HIGHLANDER ECDIS1000 had been developed based on extensive experience of world-class innovative engineering team.

HIGHLANDER ECDIS1000 meets IEC60945 standards for use on board ships. It adopts TFT LCD which has no distortion with low reflection, giving a better view under strong lights and does not produce any magnetic disturbance and X-ray. The brightness and crystal sharp display gives HIGHLANDER ECDIS1000 a leading technology edge. The ECDIS1000 offers a low ownership cost, fuel saving, and with its selection of hardware enabling ease and flexibility in installation on new ships and sailing ships. It can be interfaced with a wide range of navigation sensors. The HLD-ECDIS 1000 is an extremely powerful navigation and information display system when equipped with a PC radar overlay card, enabling radar video overlay and complete ARPA functionality. Combining with AIS data provides the complete navigational situation information in one display, eliminating the need to reference and appraisals from multiple sources.

The HLD-ECDIS1000 offers the operation menu in various languages, allowing the navigators to select their language of preference.

**Features**

**Sea chart**
- Operates with satellite aided ENC (S57) Charts, Vector Chart such as ENC-S57, Primar-ENC, IC-ENC, JHA-ENC. NOAA-ENC, AHO-ENC, NIMA and Raster Scan Charts published by ARCS (British Admiralty) Charts, NDI/BSB – USA/Canada/NOS/GO/AHO.
- Compatible with C-MAP worldwide database.
- Easy access and handling: Installs chart along a selected route, instantly switches between different chart database.
- Instant update on board of ARCS ENC Charts with HLD-ECDIS 1000 integrated and optimized update service via email.
- Integrated help for paper chart corrections – updates using ARCS services and enabling color print of the latest updated chart tiles in actual scale. Tiles may be pasted on paper charts.

**Route Plan**
- Mix Great Circle and Rhumb line legs, enter different turning radius and select different XTE limits for each leg.
- Route creation either by latitude or longitude creation co-ordinates, cursor, import or download from D/GPS.
- Multiple route management. Display several routes. Create routes by selecting any waypoints from any display route. Link or split routes, continue waypoint editing from any point.
- Check the route for dangers and highlight on the chart.
- Route simulation: passage plan calculator including ETA/TTG and required speed.
- Check safety along the route in real time.
- Continuous display of heading, speed, depth and position.
- Select ETA and monitor speed required.
- Autopilot and Track pilot control.

**Passage Plan**
- Preparing, saving and printing the plan which connects the selected voyage route.
- Passage plans, compliant in particular Tanker regulations are partially fulfilled by HLD-ECDIS 1000 (Chart numbers and waypoint positions and then completed by navigators).

**Navigation Data log and playback**
- Genuine Navigation Data Recorder: stores all navigation events including own ship, AIS, ARPA target positions, speed and course, alarms triggered and acknowledged, chart in use, manual positioning plotting, manual bearings and events.
- All data written to a new and secured read only file every 24 hours.
- All stored files maybe replayed at anytime using the same ECDIS software and comparable to IEC 61996 Annex D Simplified Voyage Data Recorder requirements.

**Sensor Monitor and Internet Connection**
- Flexible software tool named Sensor Monitor links the system to external sensors or data via serial port, network, Internet and File transfer.
- Serial or TCP/IP with GPS, Gyro, ARPA, Log, Anemometer, Echo sounder, etc.
- Download or upload routes from/to GPS or Radar.
- Download AIS targets through national AIS network.
- Advance data logger for trouble shooting.

**Customer Editor**
- Add personal annotations. Work on Electronic Charts as on paper chart with powerful graphic tools: bearing lines, range circles, parallel and perpendicular lines.
- Store navigation survey work in log book.
- Add marks and line zone.
- Create user object alarm: crossing a line, entering or moving out of an area and anchor alarms.
- Import chart and user files with or without datum corrections.

**ARPA Display**
- ECDIS1000 can display an unlimited number of ARPA targets.
- Raw radar video can be displayed on the top of the electronic chart.
- Advance image processing and numerous video control functions are available to give clear and precise radar picture presentation under all weather conditions.
- Display the routes made active in ECDIS presentation and can use the same background charts as ECDIS.

**Automatic Identification system (AIS)**
- HLD-ECDIS 1000 provides a standard advance interface to operate any AIS transponder without the need for additional keyboard and AIS display.
- All AIS and ARPA targets are displayed together and the AIS target CPA/TCPA are calculated and all AIS events are recorded in the system log.
- Easy and efficient filtering of incoming/outgoing AIS messages without the need to move between the ECDIS and AIS.
- Standard messages maybe selected and broadcast from the ECDIS by one click.

**Network and Data Sharing**
- Numerous HLD-ECDIS 1000 workstations can be networked together and data shared among them.
- All the input information including radar video are able to broadcast over the network allowing several ECDIS to access them.
- Dual ECDIS System: The network based application allows the main and reserve ECDIS to share the same data.
  - An ARPA Display System may be installed in the Captain’s cabin to display the traffic and enabling the remote operation of the ARPA via the FC radar kit.
  - The ECDIS1000 can also be installed in engine control room to display chart, own ship and surrounding traffic conditions.