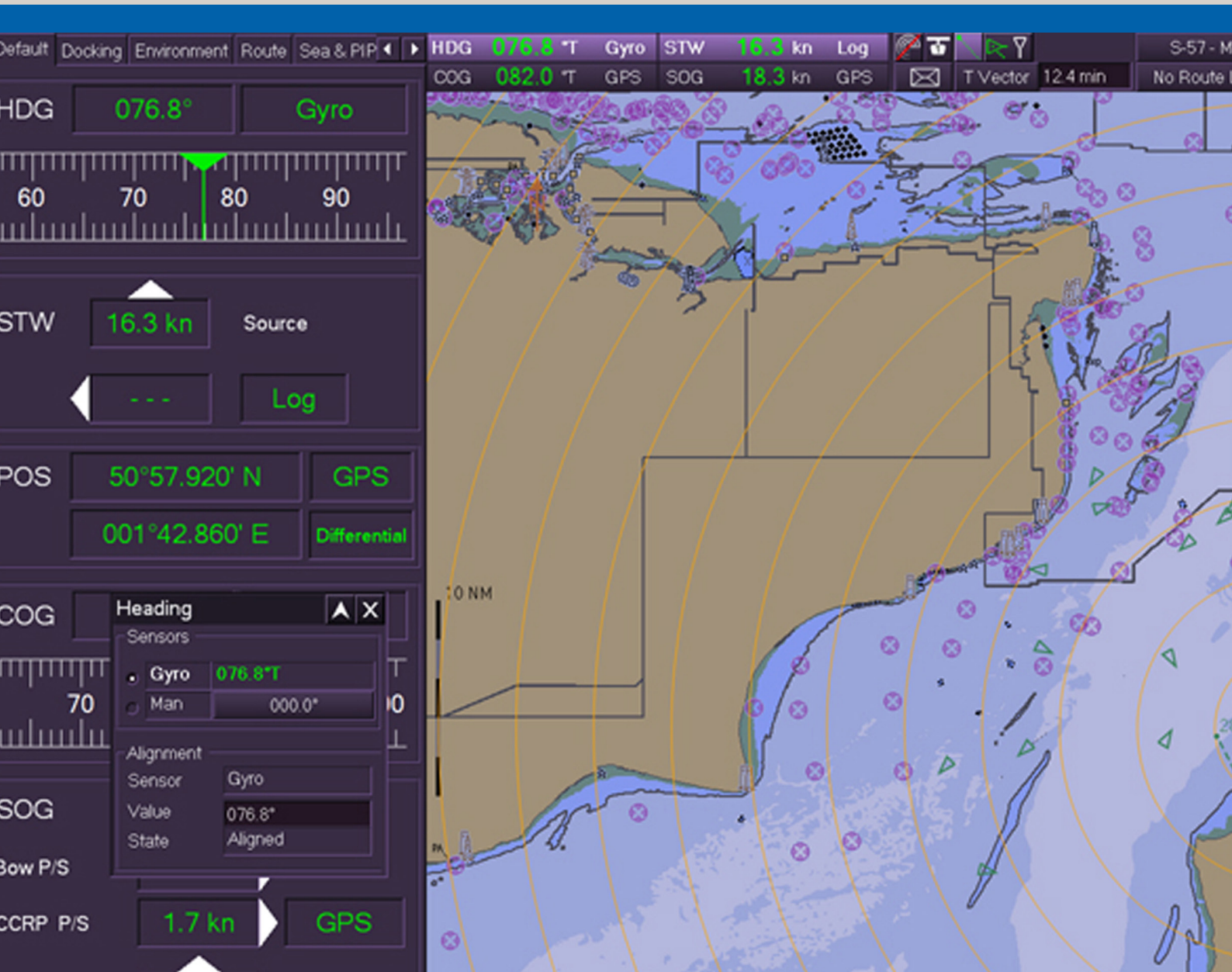


Sperry Marine

VisionMaster FT ECDIS



Efficient and Safe Route Planning

VisionMaster FT ECDIS

Start your journey with the VisionMaster FT ECDIS

A unique electronic chart display and information system, providing effective support for safe and easy route planning.

The VisionMaster FT ECDIS (electronic chart display and information system) offers you a complete solution for easy route planning and paperless navigation. The VisionMaster FT ECDIS is simple to operate for any type, size or class of ship, whether new build or retrofit. Developed with the varying needs of different users in mind, the VisionMaster FT ECDIS is designed and manufactured to the highest performance standards.

Features & benefits

The ECDIS provides many important benefits, including:

- Fast, accurate route planning
- Improved safety and efficiency
- Ease of operation
- Flexible functions and upgradability
- Flexible configurations
- Exceeds IMO performance standards

Fast and accurate route planning

The multiple chart display system allows charts in vector or raster formats to be displayed simultaneously, enabling fast and accurate route planning and execution in all seas. Alternative routes can be added and displayed during the voyage, and waypoints can be moved, added or deleted quickly and easily.

Charts

Charts can be displayed in different formats and in all presentation windows, including S63 (encrypted S-57) and Digital Nautical Charts (VPF) as well as Jeppesen and Admiralty charts. The ECDIS automatically associates radar and automatic identification system (AIS) targets to minimise mistaken identity and simplify watch standing.

Improved safety and efficiency

The unique display format, with intuitive user controls, offers the watchkeeper a complete navigation solution allowing for immediate response to virtually any situation.

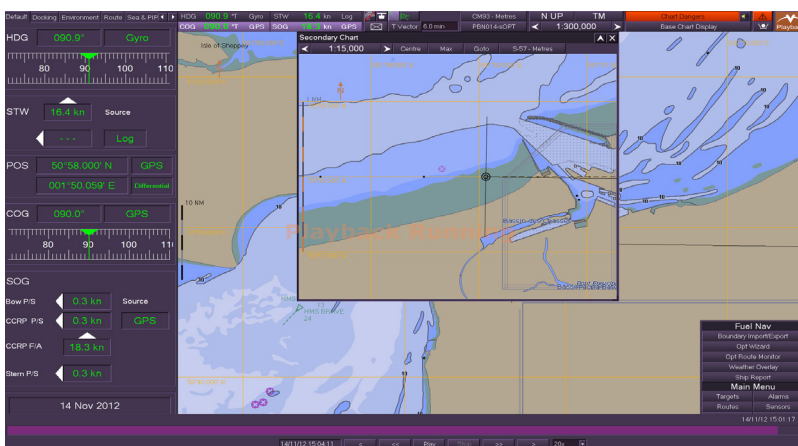
The high-resolution type-approved VMFT ECDIS is designed to improve navigation safety whether navigating confined channels or charting courses on the open seas.

The VMFT ECDIS display offers various functions to ensure safety and efficient navigation:

- Range of chart scales from 1:8,000,000 to 1:500 via manual and automatic selection
- Range of presentation modes from bright light to dusk and night, for optimum usability
- Stabilised representation such as north-up and course-up
- Unconditional custom zooming for quick scale changes
- Off-centring by selecting maximum view ahead, re-centring, panning, offsetting and 'go to' latitude/longitude positioning

Various screen modes are available:

- Picture-in-picture mode to display secondary chart as separate movable and scalable window.



Picture in Picture Screen Mode

- Split-screen (vertical or horizontal) with independent scale or area of interest

Ease of operation

The VMFT ECDIS will display exactly the information you require, in a clear and uncluttered format, reducing the risk of accidents. The navigational process is streamlined to reduce confusion and risk, enhancing situational awareness. The clever design of graphic interface and colour coding allows you to assess data at a glance, and enjoy stress-free navigation.

Providing high standards of navigation, the VMFT ECDIS allows users to create, edit, safety-check and monitor routes. A range of features can be accessed, such as up to 100 adjustable positions, geographically-referenced objects, variable range markers (VRM), electronic bearing line (EBL), electronic range and bearing line (ERBL).

Flexible functions and upgradability

Recognising that you have different needs over time, we have incorporated a simple built-in upgrade path, to upgrade the ECDIS with new features or to a complete TotalWatch multi-function workstation.

Optional upgrades for VMFT ECDIS include:

- Radar overlay
- Multiple CCTV connections
- Route-based speed control
- Track control
- Fuel navigator
- Predicted areas of danger (PADs)
- Propulsion control
- Third party application support
- 3D vision sonar terrain

Fuel Savings

An additional, optional, feature is the Fuel Navigator, a voyage decision support system that we have developed to provide savings on ships' fuel costs, by optimising route, speed and engine mode. The system uses an intuitive interface that integrates with the VMFT ECDIS system.

Radar Overlay

The VMFT ECDIS offers practical radar overlay, when interfaced with Northrop Grumman Sperry Marine radars. The optional radar overlay is displayed without obscuring priority objects of vector charts, increasing situational awareness. Furthermore, it provides flexible functionality that allows connection to a wide range of navigation equipment to acquire additional information.

Instant help

We have incorporated an extensive, context-sensitive iHelp facility, which allows the user to quickly search the operator's manual or access information relevant to the functions on the ECDIS screen.

Personalised settings

Each officer can have their own personalised operational settings for voyage plans, which can be saved and taken from watch to watch, or vessel-to-vessel, ensuring continued operator efficiency and vessel safety.

Configurations

The ECDIS may be configured to suit different vessel needs and operational requirements, providing Deck Standing options with a 25.5", 23" or 19" screen, or a 19" Tabletop option or Kit Format compact console.

The VMFT ECDIS is easy to install, whether in new-build or as a fully-compatible retrofit.

TotalWatch

The multifunction VisionMaster FT TotalWatch easily displays radar, chart radar and ECDIS in any combination and configuration to suit different navigational situations.

The TotalWatch offers complete control and flexibility for bridge manning.

Type approved performance

The VMFT ECDIS provides a complete IMO-compliant type-approved electronic chart display and information system meeting the following requirements:

- IEC 61174 Ed 3
- IEC 62288
- IEC 62065
- IEC 60945
- IEC 61162

The VMFT ECDIS provides advanced capabilities for voyage planning and chart management. It is the digital alternative to paper nautical charts when installed with a backup ECDIS.

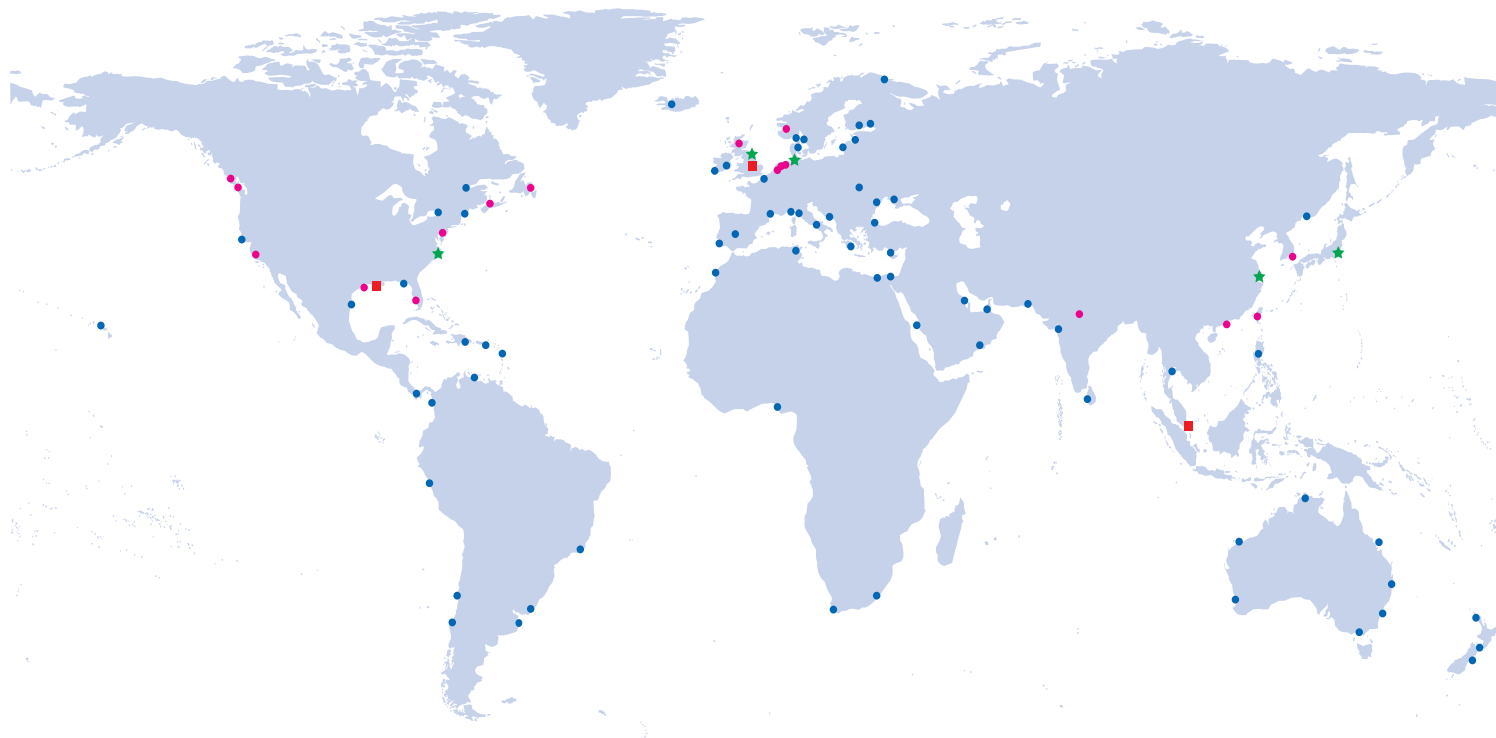
ECDIS training

Northrop Grumman Sperry Marine provides free licences for Type Specific ECDIS training courses via the e-learning specialists Safebridge. Safebridge offers certified online VisionMaster FT Type Specific ECDIS training to meet the requirements of the industry.

Northrop Grumman Sperry Marine also works together with training providers around the world for classroom, on-board or on-site training.

24/7 Service

The VMFT ECDIS, like all Northrop Grumman Sperry Marine systems and products, is 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 all products for at least ten years after any is discontinued, so providing continuing peace of mind to all our customers.



● Sperry Marine Service/Sales locations ● Sperry Marine Service Agents ■ Regional Head offices ★ Gyrofin offices

For more information, please contact:

AMERICAS

New Orleans, LA USA
Tel: +1-504-328-9171

ASIA

China, Shanghai
Tel: +86-21-5179-0199
Hong Kong, Sheung Wan
Tel: +852-2581-9122
Japan, Tokyo
Tel: +81 (03)-3863-7401
Singapore
Tel: +65-6274-3332
South Korea, Busan
Tel: +82-51-247-7455
Taiwan, Kaohsiung
Tel: +886-7-33-17-786

CANADA

Nova Scotia, Halifax
Tel: +1-902-468-9479
British Columbia, Vancouver
Tel: +1-604-821-2090

EUROPE

Belgium, Antwerp
Tel: +32 (0)3233-1433
Denmark, Copenhagen
Tel: +45 (0)77-33-6633
Germany, Hamburg
Tel: +49 (0)40-299-000
The Netherlands, Vlaardingen
Tel: +31 (0)10-445-1600
Norway, Bergen
Tel: +47 (0)55-94-9494
United Kingdom, London
Tel: +44 (0)20-8329-2000

www.sperrymarine.com

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 bridge and platform management systems, speed/velocity logs, navigation radar and ECDIS. Working with mariners around the globe for over 100 years.