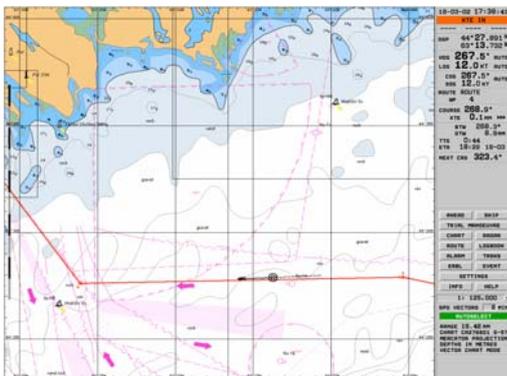


# MASTER - DEQ

## ELECTRONIC CHART DISPLAY AND INFORMATION SYSTEM - ECDIS

- ⇒ The first member of a family of onboard navigational systems
- ⇒ Fully complies the IMO requirements and IEC standard (IEC 61174) for ECDIS

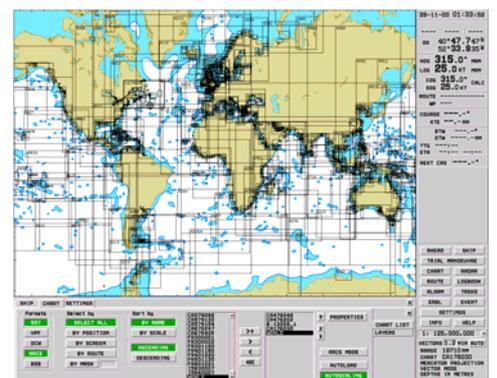
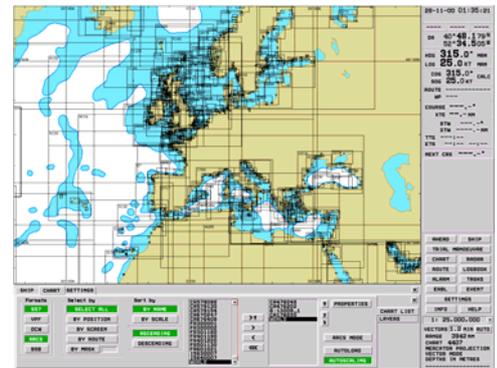
### Electronic Charts and Databases used:



- Official S-57 Ed. 3.1. (and 3.0) Electronic Navigational Charts manufactured and distributed by Government authorized Hydrographical Offices and provides their continuously electronic online up-dating
- ARCS Raster Navigational Charts produced by UKHO (British Admiralty)
- BSB Raster Navigational Charts produced by different authorized organisations in USA and Canada
- DEM – Digital Elevation Model - from USGS
- Different proprietary charts and databases (e.g. topographical charts, navigational information and photos produced by MapTech)

### The Main features of the system:

- flexible network architecture providing unlimited number of workstations
- possibility of translation of vessel's position via onboard TV station
- route planning including voyage planning and route's corridor safety check
- route monitoring
- true and relative motion
- "North Up", "Head Up" and "Route Up" modes
- ship's track recording with 10 seconds precision and electronic logbook
- unlimited number of electronic rulers (ERBL)
- a large set of different navigational alarms including ECDIS required
- tide calculation
- trial manoeuvre
- RADAR overlay
- order zones
- military maneuvering functions



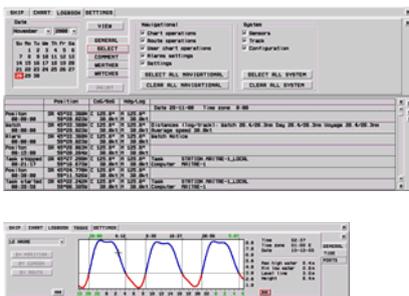
The system is mounted onboard in special certified hardware (console, computer, monitor...)

The summary number of electronic nautical charts of different formats distributed by NAUDEQ exceeds 5000

## CONNECTED SENSORS :



- up to 4 sensors's position: GPS (DGPS), GLONASS, DECCA, LORAN, OMEGA and any other NMEA-0183 position sensor including different Inertial systems
  - ARPA Automatic Radar Plotting Aids
  - Gyro and Magnetic Compass, Log
  - Doppler Log
  - Echo Sounder
  - Autopilot
  - AIS transponder
  - NAVTEX receiver
  - Wind speed and direction, Air and Water temperature, Atmospheric pressure
- Sensors
- sensors monitoring operational state of the ship equipment (main engine revolutions, propeller pitch, rudder angle, etc.)
  - sensors monitoring fishing equipment
  - up to 2 Periscopes or Binoculars with digital interface



## EXTERNAL INTERFACES :

- full NMEA-0183 (IEC 61162-1) data exchange protocol
- modification of NMEA-0183 for AIS
- different proprietary protocols on demand of equipment's manufacturer (Inertial systems, Periscopes, old non-standard ARPAs)
- Radar Integration Board Interface

## NAUTICAL DIGITAL EQUIPMENT

3 Rue Rosenwald – 75015 Paris – France  
 Tel: + 33 (0)1 56 56 75 75 – Fax: + 33 (0)1 56 56 05 15  
 Email: [info@naudeq.com](mailto:info@naudeq.com) – Internet: <http://www.naudeq.com>