



Tactical Dived Navigation System

Submarine Navigation

The Leading Subsurface Solution from New Builds to Retrofits



Operational on Over 60 Submarines and 15 Classes



TACTICAL DIVED NAVIGATION

Submarine navigation is one of the ultimate tests in naval defence. OSI has designed an innovative submarine solution to address this need. As a result of decades of experience and working with some of the most advanced NATO and Allied submarine fleets, OSI's Tactical Dived Navigation System (TDNS) brings submarine navigation to a new level with its leading system integration solutions and flexible system architecture.

Operational on over 60 Submarines and 18 Classes, TDNS allows subsurface navigation to go beyond the limits of surface navigation by unimaginable measures. Through the Power of ECPINS, TDNS safely navigates the submarine in its normal 3-dimensional state of maneuvering through confined waters, restricted depths, or a combination of navigation hazards above or below the surface.

Combat Management System Integration

ECPINS® has been integrated with all major combat management systems. Exchange of Position, Navigation and Time (PNT) data as well as tracks, water space management areas and other information. Able to provide bespoke solutions for User requirements, such as Mine Like Objects from Forward Looking Avoidance Sonar. Can generate and receive NATO FORMAT operational Messaging, including SUBNOTES.

TDNS combines the most advanced navigation and tactical capabilities to safely navigate the submarine through demanding and diverse operational requirements. With TDNS, the submarine is ready to perform seek-and-destroy missions on enemy ships and subs, surveillance and reconnaissance, irregular warfare, covert troop insertion, mine and anti-mine operations and more.

From New builds to mid-life upgrades and retrofits, TDNS fits all applications. Over 20 years of experience and close cooperation with shipyards make OSI uniquely positioned to provide systems that are designed and delivered seamlessly.

Each step of the design, from installation to operational capabilities, is matched by our team of specialists, ensuring an experience that meets needs and expectations.

ECPINS Submarine The OSI Advantage

ECPINS Submarine Leading Subsurface WECDIS

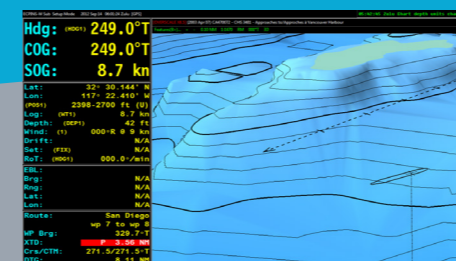
Experience unparalleled performance with ECPINS® Submarine, the leading global subsurface WECDIS that fully complies with NATO STANAG 4564 and adheres to doctrinal Submarine Navigation standards described in the UK Royal Navy's Admiralty Manual of Navigation (BR 45). Its advanced GNSS denied functionality, including Automatic and future Pool Of Errors, sets ECPINS® apart and makes it crucial for tactical submarine navigation. With certification as the primary submarine navigation system for many navies worldwide, including the UK, Canadian, Australian, Netherlands, Chilean, South African, Brazilian, and Swedish navies, you can trust in ECPINS® for your submarine navigation needs.

Scalable scope, New builds, Retrofits, Mid-Life Upgrades

OSI's Tactical Dived Navigation System (TDNS) is a versatile and customizable solution that caters to a broad spectrum of requirements, from new builds to retrofits, mid-life upgrades, and specific design demands. TDNS offers an array of choices, including ECPINS WECDIS submarine software on a standalone console, a fully integrated WECDIS in the CMS, or a comprehensive, integrated navigation suite. A complete TDNS system comprises all navigation sensors, WECDIS, integration with all sensors, CMS, other networks, DDU's, and dedicated hardware. TDNS also seamlessly integrates with third-party hardware system architectures or can be supplied with its own hardware, ranging from large horizontally or vertically mounted displays, or rugged navigation displays at the bridge.

D-MOP Operational Precision

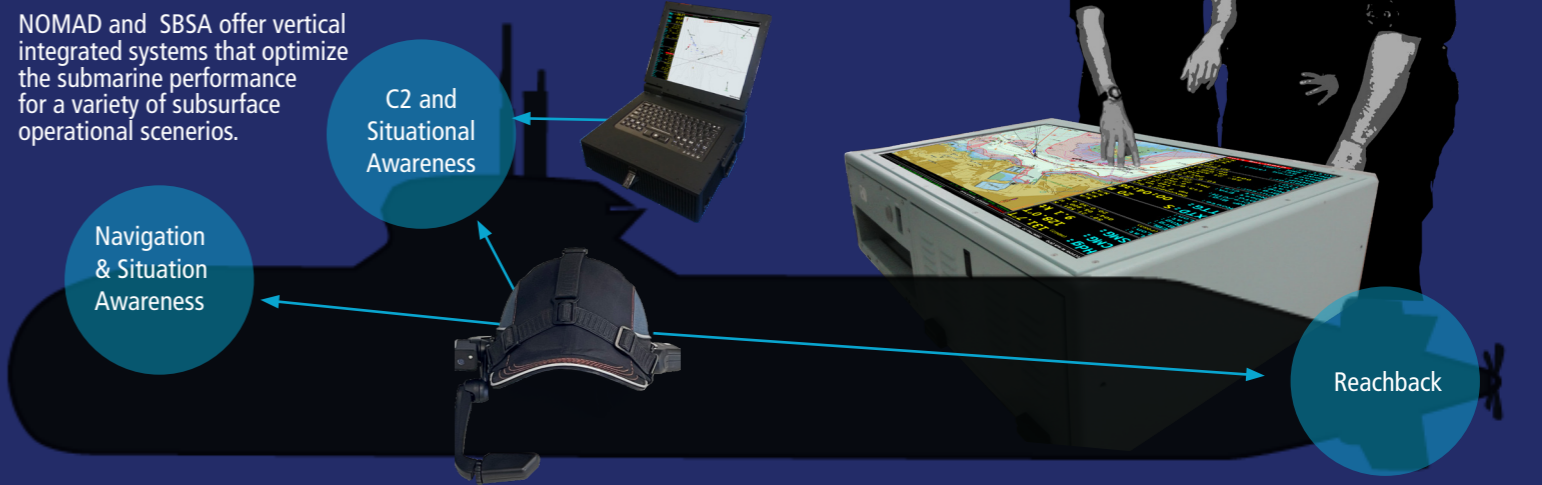
ECPINS® D-MOP was the first digital maritime operations plot. OSI has built upon its success and has leveraged user insights to develop the next level of D-MOP technology, featuring enhanced full navigation functionality and situational awareness on a large format display suitable for team briefings. D-MOP is a powerful navigation tool that combines modern electronics and information technology to provide unparalleled situational awareness. Its advanced features include Waterspace Management (WSM) plotting and display, Advanced Operator Contacts for LOP or GOP construction and management, Weapons ARCS, MIL 2525C Contacts, 4W Grid, and the ability to accept track messages from other systems such as AIS and ARPA.



Cyber secure

ECPINS® (including the chart engine) NavTac DDU and D-MOP are all 100% Canadian developed OSI proprietary products. OSI is very familiar with stringent cyber security rules and technical solutions, having integrated ECPINS® with various CMS according to a variety very demanding cyber security regulations of e.g. USN, RAN, RNZN and most recently FGN.

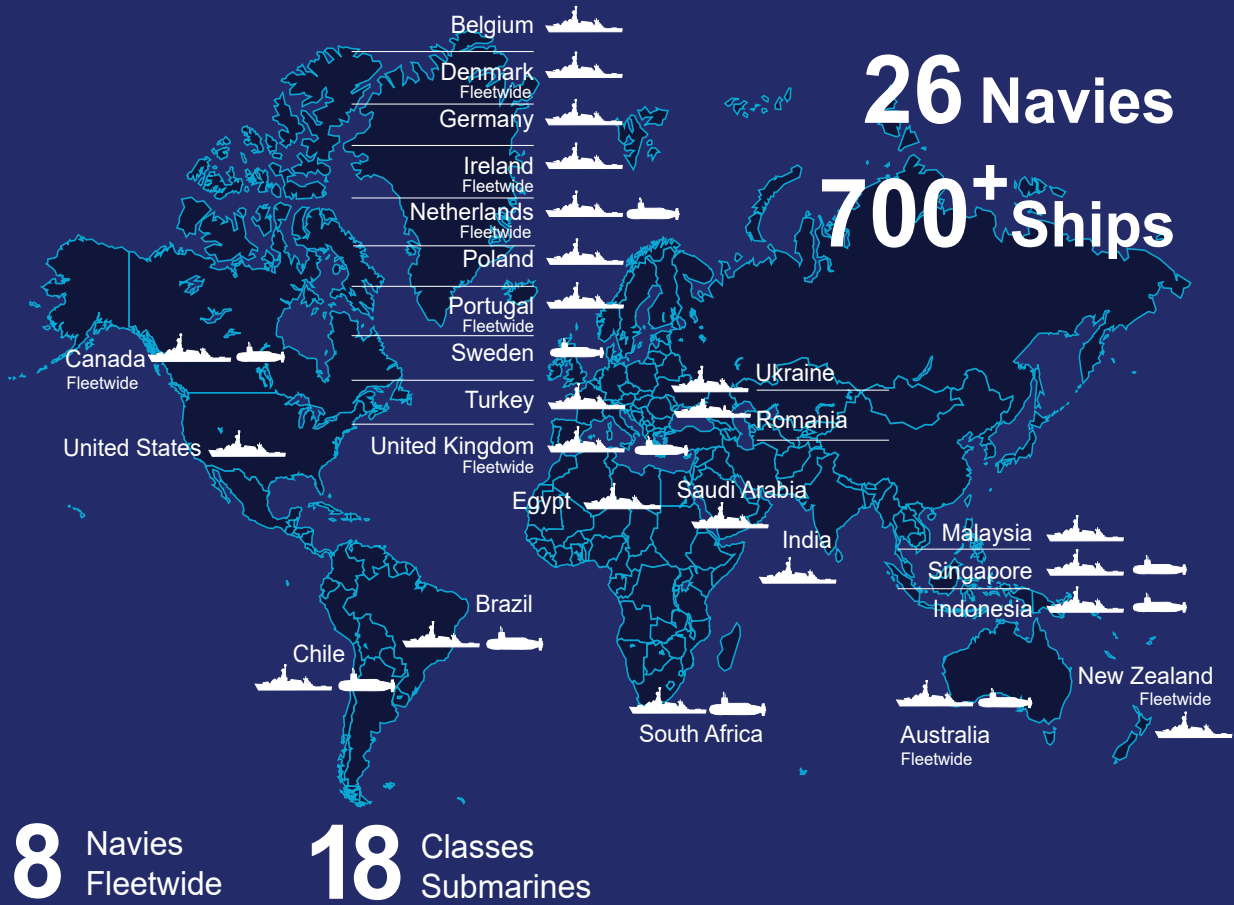
NOMAD and SBSA offer vertical integrated systems that optimize the submarine performance for a variety of subsurface operational scenarios.



OSI is dedicated to providing customers with support, starting with in-country Certified Support Partner delivering Level 2 customer support, service, and installation.

Offering 24/7 support tailored to the Customer's needs, provides the peace of mind that there is a certified technician standing ready to support their queries in their local shipyard.

Worldwide Support, Service and Installation Network



OSI Maritime Systems



www.osimaritime.com
info@osimaritime.com

400 - 4585 Canada Way
Burnaby, BC, V5G 4L6
Canada

Telephone: +1 778-373-4600
Fax: +1 778-373-0027

9 - 10B Dragoon House
Hussar Court, Waterlooville
Hampshire PO7 7SF
United Kingdom

Telephone: +44 (0) 2392 256 316