

# GECDIS - WECDIS VERSION

NAVIGATION AND SURVEILLANCE FOR NAVY & COAST GUARDS



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**SODENA is a world leader of PC-based GIS systems. Since 1992, SODENA has equipped navy and coast guards vessels and has developed thus WECDIS, undoubtedly, the most proven ECDIS compliant GIS. WECDIS distinguish itself being very complete, easy-to-implement and offering state-of-the-art military and surveillance specific features.**

## GECDIS BENEFITS

- Proven
- A low Cost and modular system.
- Easy-to-use.
- Multilanguage.
- Customisable.
- Easy to retrofit.
- A single interface for ashore (mission preparation, synthesis and organisation) and offshore (Navigation and mission carrying out) operations.
- Full IMO ECDIS compliant.
- Enhances efficiency.
- Improves security.
- Training Center and Instructors.

## THE MOST COMPREHENSIVE FEATURES

GECDIS is an easy-to-use PC-based system enabling to display and process a broad range of critical information: charts, radar image, weather data, sonar data

- Display and management of electronic charts: ENC, ARCS, DNC, BSB.
- Radar image overlay, thanks to SODENA proven solution – NetRadar which allows an easy connection to all RADARs.
- Radar display.
- Conning display.
- ARPA features for up to 100 targets.
- AIS display and target fusion.
- UAIS, WAIS A and B classes.
- SAR
- NAVTEX editor.
- Ready for VDR or S-VDR connection.

## APPLICATIONS

### Navy



- Surveillance and interception.
- Improved missile and gun operations.
- Increased efficiency of mine warfare operations.
- Improved mine collision avoidance.
- Mission recording and debriefing.

### Coast Guards



- Coastal patrol in territorial waters to reinforce national and international maritime laws: EEZ (Exclusive Economic Zone) control; an alarm sounds in the case of violation.
- Fisheries surveillance, control, and protection.
- Drug smuggling and illicit traffic control.
- Search and rescue operations.

### Oil field surveillance

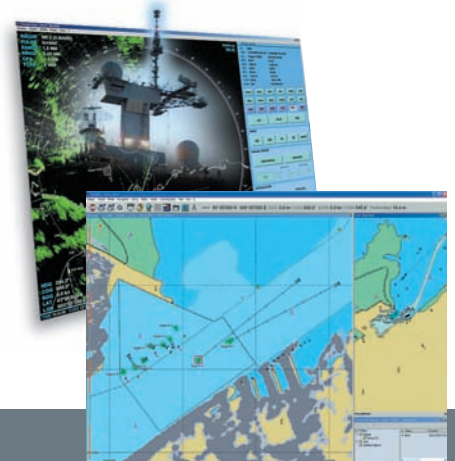


- Dedicated features: IFF (Identification of Friends and Foreigners).
- Fleet Management.
- Operation management.
- DXF files integration feature taking into account geodesic corrections.

# EASY IMPLEMENTATION AND RETROFIT

**SODENA can integrate all standard and non-standard devices into a single system.**

**SODENA can offer a wide range of compliant to MIL and IEC 945 standards hardware solutions from small systems to integrated bridge: waterproof terminals, ruggedized PCs, all sizes of monitors, standard PCs...**



Training center

## Data integration

- Charts: S57, ARCS, DNC, ChartWorld and CMAP.
  - Radar Overlay and Tracking: Connection to all navigation RADARs: Terma, Raytheon, KH, Litton, Furuno, JRC...
  - Additional Military Layers.
  - Integration of all navigation sensors: GPS, Gyro, Loch, sounder...
  - Integration of all security sensors: ARPA, UAIS, engine alarms...
  - Integration of all communication devices: GMDSS, Inmarsat...
- SODENA offers also specific interface for non standard sensors, such as Gyrocompass, Loch, wind indicator, depth sounder...

## Outstanding quality of service

SODENA offers you a complete solution that is adapted to your specific needs, including consultancy service, an implementation study according to your operating procedures, installation, charts developments, training with simulation system, on-board training, high-quality after sales service, and an enquiry hotline.

## BACKUP systems

Sodena open architecture enables an easy implementation of backup systems. It allows automated replication of all chart update and routes. The backup systems is also very convenient for mission preparation, tactical analysis or weather forecast display.

## Conning

Thanks to the SODENA's high data integration and centralisation capability, Sodena offers optional Standard Conning Display features.

## FULL ECDIS-COMPLIANT

SODENA'S GECDIS has been one of the first ECDIS certified (since 2001). It is a powerful navigational aid system with a geographic information system, ECDIS certified, working on standard computers. GECDIS contributes to safe navigation and allows to carry out route planning and route monitoring in a simple and reliable way. GECDIS fits IMO and IEC regulations for charting data storage (SP57) and their displaying (SP52).



SODENA is a certified distributor for ARCS and PRIMAR

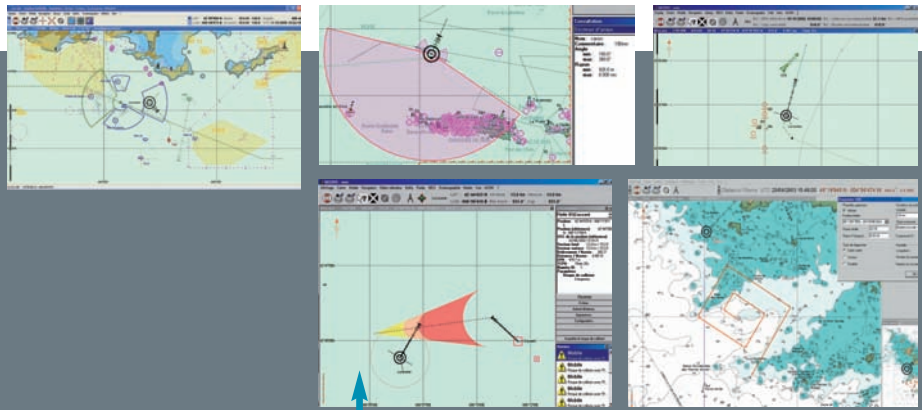


# THE MOST COMPREHENSIVE INS

SPECIFIC APPLICATION LEVEL

## ADDITIONAL LAYER

- AML
- SAR
- Tactical situation
- ASM
- Seabed and mine hunting
- Water column



GECDIS SOFTWARE

## ECDIS NAVIGATIONAL SYSTEM

- Full ECDIS compliant GIS
- Secured navigational feature
- Route planning
- Weather data
- ...



HARDWARE

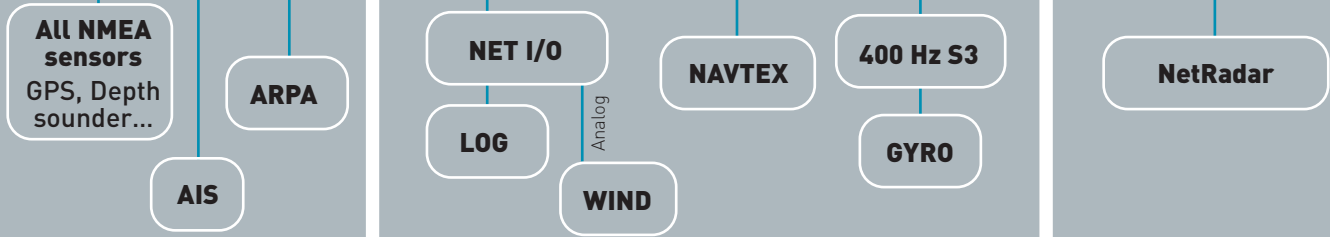
## STANDARD ETHERNET NETWORK

- High availability thanks to redundant PCs
- COTS/standard Hardware
- ECDIS compliant



ETHERNET

VESSEL SENSORS



Direct plug-in connection

1

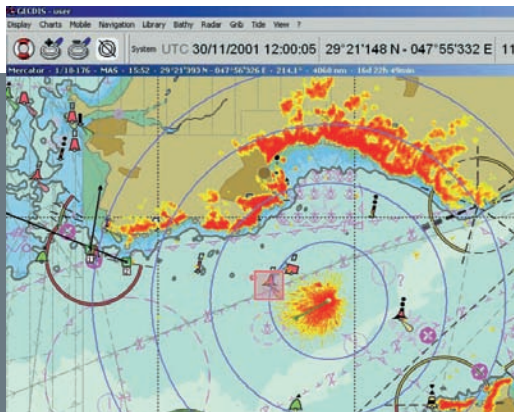
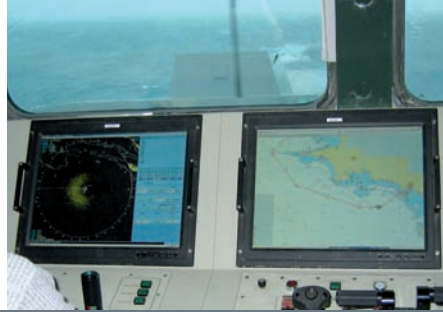
Specific sensors integration through dedicated SODENA hardware

2

RADAR

3

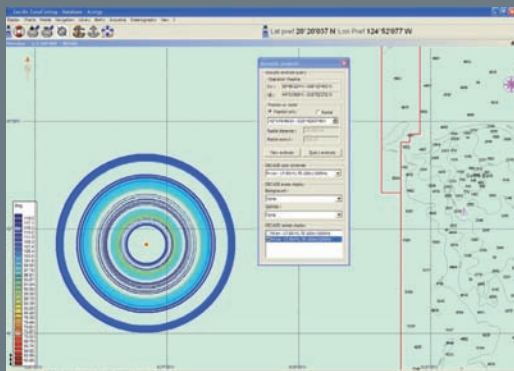
## SODENA INTEGRATED NAVIGATIONAL SYSTEM



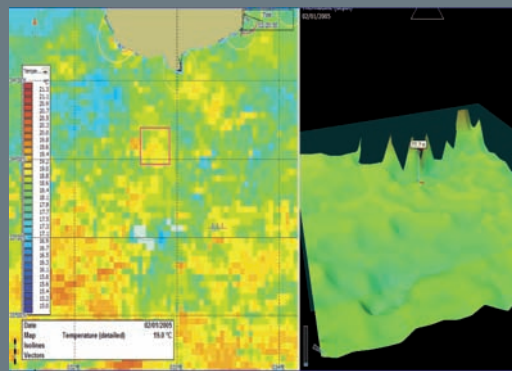
Radar overlay.



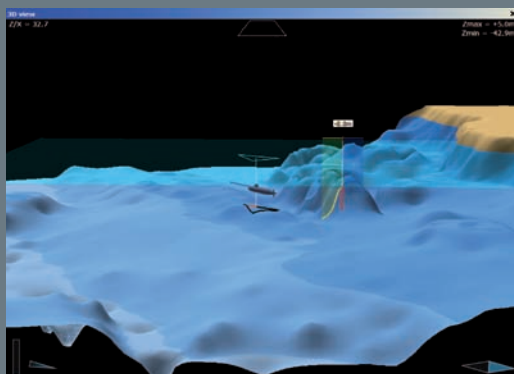
Tactical area and situation.



Submarine Detection probability.



Isotherm display to analyse acoustic diffraction for submarine detection.



Seabed and mine hunting environment.

## AML: Additional Military Layers

SODENA GECDIS is based on one of the most proven full compliant ECDIS GIS systems, the SODENA's GECDIS. This system has been enhanced with a comprehensive range of military specific features (Additional Military Layers):

- Strategic framework.
- Routes, areas and Limits: minefields, firing areas Q route, practice and Exercise areas...
- Miscellaneous Military information: SAR, Ice Limits, Oil/gas/Mineral/energy production...
- MCM Contacts.
- Mine hunting environment.
- Water column information and ambient noise for submarine detection: temperature, salinity...
- Meteorological climatology.
- Sea bed: bathymetry and sedimentology.

## Specific developments

SODENA's added value comes from our team of skilled engineers who specialise in the maritime field. Over the past twenty years, we have developed maritime softwares that have become both a standard and a reference in electronic cartography, databases, and navigational aids.



## MAIN REFERENCES

With over 6000 systems operating worldwide, and more than 20 years of experience, SODENA's systems are a proven solution used by coast guard since 1992:

- The French Navy fleet: 117 vessels and submarines are fully equipped with SODENA GECDIS (SENIN).
- French DCN has selected SODENA to provide GECDIS and RADAR ARPA to equip the last generation of frigate for the Singapourean Navy.
- The Indonesian Coast Guard have chosen SODENA systems for the surveillance of fishing vessels (in association with ARGOS system).
- TOTAL FPSO is equipped with the IFF system. This system has been developed by SODENA to avoid intrusion in the forbidden area.
- French Custom vessels.
- Danish Coast Guards.
- Icelandic Coast Guards.



## GLOBAL NETWORK

We strive to exceed our customers' expectations from conception to installation and beyond with our high-performance technology, our international sales network and round-the-clock customer support.

SODENA is a leader in Geographical Information Systems. SODENA's main competitive advantage is its highly skilled engineering team which always enables the most suitable solution for your needs. SODENA is a subsidiary of IXCORE group, a sister company of IXSEA, present through offices and representatives in France, UK, Norway, Denmark, Iceland, Spain, Italy, Greece, Portugal and many other countries. SODENA is ISO 9001 v.2000 certified.

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