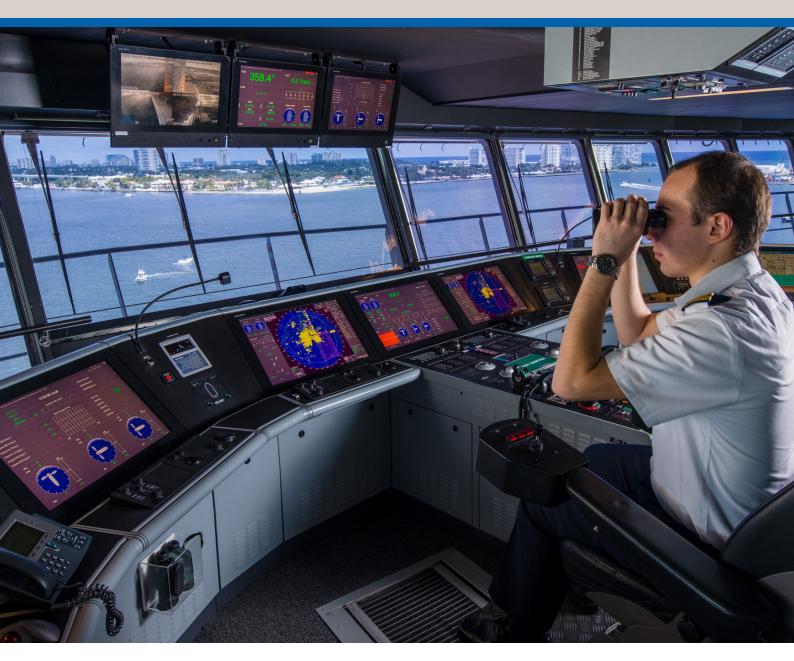
## **Sperry Marine**



# **Integrated Bridge Systems**



Maximising Navigational Safety and Efficiency

# Maximise your situational awareness with the greatest convenience

Full integration of (chart) radar, ECDIS, conning information display, machinery control alarm system.

When you need to maximise your shipboard efficiency and safety, Northrop Grumman Sperry Marine's Integrated Bridge System is the ultimate solution. Our intuitive system provides excellent performance and reliable navigation in extreme conditions, by bringing together data from all on-board systems and navigation sensors.

Using modular, open design architecture, any combination of VisionMaster FT navigational equipment can be integrated to provide an efficient bridge design for any vessel. The modular system fully integrates third party equipment to enhance and maximise the feature set of the VisionMaster FT IBS.

Northrop Grumman Sperry Marine is a world-leader in providing integrated bridge systems for commercial vessels, with a solid foundation of expertise in installing and commissioning systems for both new vessels and retrofit projects

When you purchase an Integrated Bridge System from Northrop Grumman Sperry Marine, you are not simply buying a product. You are acquiring a tailor-made system designed to meet your specific requirements.

## **Key benefits**

The Integrated Bridge System provides many important benefits, including:

- Improved safety
- Greater convenience
- Total flexibility
- Increased efficiency
- Full support
- Type-approved performance

#### **Improved Safety**

When safety is your priority, you can depend on the IBS function of total network sensor integration to deliver enhanced situational awareness. Reliable sensors support the core navigation system with all relevant data, which is distributed and monitored by a fully redundant data and alarm management system.

An uncomplicated display presentation simplifies and streamlines navigational tasks. It is designed for easy operation to allow maximum time for observation and decision-making.

Common responsibilities such as safe navigation, route planning, navigational status monitoring, log-keeping, alarm awareness and day-to-day chart management are made easy through common workstation layouts via harmonised menu structures.



Integrated Bridge System on board the Allure of the Seas

#### **Greater Convenience**

Our integrated bridge consoles offer the ultimate in ergonomic design for ease of operation and maintenance, with the multi-function workstation TotalWatch using widescreen, highresolution monitors for greater visibility and situational awareness.

Each workstation can be configured to show images for the ship's radars, electronic chart systems, conning information, closed-circuit TV images, chart radar, and central alarm management.

Based on open design architecture, our man/machine interface (MMI) provides comprehensive machinery, control and propulsion information. The modular console design and uniform PC platform structure of the VisionMaster FT translates to complete control in IBS design for the customer.

Reliability is further enhanced through flat menu structures to ensure that the mariners has access to all vital navigation information. This provides reduced workloads for watch keepers and allows them significant freedom to move about the bridge, confident that all necessary information is easily available in a variety of selected displays and locations.

## **Total Flexibility**

Based on our successful range of VisionMaster FT products, the Integrated Bridge System is designed for all types of vessel, from tugs, oil tankers to containers and cruise ships. The system is also fully adaptable to meet the specific needs of all sea-going vessels and the particular requirements of customers.

### **Increased Efficiency**

We have designed the IBS to improve the operational efficiency of all your navigation requirements. The multifunction workstation ensures that any function is available easily and conveniently.

The IBS shares the same intuitive user interface as the VMFT range, having the same panel layout and menu structure. Route plans, mariners' notes, charts, radar video and vector presentation are shared between the systems, ensuring consistency of information throughout the bridge system. The uniform presentation of menus and on-screen targets enhances safe and efficient operation.

## **Full Support**

We recognise that the integration of a range of products into a fully functioning system requires comprehensive support and project management.

Our service begins with the design and supply of products in the VisionMaster FT range, some of which you may already have. We can help you select any other products you need, and will then work closely with you to design and prepare your own IBS, combining the functions of our own navigational

#### Full life-cycle support

- Consultation
- Project management
- Design and supply of VMFT products
- Systems engineering

- Logistics
- Console design
- Installation supervision
- Sea trials
- Commissioning

equipment and that of other manufacturers.

We will work with you to prepare initial shipyard drawings for the planning and system integration and will follow this with every aspect of design, up to installation and commissioning, and final ship's acceptance. We will provide a single point of procurement, to help make the process as convenient and transparent as possible. We can also offer whatever training you may require.

## **Type-Approved Performance**

Northrop Grumman Sperry Marine's VisionMaster-based Integrated Bridge Systems are all IMO compliant, meeting the certification requirements of all major international organisations, standards and notations, and satisfying all customers' specific carriage-, classand flag state requirements.

- Acceptance testing
- Crew training
- After-sales service
- Extended Warranty

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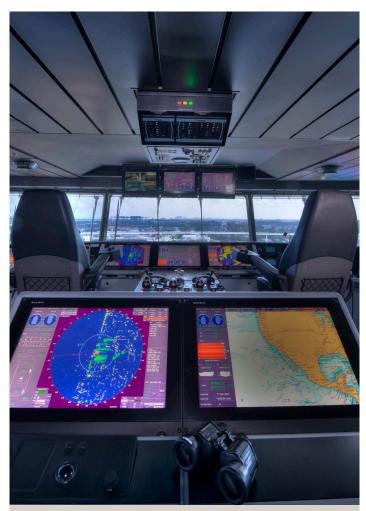


### 24/7 Support

After your system is installed, as with all Northrop Grumman Sperry Marine systems and products, it will be supported by one of the world's most extensive worldwide service networks, with help available around the clock,

24 hours a day, 365 days a year. Our global service network provides prompt shipboard maintenance and repair services in every major seaport in the world.

We also offer comprehensive maintenance contracts, as well as support for our products for at least ten years after any is discontinued, so providing continuing peace of mind to all our customers.



Northrop Grumman Sperry Marine's Integrated Bridge System

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A division of the Northrop Grumman Corporation, Sperry Marine provides a range of sophisticated navigation solutions for mariners around the world: autopilot and steering control systems, compass systems, integrated navigation and bridge systems, integrated platform management systems, speedlogs, navigation radar and ECDIS. Working with mariners around the globe for over 100 years.

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