.

In addition to the MA and MX programs, ABS launched a new variant of these programs in 2025, targeting alumni of the MA and MX programs who want to focus on enriching their leadership skills. This new program, called Managerial Leadership + (or ML+) focused on a one-week intensive classroom program hosted by our partners, the American Management Association.

In 2025, a total of seven cohorts of the MA, MX and ML+ programs were held, producing 135 new graduates. These were delivered regionally across the world and assisted in building important internal networks across the organization.



ASPIRE PROGRAM

In 2025, Aspire celebrated its 11th year as the primary early careers program with ongoing global expansion and reach.

The Aspire program is an 11-month rotational trainee program for new employees who are recent graduates in the areas of naval architecture/marine engineering, mechanical engineering, structural engineering, electrical engineering, data analytics, computer science and related disciplines. The Aspire program provides participants with a unique, holistic understanding of the organization's core operational areas. Placement into the business after the program aligns the participants with their career interests and the business needs of ABS.

In 2025, the program saw 38 students graduate, including nine from global programs in Singapore, China and Greece. Of these 38 graduates, half chose to start their careers in Survey Operations, several of which expatriated to China and Ghana upon graduation.

The program continues to grow, with the July 2025 cohort representing a 29 percent increase over 2024 and with the introduction of new program locations in Germany and Brazil, which join existing global sites in Greece, Singapore, China and Houston. In addition to the ongoing global growth of the program, the long-term impact is becoming clear as Aspire alumni begin to assume key senior level leadership roles in survey, engineering and technology.

UNIVERSITY RELATIONS

ABS SCHOLARS

In 2025, ABS continued its investment in academic excellence by providing 1.3 million dollars in scholarships to students across 56 universities and maritime academies worldwide. ABS scholars are selected for their outstanding academic performance and demonstrated leadership throughout their academic careers.

UNIVERSITY ENGAGEMENT

ABS maintained an active global on campus presence, participating in a wide range of recruitment and academic partnership activities, including career fairs, information sessions, technical presentations, scholarship events, capstone competitions and award ceremonies.

In 2025, ABS participated in 95 total campus events globally. These engagements highlighted ABS leadership in an evolving industry, its organizational strength and stability and the breadth of career opportunities available across the company.

ABS has eight standing endowments at eight institutions. ABS Chairs support connecting ABS to top talent, providing exposure to research opportunities and driving innovative collaborations.

- ABS Chair of Naval Architecture and Marine Engineering at the State University of New York (SUNY) Maritime College
- ABS Chair of Engineering at the California State University Maritime Academy (Cal Maritime)
- ABS Chair of Metallurgical and Materials Engineering at the Colorado School of Mines
- ABS Chair of Ocean Engineering at the University of California Berkeley (UC Berkeley)

- ABS Chair of Marine and Offshore Design Performance at the University of Michigan
- ABS Career Development Chair at the Massachusetts Institute of Technology (MIT)
- ABS Chair of Naval Architecture and Marine Engineering at the Webb Institute
- ABS Chair of Ocean Engineering at Texas A&M University

ABS CORPORATE GOVERNANCE

70

Board of Directors

70

Corporate Officers

71

Advisory Council



ABS CORPORATE GOVERNANCE

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Elizabeth D. Whitaker

Darryl K. Willis

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ABS GROUP OF COMPANIES, INC.

74

Powered by People,
Driven by Safety

75

Protecting Asset
Performance for
Resilient Operations

78

Defending the
Nation's Critical
Infrastructure

79

Leading Process
Safety and
Mechanical Integrity
Best Practices

82

Supporting
the Reliability
Transformation

83

Business Assurance
and Certification
Services

85

Smart Industrial
Solutions. Safer
Operations. Stronger
Supply Chains.



ABS GROUP OF COMPANIES, INC.

POWERED BY PEOPLE, DRIVEN BY SAFETY

In 2025, ABS Group of Companies, Inc. (ABS Group) — the parent organization of ABSG Consulting Inc. (ABS Consulting) and ABS Quality Evaluations, Inc. (ABS QE) and a subsidiary of the American Bureau of Shipping (ABS) — entered a new era of visionary leadership. ABS Group continued to exemplify reputational and operational excellence, providing risk management solutions and safety leadership to clients worldwide. Core offerings include certification and verification, advisory and program support, engineering analysis, cybersecurity, digital transformation and training.

ABS Group appointed David Wechsler, a recognized consulting industry leader with three decades of experience, as President and CEO in 2025. Wechsler has successfully built and scaled multiple consulting practices, demonstrating exceptional leadership in management consulting, delivery execution, sales strategy, operations management and integrated business technology systems.

This leadership transition propelled ABS Group into its next chapter of growth while maintaining its strong commitment to client service and technical innovation.

Celebrating 35 years of certification leadership, ABS QE also continued to make a lasting impact by supporting clients who demonstrated global excellence in sustainability, social responsibility and transportation.

The many achievements and client collaborations in 2025 contributed to ABS Group being named to Forbes' List of World's Best Management Consulting Firms, an accolade that joins previous honors in 2024, 2022 (America's Best Management Consulting Firms) and 2021. This designation highlights the enduring leadership of affiliated companies under ABS in delivering safety-driven solutions that are recognized globally. A trusted ally and national security advisor to the global government sector, ABS Consulting was also recognized for the third time as an OrangeSlices Elev8 GovCon honoree for its excellence in federal work in the United States (U.S.).

In alignment with the ABS mission to promote safety and security of life, property and the natural environment, ABS Group remained

steadfast in its commitment to help clients resolve their most pressing operational challenges. Through ABS Consulting and ABS QE, the organization delivered smart industrial solutions for safer operations and more resilient supply chains in the dynamic sectors of energy, government, life sciences, manufacturing, marine and offshore, and power generation. Its synergies with ABS to objectively validate technical safety, risk, quality and compliance management continued to support these global industries as well as the regulatory bodies that enforce the standards and requirements created to protect operational integrity and security.

For more than 50 years, ABS Group has served as a trusted safety and risk advisor for commercial markets and the government sector. By leveraging advanced technologies to create innovative solutions, consultants and assessors at ABS Group help to keep communities safe and industries secure in a changing digital world.



ABS Group CEO David Wechsler

Forbes
2025

WORLD'S
**BEST MANAGEMENT
CONSULTING FIRMS**

POWERED BY **statista**

ABS Group Again Recognized on Forbes 2025 List of World's Best Management Consulting Firms

PROTECTING ASSET PERFORMANCE FOR RESILIENT OPERATIONS

Critical infrastructure and assets must operate safely and compliantly in the highly regulated industries ABS Group serves. For marine and offshore operators and asset owners, digitalization offers competitive advantages while also introducing new risks. Always-on connectivity has increased exposure to cyber threats, making operations vulnerable to serious safety, financial and environmental consequences.

In 2025, the ABS Consulting Industrial Cybersecurity Practice monitored threats to client operations across the Marine Transportation System (MTS), ports and Outer Continental Shelf (OCS) facilities. Recognized industry

leaders delivered expert analysis and practical direction for understanding cyber risk management and how to comply with new and existing cybersecurity requirements from the U.S. Coast Guard (USCG), International Maritime Organization (IMO), International Association of Classification Societies (IACS) and other global regulatory bodies.

At the forefront of evolving regulations, ABS Consulting published industry-leading thought leadership papers, spoke on expert panels at international forums and launched an online training platform to help clients adhere to regulatory requirements and compliance deadlines.

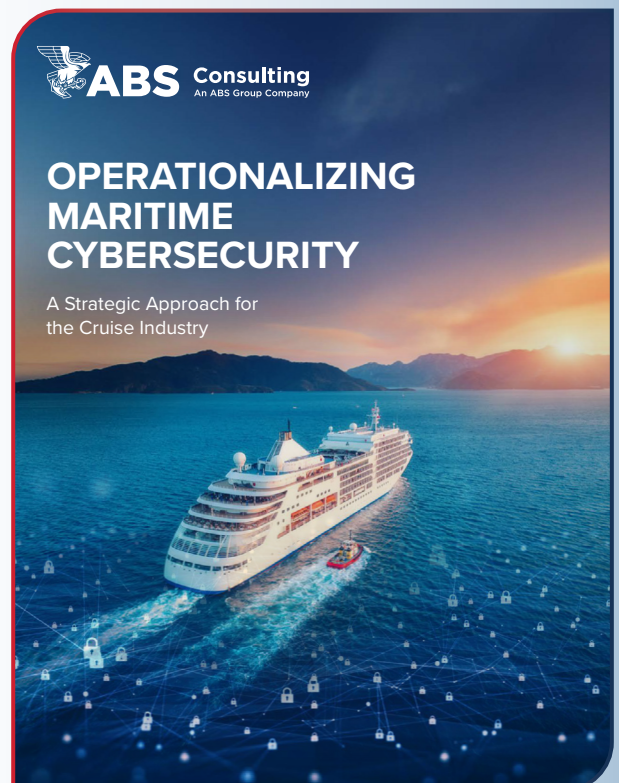
SPOTLIGHT

Cruise Cyber Resilience

Cruise cyber risk management was a major focus for ABS Consulting in 2025. Cruise industry specialists helped clients onboard cyber risk management programs for complex assets that operate like floating cities. For cruise lines, cybersecurity is fundamentally a safety issue — protecting passengers, crew and vessel operations from threats that could compromise critical systems. At the same time, cruise operators are integrating digital technologies to enhance guest experiences, which expands the attack surface and adds complexity to cyber risk management.

To support cruise shipowners and operators, ABS Consulting published *Operationalizing Maritime Cybersecurity: A Strategic Approach for the Cruise Industry*. This sector-leading insight detailed a recommended approach from the ABS Consulting maritime cybersecurity leadership that aligns cybersecurity initiatives with eight key operational principles, including human safety, marine resilience, guest services and regulatory compliance.

Cybersecurity is just one aspect of the risk management portfolio of services that ABS Consulting provides to cruise lines. Support for the cruise sector also includes risk assessments, safety management systems program development, feasibility studies and training, regulatory compliance, sustainability and asset life-cycle strategies,



project due diligence, and Hazard and Operability Studies (HAZOP) and Hazard Identification (HAZID) workshops.

ABS GROUP OF COMPANIES, INC.

PROTECTING ASSET PERFORMANCE FOR RESILIENT OPERATIONS

FACILITATING REGULATORY COMPLIANCE WITH TRAINING AT THE FOREFRONT

With cybersecurity requirements placing increased pressure on shipowners and their crews to demonstrate compliance in accordance with the USCG, IMO and other global regulatory deadlines, ABS Consulting brought together private and public stakeholders to discuss challenges and opportunities presented by the new regulations.

Cybersecurity leaders from ABS Consulting led talks at the 2025 Maritime Cybersecurity Summit, hosted by the MTS Information Sharing and Analysis Center (ISAC) with information about securing the next generation of digital ships and defending maritime operational technology (OT) systems from ransomware attacks, spoofing and other forms of electronic warfare. During the summit, ABS Consulting emphasized that expanding digital attack surfaces and increasingly sophisticated cyber threats are making robust cybersecurity an operational imperative for the industry. Rather than simply understanding cyber risk, organizations must translate that awareness into concrete action that protects lives, assets and critical port and vessel operations. Executive leadership for MTS-ISAC echoed this message, citing the critical role of the marine industry in global trade and the necessity for building a resilient maritime cybersecurity ecosystem.

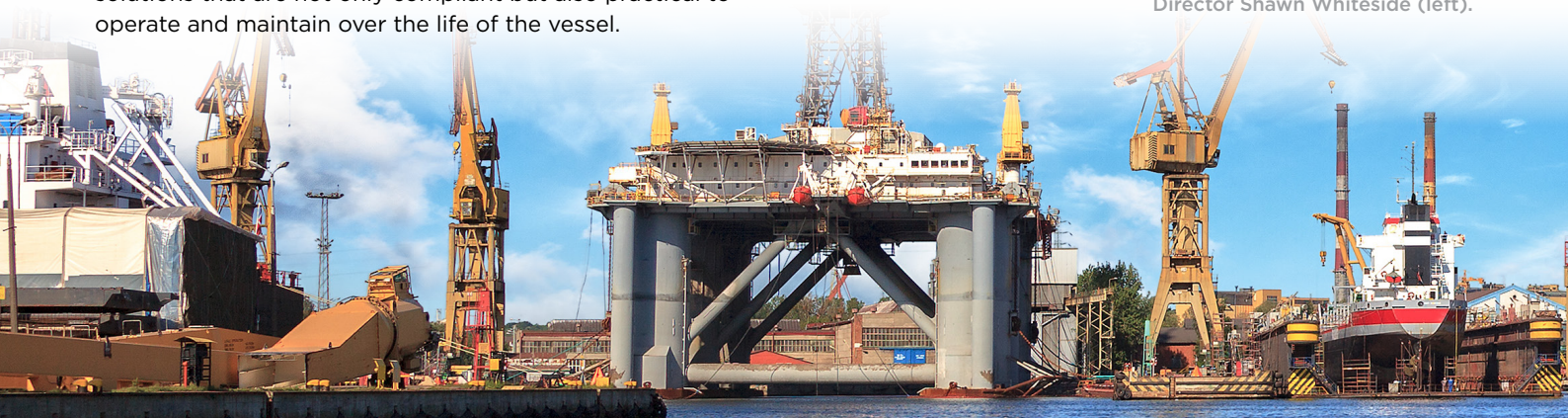
In 2025, the IACS Unified Requirement for Cyber Resilience of Ships (UR E26) introduced new demands for shipyards, system integrators and owners. Compliance spans every phase of the shipbuilding process, from design, construction, commissioning and into operations. As shipyards began to navigate the first phase of compliance, ABS Consulting maintained a pivotal role as a safety, risk and compliance management partner. Its Cybersecurity Practice published industry perspectives and presented on webinars and podcasts to advocate for a “secure by design” approach that supports shipyards as they take on the weight of UR E26 compliance.

Experienced cyber practitioners from ABS Consulting encouraged system integrators to regard compliance as a competitive advantage, working closely with owners, operators and classification societies to deliver security solutions that are not only compliant but also practical to operate and maintain over the life of the vessel.

In addition to forward-looking advisories and thought leadership, ABS Consulting launched an innovative digital training platform designed to help maritime professionals meet the current requirements of the Maritime Transportation Security Act (MTSA), which includes U.S.-flagged vessels, OCS structures and other facilities subject to MTSA regulations. The MTSA Cybersecurity Training Series offers role-based tracks aligned to 33 CFR 101.650: a Generalist Track covering threat recognition, reporting procedures and OT security practices for all personnel; a Key Personnel Track for those with incident response responsibilities or access to information technology (IT)/OT systems; and dedicated training for Cybersecurity Officers (CySOs). All tracks are delivered on demand with assessments and are refreshed annually to address evolving threats.



Michael DeVold (right), Senior Director of Maritime Cybersecurity at ABS Consulting, and MTS-ISAC Executive Director Shawn Whiteside (left).

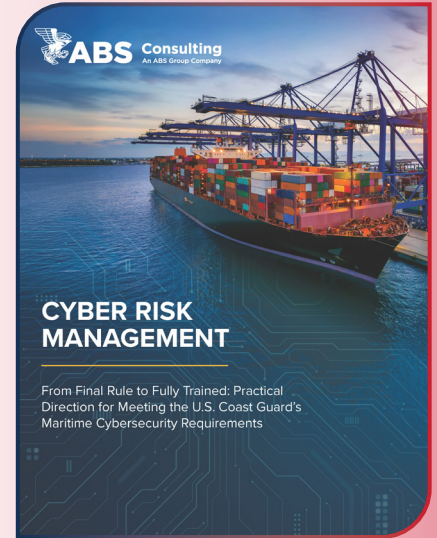


SPOTLIGHT

From Final Rule to Fully Trained

Authored by ABS Consulting in 2025, the industry insight *From Final Rule to Fully Trained: Practical Direction for Meeting the U.S. Coast Guard's Maritime Cybersecurity Requirements* breaks down the USCG's MTSA cyber regulations. This thought leadership paper focuses on training compliance as a critical first step. Additional sections detail the economics of operational readiness, understanding the agency's two-year timeline and why training forms the foundation for an effective cybersecurity program led by a Cybersecurity Officer (CySO).

ABS Consulting is committed to keeping the maritime community informed and vigilant as regulations evolve — and as cybersecurity remains a critical business imperative to protect the entire marine and offshore value chain into the future.



TRANSFORMING ASSET MANAGEMENT INTO ASSET INTELLIGENCE

Typically required every two to five years, drydocking is a traditional service that is essential for maintaining a vessel's safety, compliance and operational longevity. However, when a high-value marine asset such as a tanker goes into a drydock for routine inspections, critical repairs or system upgrades, costs can add up quickly.

ABS Consulting continued to provide enterprise asset management (EAM) and predictive maintenance strategies for critical assets, focusing in 2025 on helping clients minimize cost and complexity during planned downtime. Reliability engineers began advising shipowners and operators to consider an approach to convert a high-stakes process like drydocking into an opportunity to integrate real-time data, predictive analytics and compliance frameworks. With well-implemented EAM systems serving as the backbone of smart drydocking, operators can address challenges proactively for comprehensive, integrated and effective maintenance planning as well as life-cycle cost optimization and compliance. Better visibility into equipment health and maintenance history helps operators plan more accurately, execute faster and get vessels back to work on time and within budget.

In offshore environments, operators are navigating a complex landscape where aging infrastructure intersects with accelerating digitalization. Platforms designed decades ago now require integration with Industrial Internet of Things (IIoT) sensors, autonomous monitoring systems and advanced analytics — all while maintaining safety standards in increasingly harsh and remote operating environments. With digital tools transforming asset integrity management, solutions must go far beyond traditional maintenance protocols to meet tomorrow's demands for safety, reliability and integrity.

Keeping pace with rapid digitalization in 2025, ABS Consulting continued to support global offshore operators by conducting data-informed safety assessments and applying data-driven strategies for managing asset integrity. With many oil and gas wells and platforms around the world requiring intervention and decommissioning, ABS Consulting continues to support the offshore industry with robust asset intelligence programs for structural integrity, control system integrity and mechanical/machinery integrity.



ABS GROUP OF COMPANIES, INC.

DEFENDING THE NATION'S CRITICAL INFRASTRUCTURE

The ABS Group Global Government team has worked with key agencies for more than 25 years, providing data analytics, cybersecurity and risk management solutions that help defend the nation's most critical infrastructure. Its multidisciplinary team of risk analysts and consultants tackles some of the world's toughest challenges, innovating with clients to bring operational safety, reliability and efficiency in high-stakes environments.

In 2025, the Government team expanded its support to the U.S. Department of Transportation by delivering advanced data analytics, strategic communications and engineering analysis that strengthened transit, pipeline and rail safety, as well as other critical transportation safety missions nationwide. Leveraging deep maritime heritage and expertise, ABS Consulting expanded work in cybersecurity, incident investigation and program management support to the U.S. Navy, U.S. Coast Guard and the U.S. Maritime Administration (MARAD) — helping to advance maritime domain awareness, fleet readiness and innovative shipbuilding initiatives that underpin enduring U.S. maritime leadership.

The team secured positions on several strategic contract vehicles, simplifying access for government customers and reaffirming the relevance of services and capabilities. These awards include an OASIS+ Small Business and 8(a) contract for the joint venture, Snow Eagle Group, as well as a prime position on the Missile Defense Agency's Scalable Homeland Innovate Enterprise Layered Defense (SHIELD) IDIQ (Indefinite Delivery Indefinite Quantity) contract vehicle, supporting complex defense missions for the U.S. government.

As a testament to its excellence in the government contractor space, ABS Consulting also was recognized as an OrangeSlices' Elev8 GovCon Award recipient, marking the company's third consecutive year receiving this prestigious recognition. The Elev8 GovCon Award celebrates companies that exemplify excellence in eight critical areas in the federal government contracting (GovCon) sector, a space renowned for its complexity and competitiveness.



ABS Consulting was selected as an OrangeSlices' 2026 Elev8 GovCon honoree, marking the company's third consecutive year receiving this prestigious recognition. From left, ABS Consulting Business Development Manager Joe Civiello, Vice President - Government Programs Megan Weisgerber, Business Development Manager Carli Evantanto.

"This award further solidifies ABS Consulting's place among the most prominent in the federal government contracting landscape."

— Dave Wechsler, President and CEO, ABS Group of Companies

LEADING PROCESS SAFETY AND MECHANICAL INTEGRITY BEST PRACTICES

Global oil, gas and chemical operators are required to meet stringent mechanical integrity and process safety expectations. To that end, objective risk consulting remains a crucial part of effective safety, risk and compliance management, helping to reduce the likelihood and severity of future incidents in highly complex processing environments such as refineries, petrochemical and chemical facilities, gas processing plants and other midstream facilities.

ABS Consulting has helped protect industrial operations with recommended practices and hazard evaluations for more than five decades, establishing a credible track record of developing and implementing process safety programs, and executing process hazard analysis, facility siting studies and other assessments for oil, gas and chemical facilities as required by the U.S. Environmental Protection Agency (EPA) and Occupational Safety and Health Administration (OSHA) Process Safety Management (PSM) regulation, among other national and international regulatory agencies.

As a globally recognized leader in process hazard analysis (PHA) and incident investigation, the ABS Consulting Process Safety Practice led several technical presentations at the 2025 American Institute of Chemical Engineers (AIChE) 21st Global Congress on Process Safety (GCPS). ABS Consulting presented industry-recognized work helping facilities close critical safety gaps by addressing common PHA oversights, based on more than 40 years of field observations across the oil, gas and chemical sector. Additional topics included “Making Inherently Safer Design (ISD) a Vibrant Part of Corporate Risk Management,” “Process Safety Culture Leading Indicators: How Well Are They Understood and Used?” and “Analysis of Shared Devices Between the Safety Instrumented System (SIS) and Basic Process Control System (BPCS).” These published papers reinforce the importance of a proactive safety culture and continual improvement in risk reduction across processing operations, enabling owners and operators to better manage hazards, protect people and assets, and meet regulatory compliance.



ABS GROUP OF COMPANIES, INC.

LEADING PROCESS SAFETY AND MECHANICAL INTEGRITY BEST PRACTICES

SPOTLIGHT

Recognizing Project Excellence in Mechanical Integrity and Reliability

At AIChE's 2025 GCPS conference, ABS Consulting honored Ashland Inc., a global additives and specialty ingredients company, with the Project Excellence designation for their collaborative efforts to enhance mechanical integrity and reliability. The designation highlighted the success of a pilot project at an Ashland chemical manufacturing facility, where ABS Consulting leadership and a systematic, seven-step approach helped Ashland proactively address critical mechanical integrity challenges.

Through its collaboration with ABS Consulting, Ashland implemented a data-driven strategy to identify damage mechanisms, develop targeted inspection plans and enhance asset reliability. The pilot project addressed key integrity and reliability issues

while supporting regulatory compliance, operational efficiency and process safety performance. Aimed at driving operational excellence, this strategic collaboration reduced risk and downtime with a scalable framework for mechanical integrity, paving the way for a phased rollout of the program across Ashland's global sites.

ABS Consulting recognition of Ashland's project excellence underscores a commitment to enabling clients to operate safely, reliably and efficiently. By combining Ashland's vision with the technical expertise of ABS Consulting, the project set a new benchmark for mechanical integrity in the chemical processing industry.



ABS Consulting recognized Ashland for Project Excellence during the 2025 Global Congress on Process Safety (GCPS) in Dallas, TX. From left, Javier Castro, Director, Business Development at ABS Consulting, and Ray Vermillion, Asset Integrity Engineer at Ashland.

This initiative was about more than compliance. It was about ensuring the safety of our operations, the reliability of our assets and our responsibility to the communities in which we operate. ABS Consulting's leadership and systematic approach have been instrumental in helping us achieve these goals.

— Ray Vermillion, Asset Integrity Engineer, Ashland

IMPROVING PROCESS SAFETY, QUALITY AND CONSISTENCY FOR COMPLEX OPERATIONS

In 2025, ABS Consulting embarked on a multiyear project to support CITGO Petroleum, a U.S.-based refiner and distributor of transportation fuels, lubricants and petrochemicals, in improving PHA quality and consistency across its enterprise. This comprehensive PHA program exemplifies ABS Consulting process safety leadership and expertise providing best-in-class services for oil, gas and chemical companies that operate extensive assets across the U.S. and globally.

Building on decades of experience, ABS Consulting continued to conduct Hazard and Operability Studies (HAZOPs), Layers of Protection Analyses (LOPAs) and related safety studies to help operators evaluate the severity and frequency of hazardous scenarios, define and develop risk tolerance criteria and update safety procedures accordingly.

ABS Consulting helped to guide a global initiative with a United Kingdom-based power and propulsion systems manufacturer to standardize hazardous inventory risk management across 23 sites handling fuels and chemicals with varying regulatory requirements and safety cultures. Using a simple, visual Bow Tie methodology aligned with Center for Chemical Process Safety (CCPS) guidelines,

ABS Consulting developed standardized templates for key loss-of-containment scenarios, then tailored them with site-specific information to create 32 bow ties covering diverse hazardous inventories. A benchmarking and scoring system, supported by assurance data on barrier effectiveness and process safety performance indicators, enabled the client to compare practices globally, identify common gaps and prioritize targeted improvements. The work culminated in a portfolio-wide dashboard that enhanced visibility, consistency and strategic decision-making in process safety across the organization’s global operations.

To safeguard low-pressure storage tank systems operations, ABS Consulting principal engineers also shared risk-based insights around an industry phenomenon known as normalization of deviance, in which behaviors deviate from established procedures to achieve desired outcomes while appearing to improve productivity. When companies view tank system operations as “good enough,” this proves dangerous to prescribed safety integrity levels specifically designed to prevent overfills, overpressure, vacuum damage, freeze damage and other hazardous scenarios.

INDUSTRIAL CYBERSECURITY FOR ENERGY FACILITIES OPERATIONS

Cyber threats also pose a distinct risk to oil, gas and chemical facility operations, potentially leading to a wide range of production-impacting consequences including loss of view, loss of control, loss of availability, loss of safety and theft of information.

With attacks on the rise in industrial operations, ABS Consulting invested in additional technical leadership based in the Gulf Coast petrochemical and energy corridor — home to the largest oil refineries in the U.S. — to help facilities manage cyber risk. Clients gain practical solutions in energy OT cybersecurity to secure process automation and safety instrumented systems against emerging threats in accordance with National Institute of Standards and Technology (NIST), Cybersecurity and Infrastructure Security Agency (CISA) and Transportation Security Administration (TSA) directives, among others. The ultimate goal is to prevent cyber-induced failures in energy systems that could harm people, environments or economies in a critical hub that millions of people depend on every day.



ABS GROUP OF COMPANIES, INC.

SUPPORTING THE RELIABILITY TRANSFORMATION

IBM Maximo is an enterprise asset management (EAM) software platform that helps organizations track, maintain and optimize physical assets, work orders and maintenance operations throughout their life cycle. In 2025, IBM Maximo users faced a September deadline to transition to the Maximo Application Suite (MAS). With deep EAM expertise, ABS Consulting continued supporting IBM MAS implementation from the ground up, helping a range of industrial organizations upgrade their systems to further enhance asset management, improve operational efficiency and shift from reactive to proactive maintenance strategies.

IBM MAS is a critical piece in the digital transformation to Industry 4.0, with more companies turning to advanced EAM systems to gain better visibility into their most critical assets.

Every manufacturer, particularly in the highly regulated Life Sciences sector, aspires to maintain safe, reliable and efficient operations — and to produce high-quality products in a compliant manner while getting life-saving medicines and devices to market faster. Committed to advancing the Life Sciences by fostering collaboration and knowledge-sharing that helps to shape a more efficient and impactful future for this vital sector, ABS Consulting hosted the third annual Life Sciences Maximo Summit in November 2025. The three-day event brought together industry experts and Maximo users from the world's largest global pharmaceutical organizations to explore Maximo and uncover its features, functionality and validation, enabling them to implement asset management strategies that help increase uptime and ease regulatory pressures.

SPOTLIGHT

Driving Innovation in Enterprise Asset Management

Another major development for ABS Consulting in 2025 was announcing its strategic collaboration with Ultimo, an IFS company and provider of EAM software. This alignment focuses on delivering transformative solutions that optimize asset performance, reduce operational risks and drive measurable cost benefits for industrial businesses worldwide.

Through end-to-end implementation, seamless data integration and ongoing support for Ultimo's cloud-based EAM platform, ABS Consulting tailors solutions for global clients in manufacturing, logistics and energy as they transform operations from reactive to predictive maintenance to reduce costs and prevent downtime.

In December 2025, Ultimo won the prestigious Best Asset Management Innovation Impact Award at the

International Maintenance Conference, affirming that ABS Consulting stays closely aligned with reliability leaders that have a relentless commitment to transforming EAM through innovation.

ABS Consulting also partners with Hexagon's Asset Lifecycle Intelligence Division to help clients strengthen asset performance and manage operating risk using Hexagon's HxGN EAM and HxGN APM technologies. Combining ABS Consulting enterprise asset management expertise with Hexagon's scalable, mobile-friendly and analytics-driven platforms, the partnership enables predictive maintenance, improved visibility into asset health, and reduced downtime and maintenance costs. ABS Consulting provides end-to-end implementation, data solutions and ongoing support to help achieve seamless integration and operational excellence.



SPOTLIGHT

Risk-Based Inspection

A key pillar of the ABS Consulting mechanical integrity program is Risk Based Inspection (RBI). The RBI program encompasses a risk assessment and management process dedicated to managing loss of containment as a result of material deterioration and degradation. ABS Consulting helps clients manage these risks through equipment and structure inspection, guided by a combination of data gathering, risk analysis, inspection planning and documentation.

In 2025, ABS Consulting supported an offshore client with the structured rollout of semi-quantitative RBI programs for both piping and pressure across its floating production, storage and offloading (FPSO) fleet. All work was aligned with applicable American Petroleum Institute (API) RBI standards, class expectations and the client’s internal RBI methodology and digital ecosystem. ABS Consulting delivered a consistent, class-ready RBI framework tailored to the client’s internal workflows, templates and Integrated Database Management System (IDMS) configuration.

Projects such as this provide measurable outcomes in the form of improved safety, efficiency and return on investment. The client is equipped with a single, scalable approach that can be replicated across their fleet and modified as assets age and regulatory requirements evolve.



BUSINESS ASSURANCE AND CERTIFICATION SERVICES

DELIVERING 35 YEARS OF CERTIFICATION LEADERSHIP AND GLOBAL IMPACT IN QUALITY, ENVIRONMENT, SAFETY AND COMPLIANCE

ABS Quality Evaluations (ABS QE), the management systems certification subsidiary of ABS Group, reached a significant milestone in 2025 as it celebrated 35 years of delivering trusted assessments and certification services to organizations around the world. Since its founding, ABS QE has been dedicated to assuring quality and safety across industries, helping businesses to meet the highest standards and build confidence with their stakeholders.

During the past three and a half decades, ABS QE has conducted thousands of audits and delivered certifications to companies operating with integrity, efficiency and compliance. From manufacturing plants in Asia to service providers in the Americas and Europe, the global reach of ABS QE has made an incredible impact — supporting organizations as they navigate complex regulatory environments and strive for continual improvement.

A cornerstone of our mission is to deliver impartial, reliable and internationally recognized certification services by helping to ensure that our assessments and certifications are conducted to the highest standards and giving clients — and their customers — confidence in the quality and safety of their products and services.”

— Dominic Townsend, President, ABS Quality Evaluations

ABS GROUP OF COMPANIES, INC.**BUSINESS ASSURANCE AND CERTIFICATION SERVICES****ADVANCING TRANSPORTATION COMPLIANCE AND INNOVATION**

Effective January 1, 2025, the IATF 16949:2016 global standard underwent a series of changes to further improve quality management and customer satisfaction in the automotive industry. The ABS QE global automotive technical team deployed online training programs to support manufacturers in understanding the updated IATF requirements and allowing assessor teams to conduct comprehensive audits to help achieve compliance. This included certifying German manufacturer INOVAN in obtaining this important certification for all its plants worldwide.

SPOTLIGHT**Making History with Space Exploration Milestone**

Now an out-of-this-world certification leader, ABS QE was instrumental in supporting commercial space exploration and innovation by certifying Firefly Aerospace's aerospace quality management system leading into its historic lunar landing mission.

ABS QE verified that Firefly's operations met the rigorous quality and safety standards required for high-stakes space missions, resulting in AS9100 certification for the space innovator's Cedar Park and Briggs, Texas, facilities. Blue Ghost Mission 1 successfully delivered NASA scientific payloads to the Moon in March 2025.





ABS Quality Evaluations (ABS QE) celebrated 35 years of delivering trusted auditing assessments and certification services to organizations around the world.

OPTIMIZING ASSET MANAGEMENT PRACTICES FOR SUSTAINABILITY

In 2025, ABS QE proudly certified Petrobras to ISO 55001 for its 13 thermoelectric plants, marking a significant milestone in the energy sector. This Asset Management certification highlights Petrobras’ commitment to operational excellence and sustainability by recognizing the company’s ability to unify and optimize asset management practices across facilities with distinct technologies, operational profiles and local cultures.

LEADING FORUMS ON GLOBAL SOCIAL RESPONSIBILITY

To demonstrate its commitment in supporting organizations in their journey toward sustainable and socially responsible operations, ABS QE Mexico proudly participated in a workshop hosted by Social Accountability International (SAI) in Guadalajara, Jalisco, in recognition of World Day Against Child Labor. The event held in June 2025 focused on the progress of global supply chain due diligence regulations and introduced key updates to the upcoming SA8000:2026 standard, the leading accredited framework for corporate social responsibility. Companies, consultants, certification bodies and SAI representatives convened to exchange insights and provide feedback on the revised SA8000 standard.

ABS QE’s outreach and cross-collaboration show strong commitment to guiding organizations in understanding and meeting ever-evolving regulatory and ethical expectations, while also fostering accountability across global supply chains.

Additionally, ABS QE was the only Chilean certification body invited to participate in the 2025 Energy Week organized by OLADE (Organización Latinoamericana de Energía) held in Chile, alongside representatives from 27 countries and key national authorities. This distinction was closely tied to active participation of ABS QE in amplifying the role of women in energy leadership.

SMART INDUSTRIAL SOLUTIONS. SAFER OPERATIONS. STRONGER SUPPLY CHAINS.

Throughout 2025, ABS Group applied smart consulting and certification solutions for safer, more reliable and efficient operations amid regulatory challenges and an evolving digital landscape. Award-winning consultants and assessors represented best-in-class services across a range of industrial and government projects, closing another successful chapter for one of the world’s most trusted and valued safety and risk advisors.

ABS GROUP OF COMPANIES, INC. CORPORATE GOVERNANCE

88

Board of Directors

89

Corporate Officers



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Dennis M. Houston

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Vice President and Chief Financial Officer

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Vice President, General Counsel and Secretary



ABS WAVESIGHT

92

Leading Industry into
a New Era of Digital
Partnering



ABS WAVESIGHT

LEADING INDUSTRY INTO A NEW ERA OF DIGITAL PARTNERING

ABS Wavesight™ is the ABS affiliate maritime software-as-a-service (SaaS) company dedicated to helping shipowners and operators streamline compliance while maintaining competitive, more efficient and sustainable operations. With products installed on more than 5,500 vessels worldwide, it has become an industry leader, building on a unique mission to develop world-class software products that help drive safer, more sustainable and higher performing fleets.

2025 marked a major milestone for ABS Wavesight, the brand for ABS Digital Solutions LLC, in terms of both its business and its mission. The year culminated in the release of new and improved tools, designed to help users navigate the complex operational and commercial challenges in the maritime industry. While these challenges stem primarily from evolving regulatory, operational and sustainability demands, digital solutions play a central role in addressing them effectively. Selecting the right technology partner has become increasingly critical amid the growing volume of data and decision complexity in the maritime sector.

This new era of collaboration was highlighted in March at the Wavesight Vision and Value Summit in Singapore. The unveiling of product updates and enhancements to ABS Wavesight Nautical Systems™ (NS), Carbon Diligence (which would later become part of the ABS Wavesight Advantage™ platform) and eLogs was accompanied by a full day of activities in which Wavesight users, industry stakeholders and regional experts engaged in interactive sessions addressing such critical issues as regulatory compliance, operational efficiency and sustainability, while exploring how cutting-edge software can drive smarter, more resilient maritime operations.

Recognizing that responsive, comprehensive software tools are key to satisfying many new regulations, in July, Navios Maritime Partners announced its selection of ABS Wavesight to support compliance with the FuelEU Maritime Regulation (FuelEU) and European Union Emissions Trading System (EU ETS) requirements.

FuelEU and the EU ETS are regulatory measures that aim to decarbonize maritime transport in the EU. The ETS is a market-based measure that sets tank-to-wake emissions limits and GHG emissions allowances that are continually reduced on a yearly basis. FuelEU targets the well-to-wake greenhouse gas (GHG) intensity of a ship's energy use, introducing three key requirements including reduced GHG intensity of the energy used on board, with incentives for the uptake of renewable and sustainable fuels.

In the announcement, Navios representatives noted ABS Wavesight's advantages of offering "an integrated platform and unified digital solution that automates reporting

processes, provides on-demand emissions validation and voyage emissions statements, leading to seamless data transmission to ABS for statutory verification."

The abundance of digital information has also given birth to an era of challenging new needs for owners, operators and managers, chief among them the need to seek long-term cooperation that looks beyond traditional software solutions toward building digital partnerships with providers whose products and methodologies can evolve alongside their fleets. This necessarily involves a shift from today's manual processes, siloed data and reactive approach to compliance toward a future of increased automation, predictive analytics, real-time insights and anticipatory risk management geared toward helping decision-makers navigate increasingly complex regulations obscured by data fog.

It is this combination of mounting needs that energized the drive behind the landmark development in 2025 of a new platform named ABS Wavesight Advantage™. Released in early September and showcased at the ABS Wavesight Global Vision and Value Summit in October, Advantage is a model for the maritime optimization tools of the future, offering a unified platform combining such tasks as emissions benchmarking, real-time validation and digital compliance workflows, with additional feature sets focused on the areas of safety and performance on the way.

Key benefits provided by ABS Wavesight Advantage include: a breakdown of data silos providing real-time, validated data across fleets; seamless management of such key tasks as emissions pooling and compliance; an Intelligent Core that provides artificial intelligence (AI)-driven insights to help optimize decision-making; a flexible SaaS architecture that scales with fleet size and digital strategies; and, overall, a future-ready platform that transforms accumulated data into actionable insights.

That is one reason why, soon after the Summit, the Navilands Group chose Wavesight to provide a single integrated platform to help streamline its FuelEU and EU ETS compliance program. Navilands has begun implementing ABS Wavesight's Carbon Diligence suite within the Advantage platform across its fleet of bulk carriers.

The Global Vision and Value Summit also saw the introduction of NS version 7.0.0, which brings enhanced security, faster workflows and more reliable ship-to-shore data management — a digital lifeline for an industry drowning in endless streams of information.



ABS WAVESIGHT

Altogether, longtime users gathering at the summit agreed that NS 7 is perhaps the industry's most comprehensive and reliable software suite for getting critical jobs done.

Most notable among the advantages cited was that the new NS 7 operates at higher speeds while maintaining needed stability, data integrity, consistency and reliability for critical business processes.

Representatives from Thenamaris (Ships Management) in attendance at the summit noted that the improvements delivered with NS 7 in tandem with dedicated collaboration and deep industry knowledge are what makes ABS Wavesight unique, saying "to stay ahead, we need a software provider that evolves with us; that's why we value strong business collaborators with a solid understanding of our industry who are ready to respond quickly when problems occur. ABS Wavesight distinguishes itself from other providers by being more than just a software

company. Their deep understanding of the shipping industry, rooted in their close collaboration with parent company ABS, gives them unique insights that most software firms simply can't match."

NS 7's highlights include a buildout of purchasing and maintenance capabilities, including boosts to speed and precision in procurement, document management, financial controls and audit preparation features, with added data integrity-oriented enhancements to work order, inventory order and purchase order workflows.

The release of NS 7 followed the earlier release of NS-Web, an internet-based set of modules that builds on the robust foundation established by the highly successful on-premise NS software suite, improving access and refining overall usability.



SPOTLIGHT

NS-Web Chosen to Anchor the Digital Future of the Military Sealift Command

The United States (U.S.) Navy’s Military Sealift Command (MSC) became early adopters of ABS Wavesight’s NS-Web, and in the early part of 2025, began its fleetwide implementation in earnest.

For three decades, the NS software suite has been known as an industry-leading on-premise fleet management system built of multiple operations and support modules that combine to deliver comprehensive asset and compliance management solutions. The web-based version, NS-Web, retains the features and functionality that made NS software a trusted solution across the maritime industry, but is delivered through an internet-based platform that improves flexibility, expands access and streamlines everyday use.

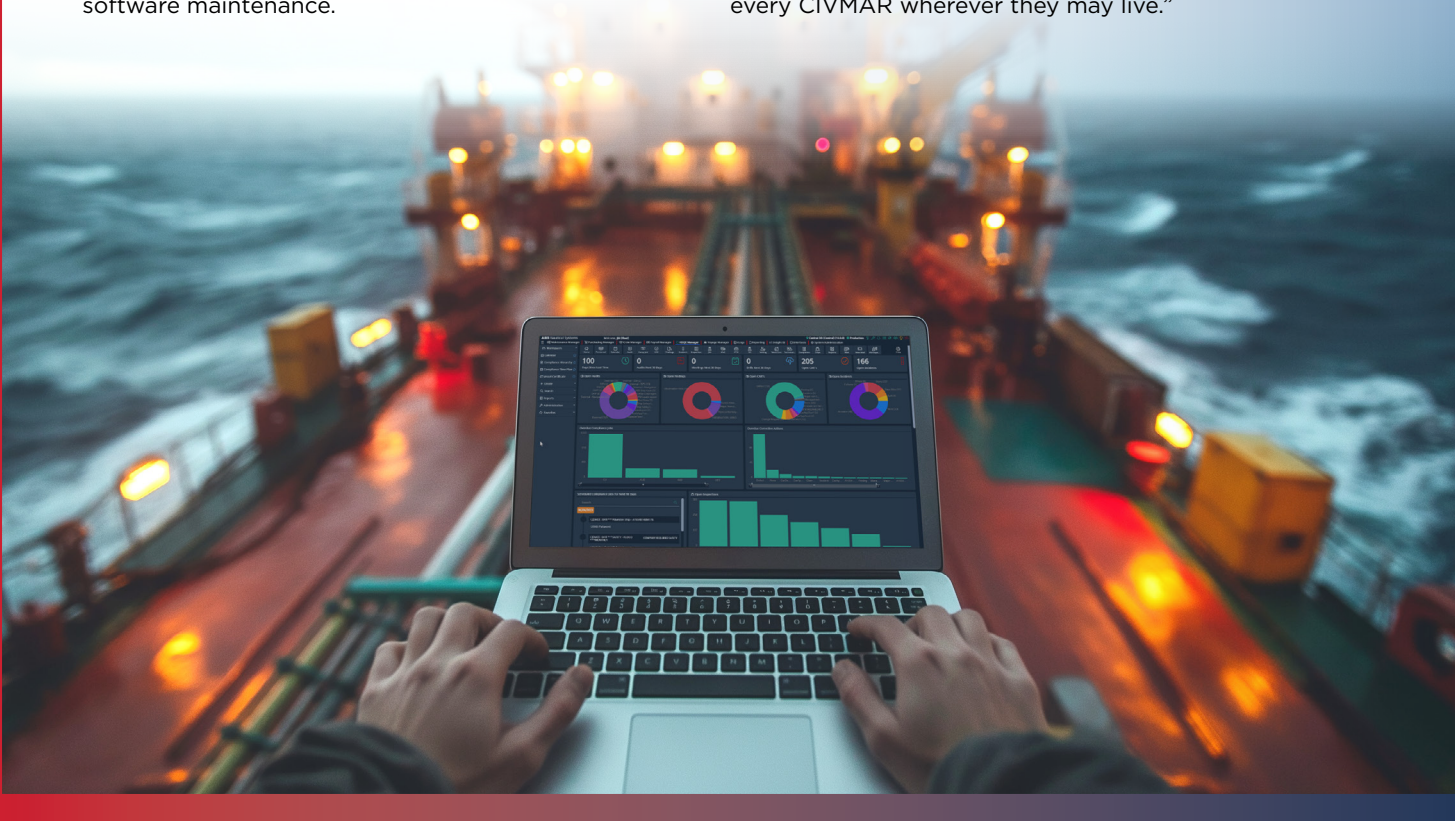
Among the chief benefits derived from the web-based nature of NS-Web are:

- 1. Global accessibility.** This makes critical fleet management tools available from any location through internet-connected devices, whether the user is at sea or onshore, which frees users from the need for on-premise servers and provides real-time access to data, thereby enhancing both response time and the speed at which critical decisions can be made.
- 2. Simplified IT Management.** By eliminating on-premise installations and the sometimes complex updating they require, NS-Web reduces cyber maintenance burdens on IT departments. Updating delivery through a cloud-based infrastructure allows users to focus on core operations rather than software maintenance.

- 3. Enhanced Collaboration.** Being internet-based, NS-Web facilitates collaboration across teams, departments and geographies, fostering better organization-wide communication and coordination.
- 4. Scalability and Flexibility.** Without on-premise systems to switch out and modify, NS-Web can evolve in step with the evolution of fleets and organizations and also help users keep pace with the changing demands of rapidly evolving regulatory regimes.
- 5. Industry Certified Cybersecurity.** NS-Web is supported by ABS Wavesight’s cybersecurity systems, which have achieved SOC2 Type I and SOC2 Type II attestations and ISO27001 certification.

Gregg Pelowski, former Director for Total Force Management with the MSC explained that, as it builds on the robust foundation of the well-known on-premise NS software, NS-Web provides the same powerful fleet management features and functionality but with the flexibility, accessibility, and scalability of a web-based solution.

“Nautical Systems is a key component of our overall management strategy to revolutionize every aspect of MSC’s Civil Service Mariner (CIVMAR) program, helping us simplify and drive efficiency across our growing fleet of Combat Logistics and Fleet Support vessels,” he said. “When fully implemented, this modern, cloud-based system, will streamline our fleet management process, enhancing our ability to scale and optimize operations as we provide reliable, web access from ship to office to every CIVMAR wherever they may live.”



ABS WAVESIGHT CORPORATE GOVERNANCE

98

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2025

ANNUAL REVIEW

World Headquarters

1701 City Plaza Drive
Spring, TX 77389 USA
1-281-877-6000
ABS-WorldHQ@eagle.org
www.eagle.org

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