

# VeriSTAR NEWS MARINE



**BUREAU  
VERITAS**

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SMM is set to launch September 4-7 in Hamburg, Germany. With that in mind, there's no better time to discuss some of the latest maritime industry developments, such as future fuels and digitalization.

We at Bureau Veritas are proud to help lead the way on exciting fuel innovations. The recent order for nine ultra-large containerhips using LNG as fuel follows the first dedicated LNG bunker vessel, the first ferry with tanks inside the hull and the first conversion of a containerhip to LNG as fuel.

As vessels become increasingly smart and reliant on digital systems, both cyber safety and security have become a major concern for shipowners. That is why we have developed a new series of class notations, guidelines and services.

We bring added value to our clients by acting as a competent partner in innovations and by minimizing the risk in the introduction of new marine technologies. Visit us at SMM Booth 101, Hall B3, Ground Floor, to discuss how you can benefit from our expertise and experience.

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Courtesy MSC

## BUREAU VERITAS INNOVATES IN SUPPORT OF PAX SHIP MARKET

Picture yourself on the new cruise ship Le Lapérouse, sitting in its Blue Eye lounge, where wide windows offer you stunning visions of undersea life. This breathtaking experience is part of Ponant's new BV-classed Explorer series of cruise lines, which was delivered by Vard in June.

Bureau Veritas helped make the Blue Eye reality with strength analysis and risk assessment for the windows, which are situated 2.5 m below the waterline. The project involved a multi-disciplinary team-based risk analysis led by Bureau Veritas experts.

The Blue Eye work is just one of many ways that Bureau Veritas is taking a leadership role in classification for the expedition cruise market sector. In Spring 2018, steel cutting of the newbuilding for Sunstone took place at CMHI shipyard in China. Classed by Bureau Veritas, it is the first cruise ship built by CMHI, and is based on the Ulstein CX 103 design.

Meanwhile, MSC and Chantiers de l'Atlantique announced that a fifth Meraviglia class ship and two new World class ships have been ordered to BV class. All will be LNG-fueled. This World class series will feature an innovative straight bow to further improve stability and guest comfort. In addition, it has state of the art navigational equipment in anticipation of forthcoming safety rules. With the assignment of the Bureau Veritas HYBRID READY notation, energy storage systems can be installed in the future. The first World class ship will be delivered in 2022.

The cruise ship market overall is booming: there are now 112 passenger ship newbuildings on order, with deliveries scheduled as far out as 2027. The orderbook can be currently divided into two streams: large vessels over 100k GT; and expedition vessels, of which there are now 30 on order.

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## FINDING NEW WAYS

**Maritime transport is undergoing a veritable sea change. Perhaps this is nowhere more evident than in Europe, where new European Commission policies aim to create new “Motorways of the Sea.” These new shipping lanes are intended to develop more eco-friendly transport that reduces overall congestion and improves commercial efficiency.**

Madrid-based Grupo Suardiaz is helping lead the charge through its advanced fleet of roll-on/roll-off (ro-ro) car carrier vessels. “We’ve always worked to adapt ourselves to new technological advances,” says Juan Riva, CEO of Suardiaz, which provides shipping services for clients in Europe, Africa and South and Central America.

With the ro-ro fleet, Suardiaz is instrumental in developing the Motorway of the Sea between Northern and Southern Europe and North Africa. “It started with a ro-ro car carrier from Vigo to Saint-Nazaire,” Juan says. “Now, we’re extending the lanes down to Morocco and other North African ports.”

Innovation and partnership is nothing new for Suardiaz, which has grown over the decades into one of the most important maritime companies in Spain. It covers all maritime activities, including ship owning, logistics and terminals, while always keeping a clear eye out for future trends.

With new sulfur cap limitations ready to go into effect in 2020 in Europe, Suardiaz stands ready to provide solutions. “Ship owners have basically three options,” says Juan. “In order to get below the 0.5% sulfur cap, they can either use scrubbers, use low-sulfur fuel, or switch to liquefied natural gas (LNG). Scrubbers need constant maintenance, and low-sulfur fuel is too expensive. LNG will be cheaper in the future, and I believe there will be high demand for it.”

Suardiaz is developing LNG-ready bunkering barges, classed by Bureau Veritas. “We are working closely with Bureau Veritas on this,” Juan says. “We’re always looking for innovators, and other class societies I tried in the past were not able to offer that knowhow. So, about 10 years ago, I switched to Bureau Veritas. They not only help from the point of view of inspection and certification, but they can really bring a creative element to the table. And as a matter of course, they make sure we comply with all regulations.”

“We’re always looking for teams that can bring a good technical background and experience when we come up with new solutions,” Juan says. “We have that with Bureau Veritas. We don’t view them as just an ‘external provider.’ We see them as a true strategic partner.”

[www.gruposuardiaz.com](http://www.gruposuardiaz.com)



**Juan Riva**  
CEO, Grupo Suardiaz

## AIP FOR GTT'S NEW LNG CARRIER DESIGN

Following on the DSEC/GTT design of a 6,500 m<sup>3</sup> bunker barge that received an Approval in Principle (AiP) last June, Bureau Veritas recently granted an AiP for a new LNG carrier design developed by GTT. The new design is a 180,000 m<sup>3</sup> LNG carrier with four membrane tanks utilizing Mark III Flex technology. This membrane insulation system is designed to keep the laden boil-off rate under 0.085% of cargo volume per day.

Like many of the new constructions recently signed by South Korean yards, the ship design is based on a twin-screw configuration with slow-speed dual fuel engines that offer a technically feasible and economically optimal propulsion solution for LNG carriers. In addition, the ship’s fully flexible 48 m beam design enables it to transit through the Panama Canal.

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## PRAXIS TOOL HELPS GENERATE AND MAINTAIN IHMS

Shipyards, vessel owners and operators will soon be responsible for developing, certifying and maintaining an Inventory of Hazardous Materials (IHM) to accompany the ship throughout its life. To support its clients in preparing IHMs, Bureau Veritas is creating a new digital IHM compliance and reporting tool.

Named Praxis, the user-friendly application will help IHM experts, surveyors, shipyards and ship owners in the IHM process and validation. It encompasses development, laboratory analysis reporting, and verification, as well as maintenance and client communication regarding IHM related updates.



With a first version issued in August and intended for IHM experts, the mobile app's functionalities include creation of inspections and on-board checking/tagging/sampling, report generation, and Neptune connection for automatic collection of ship data. A V2 is scheduled for October with upgrades including client access and laboratory reporting functions.

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## LASHING RULES GET REFRESHED

In September 2018, Bureau Veritas is releasing updated lashing rules and software for containerships. This follows upgrades in the methodology and calculations of lashing loads. Results were validated on in-service containerships, of sizes ranging from 3,000 TEU to 20,600 TEU, by direct FE calculations.

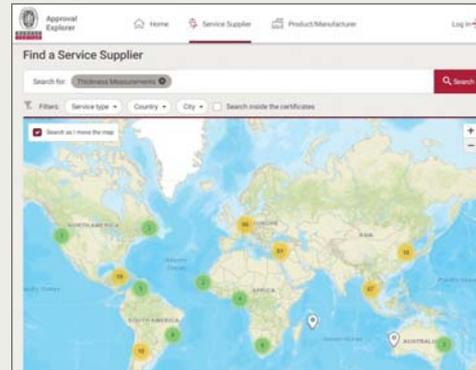
Bureau Veritas' advanced lashing methodology and calculation tools provide an accurate simulation of the complete lashing system. Hence the realistic structural behavior of all main components—twist locks, lashing devices, lashing bridge, etc.— can be considered.

Key to this update is that the elastic behavior of the lashing bridge is not represented by fixed displacements. Instead, equivalent reduced stiffness is considered for the lashing devices that are attached to the lashing bridge. This is an important aspect: in the absence of the above realistic approach, resulting lashing loads distribution may vary.

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## APP HELPS OPERATORS FIND CERTIFIED SUPPLIERS AND MANUFACTURERS

Approval Explorer is a free, responsive and user-friendly web application that helps ship operators and ship designers identify, locate and contact Bureau Veritas-certified service suppliers or manufacturers, as well as type approved equipment and materials, all around the world. A map display makes it easy to find the nearest service suppliers when arriving at a port.



Users can combine keywords through the app's powerful search engine to quickly find the appropriate results. Those results can be further refined through advanced filters.

With manufacturer and supplier approval, authenticated users can download a full certificate copy, making it possible to search inside the certificate itself for more accurate results.

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## NEWS IN BRIEF...

■ **Bureau Veritas recently joined a SIGTTO working group** to address floating LNG installations. It aims to identify and assess the risks associated with the installation location and operations to ensure guidance to mitigate any safety concerns. The group will evaluate the existing applicable guidance and develop additional guidance as needed.

■ **LNG industry experts will gather in Barcelona for Gastech 2018.** Alongside shipyards DSME and HHI, Bureau Veritas is proud to present on the subjects of innovative projects involving LNG carriers

and FSRUs. We will also speak during a session on small-scale LNG vessels.

■ **Bureau Veritas has launched new STARBOAT software** for checking hull structure scantlings of cargo ships less than 65m and non-cargo ships less than 90m. With this new software, which is free for download on [veristar.com](http://veristar.com), designers can easily check scantlings of their vessels with a user-friendly and very comprehensive software package.



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## BUREAU VERITAS DEVELOPS POLAR CODE GUIDELINES

Since the IMO Polar Code came into force on 1 January 2017, Bureau Veritas has received several enquiries for support by ship owners of existing tonnage operating in polar areas.

The IMO Polar Code contains requirements related to safety and environment aiming to provide safe ship operation and to protect the polar environment by addressing the specific risks present in polar waters.

Based on the IMO requirements for ships constructed before 1 January 2017, and Bureau Veritas' experience in risk studies, Guidelines for Existing Ships operating in Polar Waters (NI 650) were published in May 2018.

These guidelines are intended to support ship owners, shipyards and Administrations in defining the applicable statutory framework depending on several factors like operating area, ice class and time of operation – thus assisting the marine industry moving into polar waters safely and responsibly.

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## DIGITAL FRIGATE MODEL DISPLAY AT EUROMAR

The Euronaval Exhibition will be held October 22-26, 2018. Alongside partners Dassault Systems and Naval Group, Bureau Veritas will present a digital model of the 3D classification of the future French frigate. Please come by our booth at F20 to learn about new developments and have a look at FABHELI's new, innovative composite propeller concept.



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## NEW PROCEDURE ALIGNED WITH NR 614



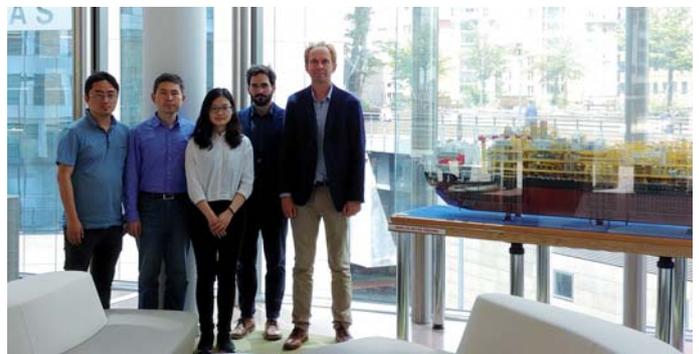
After a series of exchanges with stakeholders on the subject of NR 614, Bureau Veritas has defined a new underwater noise measurements procedure that is in line with ship in-service constraints. Bureau Veritas' specialists worked with key partners to create the new procedure, a cost-efficient solution that maintains a high level of accuracy. Typically, for a 20-knot sailing container vessel, ship immobilization time is divided by three with one passage instead of two, plus two U-turns and realignments.

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## MARIC COLLABORATES ON HULL CALCULATION SOFTWARE

MARIC is developing a hull section design optimization program for its own needs. The shipyard has selected Bureau Veritas MARS 2000 software as their preferred scantling calculation tool for Common Structural Rules for Oil Tankers and Bulk Carriers. As a result, Bureau Veritas and MARIC are now working together on interfaces between both software. To advance the project, engineers from MARIC recently spent one week in Bureau Veritas' Head Office in Paris.

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