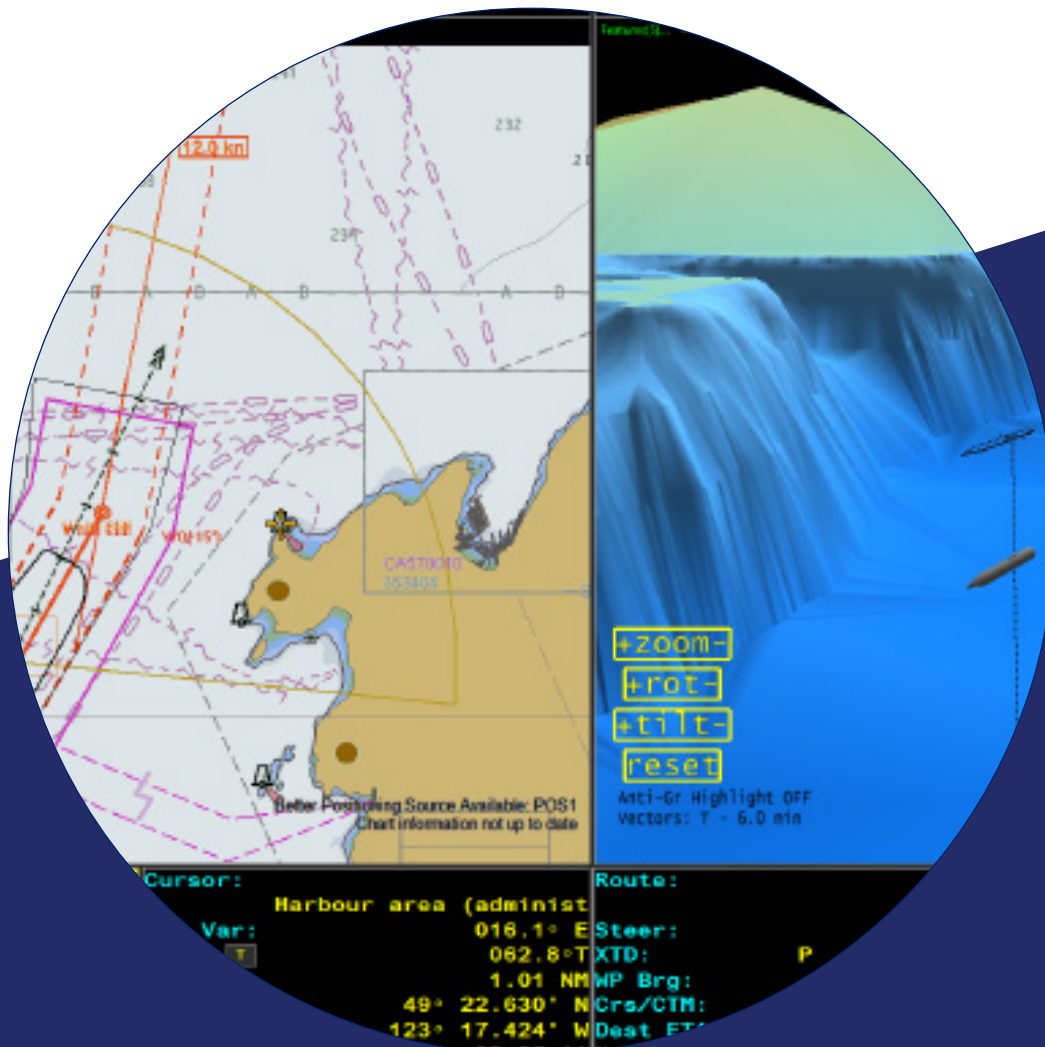


ECPINS

Electronic Chart Precise Integrated Navigation System





ECPINS®, military-grade navigation software designed for warships and submarines, optimized for the naval customer to maintain a safe and sustainable operational battle rhythm in a diverse range of challenging tactical scenarios.

Warship Navigation and Situational Awareness

- Military system units, sensors, and features
- NATO WECDIS STANAG 4564 ed3 compliant
- IMO ECDIS compliant

GNSS-Denied Navigation

- Advanced dead reckoning
- Pool of Errors
- Advanced position fixing
- Blind pilotage tool

Advanced Chart Display Engine

- Supporting 50+ chart types, including all AML
- Multi-fuel and seamless presentation

Radar Integration

- Radar image overlay
- Digital radar control
- Fusion of 2 radars into 1 picture

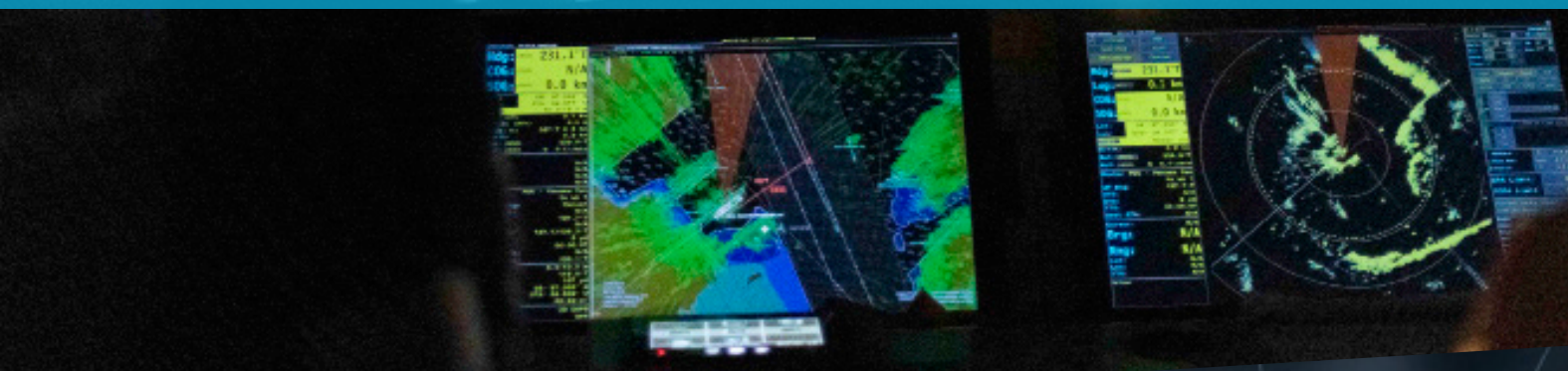
Modules

- Optional modules to extend the core ECPINS application
- Supports highly specialized capabilities
- Enables the customer to match ECPINS capabilities to specific platforms/classes/fleets



Precision & Safety

ECPINS enables the navigator, watch officer, and bridge crew to navigate a warship with precision and safety using all the vessel's sensors to plot its position on a powerful electronic chart display.



Military grade

ECPINS is the pre-eminent tool for the military navigator. The operator has access to advanced navigation, planning, and watchkeeping tools developed through many decades of collaboration with military professionals and intensive use at sea on a variety of surface and subsurface naval vessels.



Standards

ECPINS is independently certified to meet the standards of IMO ECDIS Edition 4, NATO WECDIS Edition 2, IHO S-52 Presentation Library, and IMO INS (Integrated Navigation System) performance standard.

Interfaces

ECPINS presents the operator with navigational information, sensor input, and electronic charts on 3 main screen layouts, with a selection of alternatives for specialized purposes such as planning. A central feature of each layout is a chart window, which the operator can pan, scroll, or zoom as needed. Operator control is by 3-button trackball keyboard, which is enhanced by standard and user-defined shortcut keys.

Watchkeeping

In ECPINS, the watchkeeper has good tools for monitoring position and progress on the electronic chart display. To confirm position, the operator can simultaneously display one or more of other position sources, such as an INS, EP, or alternative GNSS. Further confirmation is available by overlaying the radar image or by generating a position fix. The operator can lay down fixes (visual, running, or time-specific) with speed and accuracy. Lines of position include bearing (visual, EO/IR device, etc.), range (radar, EO/IR device, etc.), transit, HSA, VSA, and more.



Planning

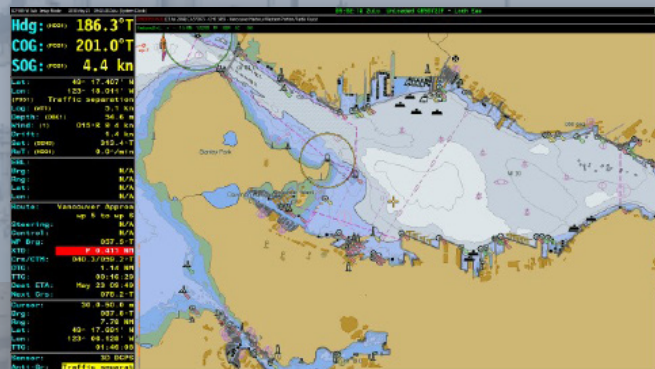
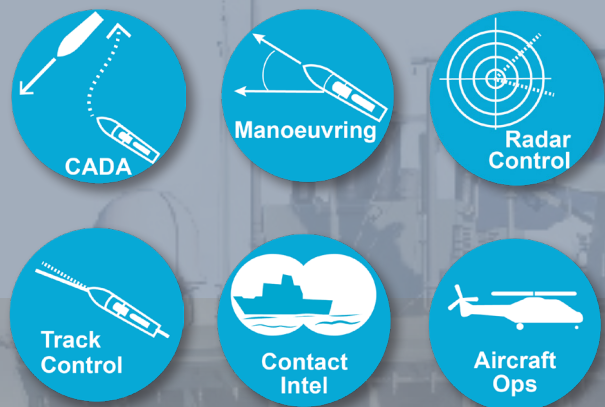
ECPINS offers the navigator all the essential planning features required by ECDIS and WECDIS plus advanced tools for demanding military operations. The navigator can plot, save, and scan for hazards any number of routes. Configurable route characteristics include planned speeds, wheel-over points, cross-track warning and alarm distances, action points, set & drift predictions, height of tide predictions, waypoint naming, and turn curves.

Chart Display

ECPINS's chart display engine is powerful and versatile, capable of displaying a vast range of chart formats including all common electronic nautical chart types, NATO AMLs, encrypted charts, land contour maps, and satellite photos. Since this engine is entirely proprietary, developed by OSI engineers over decades, OSI can adjust and improve it in a timely and effective manner.

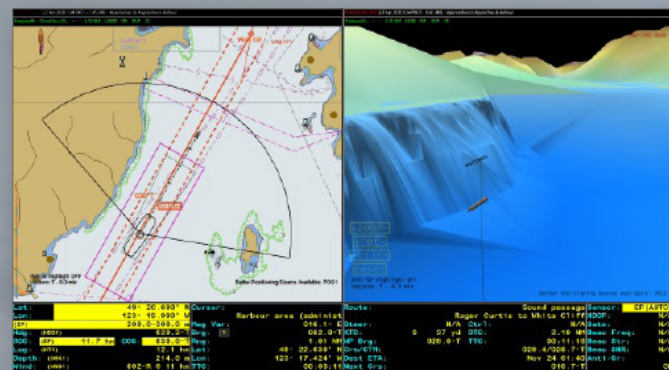
Situational Awareness

In the demanding military environment, ECPINS offers the operator enhanced situation awareness afforded by the display, management, and monitoring of contacts. In addition to a radar image overlay from either radar, the operator can control the display of contacts as AIS (from a connected receiver), ARPA (received from 1 or 2 connected radars), combat system (near real-time updating) or similar source. ECPINS applies MIL-STD-2525C symbology to these contacts, displays their movement, logs their tracks, and offers the operator detailed information upon interrogation.



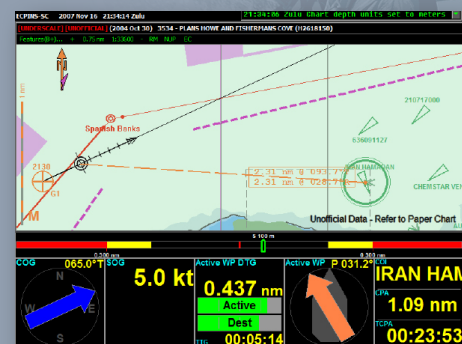
Surface Ships

Modules of special interest



Submarines

Modules of special interest

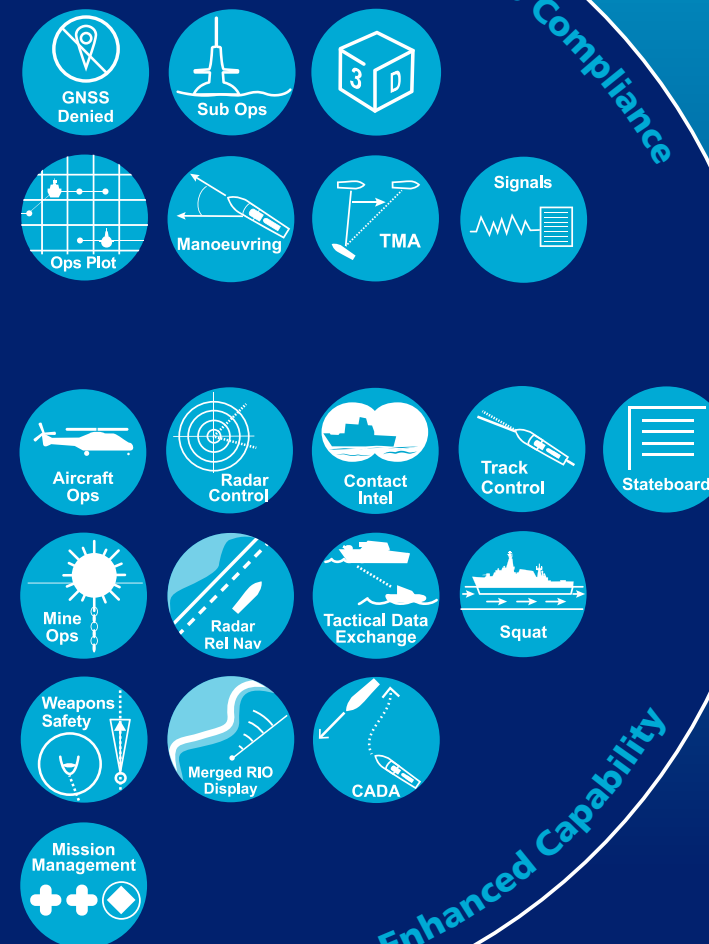


Small Craft

Modules of special interest

ECPINS 7

Compliant ECDIS
+ Core Tactical Features



ECPINS Fleet-Wide Licensing

ECPINS Fleetwide Licensing provides a unified and scalable navigation environment that enables unlimited deployment of OSI's flagship navigation and tactical software across fleet, shore-based, and training operations. By standardizing the use of ECPINS throughout an organization, operators benefit from a consistent navigation capability that enhances navigational assurance, improves operational effectiveness, and reduces risk through common systems, procedures, and training. The fleetwide approach also delivers significant cost efficiencies by allowing unlimited deployment across vessels, training establishments, headquarters, remote operating centers, mission planning cells, and other shore facilities.

Each ECPINS installation includes OSI's NVES Vessel Simulator, providing a powerful training and rehearsal capability that supports classroom instruction, scenario creation and replay, simulated navigation data, and vessel handling through engine and helm controls. The Fleetwide License enables a comprehensive end-to-end training solution, supporting installations on training systems, trainee laptops, desktop simulators, part-task trainers, portable training platforms, planning laptops, and smaller training craft. Complementing this capability, OSI's Training Department offers a range of services and products, including Train the Trainer and Delta Training courses, the Integrated Bridge and Classroom Training System (IBCTS), and desktop simulation solutions, helping organizations develop skilled operators, maintainers, and instructors while maximizing the value of their fleetwide investment.

ECPINS Generation 8: Enhanced UX and More

OSI is developing the next ECPINS Generation 8, which will introduce an enhanced and more efficient user experience along with several new capabilities. OSI projects that this next-generation interface will reduce cognitive workload, increase efficiency in navigation planning and execution, and enable navigators to focus more attention on situational awareness and safe ship handling. By making ECPINS' capabilities more intuitive and accessible, the interface is expected to reduce the training burden and support faster adoption across fleets.

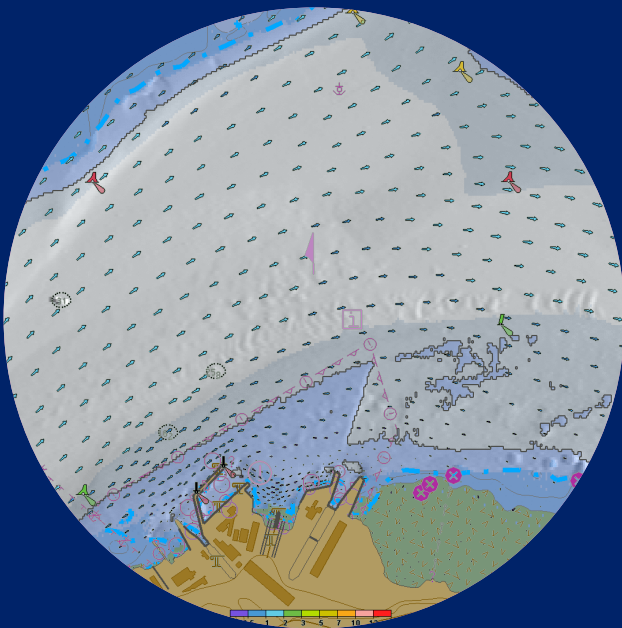
OSI's ECPINS WECDIS now supports the International Hydrographic Organization (IHO)'s next generation S-100 electronic chart data.

ECPINS powerful chart engine and innovative user interface allows the navigator to easily configure, display, and combine S-100 datasets, supporting a safer and more efficient approach to navigation and, when combined with ECPINS' powerful tactical features, ensures operational advantage.

ECPINS' advanced user interface will permit S-100 time dependent objects, such as height of tide, surface currents, and weather conditions, to display at a user defined date & time (to support the navigator when planning) or in real time (when the navigator is executing their plan). Incorporating advanced interoperability settings and support to mission planning and execution, a navigator with ECPINS and S-100 benefits from enhanced safety of navigation, tactical advantage, and information superiority.



S-100 Technology | Pioneering the Next Generation of Maritime Safety and Efficiency



ECPINS' chart display engine is powerful and versatile, capable of displaying a vast range of chart formats including all common electronic nautical chart types, NATO AMLs, encrypted charts, land contour maps, and satellite photos. Since this engine is entirely proprietary, developed by OSI engineers over decades, OSI can adjust and improve it in a timely and effective manner. As the chart engine is developed by OSI, not a 3rd party, OSI ensures a closed environment protected against external threats.



OSI Maritime Systems



www.osimaritime.com

info@osimaritime.com

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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