

## Fleetwide Navigation and Tactical Solutions

Surface and subsurface capabilities for tactical advantage



### **No other WECDIS delivers:**

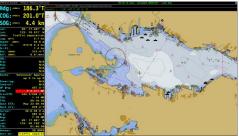
- Superior GNSS Denied performance allowing for close inshore operation for extended periods without external sensor inputs
- Optimized agnostic sensor integration providing efficient installation for new builds and upgrades
- Performance-based fleet-wide WECDIS commonality that ensures crew readiness and safe and secure navigation
- Third-party type approval against the highest WECDIS standards

## **Electronic Chart Precise Integrated Navigation System**



power by **ECPINS** 

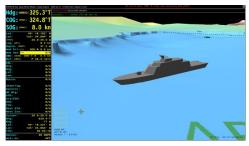


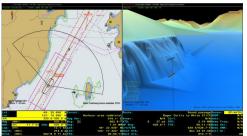


#### **Designed for military use**

ECPINS is designed explicitly for the demanding, multi-faceted, and mission-critical tasks of the military navigator. Developed over decades by naval professionals in continuous consultation with active-duty naval personnel, ECPINS is today the pre-eminent tool for navigation and situational awareness on military vessels.

ECPINS exceeds NATO's WECDIS STANAG 4564 specification with additional capabilities such as digital radar control, manoeuvring tools, collision avoidance advice, small craft coordination, and aircraft operations safety envelopes.





### Subsurface application

ECPINS has capabilities that are ideally suited to undersea position determination, navigation planning, and chart display. Moreovever, sub-specific sensors can be brought to bear, such as periscope, mast status, passive listening devices, and INS positions.



OSI offers a variety of optional software capability modules and features that extend ECPINS's main capabilities in navigation and situational awareness.

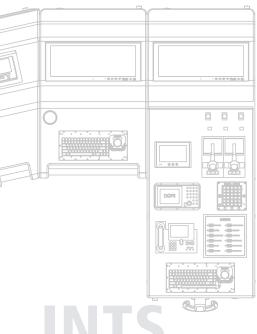
Customers have the option of purchasing any selection of these modules for fleetwide or platform-specific use.

## software of a high standard

ECPINS enables the navigator to navigate a warship with precision and safety using all the vessel's sensors to plot its position on a powerful electronic chart display supported by enhanced situation awareness in the form of overlaid radar imagery, contacts, and operational areas.

ECPINS complies with all major electronic chart system standards, including those of the IHO, IEC, and IMO. Its IMO ECDIS compliance is certified by an independent testing agency. Yet ECPINS's capability is well beyond that of a commercial-grade ECDIS.

OSI offers a variety of optional software modules that extend ECPINS's main capabilities in navigation and situational awareness. A customer can purchase any selection of these for a specific vessel, vessel class (surface or subsurface), or fleet.



### **Integrated Navigation and Tactical System**

INTS is a fully scalable, International Maritime Organization (IMO) and NATO STANAG 4564 compliant **Integrated Navigation Bridge System (INBS)** that offers a flexible design able to meet the requirements of the most demanding military environments. INTS provides a comprehensive and cost-effective bridge suitable for new builds or existing platform retrofits enabling warships to operate effectively in the most difficult conditions.

## TDNS Tactical Dived Navigation System

TDNS is specifically designed to meet the challenges of the **underwater battlespace** and increase submarine safety and tactical capability.

TDNS can be fully integrated with third-party hardware system architecture or supplied with a standalone console option. TDNS has also been successfully interfaced with various submarine-specific Combat and Fire Control Systems, making it an extremely low-risk and attractive solution to submarine navigation.

### T-ACT Tactical Asset Control and Tracking

Versatile and fully scalable solution, T-ACT is a **small-boat, command, control and information system** that supports maritime domain awareness. The system is highly adaptable and can be used throughout a multitude of operational scenarios. Robust in design, and cost effective through considered use of COTS equipment, T-ACT provides a real alternative to other proprietary and often expensive solutions.

## systems

OSI Maritime Systems has been providing advanced integrated navigation and tactical solutions to military customers for over 20 years. As a pioneer of **Warship Electronic** 

Chart Display and Information Systems (WECDIS), the company has grown to be a leading provider of integrated navigation and tactical solutions designed for naval and maritime security operations.



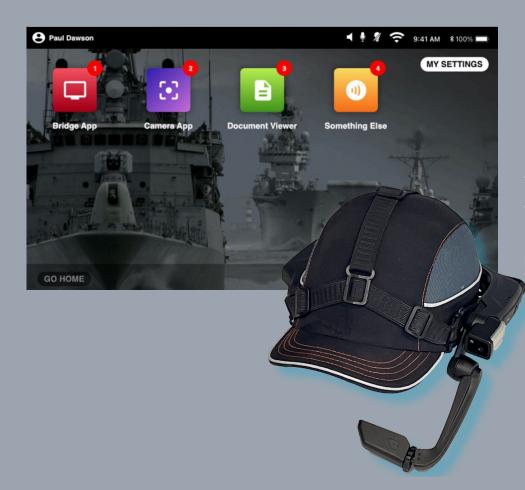
## IMMS

Integrated Mission Management System

IMMS is a Tactical Mission C2 system tailored for Patrol Boats, Oceangoing Patrol Vessels and Auxiliaries executing patrol missions and occasionally supporting low-end warfare.

It is built on OSI's ECPINS and features dedicated software functionality modules for Patrol Missions, Above Water Warfare support, Under Water Warfare support and Amphib Support. Necessary hardware, sensors and, if applicable, effector systems and integration complete the full integrated solution.





## NOMAD

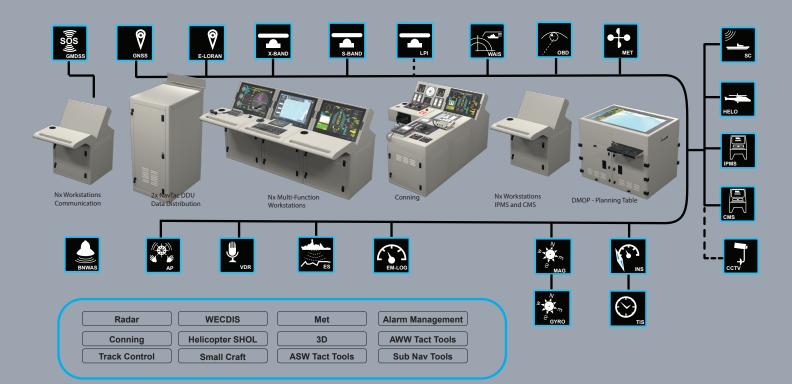
Naval Operations Mobile Augmented Display

NOMAD Eyewear System enhances Bridge Navigation and Situational Awareness (NAVSA) in all military environments; for Pilotage, Bridge Watch-keeping, Force protection, and for ship-wide NAVSA.

The Eyewear also delivers platform and reach-back Engineering support, for all engineering sections in situations where OEM presence cannot be assured.



## INTS





## Integrated Navigation and Tactical Systems (INTS) designed for warship navigation and tactical advantage.

OSI is leading the military Integrated Navigation and Bridge Systems (INBS) market. OSI's core offering, Integrated Navigation and Tactical Systems (INTS) builds upon OSI's ECPINS software, augmenting its advanced tactical navigation capabilities with integration of sensors and sub-subsystems - ensuring safe navigation in any circumstance or environment.



## **OSI** Maritime

### **Experienced in Warship Navigation Like No Other**

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A WECDIS pioneer, OSI has grown to be a leading provider of integrated navigation and tactical solutions designed for naval and maritime security operations, developing and delivering integrated bridge systems for warships, integrated-dived navigation systems for submarines, and C2 systems for small craft.

OSI's INBS solution, INTS (Integrated Navigation & Tactical System), a scalable, IMO and NATO STANAG 4564 compliant integrated bridge, offers a flexible design for the most demanding military environments and is suitable for new builds or retrofits. For WECDIS requirements, the company offers ECPINS Warship, an IMO Approved ECDIS that meets the NATO WECDIS STANAG 4564. OSI's subsurface Tactical Dived Navigation System (TDNS), for submarines, can be fully integrated into third-party hardware or supplied by OSI as part of a complete navigation system. T-ACT (Tactical Asset Control and Tracking), a C2 plus navigation system is designed for small craft, RHIBs, and helicopters used in maritime security operations.

### safe & secure

Over 25 naval customers from worldwide with more than 700 warships and submarines rely on OSI's integrated navigation and tactical solutions for safe and secure navigation.

## **Global Integrated Navigation Expertise**

| 8x RCN AOPS               | 2x RAN AOR          | 1× RCN AOR                   | 3x TNI-AL Corvette             |
|---------------------------|---------------------|------------------------------|--------------------------------|
| <b>.</b>                  |                     |                              | (Indonesia)                    |
| 2x RNZN ANZAC             | 3x Chilean Navy T23 | 3x South African Navy<br>OPV | Portuguese Navy MPV            |
| 2x RCN JSS                | 4x Saudi Corvette   | 30x FGN Combatant            | 5x Polish Navy MCM             |
|                           |                     | Preservation -               |                                |
| 3x Undisclosed LPD        | 12x RAN OPV         | 11x Undisclosed OPV          | 3x NL/BEL M-Frigate<br>Upgrade |
| 5x RCN Surface Combatants | 3x Polish Miezcnik  | 6x FGN Frigates              | 3x USN LCS                     |



# Beyond Tactical Advantage

OSI offers more than just capabilities that exceed expectations and performance. Embedded in all OSI solutions is a DNA that uniquely defines our leadership in the naval navigation market:

### **Type Approved WECDIS since 2010**

ECPINS was the first WECDIS to be type approved against NATO STANAG 4564 in 2010 and has held that standard longer than any other WECDIS on the market. No other WECDIS can demonstrate that kind of commitment to safety and security.

### **Commonality from C2 to Integrated Bridge Systems**

All OSI solutions offer an interface with a common look and feel from, the small craft T-ACT, a C2 system, to OSI's warship integrated bridge systems (INTS). The commonality provides efficiencies in training, crew size, and operational costs, and above all else a familiarity that allows crews to move from one platform to another in ease and tactical efficiency.

### Security is of Primary Importance

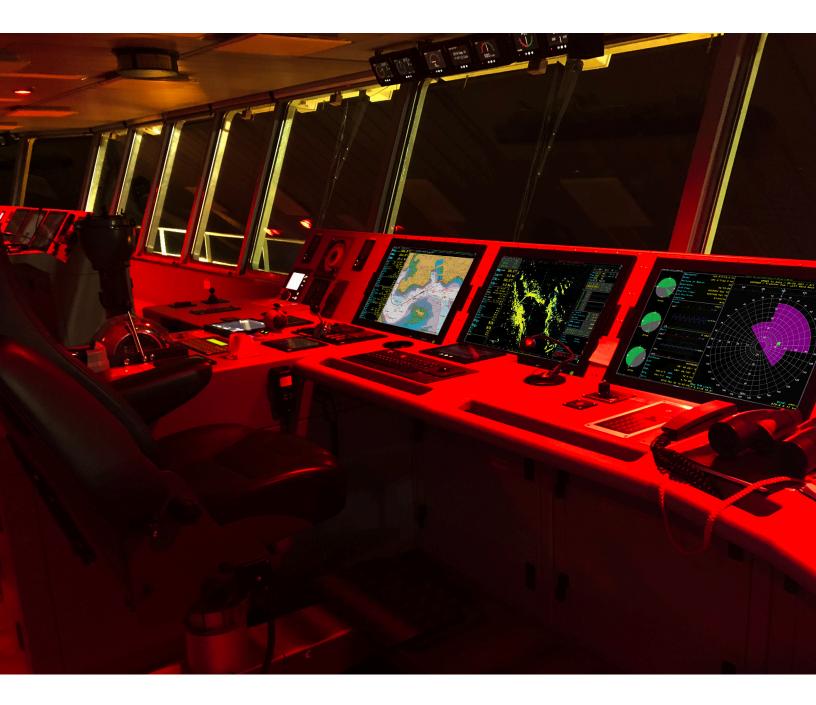
OSI is committed to ship and crew safety and security by adhering to the highest standards of product development. One way we accomplish this is through ECPINS's proprietary chart engine. The engine is developed by OSI, not a 3rd party, and in this way OSI ensures a closed environment protected against external threats.

### Solutions with a Naval Pedigree

OSI has one focus: to provide Integrated Navigation and Tactical Solutions that enhance our Naval Customers' operational capabilities, security, and safety. OSI systems are uniquely designed for military use only. The implication is that experts develop OSI solutions based on naval requirements, designed for the demands of naval operations, and provide a superior advantage when needed.

### **Canadian Company**

As a Canadian company, we must adhere to some of the highest standards set for businesses anywhere in the world. We follow government rules and requirements that ensure our policies and procedures are current and that we're operating at the same level wherever we are doing business globally. Implicitly this drives OSI's approach to how we meet customer needs from the early stages of system design to customer support.



The cost of adopting a navigation system doesn't end at the initial purchase. The cost of ownership over the life of a system can be many times the acquisition cost. Our customers receive maximum benefit and lower through-life costs.

To sustain our bridge solutions, OSI provides a full range of tailored Support Solutions. We have a heritage and expertise in Integrated Logistic Support (ILS) combined with an in-depth knowledge of Availability, Reliability and Maintainability (ARM) methodologies. This enables us to design project specific support solutions that maximize Availability at a manageable and measurable Whole Life Cost (WLC).

ILS

# Worldwide Support, Service and Installation Network

OSI is dedicated to providing customers with best in class customer support, service, and installation. Our 24/7 support line provides customers with the peace of mind that an Offshore Systems technician stands ready to support their queries.







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