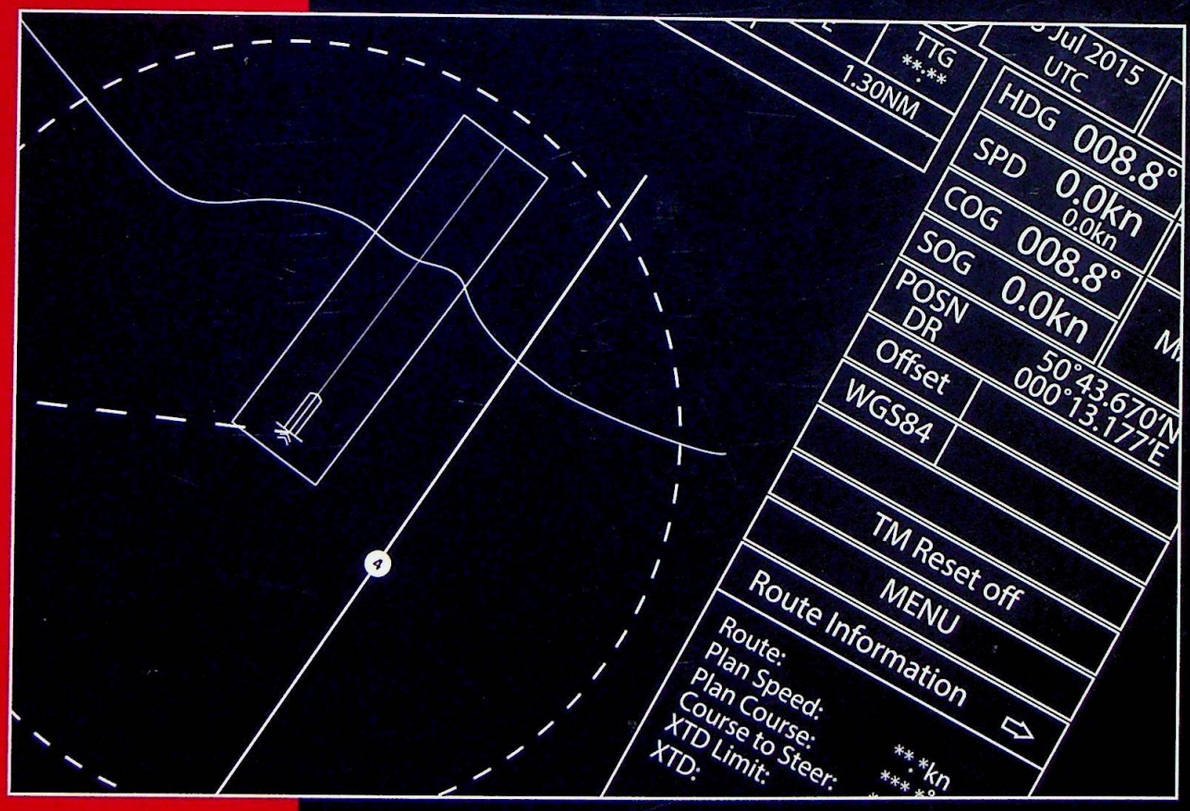
ECDIS

Type Specific Information



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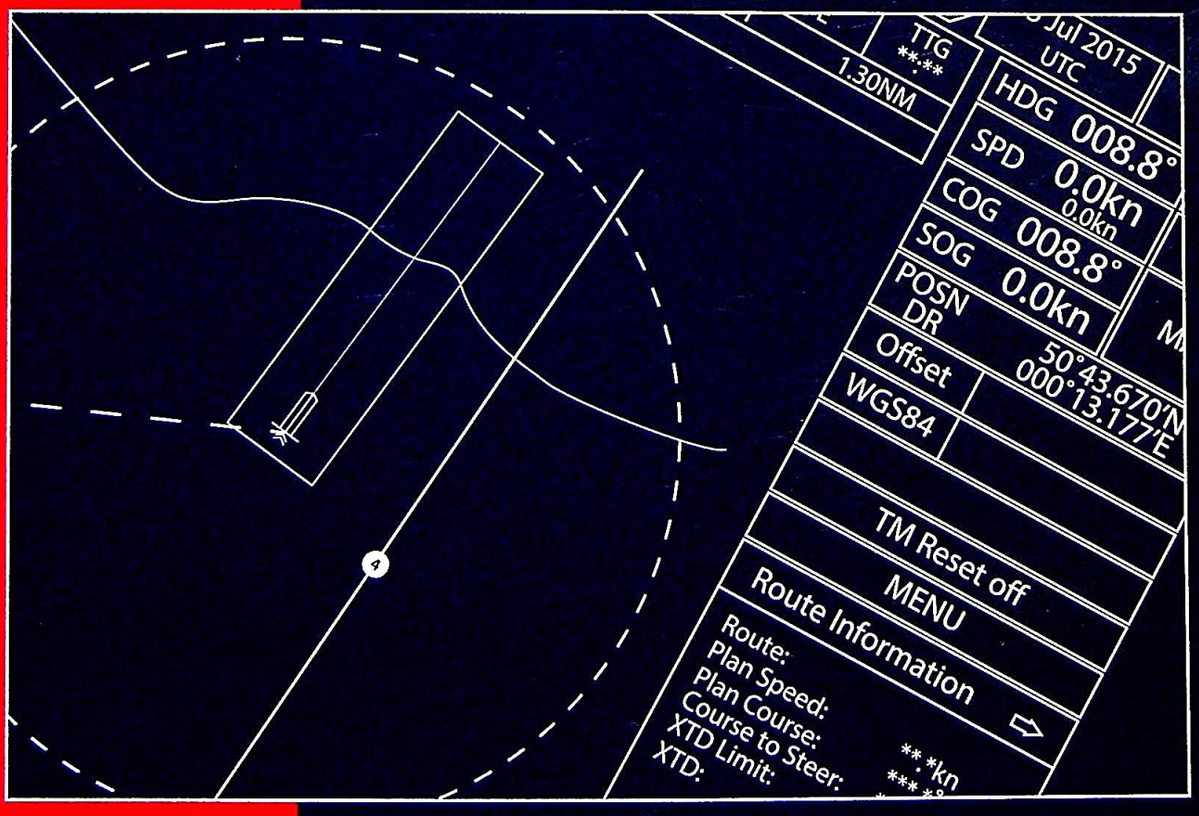

2021–2022 Edition **Volume 2**

ECDIS Type Specific Information 2021–2022 Edition Volume 2

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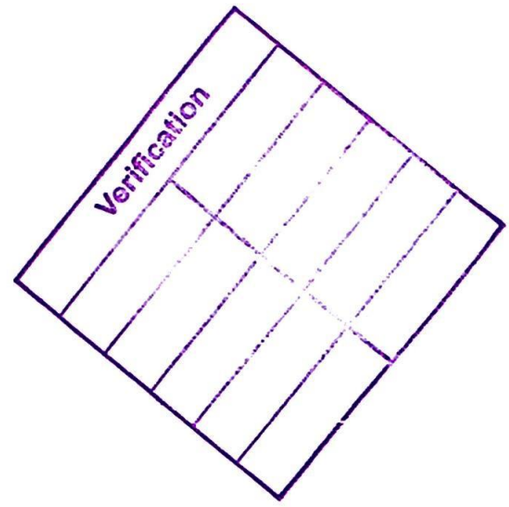

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info@witherbys.com
witherbys.com

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Contents

Introduction

Type Specific and Familiarisation Training

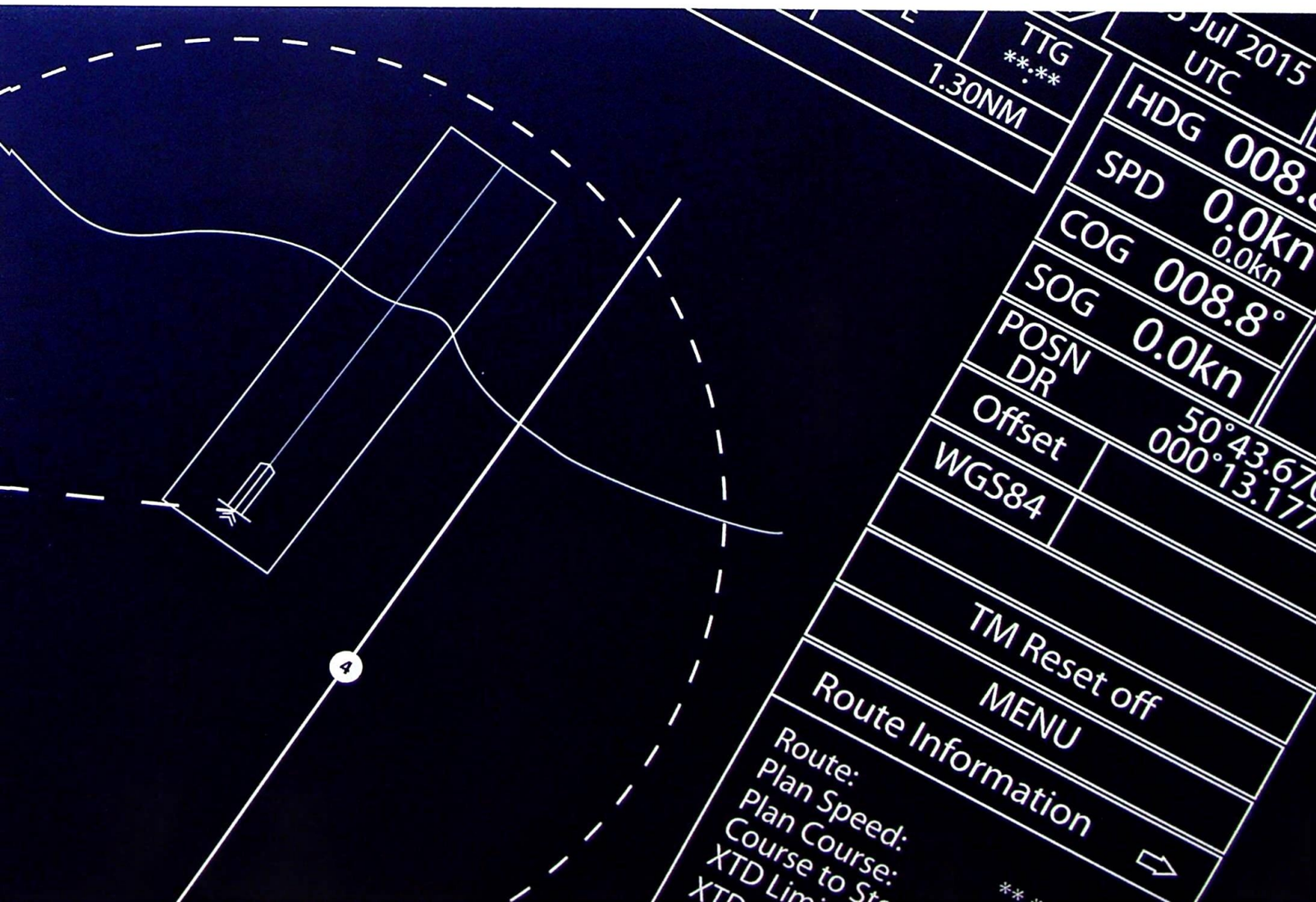
All ECDIS operators, having completed generic training, are required to undertake type specific ECDIS training in order to be familiar with the equipment in use on their vessel. This is in line with ISM and flag State legislation (flag State dependent).

All ECDIS operators are to be familiar with the specific equipment in use on board their vessel, having completed an appropriate type specific training course. At present, there are no IMO guidelines for type specific training and so the content for any course should, as a minimum, encompass that listed in Section 1.1.

In addition to type specific training, onboard familiarisation training is considered best practice. Each manufacturer's software version and installation may vary from the type that the ECDIS operator has been trained on. Therefore, a Familiarisation Checklist can assist ECDIS operators in gaining and refreshing knowledge of ship specific installations.

Small variations in menu structures or terminology may be experienced due to the larger number of software patches, updates and optional extras available for each manufacturer. However, all efforts have been made to give a reflection of the manufacturers' latest version of software based on the average optional extras that ships purchase. Should you be aware of any minor updates that need to be added, please email: **help@ecdis.org**

Type Specific ECDIS Course Content



1.1 Setting to Work

Documentation and Procedures

Establish whether there are instructions concerning the use of the ECDIS and ensure that these are followed.

a. The procedures for use of ECDIS units need to be carefully written to establish standard operating procedures (SOPs). This document should include, but not be limited to, the following:

- General system set-up
- guidelines on system use
- system set-up for pilotage, anchoring, coastal and open ocean
- minimum display requirements
- maximum display requirements
- operation in ECDIS, RCDS and ECS modes
- procedures for operating in pilotage, anchoring, coastal and open ocean
- route planning
- route monitoring
- alarms, indications/warnings configuration
- fixing/GPS cross-check frequency
- transition to paper arrangements
- system management
- software updating
- updating of data
- data storage
- data backup
- permit renewal and procuring additional permits
- passwords and system access
- emergency procedures for ECDIS failure
- virus protection policy and use of USB memory sticks
- pre-sailing checks.

b. The document should be read and signed by all watchkeepers, stating that they understand the procedures relating to the use of ECDIS on board.

c. Produce check-off cards to ensure that the system is set up correctly so that memory does not have to be relied upon. The cards should at least cover setting up the system in the following environments:

- Pilotage
- anchoring
- coastal
- open ocean.

d. Conduct a risk assessment in accordance with MGN 285.

Equipment

Establish whether the ECDIS and the backup equipment are flag State approved systems.

a. Sight the certificate that states the ECDIS conforms to IMO Resolutions A.817(19) / MSC.232(82).

b. If the system is found to be an ECS, paper charts must be used as the primary means of navigation.

c. Establish whether the systems are connected via LAN. If not, it will be incumbent upon the OOW to ensure that data is transferred manually between the systems.

Understand the sensor connections that feed the ECDIS and understand what the mandatory connections are.

a. Mandatory connections are as follows:
   - GPS or DGPS (continuous fixing position source)
   - gyro
   - speed log.

b. Determine what other connections are required, such as anemometer and NAVTEX, and whether your systen can accommodate them.

Establish the reference for each sensor, eg ground, sea or ship stabilised.

Establish an accurate system set-up by configuring ship specific characteristics. The following should be considere but are not exhaustive:

- Length
- breadth
- draught
- load condition
- equipment offsets
- AIS data
- radar information overlay (RIO)
- auto-track settings
- turning radius or advance and transfer data.

In the event of ECDIS failure, establish how to switch between the primary and backup system.

Data

Establish what mode of operation the passage will require, ie ECDIS, RCDS or ECS/paper?

a. Ensure that the data service is official:
   - If ENC, S-57 compliant and issued by a government authorised HO
   - if RNC, S-61 compliant and issued by a government authorised HO.

b. Ensure that the data service is up to date and sufficient to cover the entire voyage in accordance with SOLAS requirements.

c. Ensure that the data is correctly loaded onto all systems and that permits correspond with installed chart da

d. Contact flag and discuss the carriage requirements for all the following modes:
   - ECDIS (ENC)
   - RCDS (RNC)
   - ECS (paper charts).

e. If operating in RCDS mode, an appropriate folio of paper charts may be required (flag State dependent). Furthermore, RCDS mode may not be recognised by flag.

f. If paper charts are required, consider the following:
   - Determine suitability
   - determine quantity
   - determine location
   - determine the state of preparation required
   - determine the frequency of backup.

g. Determine where base, update and backup data discs are stored.

Determine how the process of updating will work.

a. How will updates arrive on board?

b. Who will apply the updates?

c. If automatic updates, how will this affect the safety monitoring of your system when it is updating?

d. Note expiry dates of licence and permits to ensure that cells are renewed in a timely manner.

e. Determine how to obtain new cells and permits.

Training

Ensure that all personnel are adequately trained in the use of the ECDIS system by undertaking a flag State approved generic IMO 1.27 model course and type specific training on the ship specific equipment.

Administration

Ensure that the ECDIS manufacturer's operator's manual and a list of alarms and warnings for the specific system are available on the bridge. It should be noted that system user guides are generally poor and are not a substitute for adequate training.

1.2 Familiarisation

The Basics

Determine how to switch the ECDIS on and off.

Establish what settings are saved in the event of a system crash and what must be restored.

Regarding the ECDIS software and hardware, establish the following:

- Screen layout options
- controls
- screen display
- cursor control
- user interface/menu navigation
- shortcut keys/keyboard shortcuts
- hardware controls and switches
- quickest method of displaying own ship position
- single operator action keys for marine information overlay (MIO) and standard display setting.

Identify all automatic functions required for monitoring ship's safety, such as the display of position, heading, course, speed, depth, safety values and time.

Regarding data, determine how to do the following:

- Set system units
- scroll
- zoom
- centre on ship
- view cursor data
- determine scale of charts
- select the best scale chart
- select a particular scale.

Determine how to access the main menu and select menu options.

Establish how to interrogate an RNC and charted features of an ENC.

Presentation of Data

Determine how to set and display the following:

- Day, dusk, night palette
- brightness and contrast.

Specifically for ENCs

- Safety Depth and Safety Contour
- shallow and deep contours

- two and four colour depth shades
- paper chart traditional and simplified symbology
- select base, standard, All/Other and any custom or additional display
- configure display settings
- save configured settings
- display of Zone of Confidence (CATZOC) information.

Establish how to display ECDIS Chart 1.

Safety Settings

Establish how alarms and indications/warnings are generated and where they are displayed.

Establish how to acknowledge an alarm, indication/warning.

Establish where an alarm, indication/warning can be reviewed once acknowledged.

Charts

Determine how to install licences, permits and charts on the system.

Determine how to ascertain whether an installation was successful.

Determine how to access the chart menu and differentiate between different chart products installed.

Determine how to select a chart for display.

Determine how to check the update status of loaded charts.

Determine how to update both RNC and ENC charts on your system.

If available, determine how the system automatically updates and what the consequences are when it is updating.

Determine how to apply manual updates.

Determine how to find and view updates/NTMs.

Determine how to view AIO and T and P overlays.

1.3 Navigation Tools

Navigation Tools

Determine how to show and hide the following marine information overlays, if available:

- RIO
- ARPA tracks and information
- AIS tracks and information
- NAVTEX information
- all other available information.

Determine how to add, edit and delete mariner symbols, navigation marks, objects, shapes, information and text.

Establish how to apply the danger attribute to mariner symbols, objects, shapes, information and text.

Establish how to utilise the EBL and VRM function.

1.4 Planning a Route

Basic Route Planning

Regarding route planning, determine how to do the following:

- Plan a route using rhumb lines and via Great Circle
- edit Great Circle route properties
- edit a route
- add, insert, edit and delete waypoints
- name waypoints

- add an ETA, ETD
- set XTD
- voyage optimisation parameters
- display multiple routes
- save routes
- approve routes
- activate routes.

Regarding route checking, determine the following:

- Settings selected for checking your route
- the display of associated warnings
- selection of safety parameters.

Confined Waters Planning

Regarding confined waters planning, determine how to configure the following:

- Turning circles/advance and transfer/wheel over point
- distance to run ticks.

Determine how to display the following:

- Course, leg, speed annotation
- XTD
- waypoint names.

Determine how to utilise specific pilotage functions such as:

- Parallel index lines
- depth contour line
- EBL/VRM
- anchoring tools.

1.5 Monitoring a Route

Route Monitoring

Determine how to load the route and associated items into all ECDIS units.

Determine how to select the primary or alternate route for display and how to distinguish between them.

Determine how to select items such as manual updates or user charts overlays for display.

Determine the available display orientation modes and how to select them:

- RM North Up
- RM Course Up
- RM Head Up
- TM North Up
- TM Course Up
- TM Head Up.

Determine the available display motion modes and how to select them:

- Relative Motion
- True Motion.

If using RM, determine how to reposition own ship on the display or utilise any look-ahead function.

If using TM, determine how to configure TM reset for chart redraw.

Determine how to configure the following:

- Display of vessel symbol and contour
- vessel track
- time labels
- velocity vectors for own ship, AIS and ARPA tracks
- AIS and ARPA track
- display of secondary track
- anchor watch alarms.

Establish whether alarms, indications/warnings can be configured on your system.

Establish the appropriate menu or panel for display of route monitoring information, so that the following information is displayed:

- Position
- course
- heading
- speed
- depth
- time.

Determine how the look-ahead is configured and activated.

Establish specifically what the ship's look-ahead will alarm for and whether it needs to be activated in order to do so.

Determine how the predictor is configured and activated.

Establish the procedure for integrating ECDIS with a track-keeping autopilot. This includes setting parameters and understanding system frailties.

Determine the method of switching between sources, such as primary and secondary position fixing systems, and the dangers inherent within.

Determine how to manually input a position fix using the following:

- Visual bearings (LOPs)
- radar ranges
- transferred position lines
- manually input latitude and longitude.

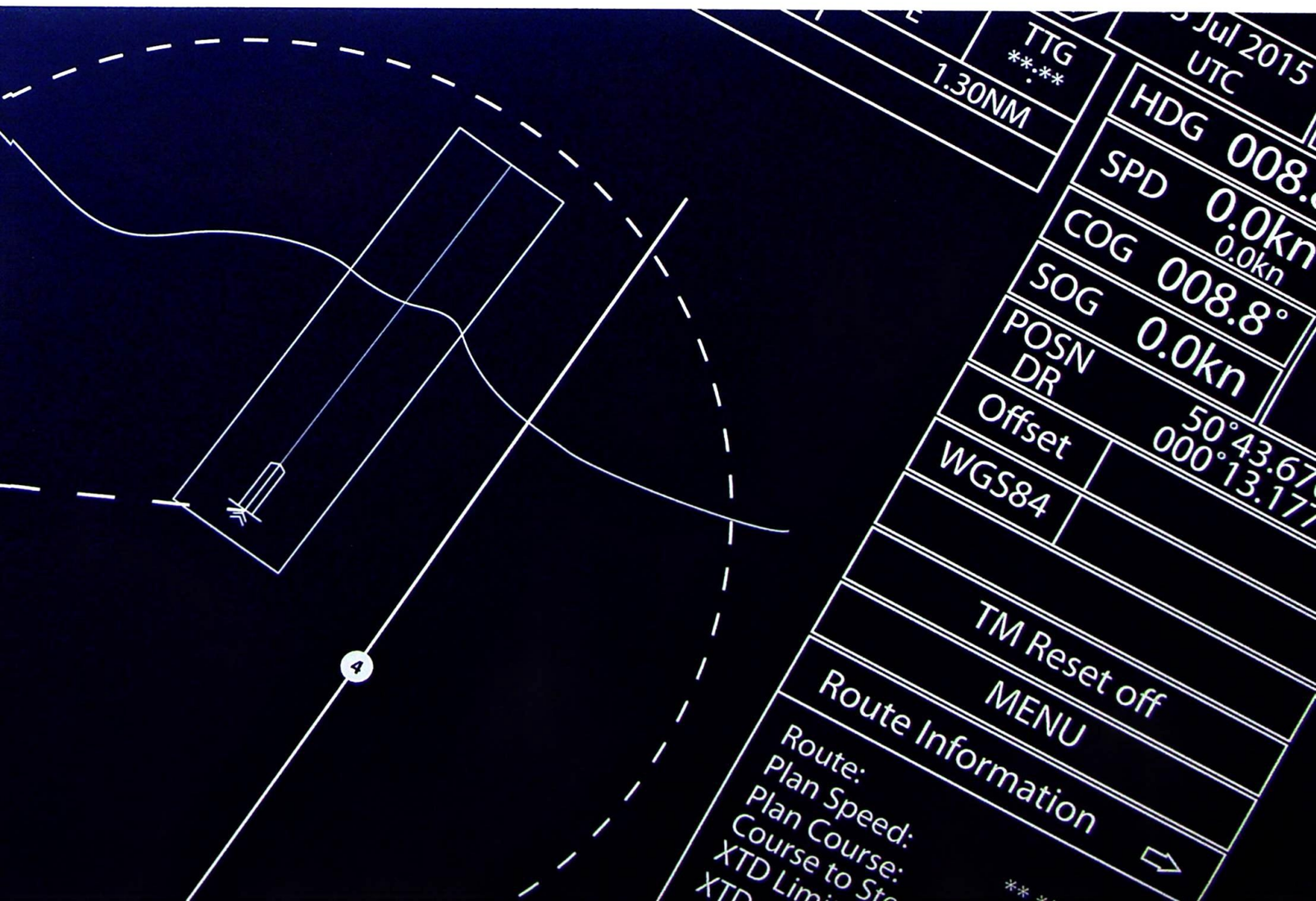
Determine how the system may be placed in DR mode.

Determine how to activate a MOB and event marker in the system.

Determine what information is recorded in the logbook.

Determine how to review a voyage using the playback recorder function.

ECDIS Type Specific Information



1. ChartWorld eGlobe G2 ECDIS – Familiarisation Checklist (Page 1 of 2)

1. **Company ECDIS Procedures**
   Review company documentation for ECDIS procedures and complete the below ECDIS Type Specific Familiarisation checklist.

2. **Chart Display**
   Become familiar with the basic chart functionality from the main display.

Task Bar		**Toolbar**	
	S-Mode		BSE
	Sailing Mode		Traffic
	Planning Mode		ERBL
	Chart Loader		Zoom
	View Alerts		Display
	Settings		NAV
	Profiles		Pick
	Integrator		Chart Settings
	Info module		Go to Ship
	Brightness		

3. **Navigational Tools**
   Operate all basic navigational functions and vessel setting options contained within the ECDIS for use of navigation.

Toolbar			
	BSE		NAV
	Traffic		Pick
	ERBL		Chart Settings
	Zoom		Go to Ship
	Display		Radar Overlay (ON/OFF)
	AIS (ON/OFF)		RM/TM (RM/TM)

4. **Chart Display Settings**
   Operate all chart display settings, become familiar with object layers, ENC symbology and define the vessel's safe water settings. Identify where all chart updates are managed in the system.

NAV		**Chart Loader**	
	Own Ship		Manual Updates
	Antigrounding		Report
	Display SP (ON/OFF)		
	Safety Contour		
	Look-ahead configuration		
Chart Settings			
	Chart Display		Chart Products
	Show Accuracy Objects with time limits		Show Chart Boundaries (Index)

5. **Route Planning**
   Operate all route planning functions and obtain all relevant schedule information for passage planning and route monitoring purposes.

Planning Mode			
	Route		User Chart
	Reverse		Check

ChartWorld eGlobe G2 ECDIS – Familiarisation Checklist (Page 2 of 2)

6. Route Monitoring

Operate the variety of voyage data functions for route monitoring to display and obtain relevant information for navigation and the ship's safety.

Display		**Traffic**	
	Split Screen		Targets
	Orientation		ARPA Targets
	RM/TM		Targets Past Positions
	Frame		AIS Targets
			AIS Layers
			Targets Association
			CPA/TCPA
			Radar Overlay

7. Chart Updating

The operator should know how to update electronic charts and be thoroughly aware of their responsibilities concerning updating. It is a legal requirement that charts are maintained in an up-to-date condition.

Chart Loader			
	Install		Review Updates
	Inventory		Manual Updates
	Report		Chart
	Settings		NAVTEX
			Chart 1

8. System Sensors

Identify where the operator can select or deselect all sensors connected to the ECDIS and verify the vessel's particulars.

Sensors			
	SPD/CRS Page		Other Page
	POSN Page		

9. System Alerts

Identify the ECDIS system's category of Alarms and Prompts generated by the operator and by the ECDIS system.

Task Bar		**NAV**	
	View Alerts		Antigrounding

10. System Units

Become familiar with the system's logbook, records, data storage and configuration set up.

Task Bar		**NAV**	
	Settings		Own Ship
Integrator			
	File Manager		Replay Mode
	Service Menu		

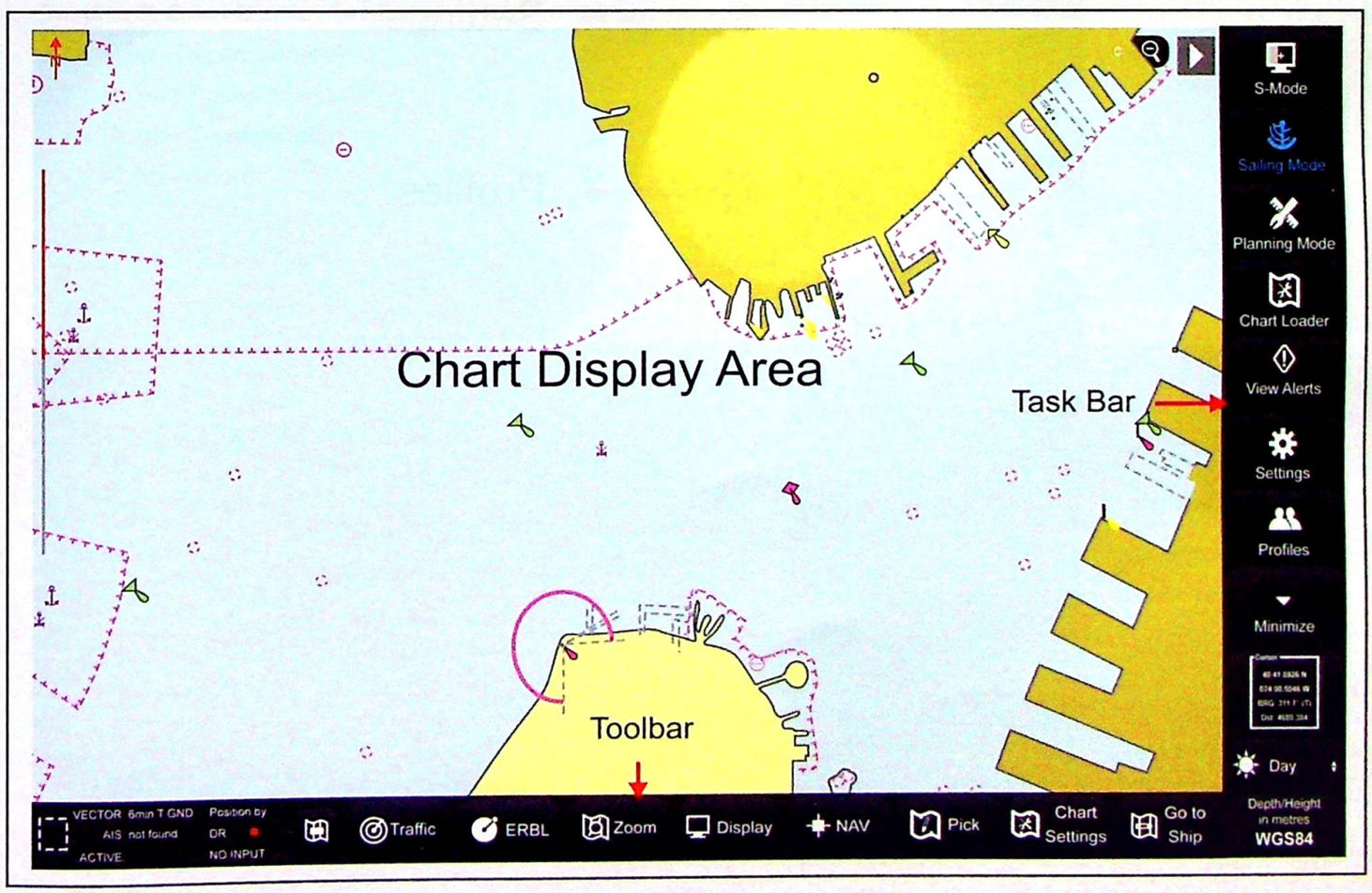
11. ECDIS Operator's Manual

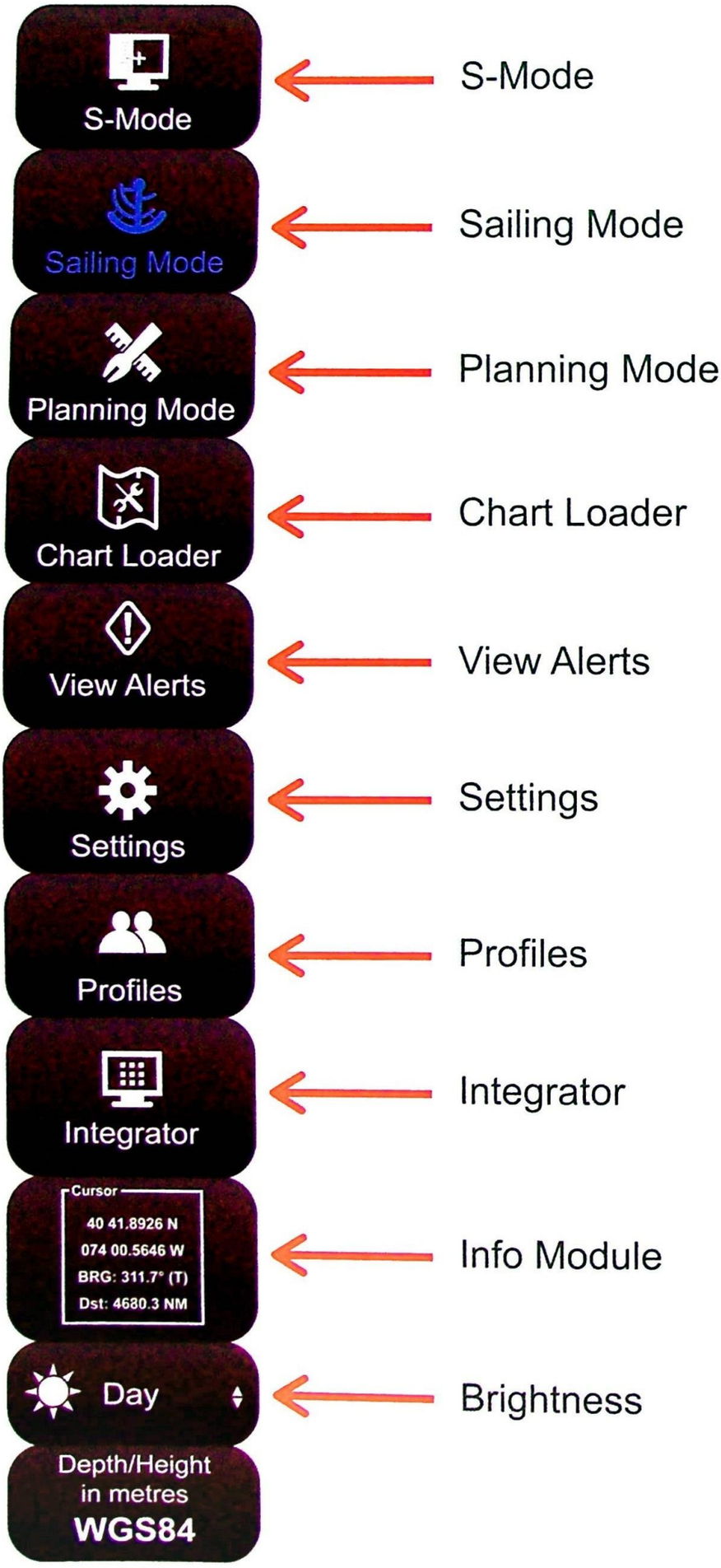
Locate the system's operator's user guide for referencing and help.

Hard copy of Operator's Manual only available			

eGlobe G2

Key eGlobe G2 ECDIS Menu Functions		
1.	Configuration of Ship's Length, Beam, Maximum Speed and ROT	**Integrator Start-up screen>Services Menu**
2.	View list of installed Charts	**Task Bar>Chart Loader>Inventory>S-57**
3.	View the latest update number installed	**Task Bar>Chart Loader>Inventory>S-57 Toolbar>Pick>Legend>Item**
4.	Change Chart Settings	**Toolbar>Chart Settings>Chart Display**
5.	View information on charted objects and view additional text	**Toolbar>Pick>Objects**
6.	Set the Safety Depth, Safety Contour, Shallow and Deep Contour	**Toolbar>Nav>Anti-grounding**
7.	Input a User Chart Object	**Task Bar>Planning Mode>User charts**
8.	Input a Manual Update	**Task Bar>Chart Loader>Inventory>S-57>Select Chart>Right click chart>Manual Updates**
9.	Turn the Predictor on	**Toolbar>Nav>Own Ship**
10.	Configure the Antigrounding	**Toolbar>Nav>Antigrounding**
11.	Configure Ship's Track	**Toolbar>Nav>Own Ship**
12.	Configure Velocity Vectors	**Toolbar>Nav>Own Ship**
13.	View past Alarms and Warnings	**Task Bar>View Alerts**
14.	Input a Visual or Radar Fix	**Context menu (right click)>Plot LOP**
15.	Turn on Overlays (AIS, ARPA)	**Toolbar>Traffic**




S-Mode
Sailing Mode
Planning Mode
Chart Loader
View Alerts
Settings
Profiles
Integrator
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in metres
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S-Mode
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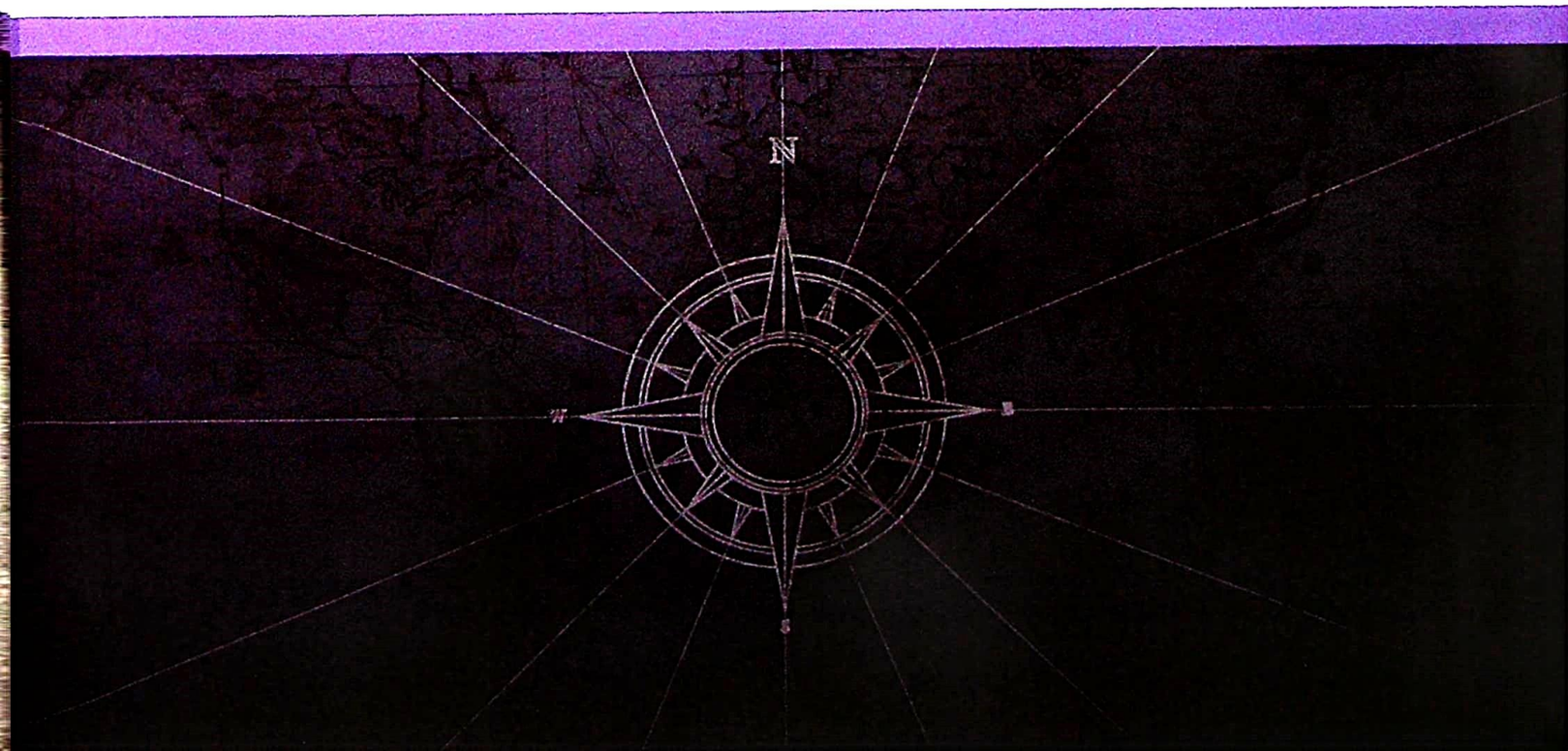
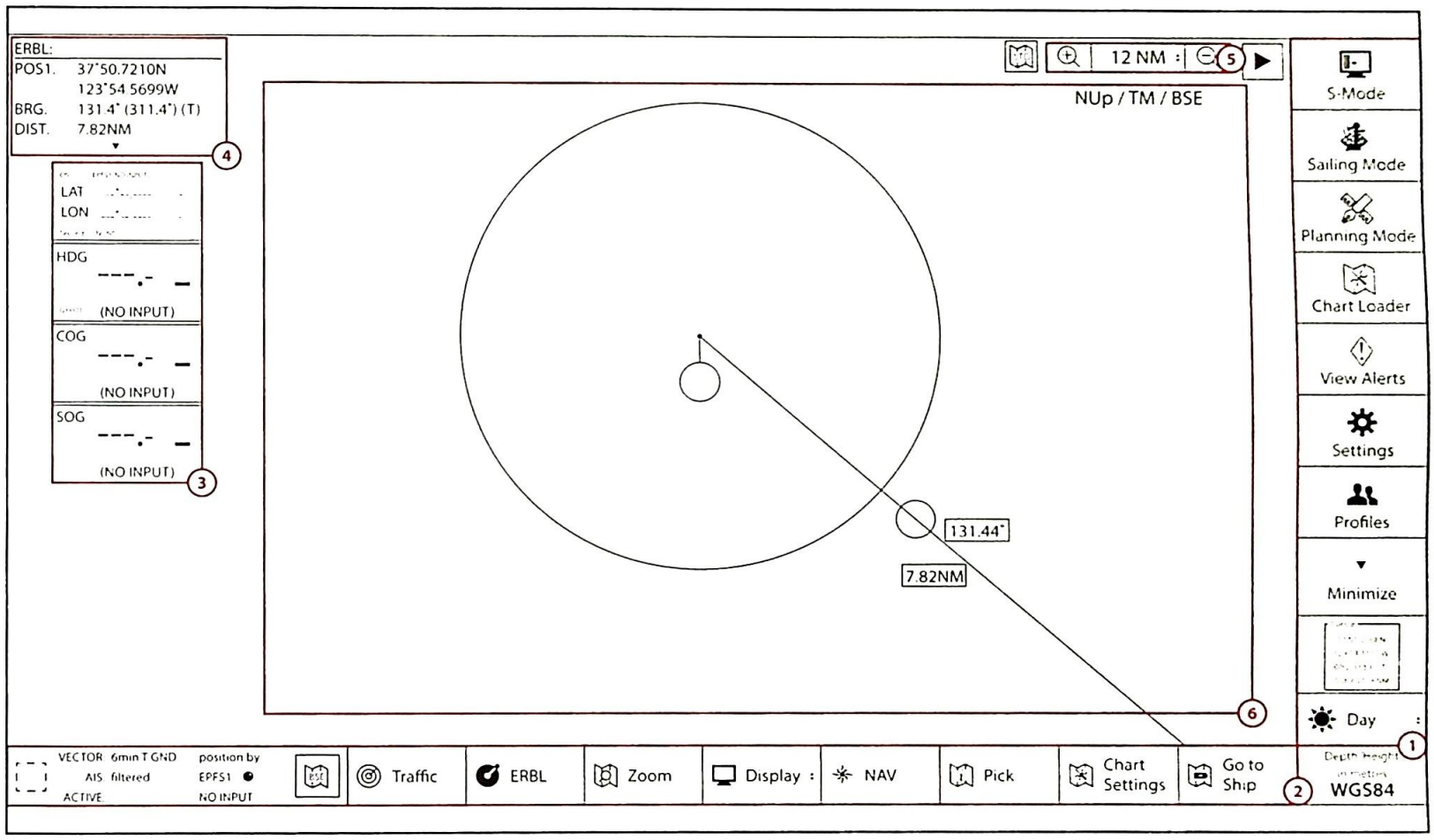
View Alerts
Settings
Profiles
Integrator
Info Module
Brightness

ChartWorld
eGlobe G2 ECDIS



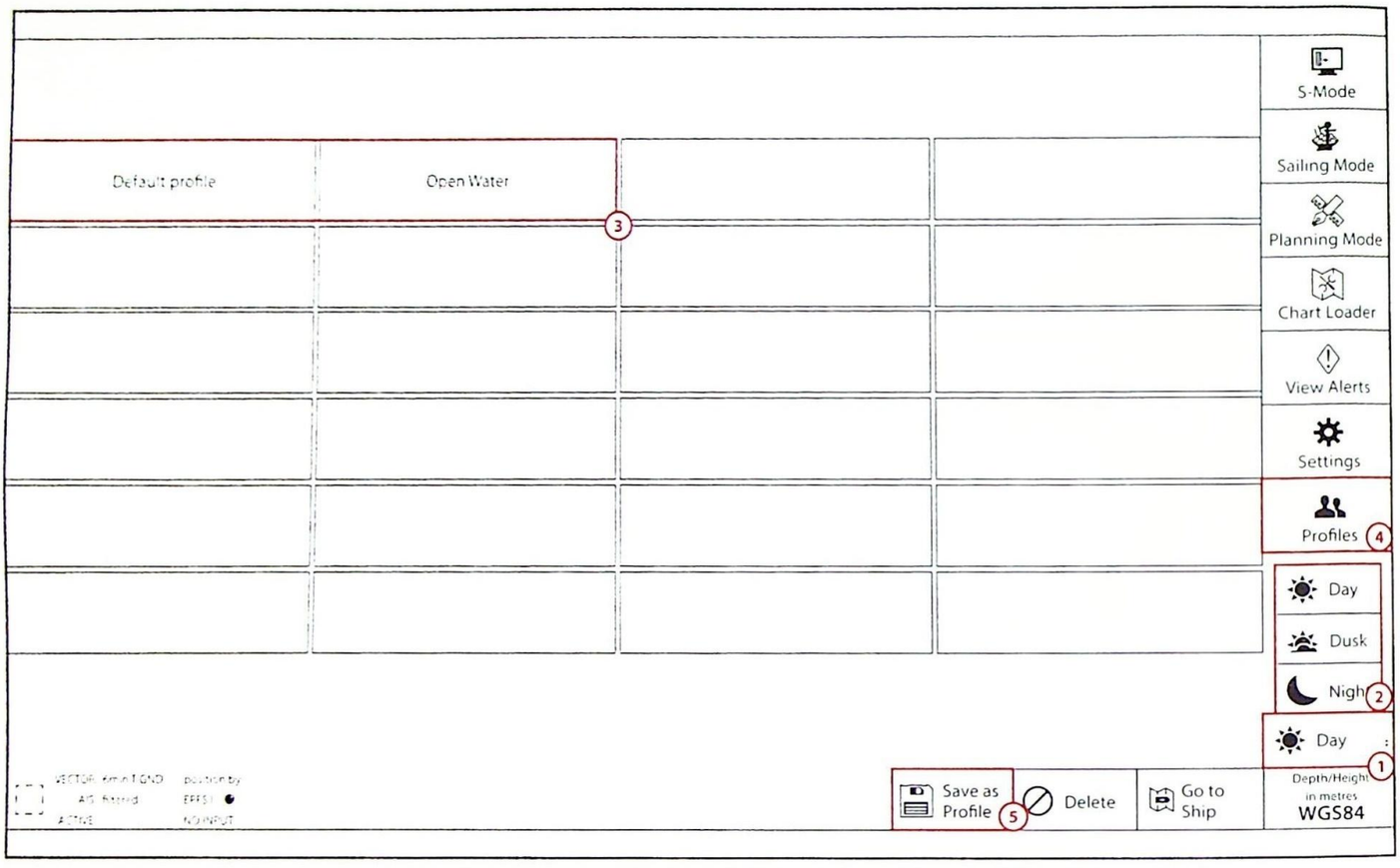
Section 1: Main Display

1.1 **Screen Layout**



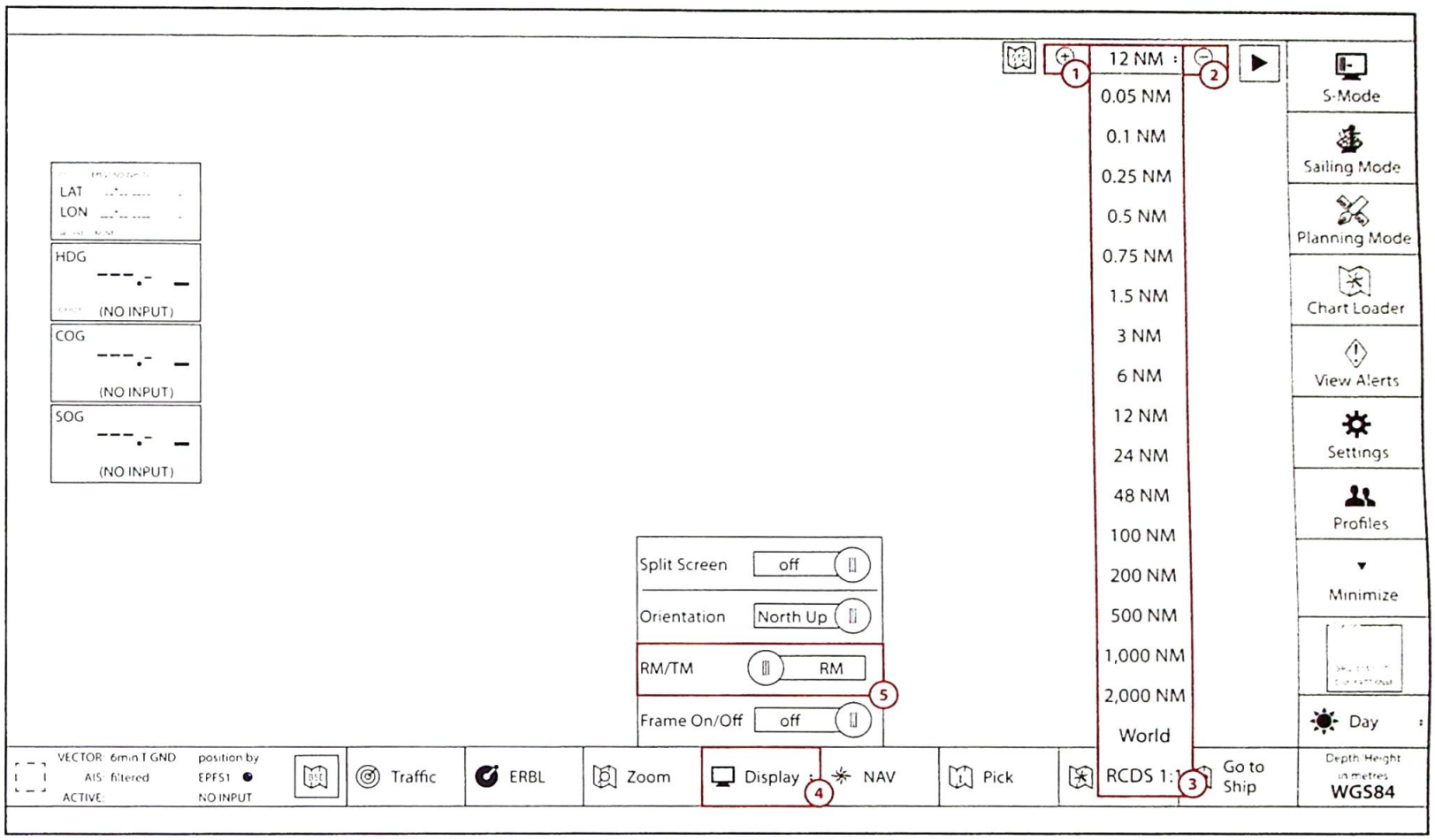
1. Task bar
2. Toolbar
3. Information labels
4. ERBL onscreen information
5. Range widget
6. Chart display panel

1.2 Colour Palette/Profiles



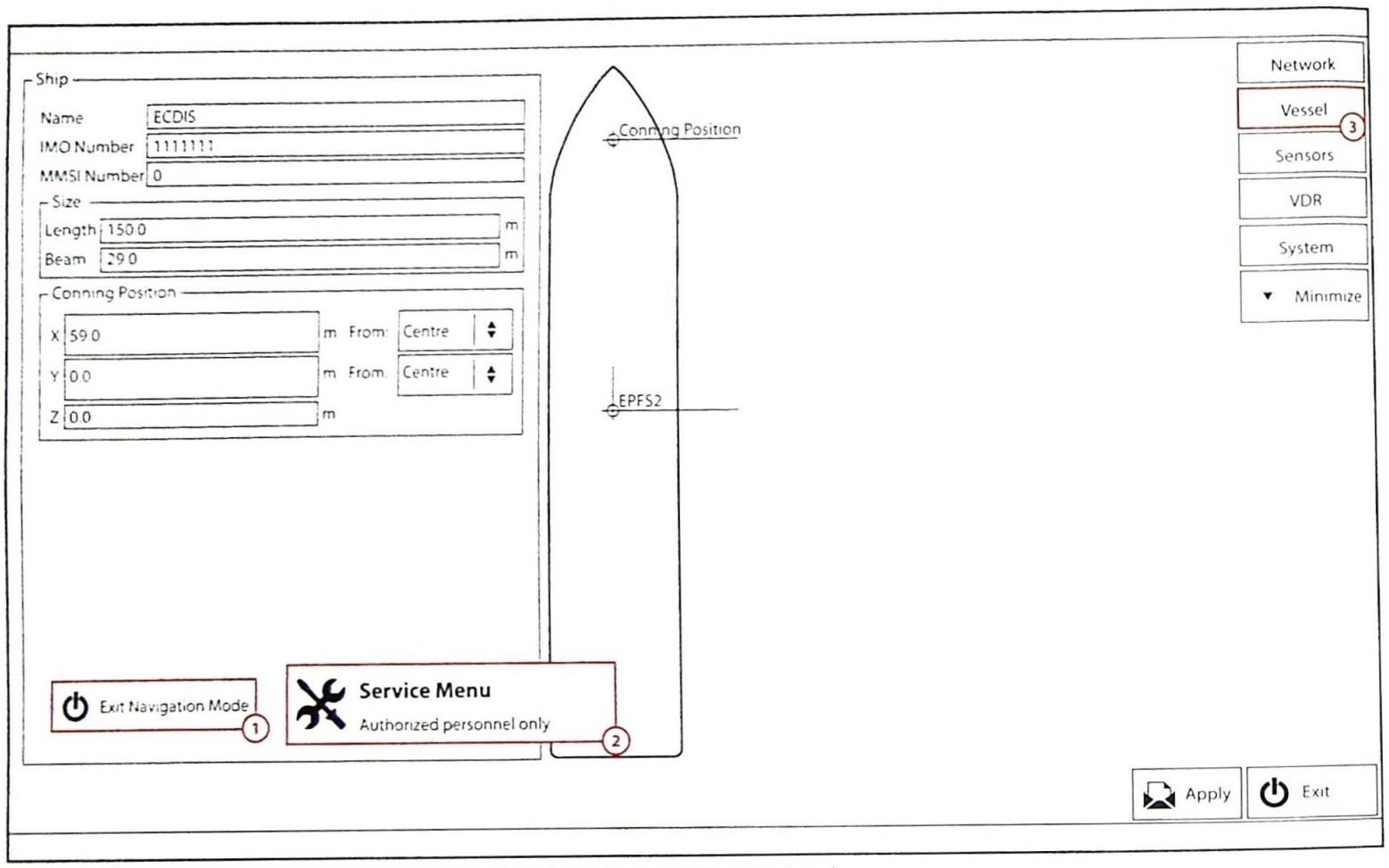
1. Click the brightness icon in the task bar.
2. Select day, dusk or night.
3. Information labels.
4. Select the profile required.
5. 'Save as Profile' ensures current settings are saved.

1.3 Range/Scale/Motion



1. Click to zoom in.
2. Click to zoom out.
3. Left click to access the dropdown and selected range.
4. Select 'Display' to view the display menu.
5. Click here to switch between RM and TM.

1.4 Setting CCRP

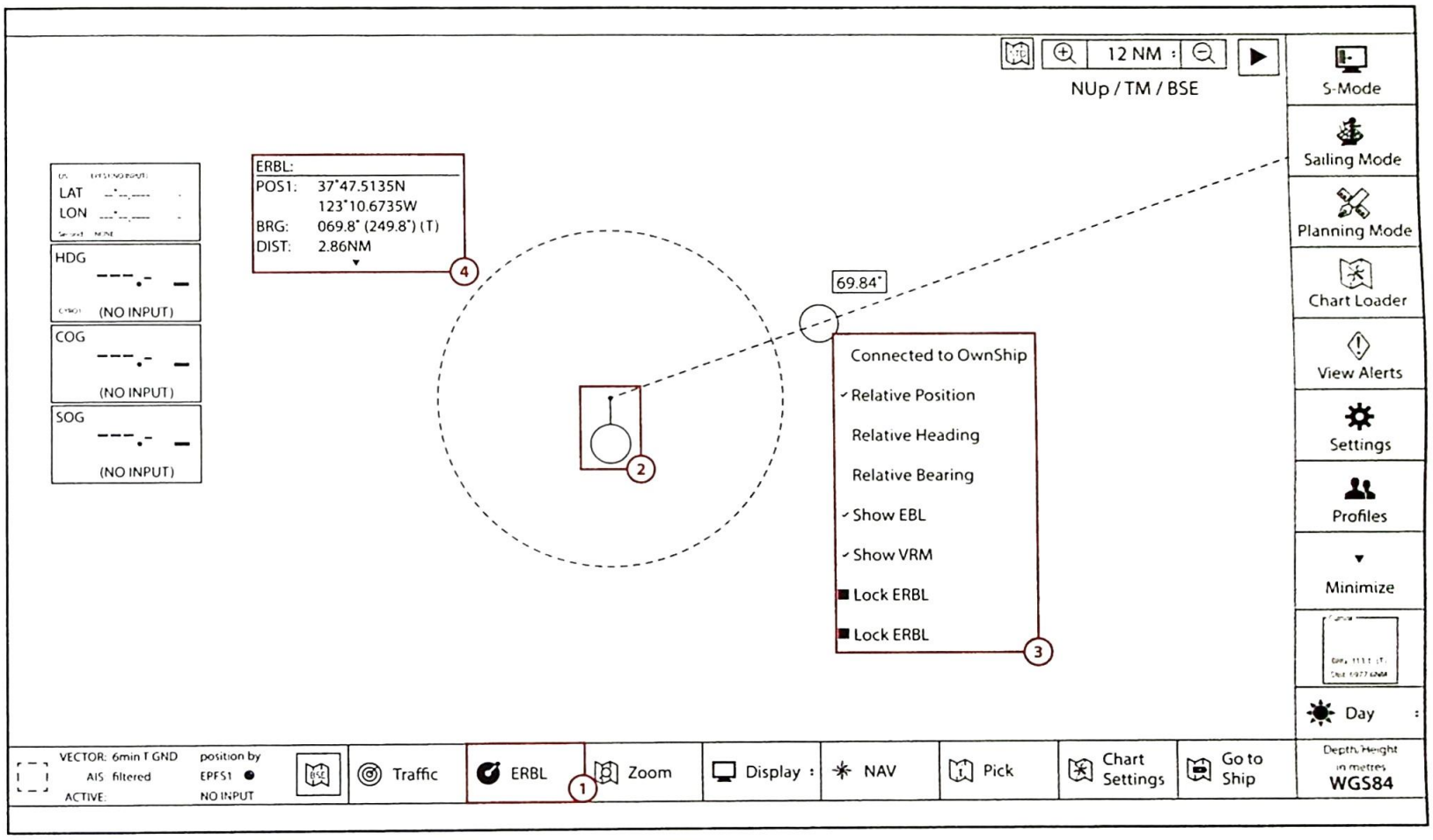


Note to user: To find CCRP settings, you must exit 'ECDIS Mode' and enter the 'Service Menu'.

1. Click 'Exit Navigation Mode' from settings.
2. From the integrator screen, click 'Service Menu'.
3. Click 'Vessel' to open CCRP settings.

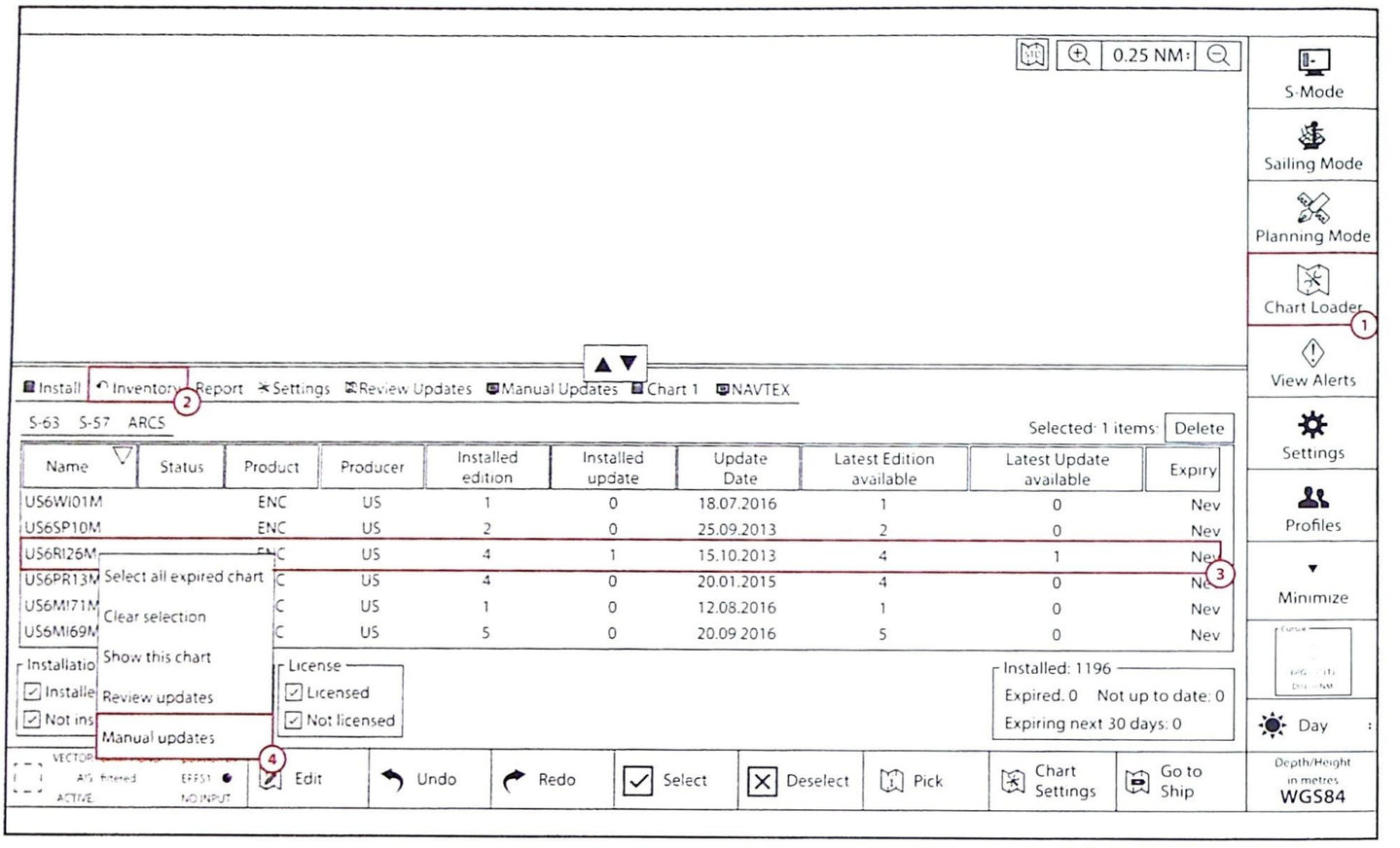
Section 2: Navigation Tools

2.1 **EBL/VRM/PI**



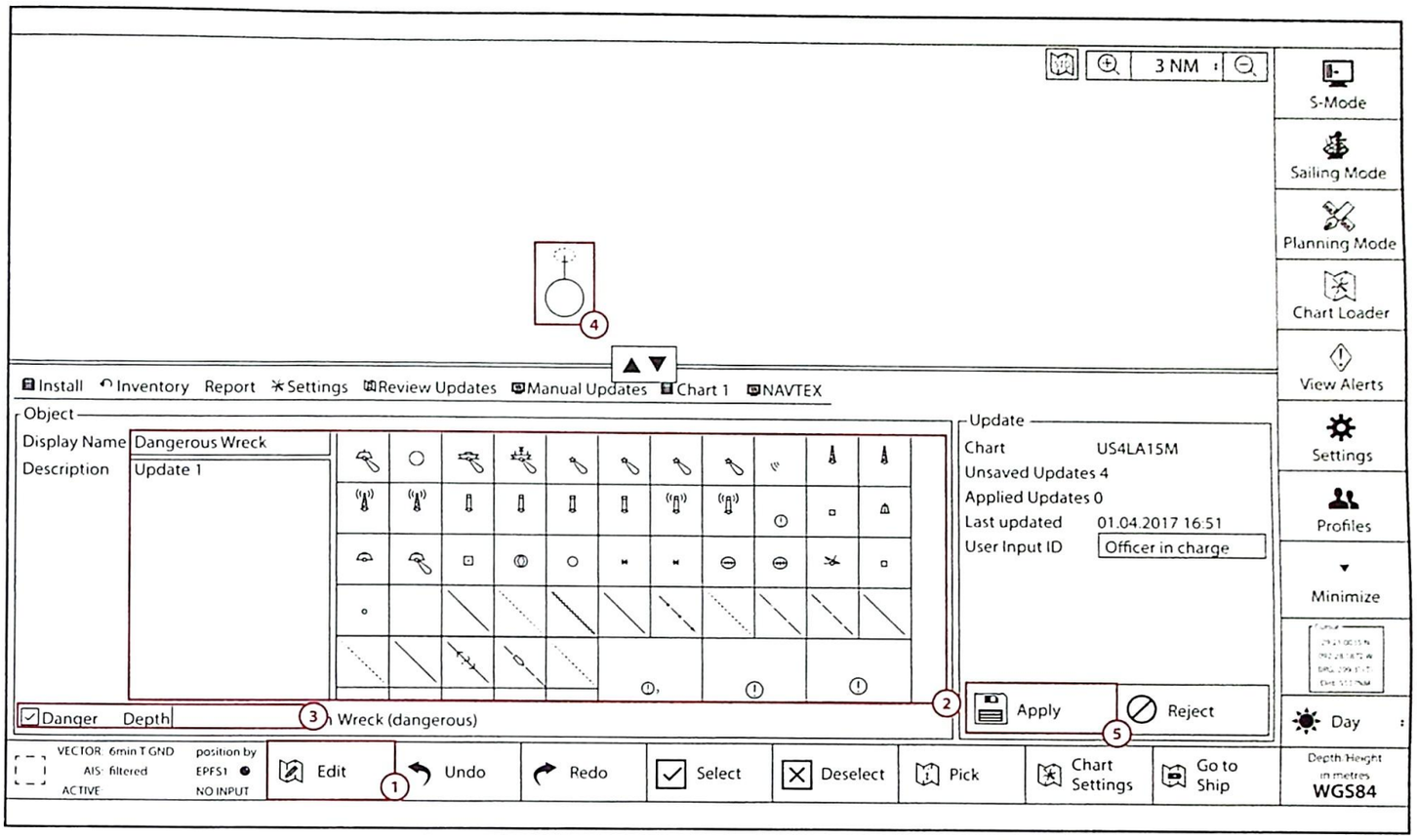
1. Click 'ERBL' to turn on.
2. Left click the handle to move.
3. Right click to access the context menu.
4. ERBL onscreen information.

2.2 Manual Corrections Part 1



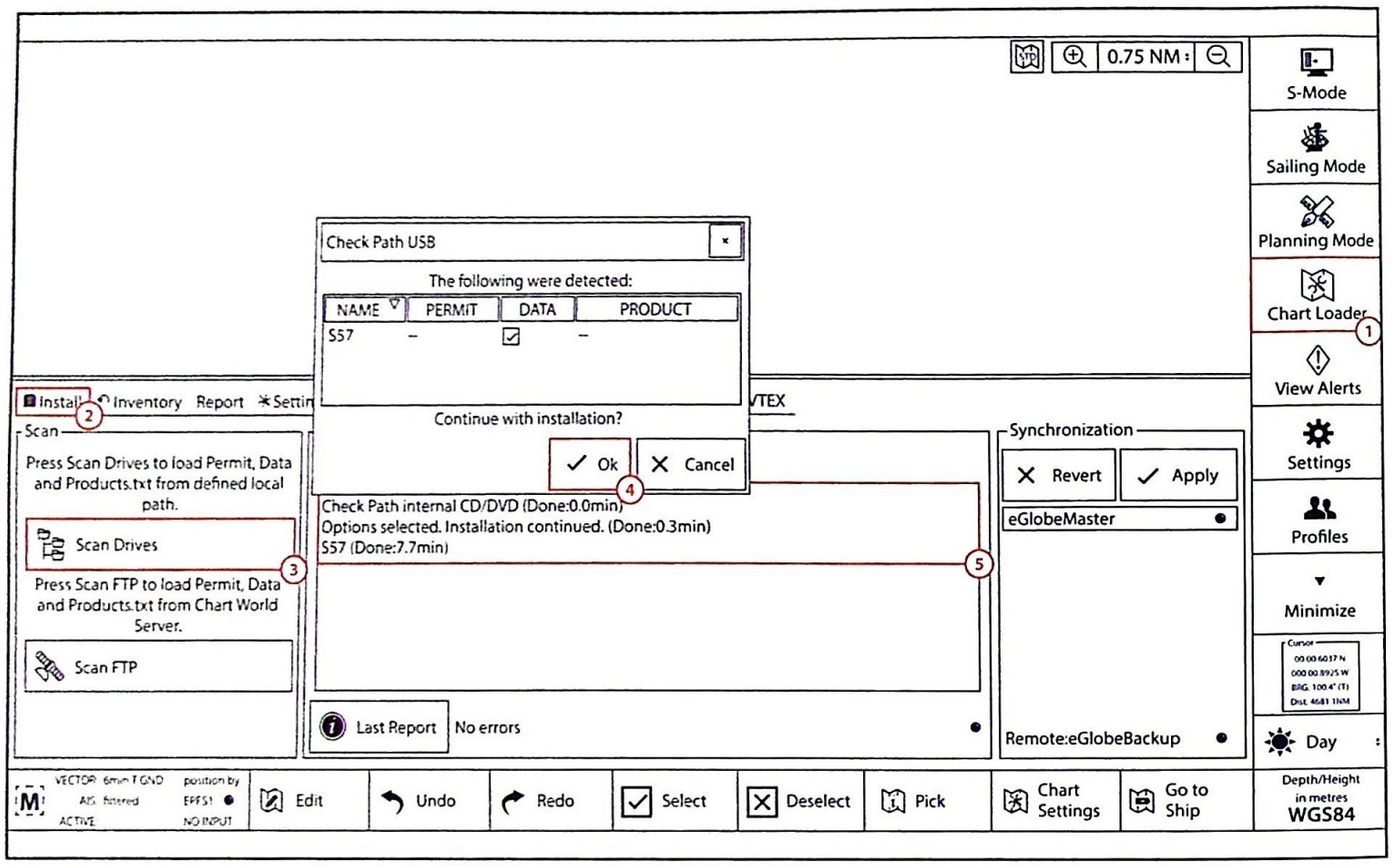
1. Click 'Chart Loader' in the task bar.
2. Click 'Inventory'.
3. Select the chart to be updated and right click to view the context menu.
4. Click 'Manual updates'.

2.2 Manual Corrections Part 2



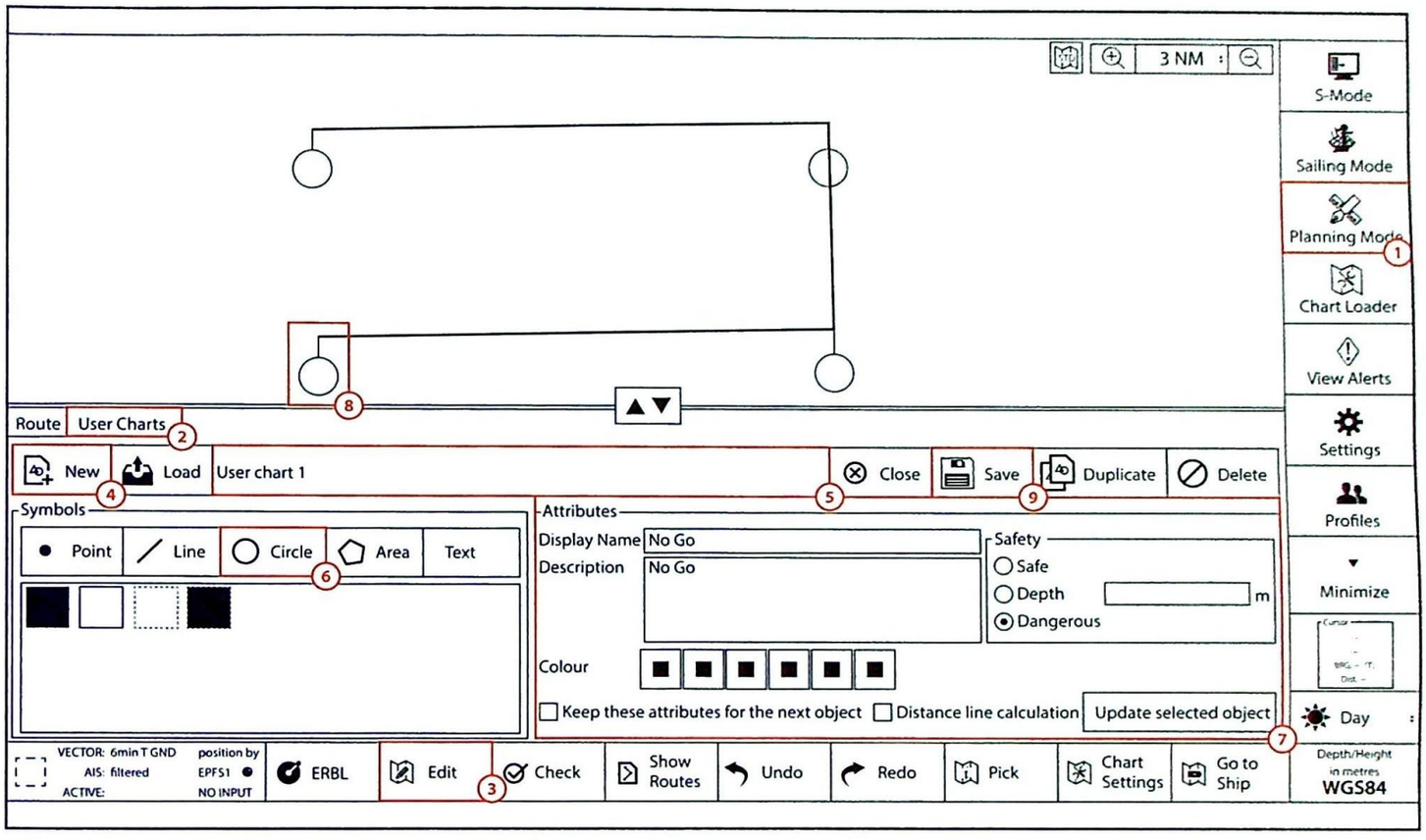
1. Click 'Edit' to add a manual update.
2. Select an object to insert and input object details.
3. Tick the 'Danger' box and input depth, if required.
4. Left click to add an object to the chart. (Right click to view the context menu.)
5. Click 'Apply' to accept the manual update.

2.3 Chart Updates



1. Click 'Chart Loader' in the task bar.
2. Click 'Install'.
3. Click 'Scan Drives'.
4. Once the scan has been completed, it will show the charts that can be installed. Click 'Ok' to start the installation.
5. Show stages of the installation.

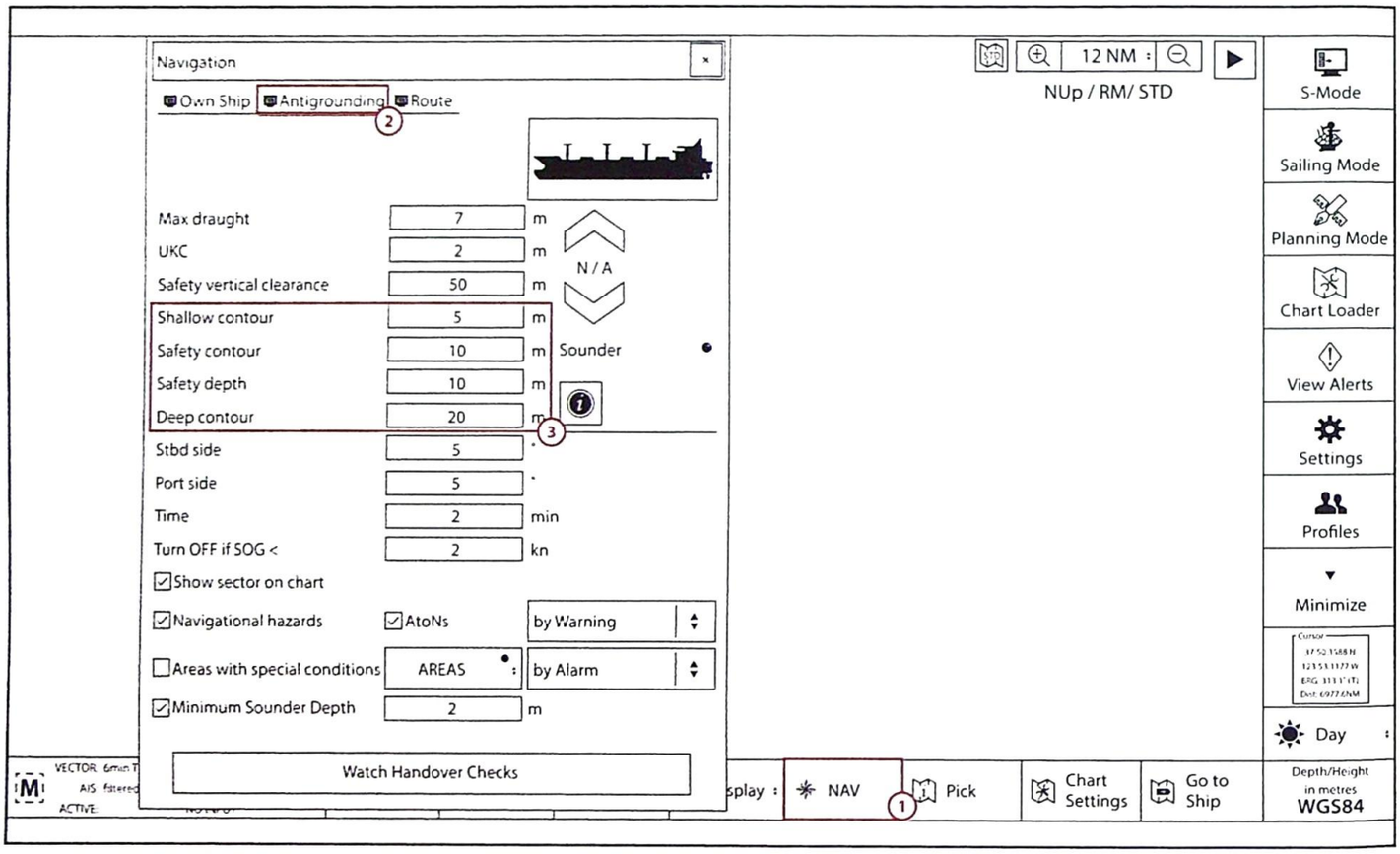
2.4 No Go Areas/User Charts



1. Click 'Planning Mode' in the task bar.
2. Click 'User Charts'.
3. Ensure 'Edit' is enabled.
4. Select 'New'.
5. Enter a name for the user chart.
6. Select the symbol to be added.
7. Add attributes to the symbol.
8. Left click on the chart to start adding objects.
9. Click 'Save' to save the user chart.

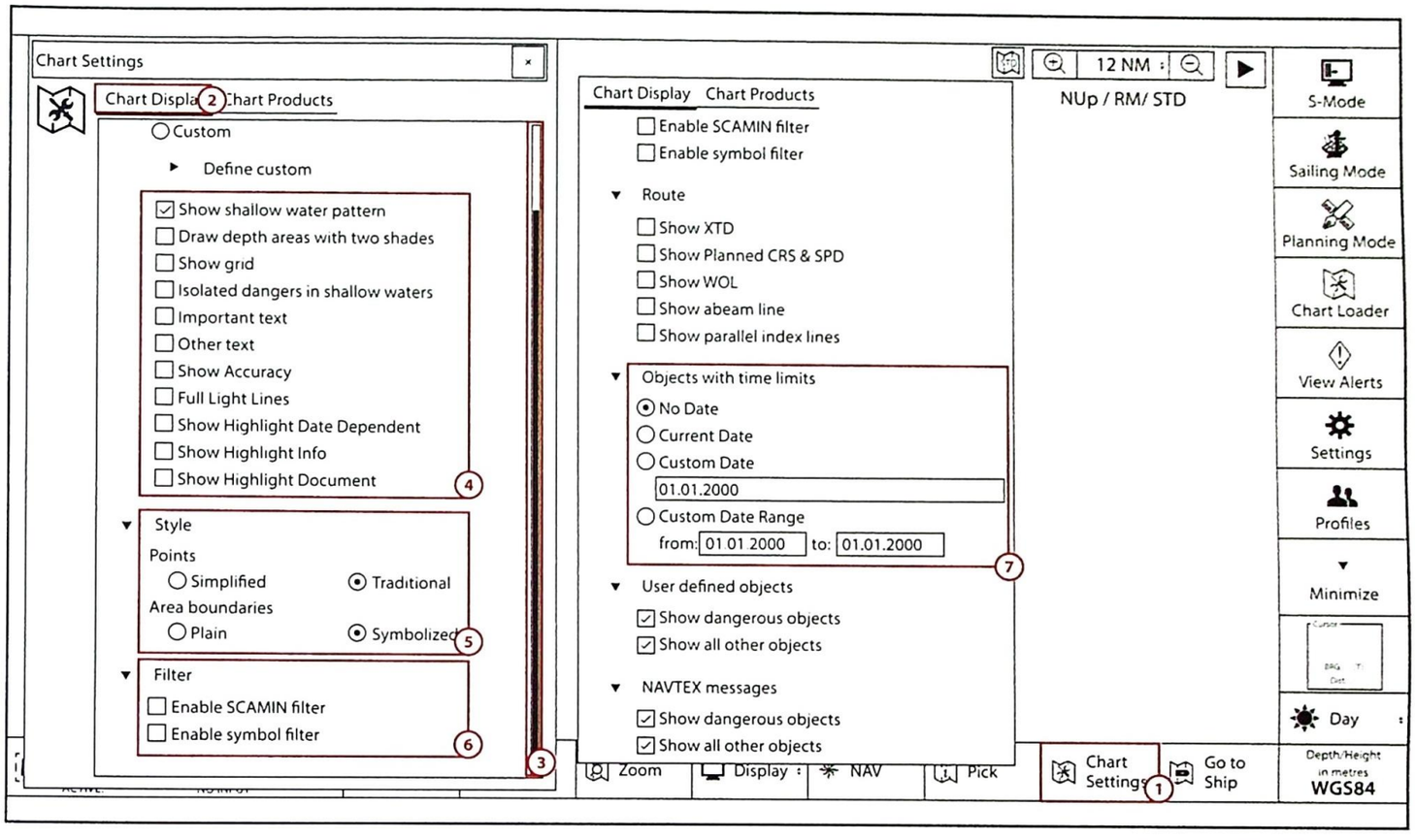
Section 3: Chart Display Settings

3.1 Safety Depth/Contour



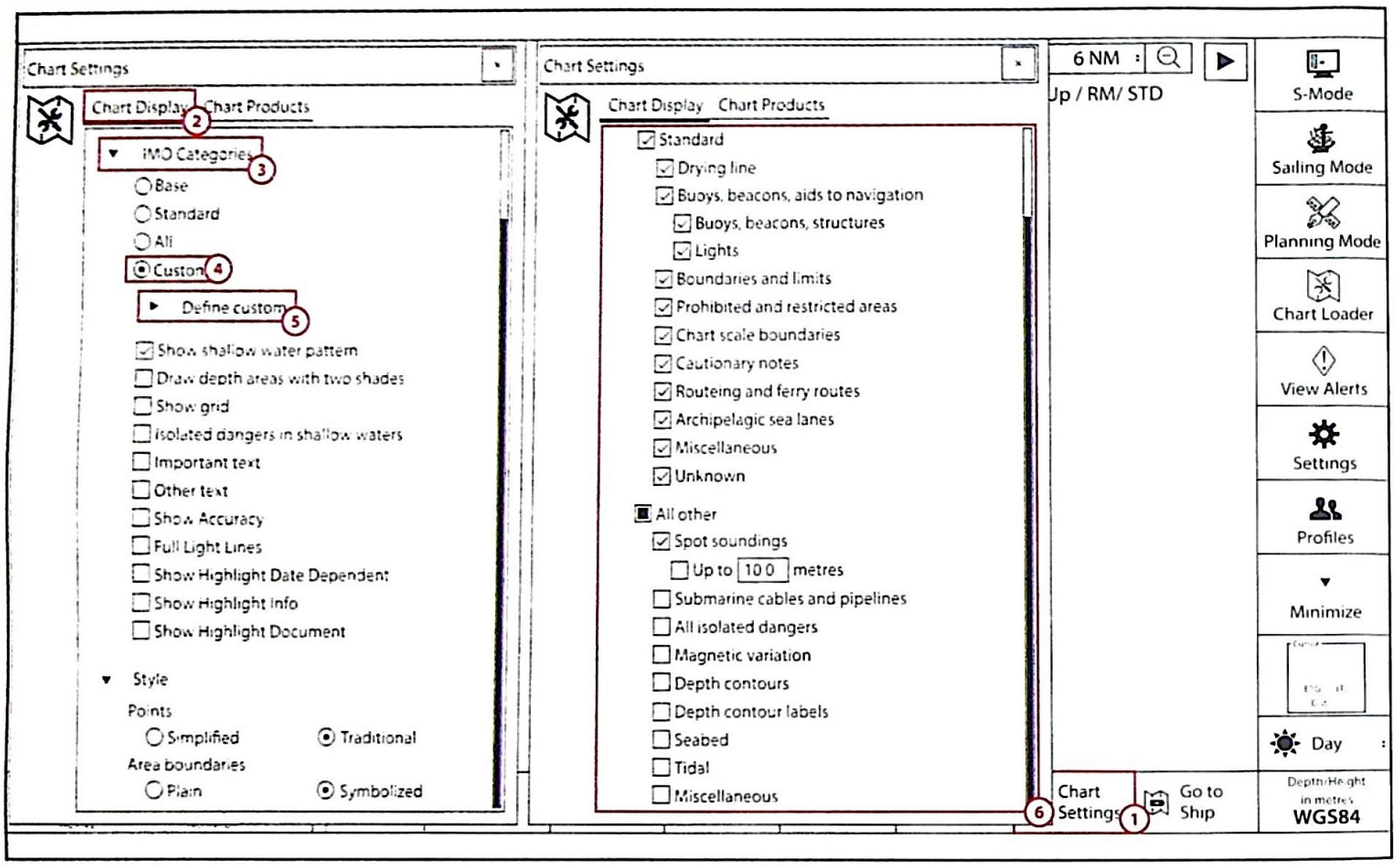
1. Click 'NAV' in the toolbar.
2. Click 'Antigrounding' in the navigation menu.
3. Adjust contours, as required.

3.2 Display Preference Options



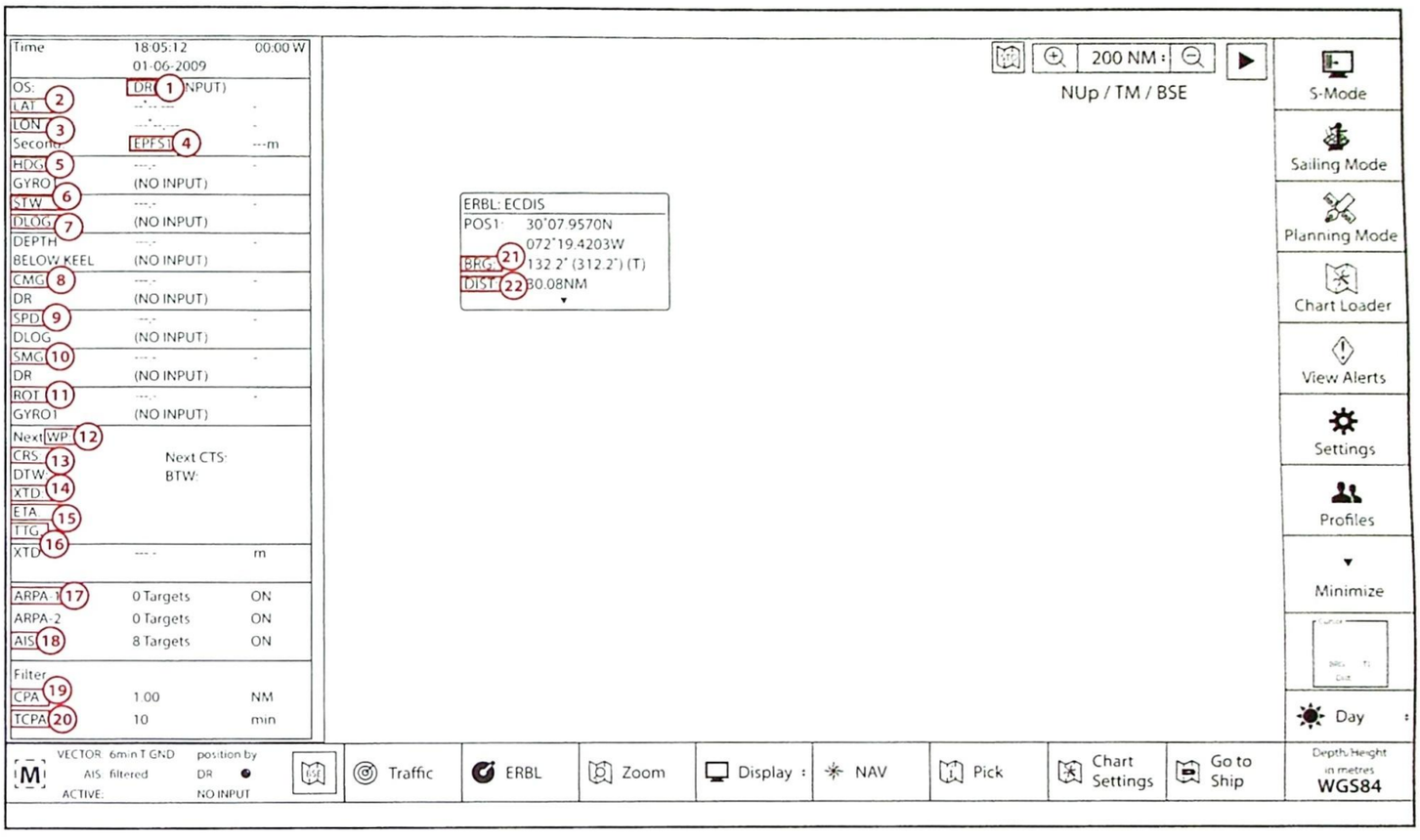
1. Click 'Chart Settings' in the toolbar.
2. Click 'Chart Display'.
3. Use the scroll bar to find the settings required.
4. Under 'Define custom' within IMO Categories, enable/disable as required.
5. Under 'Style', enable/disable as required.
6. Under 'Filter', enable/disable as required.
7. Under 'Objects with time limits', enable/disable as required.

3.3 Display Configuration



1. Click 'Chart Settings' in the toolbar.
2. Click 'Chart Display'.
3. Expand 'IMO Categories'.
4. Select 'Custom'.
5. Expand 'Define custom'.
6. Enable/disable by ticking or unticking.

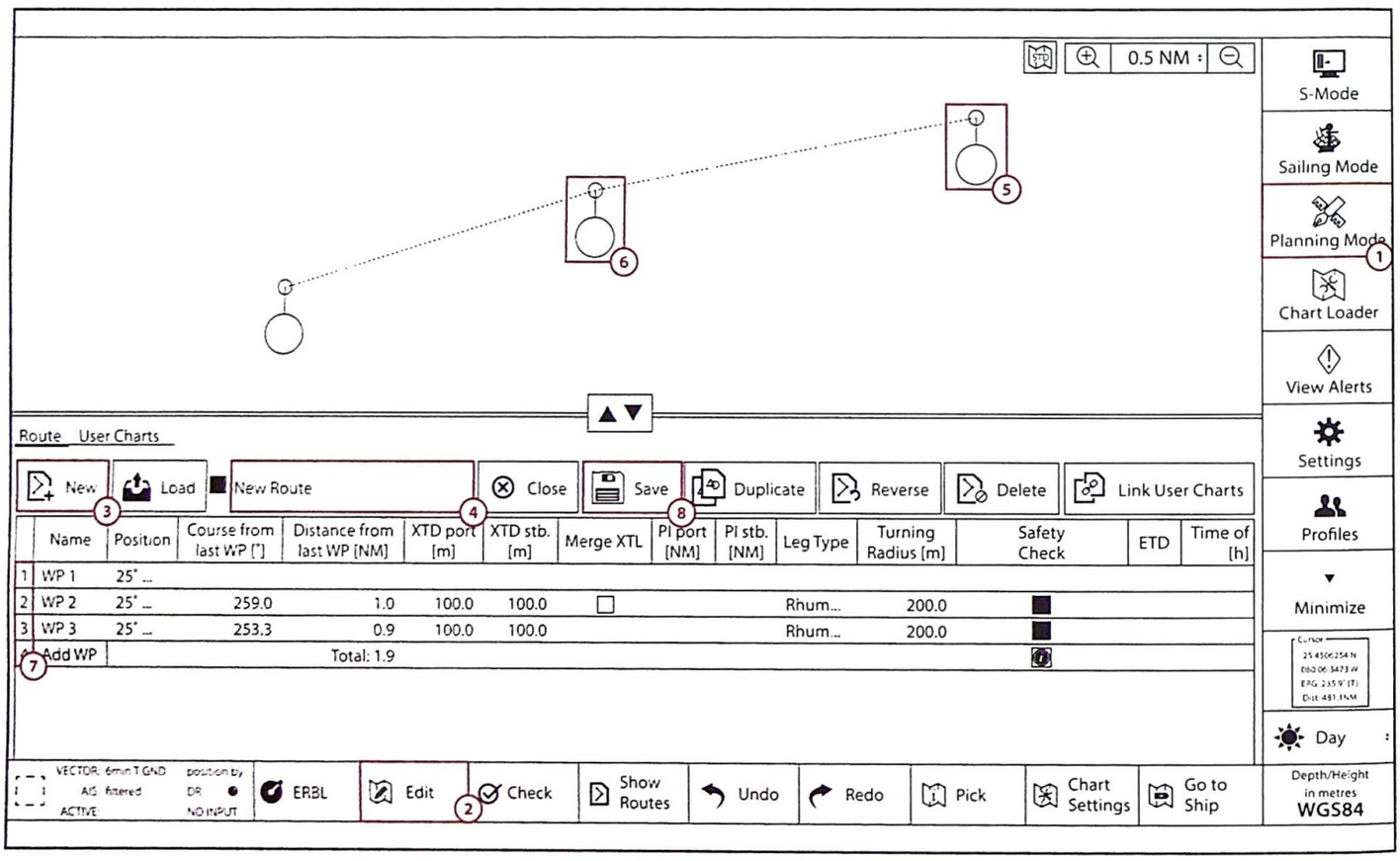
3.4 Abbreviations



1. Dead Reckoning
2. Latitude
3. Longitude
4. Electronic Position Fixing System
5. Heading
6. Speed Through Water
7. Digital LOG
8. Course Made Good
9. Speed
10. Speed Made Good
11. Rate of Turn
12. Waypoints
13. Course
14. Cross Track Distance
15. Estimated Time of Arrival
16. Time to Go
17. Automatic Radar Plotting Aid
18. Automatic Identification System
19. Closest Point of Approach
20. Time to Closest Point of Approach
21. Bearing
22. Distance

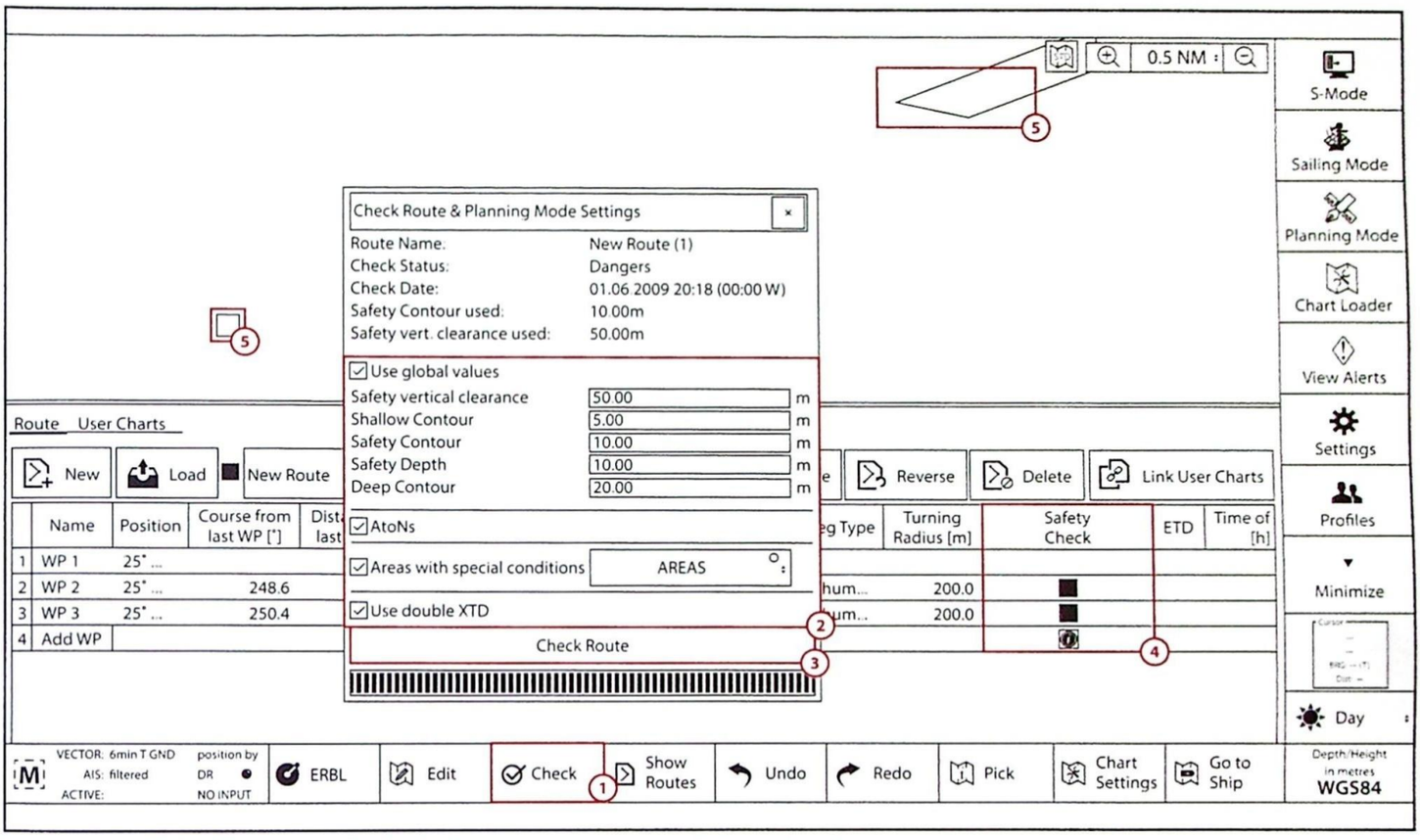
Section 4: Route Planning

4.1 **Creation**



1. Click 'Planning Mode' in the task bar.
2. Ensure 'Edit' is enabled.
3. Click 'New'.
4. Name your route.
5. Left click on the chart to place your first waypoint.
6. Consecutive left clicks will place more waypoints.
7. Waypoints will appear in the route table.
8. Click 'Save'.

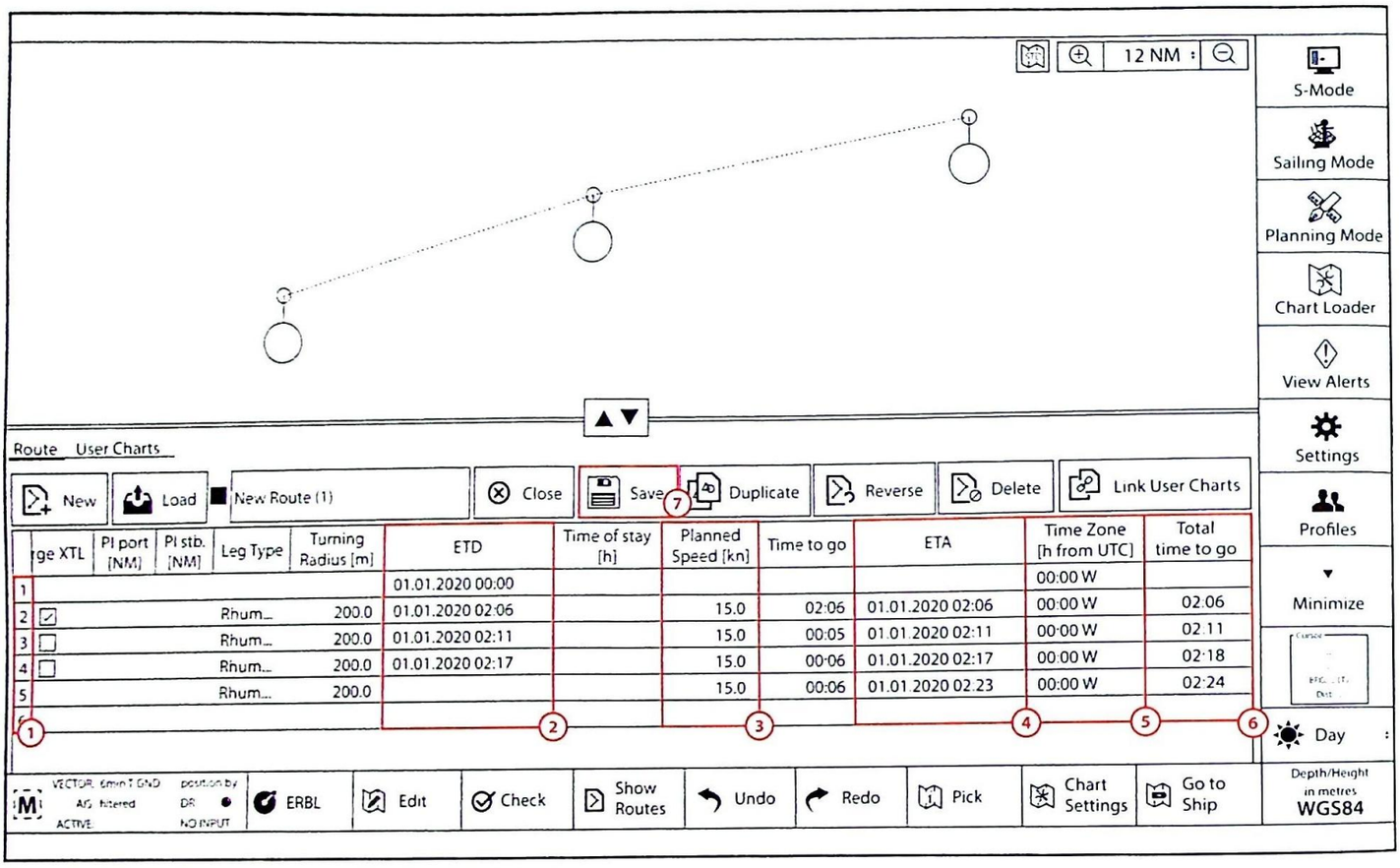
4.2 Schedule/Route Checking



Note to user: eGlobe G2 automatically checks the route as soon as waypoints are placed.

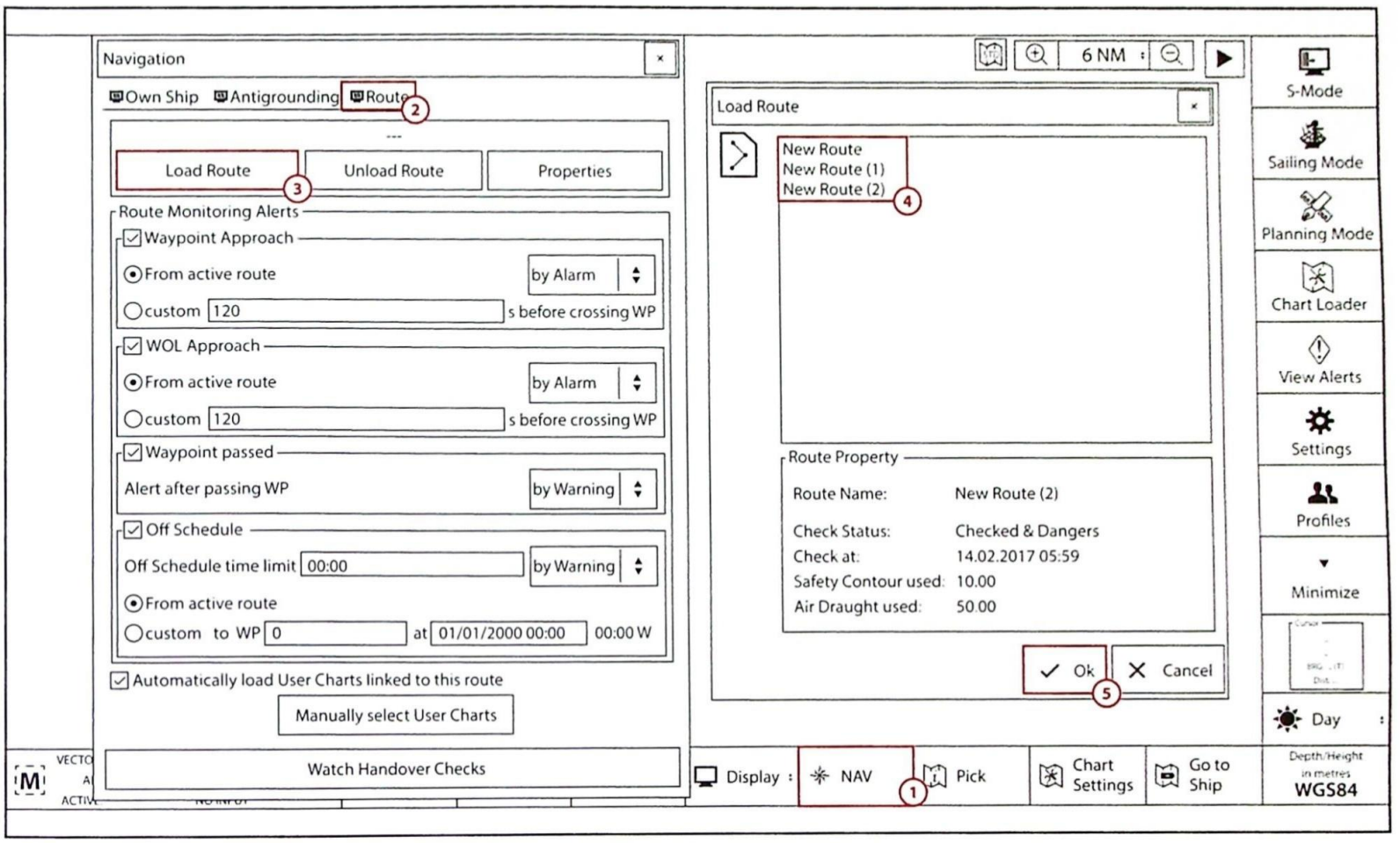
1. Click 'Check' in the toolbar.
2. Configure settings for route check.
3. Click 'Check Route'.
4. Show safety status of the leg.
5. Highlight dangers/warnings.

4.3 Optimisation



1. Ensure you are editing a route and that you have some waypoints inserted.
2. Insert an ETD.
3. Adjust speed for each leg of the route, as required.
4. Adjust ETA for each leg of the route.
5. Insert the time zone accordingly.
6. TTG will automatically change based on the details inserted into the route table.
7. Click 'Save' to ensure your changes have been saved.

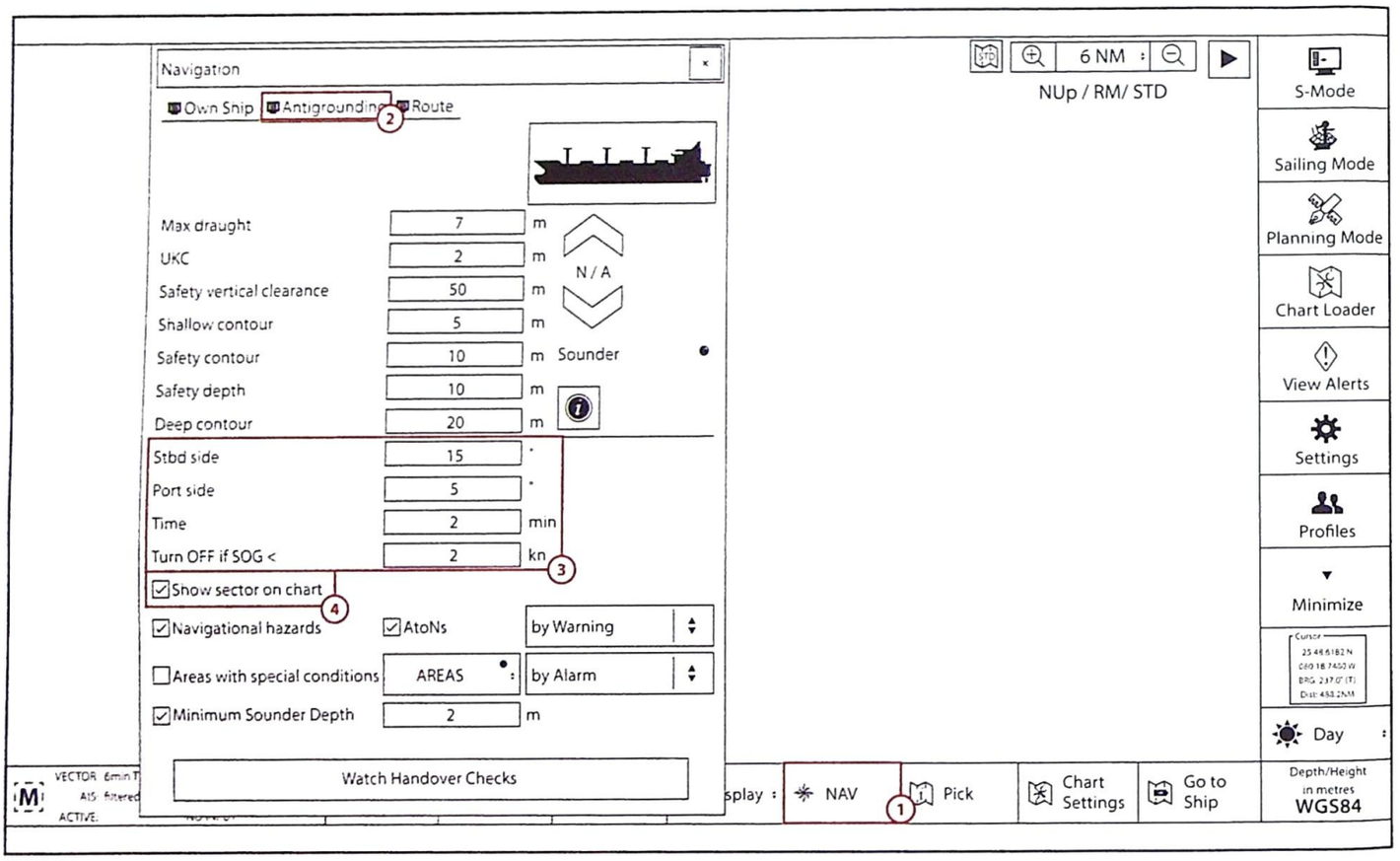
4.4 Selecting Active Route



1. Click 'NAV' in the toolbar.
2. Click 'Route' in the navigation menu.
3. Click 'Load Route'.
4. Select a route.
5. Click 'Ok' to load the route.

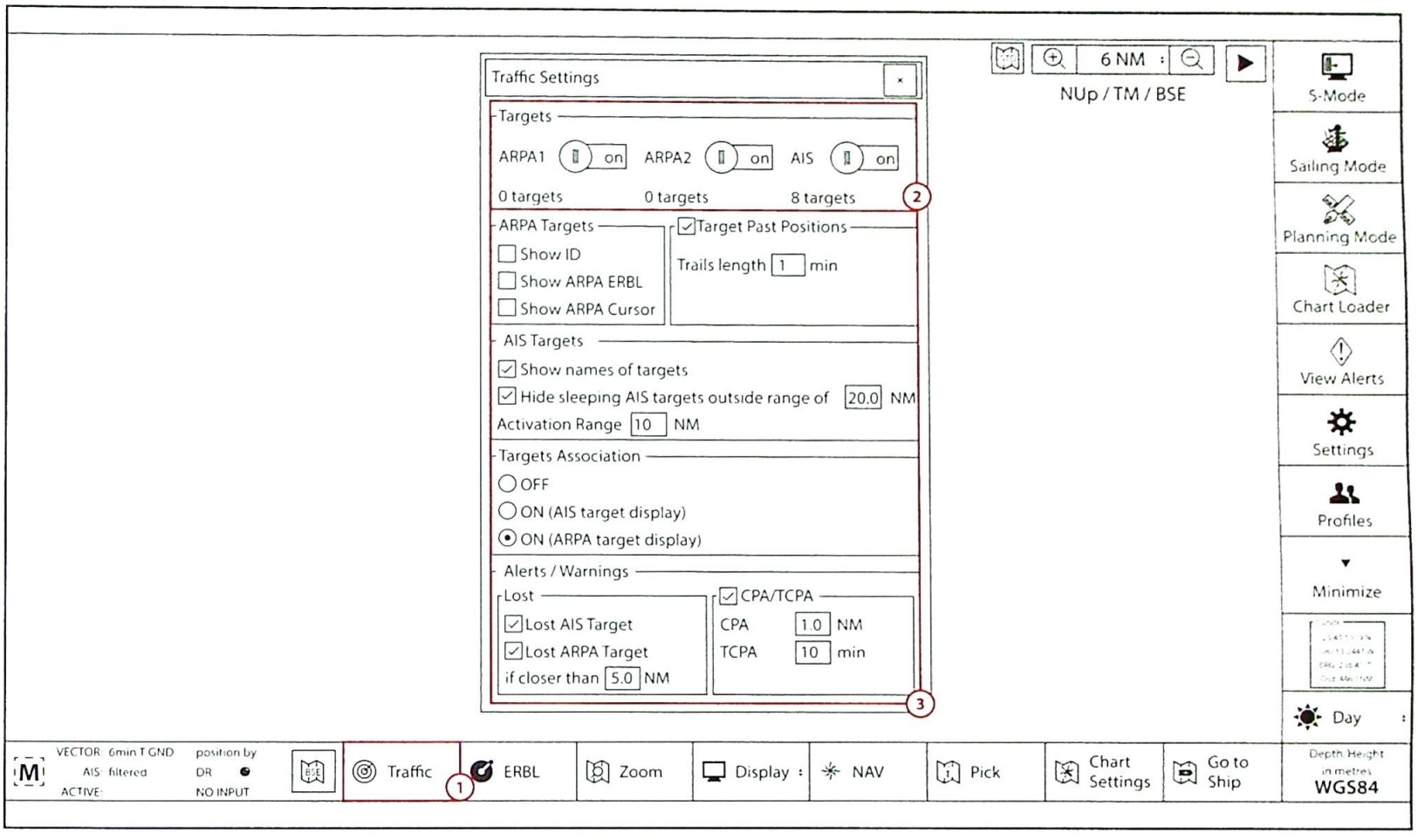
Section 5: Route Monitoring

5.1 **Look-Ahead**



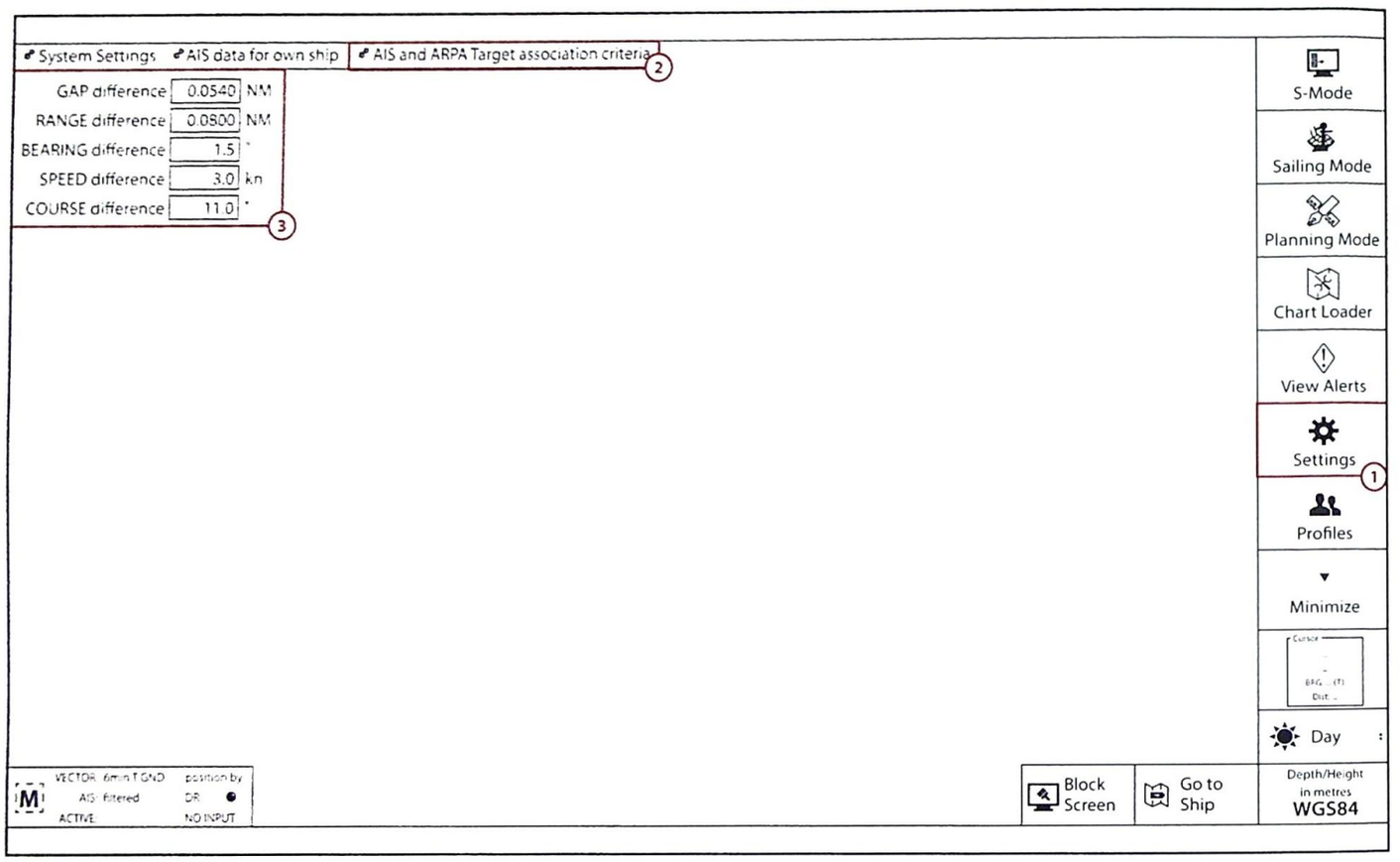
1. Click 'NAV' in the toolbar.
2. Click 'Antigrounding' in the navigation menu.
3. Adjust look-ahead settings.
4. Click the tick box to show the sector on the chart.

5.2 TT/AIS/Vectors Part 1



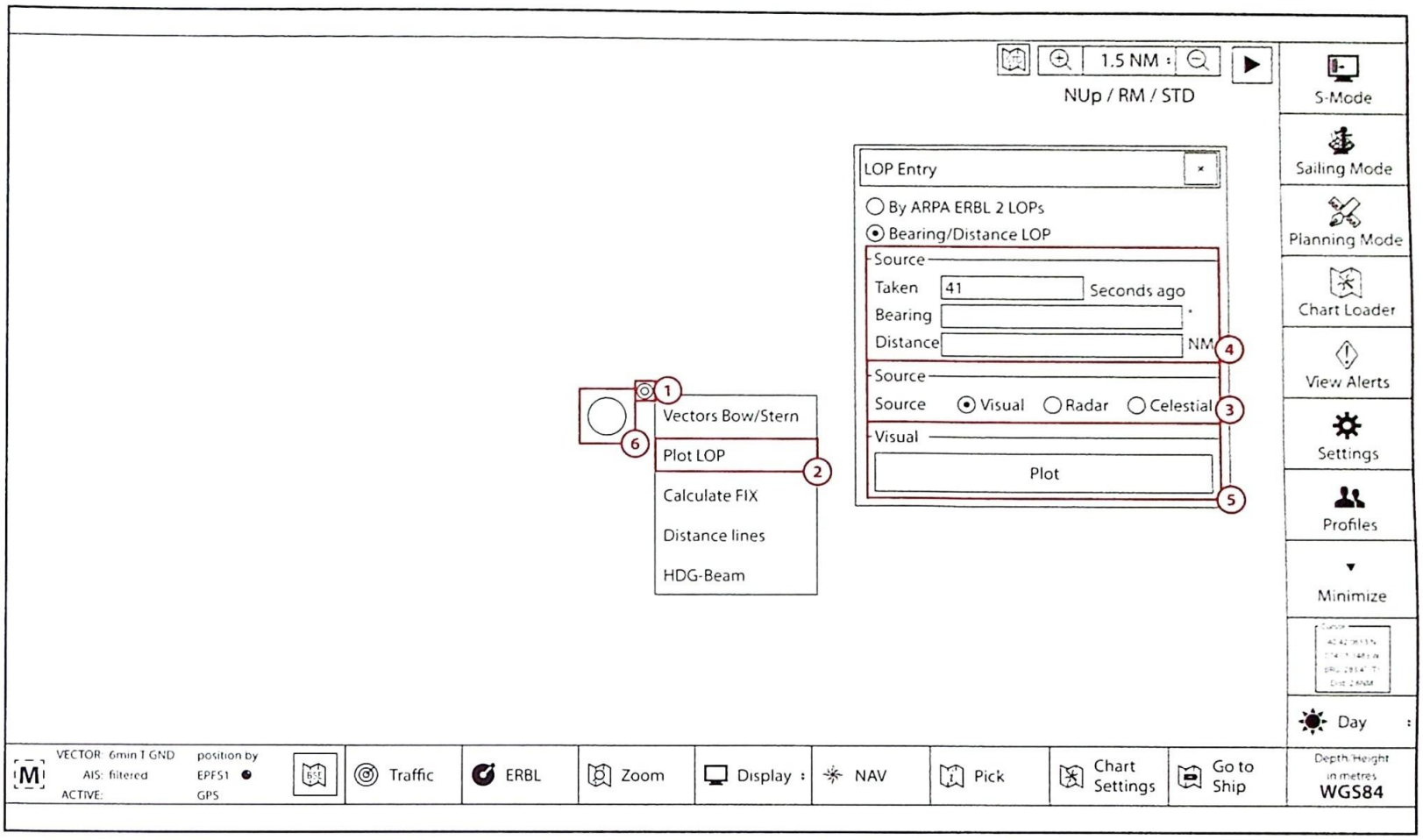
1. Click 'Traffic' in the toolbar.
2. Enable/disable, as required.
3. Adjust settings, as required.

5.2 TT/AIS/Vectors Part 2



1. Click 'Settings' in the task bar.
2. Click 'AIS and ARPA Target association criteria'.
3. Adjust settings, as required.

5.3 Position Fixing

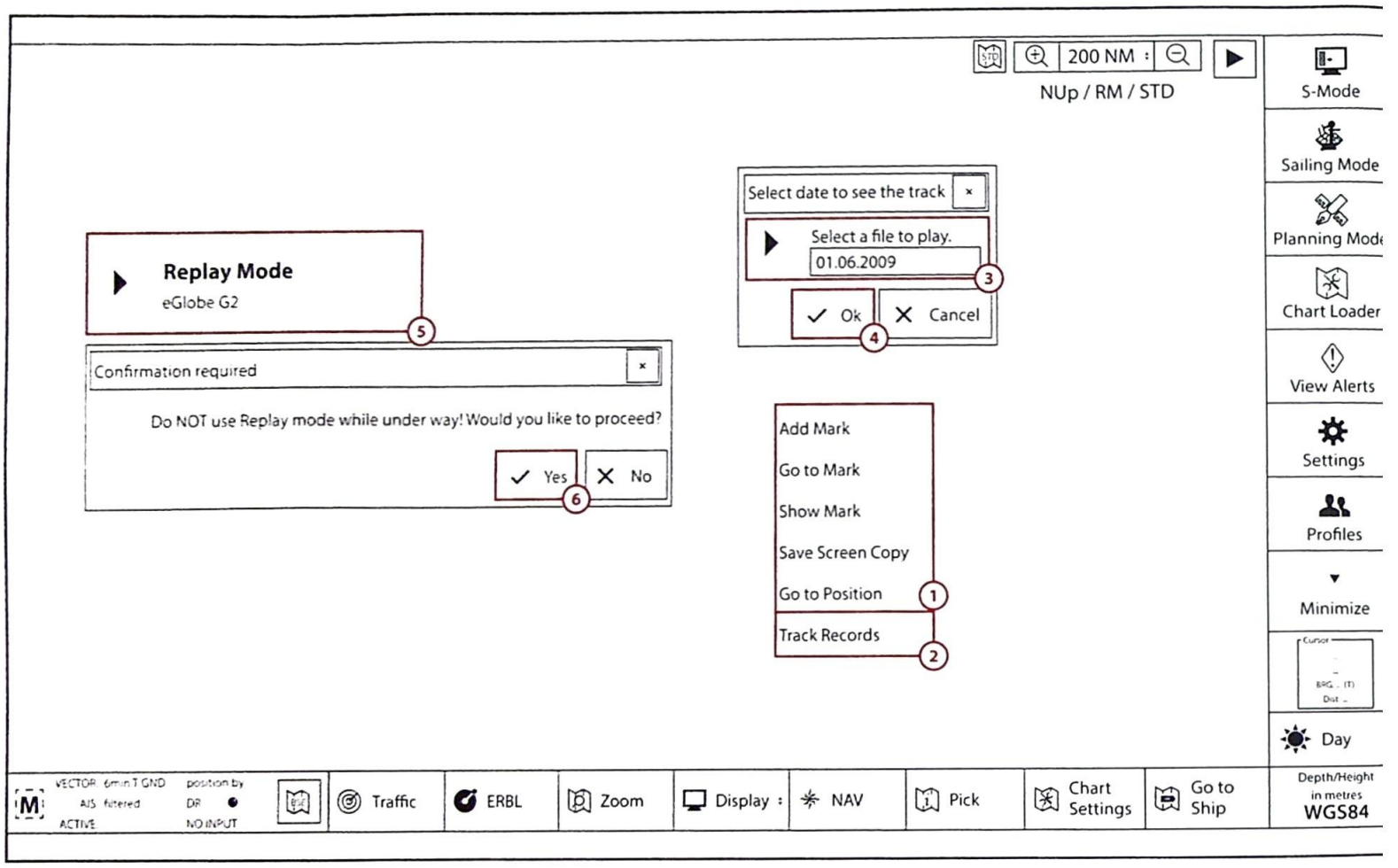


1. Right click on own vessel to view the context menu.
2. Click 'Plot LOP'.
3. Under the 'Source' heading select visual, radar or celestial.
4. Enter bearing/distance.
5. Click 'Plot'.
6. Using the handle, adjust the bearing to match the object.

a. Repeat steps 1 to 6 two more times to get three LOPs.

b. The system will do a fix automatically.

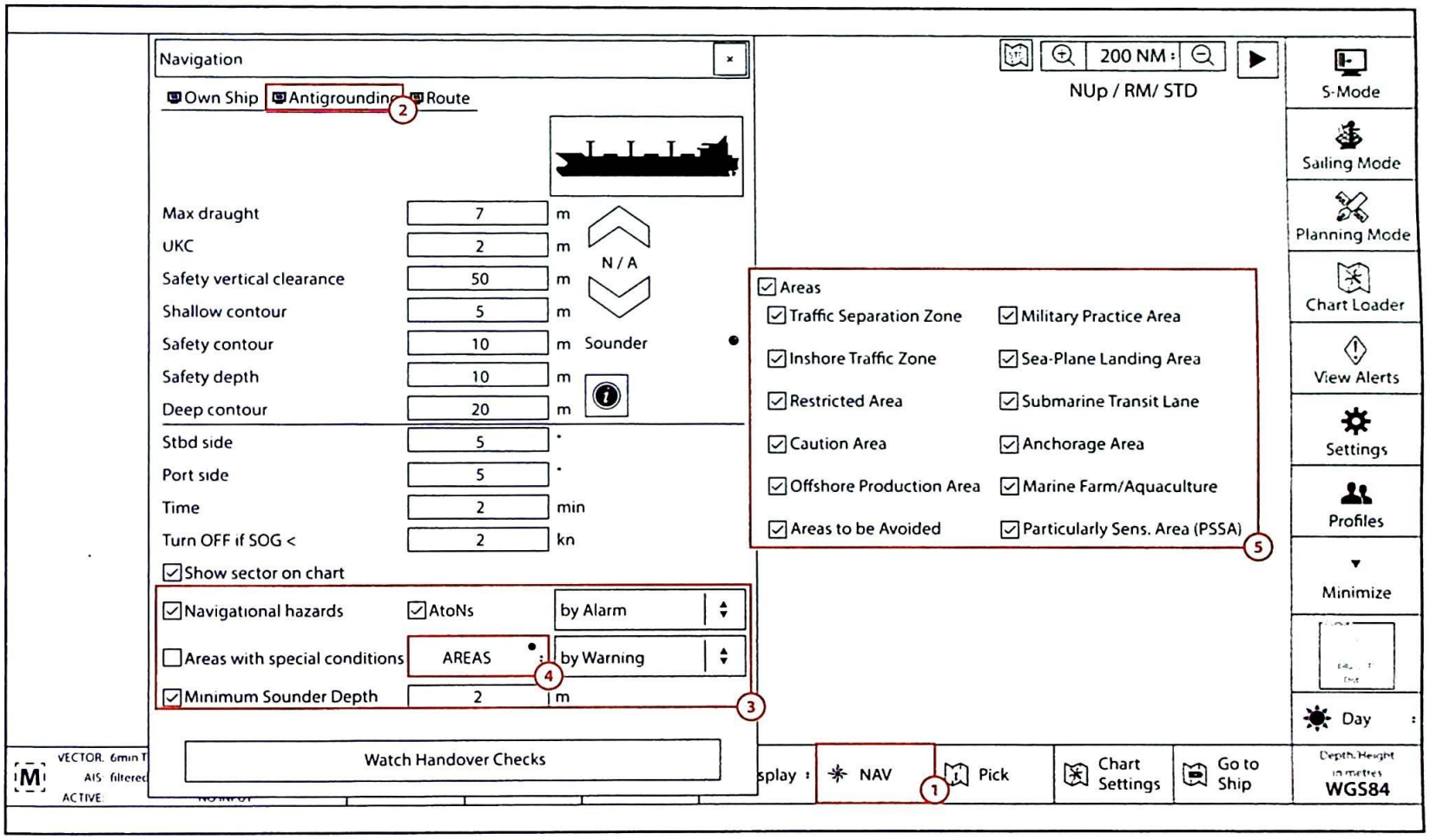
5.4 Logs/Playback



1. Right click on the chart to view the context menu.
2. Click 'Track Records'.
3. Select a date.
4. Click 'Ok' to load past track.
5. To enter 'Replay Mode', you need to exit 'Navigation Mode', go to the integrator screen and click 'Replay Mode'.
6. Click 'Yes' to start 'Replay Mode'.

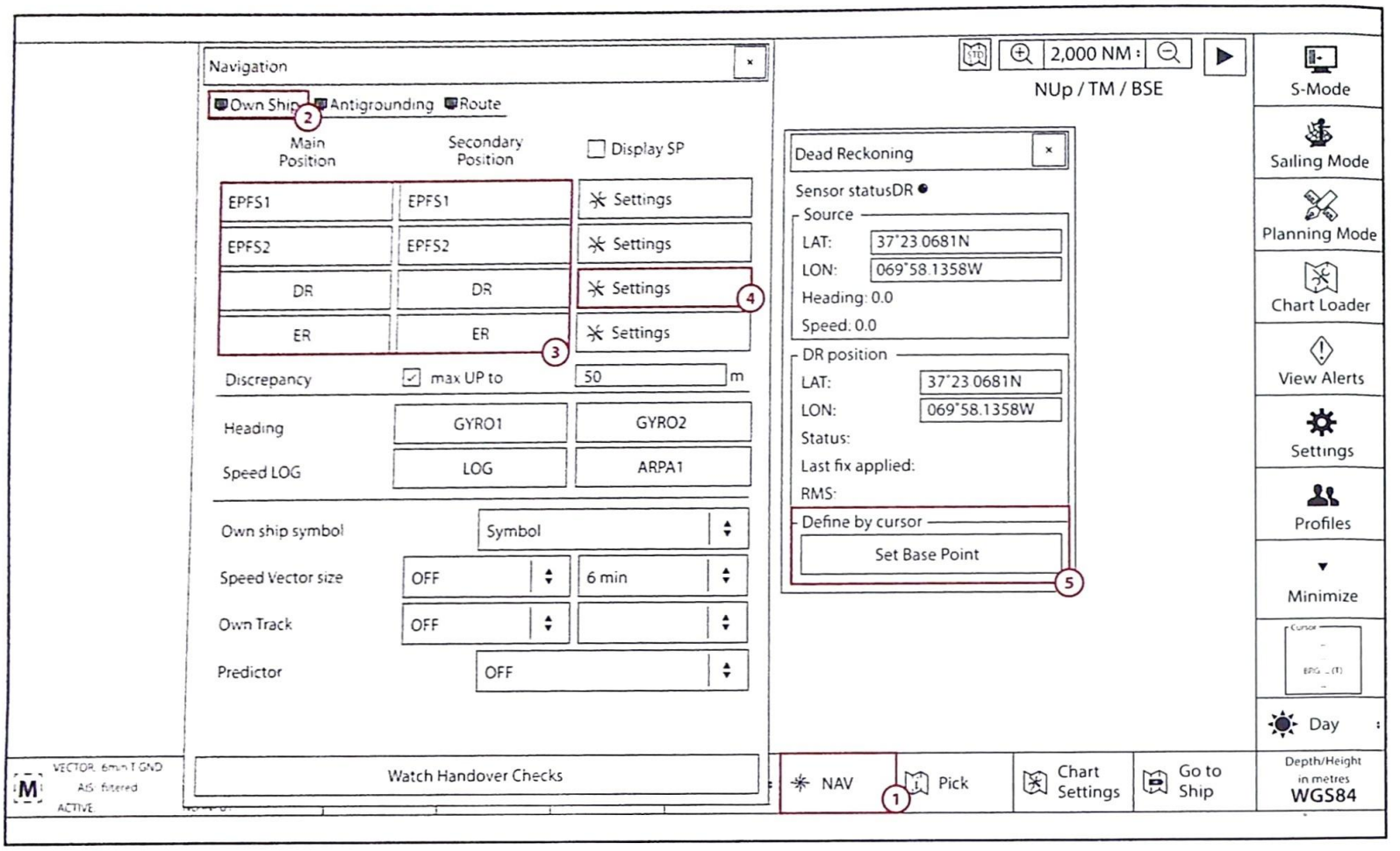
Section 6: System Settings

6.1 Warning/Alarm Configuration



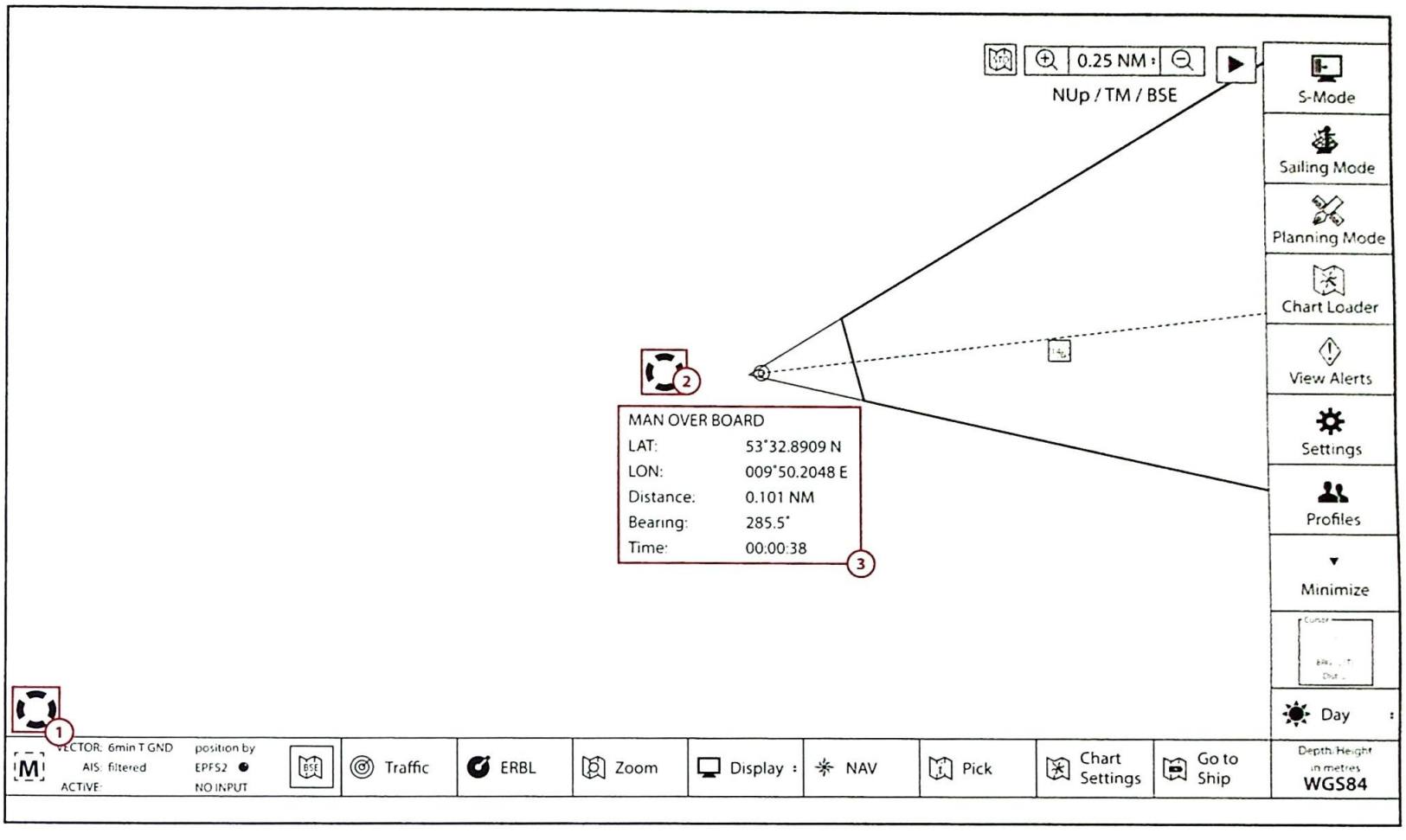
1. Click 'NAV' in the toolbar.
2. Click 'Antigrounding' in the navigation menu.
3. Adjust, as required.
4. Left click 'AREAS'.
5. Use tick boxes to turn on/off, as required.

6.2 Position/Heading/Speed



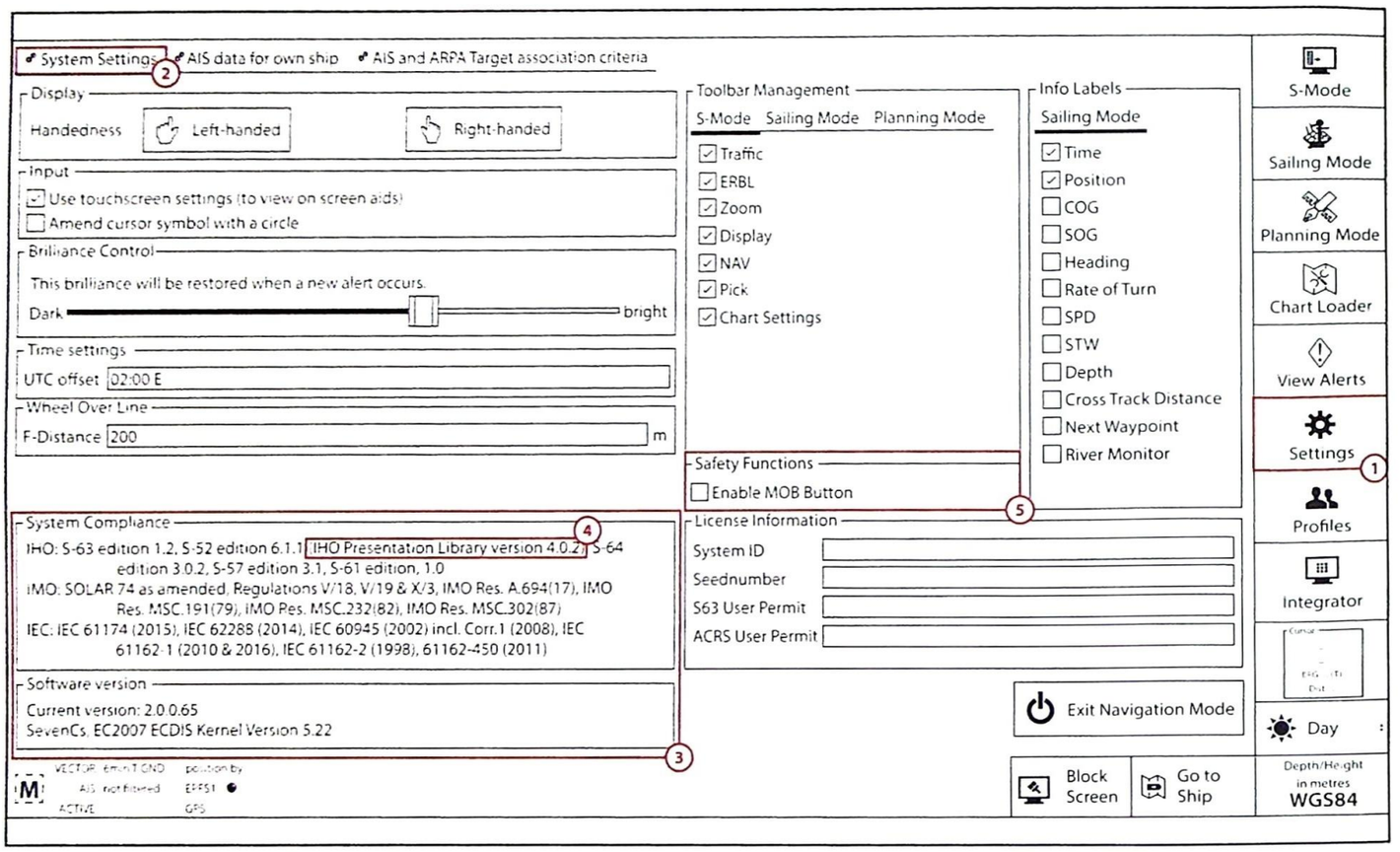
1. Click 'NAV' in the toolbar.
2. Click 'Own Ship' in the navigation menu.
3. Select main and secondary positions, as required.
4. Click 'Settings' to view the dead reckoning menu.
5. Click 'Set Base Point' and left click on the chart to update latitude/longitude.

6.3 Emergency Menus



1. Click the MOB button.
2. MOB symbol.
3. MOB information label.

6.4 Manual/About



1. Click 'Settings' in the task bar.
2. Click 'System Settings'.
3. Information such as PL version is available here.
4. PL version.
5. Tick to enable the MOB button.

2. Danelec Marine – Familiarisation Checklist (Page 1 of 2)

1. **Company ECDIS Procedures**

   Review company documentation for ECDIS procedures and complete the below ECDIS Type Specific Familiarisation checklist.

2. **Main Screen**

   Become familiar with the basic chart functionality from the main display.

Main Screen		Main Menu	
	Zoom Buttons		SHORTCUTS
	Status Bar		VOYAGE
	Indicators		ROUTES
	Notices		LAYERS
	Sensor Panel		TOOLS
	Look-ahead windows		LOG
			NAV DATA
			SETTINGS
			MANUAL
			STANDBY

3. **Navigational Tools**

   Operate all basic navigational functions and vessel setting options contained within the ECDIS for use of navigation.

TOOLS		Indicators	
	Navigation Calculator		Man overboard (ON/OFF)
	Manual observation		ERBL tool (ON/OFF)
	Parallel indexing		Fixed VRM tool (ON/OFF)
	Print chart		Anchor Watch
	Backup arrangement		Look-ahead panel
	AIS messaging		
	Addressed message (ON/OFF)		
	Parallel index line 1 (ON/OFF)		
	Observation points		

4. **Chart Display Settings**

   Operate all chart display settings, become familiar with object layers, ENC symbology and define the vessel's safe water settings. Identify where all chart updates are managed in the system.

Settings			
	Chart		Own ship motion mode
	Navigational settings		Navigation area
	Chart orientation		Keep best scale (ON/OFF)
	Course-up		
	Relative		
	Inner circle – %		

5. **Route Planning**

   Operate all route planning functions and obtain all relevant schedule information for passage planning and route monitoring purposes.

Routes			
	New		Select Route
	Import		Grounding check

Danelec Marine – Familiarisation Checklist (Page 2 of 2)

6. **Route Monitoring**

Operate the variety of voyage data functions for route monitoring to display and obtain relevant information for navigation and the ship's safety.

VOYAGE		**Settings**	
	Select Route		Chart
	Go to button		Vessel
	Reverse route		Primary Position Source
LAYERS			
	Chart overlays		RADAR targets
	AIS		Navtex
	Admiralty information overlay (AIO) (ON/OFF)		

7. **Chart Updating**

The operator should know how to update electronic charts and be thoroughly aware of their responsibilities concerning updating. It is a legal requirement that charts are maintained in an up-to-date condition.

NAV DATA			
	Chart Library		User charts
	Install charts		Manual update
	Graphical index (ON/OFF)		History

8. **System/Local Sensors**

Identify where the operator can select or deselect all sensors connected to the ECDIS and verify the vessel's particulars.

Main Screen		**SETTINGS**	
	Sensor Panel		Vessel
			Sensors
			AIS
			AIS velocity vector time marks (ON/OFF)
			Radar targets
			Radar targets velocity vector (ON/OFF)

9. **System Alerts**

Identify the ECDIS system's category of Alarms and Prompts generated by the operator and by the ECDIS system.

SETTINGS			
	Alerts		Lost radar target alert (ON/OFF)
	Grounding check		System
	Lost AIS target alert (ON/OFF)		Sound (ON/OFF)
	Check zone		Areas for which special conditions exist (ON/OFF)

10. **System Units**

Become familiar with the system's logbook, records, data storage and configuration set up.

Settings			
	System		SA certificates
	On-screen keyboard (ON/OFF)		System information
	Units, Date & time		Synchronization
	Users		Backup and restore user settings

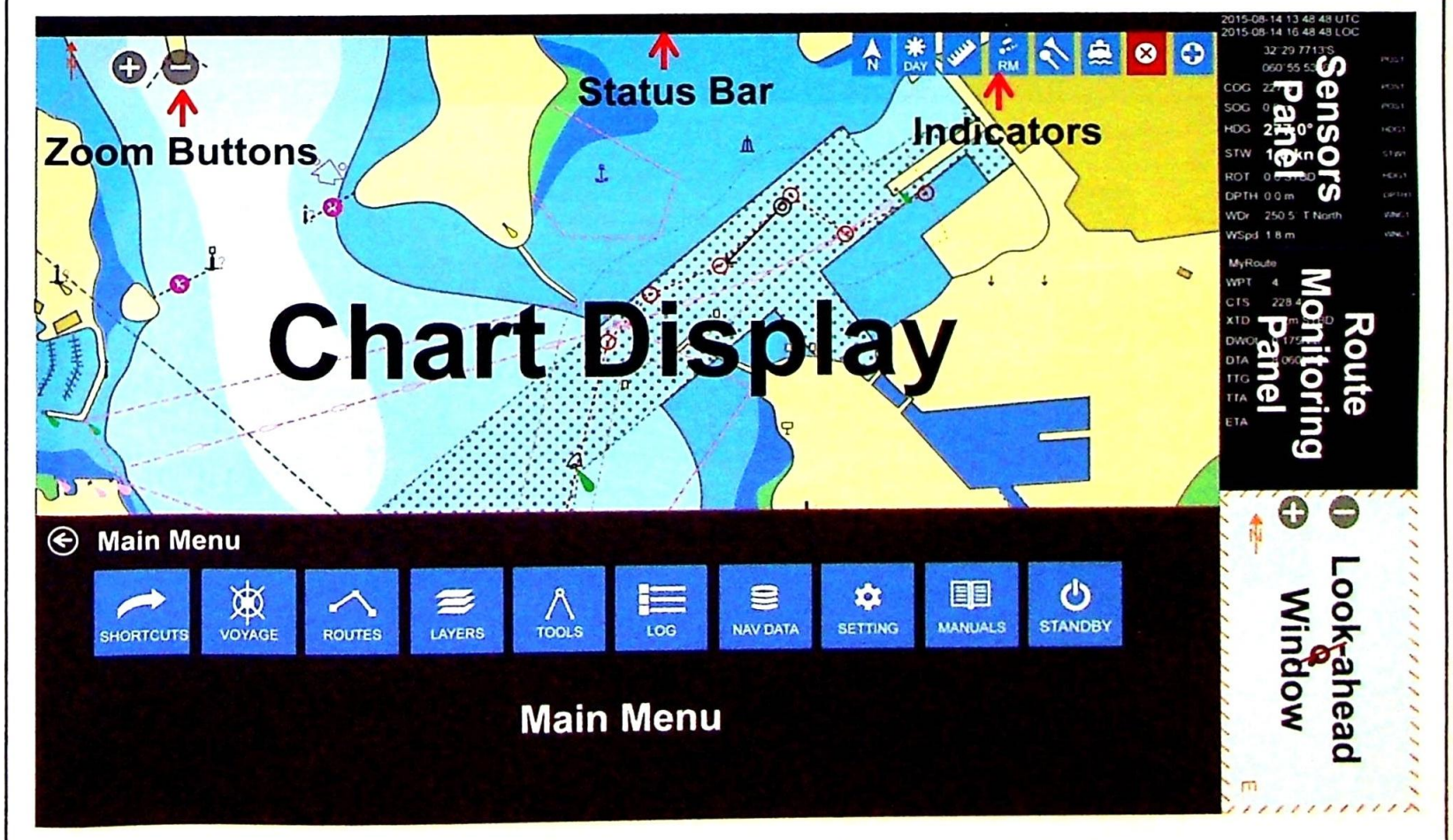
11. **ECDIS Operator's Manual**

Locate the system's operator's user guide for referencing and help.

Main Menu			
	MANUALS		

Danelec Marine

Key Danelec Marine ECDIS Menu Functions		
1.	View list of installed Charts	**Main Menu>Nav Data>Chart library**
2.	View the latest update number installed	**Right click chart>Charts**
3.	Change Chart Settings	**Main Menu>Settings>Chart>Chart objects**
4.	View information on charted objects and view additional text	**Right click object**
5.	Set the Safety Depth, Safety Contour, Shallow and Deep Contour	**Main Menu>Settings>Chart>Portrayal settings**
6.	Input a Mariner Object	**Main Menu>Nav Data>Mariner objects**
7.	Input a Manual Update	**Main Menu>Nav Data>Manual update**
8.	Turn EBL/VRM on	**Indicators>EBRL Tool**
9.	Configure the Guard Zone (Anti-grounding)	**Main Menu>Settings>Alarms>Grounding check**
10.	Configure Ship's Track	**Main Menu>Settings>Vessel>Display settings**
11.	Configure Velocity Vectors	**Main Menu>Settings>Vessel>Display settings**
12.	View Logbook	**Main Menu>Log**
13.	Input a Visual or Radar Fix	**Main Menu>Tools>Manual observation**
14.	Turn on AIO	**Main Menu>Layers>Chart overlays**
15.	Turn on Path Predictor	**Main Menu>Settings>Vessel>Display settings**



← UTC, Local Time and Date

← Sensors Panel

← Route Monitoring Panel

← Look-ahead Window

– Man Overboard

– Alarms, Warnings and Cautions

– Grounding Check

– Show Vessel

FULL CUST BASE – Display Mode

– Sound Mute

– NavBox Updates Available

– Targets Display On/Off

TM RM – Vessel Motion Mode

AIS – AIS Message

– ERBL Tool

DUSK DUSK DAY – Day/Night Mode

N – Chart Orientation

3. FURUNO FEA-2107/2807 – Familiarisation Checklist (Page 1 of 2)

1. Company ECDIS Procedures

Review company documentation for ECDIS procedures and complete the below ECDIS Type Specific Familiarisation checklist.

2. Chart Display

Become familiar with the basic chart functionality from the main display.

Main Chart Display			
	Status Bar		Main Menu
	Information Area		

3. Navigational Tools

Operate all basic navigational functions and vessel setting options contained within the ECDIS for use of navigation.

Nav Tools			
	Parallel Index Lines		AIS Own Ship Info
	Clearing Lines		Targets Page
	Safety Message		Mariner Page
	NAVTEX Message		

4. Chart Display Settings

Operate all chart display settings, become familiar with object layers, ENC symbology and define the vessel's safe water settings. Identify where all chart updates are managed in the system.

Chart Display			
	Chart Menu		Symbol Display
	Chart Display		AIS Outlines (ON/OFF)
	Set chart viewing dates 1		Scale min Accuracy
	ENC Status Report		User Event (ON/OFF)
	ECDIS Chart 1		

5. Route Planning

Operate all route planning functions and obtain all relevant schedule information for passage planning and route monitoring purposes.

Routes			
	Route		Notes
	Edit Route		Anchor Watch
	User Chart		Parameters, Prepare

6. Route Monitoring

Operate the variety of voyage data functions for route monitoring to display and obtain relevant information for navigation and the ship's safety.

Information Area		Route Page		
	Information from the positioning sensor		Monitored Route	
	HDG		Center line	(ON/OFF)
	SPD		Channel limit	(ON/OFF)
	SB		Safety margin	(ON/OFF)
	COG		WPT mark	(ON/OFF)
	SOG		Leg marks	(ON/OFF)
	Latitude and longitude position of own ship		Wheel over line	(ON/OFF)
	Datum			
	Positioning source			
	Cursor position information			
	Latitude and longitude of position of cursor			
	Range			
	Bearing			

FURUNO FEA-2107/2807 – Familiarisation Checklist (Page 2 of 2)

7. Chart Updating

The operator should know how to update electronic charts and be thoroughly aware of their responsibilities concerning updating. It is a legal requirement that charts are maintained in an up-to-date condition.

Record			Chart Catalogue
	Chart Usage Log		Set Chart viewing dates
Chart Menu			Chart Permits
	Go Back		ECDIS Chart 1
	Activate ARCS chart		Open Chart by Cell name
	Load and Update Charts		Chart Cell Status
	SENC Convert		Manual Updates
	Remove Charts		System
	C-Map Ed 3		

8. System Sensors

Identify where the operator can select or deselect all sensors connected to the ECDIS and verify the vessel's particulars.

Sensors			
	SPD/CRS Page		Other Page
	POSN Page		DR (ON/OFF)
	Manual speed (ON/OFF)		

9. System Alerts

Identify the ECDIS system's category of Alarms and Prompts generated by the operator and by the ECDIS system.

Chart Alert Parameters			
	Check Area		Alarms Page
	Ahead		Navigational Hazard

10. System Units

Become familiar with the system's logbook, records, data storage and configuration set up.

Main Menu		**System**	
	Set STD Display		Initial Settings
	MOB		Optimization Parameters
	Event		Print Optimization Parameters
	Record		Self Test
			Standby
			Presentation Library
			Access Server and Diagnostic

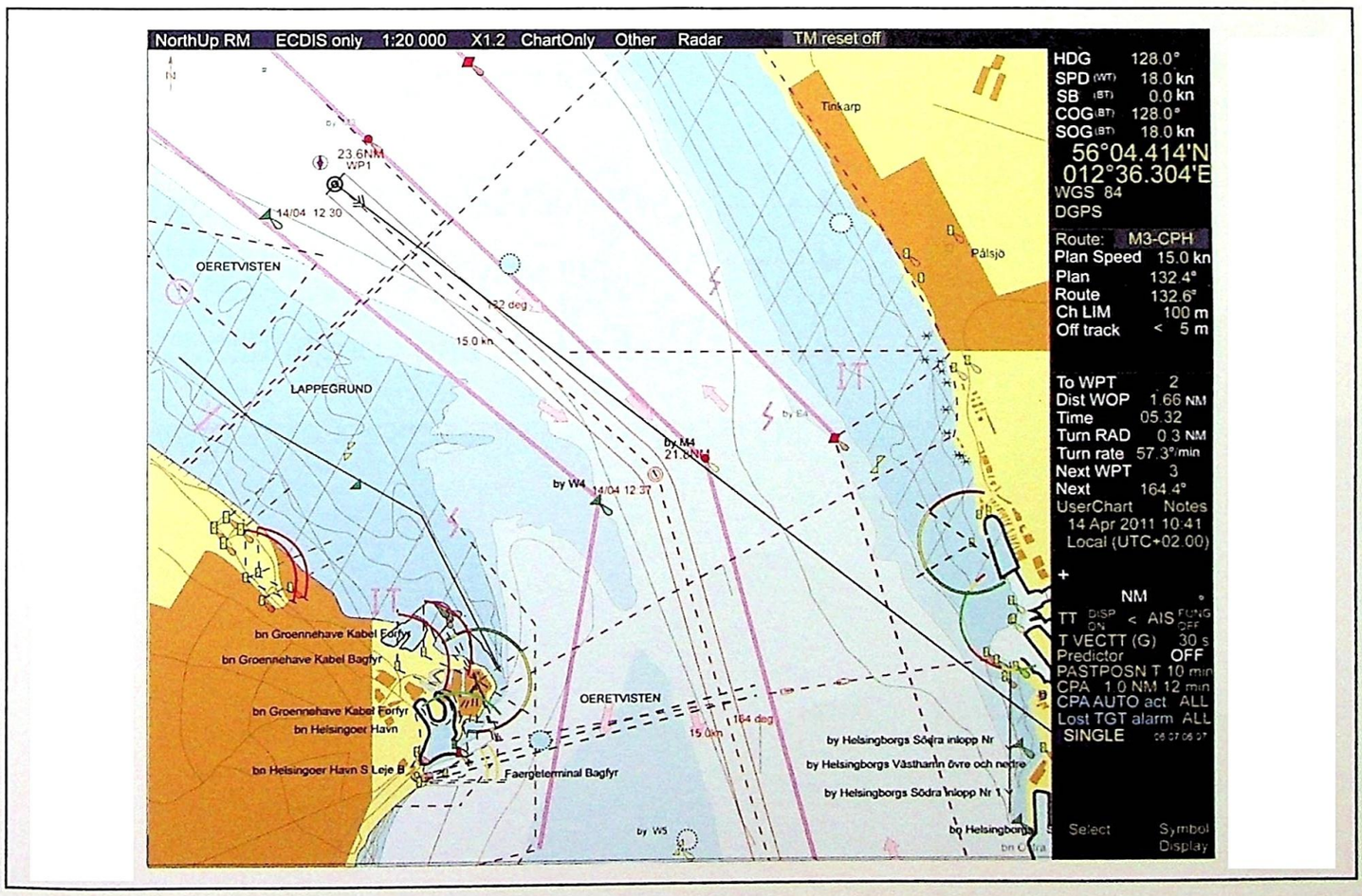
11. ECDIS Operator's Manual

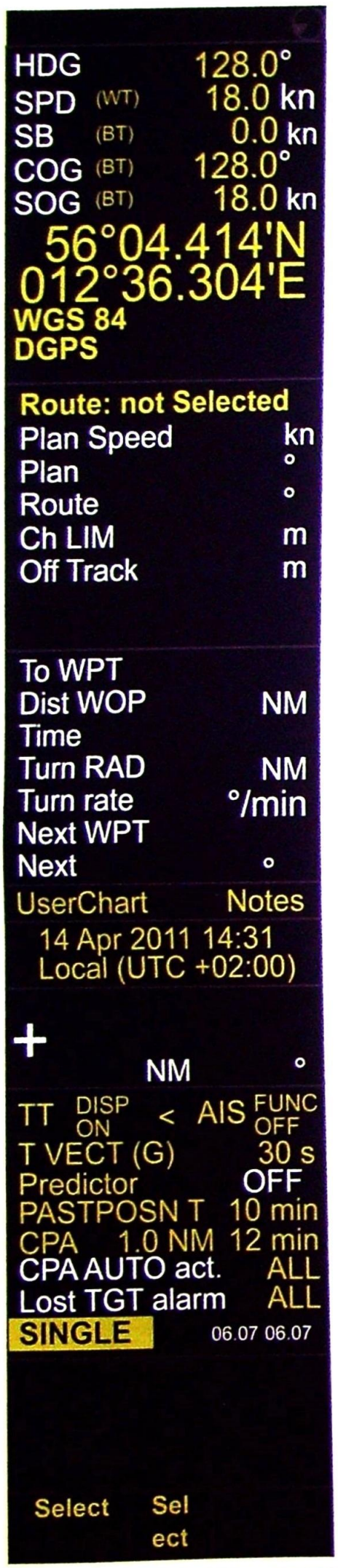
Locate the system's operator's user guide for referencing and help.

Main Menu			
	Help		

FURUNO FEA-2107/2807

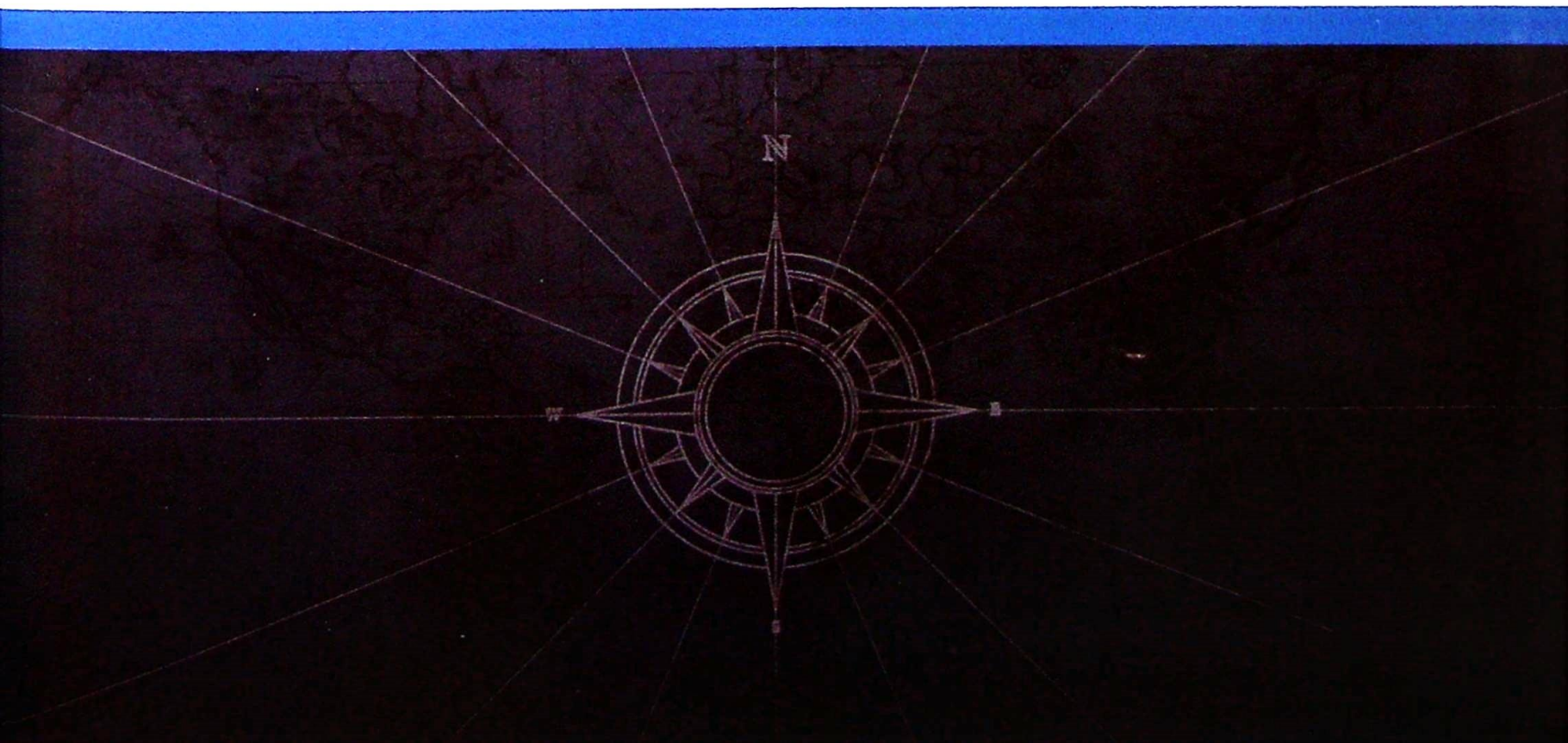
Key FURUNO FEA-2107/2807 ECDIS Menu Functions		
1.	Selection of additional side panels (Conning, Docking, Chart Legend)	**Move the cursor over route display panel and right click**
2.	Configuration of Ship's Maximum Speed, Draught and ROT	**Menu>Initial Settings>Navigation Parameters>Ship and Route Param**
3.	View Chart Catalogue (ARCSs or ENCs depends upon format selected)	**Menu>Chart Menu>Chart Catalogue**
4.	View the latest update number installed	**Menu>Chart Menu>Chart Cell Status**
5.	Change and Save Chart Settings	**Menu>Chart Display>Save As**
6.	View information on charted objects and view additional text	**Mouse Functions>Info**
7.	Set the Safety Depth, Safety Contour, Shallow and Deep Contour	**Menu>Chart Display>Chart**
8.	Input a User Chart Object	**Menu>User Chart>Plan>Create**
9.	Input a Manual Update	**Menu>Chart Menu>Manual Updates>Planning>New**
10.	Turn the ship outline on	**Menu>Symbol Display>General**
11.	Configure the Check Area (Anti-grounding Cone)	**Menu>Initial Settings>Chart Area Alert Parameters>Check Area**
12.	Configure Velocity Vectors and Ship's Track	**Menu>Symbol Display>General/Tracking**
13.	Manually change WPT information of an Active Route	**In the Monitor Route dialogue box in the Monitor page**
14.	View past Alarms and Warnings	**Menu>Record>Alert Log**
15.	Input a Visual or Radar Fix	**Menu>Sensors>LOP**




HDG 128.0°
SPD (WT) 18.0 kn
SB (BT) 0.0 kn
COG (BT) 128.0°
SOG (BT) 18.0 kn
56°04.414'N
012°36.304'E
WGS 84
DGPS
Route: not Selected
Plan Speed kn
Plan °
Route °
Ch LIM m
Off Track m
To WPT
Dist WOP NM
Time
Turn RAD NM
Turn rate °/min
Next WPT
Next °
UserChart Notes
14 Apr 2011 14:31
Local (UTC +02:00)
NM °
TT DISP ON < AIS FUNC OFF
T VECT (G) 30 s
Predictor OFF
PASTPOSN T 10 min
CPA 1.0 NM 12 min
CPA AUTO act. ALL
Lost TGT alarm ALL
SINGLE 06.07 06.07
Select Sel ect
System Status
Ship's Position, Course and Speed
Route Information
Route Monitoring Information
Select User Chart and Notes
Time and Date
Latitude and Longitude of Cursor
Target Information
Alarms and Warnings
Mouse Function Area

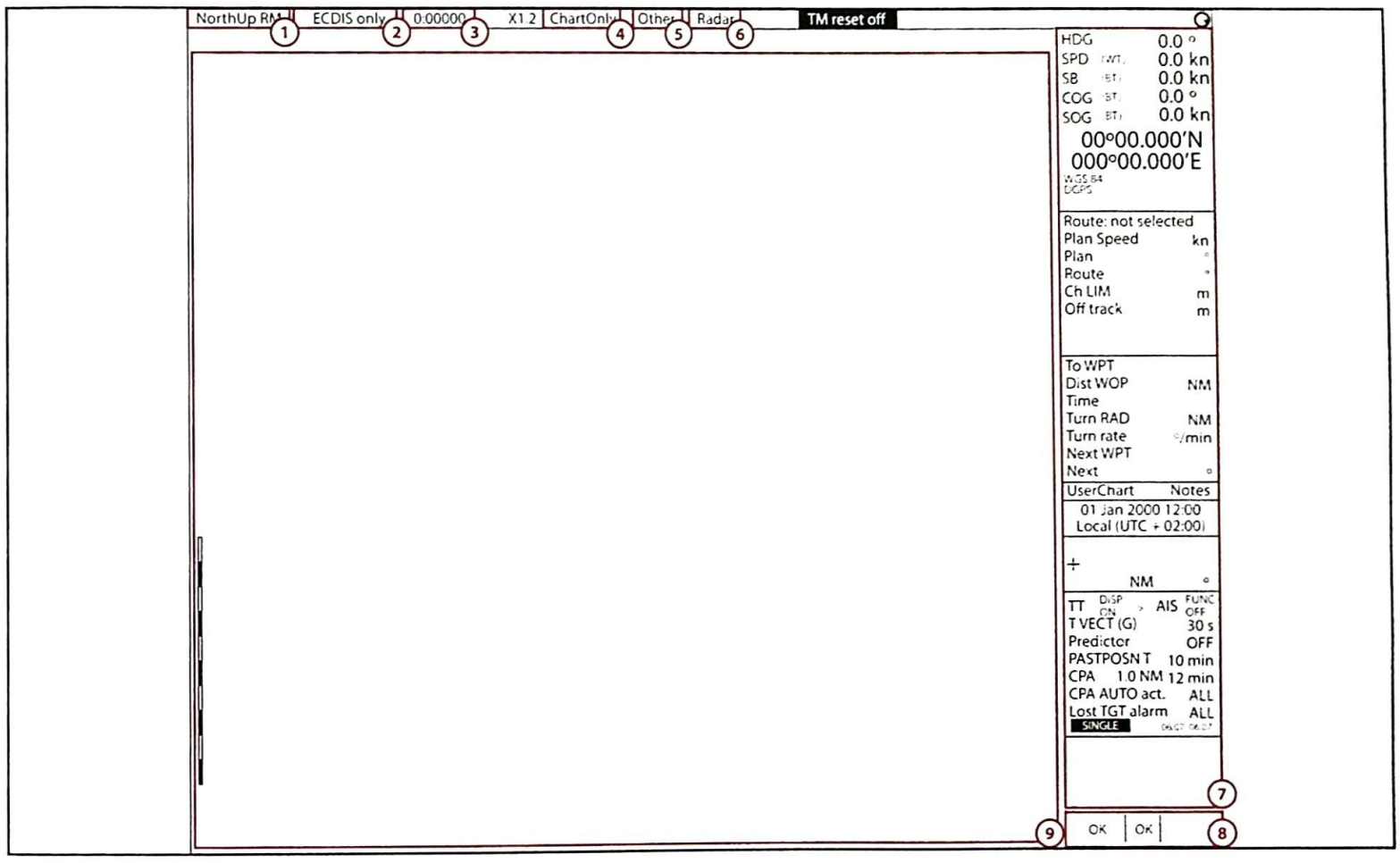
FURUNO

FEA-2107/FEA-2807



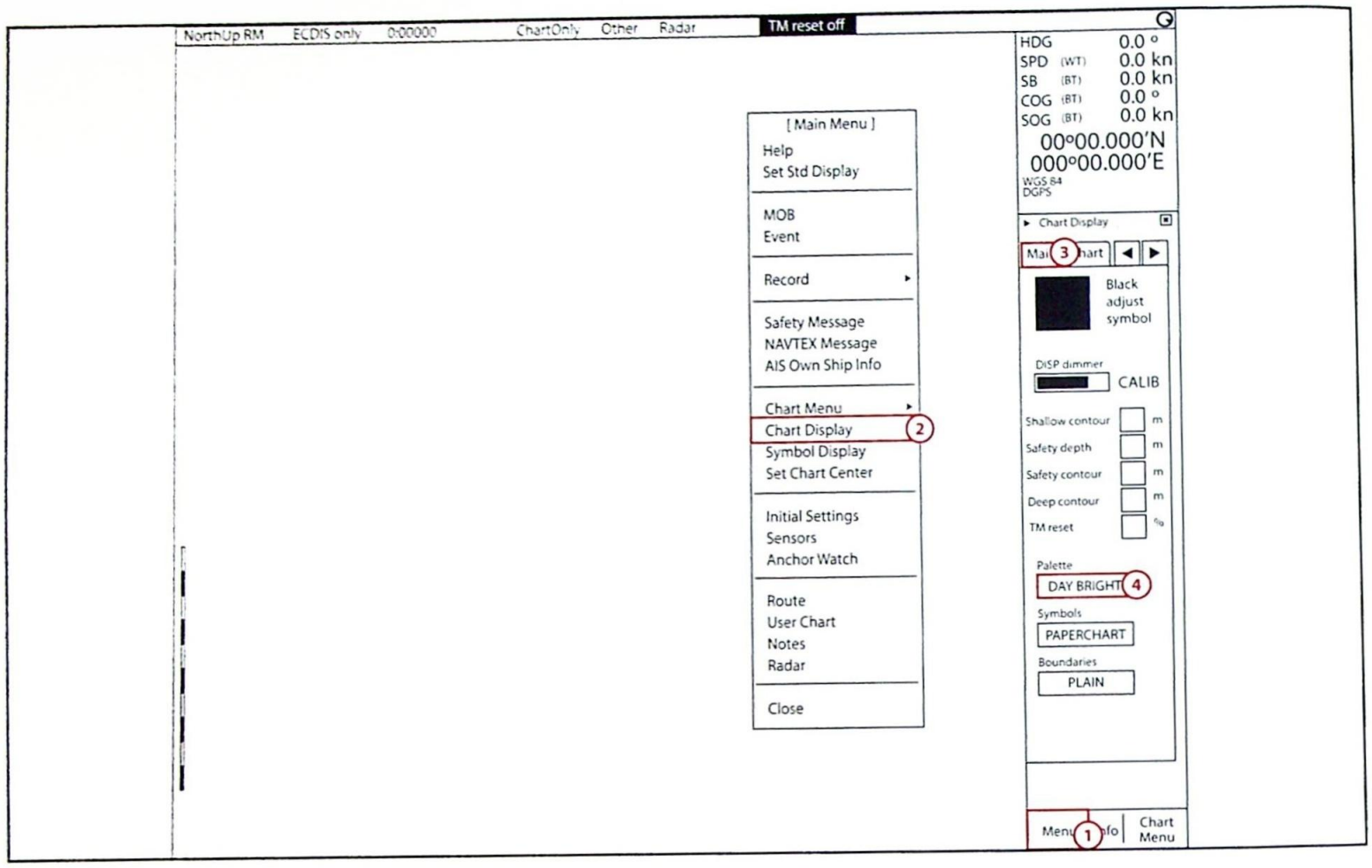
Section 1: Main Display

1.1 **Screen Layout**



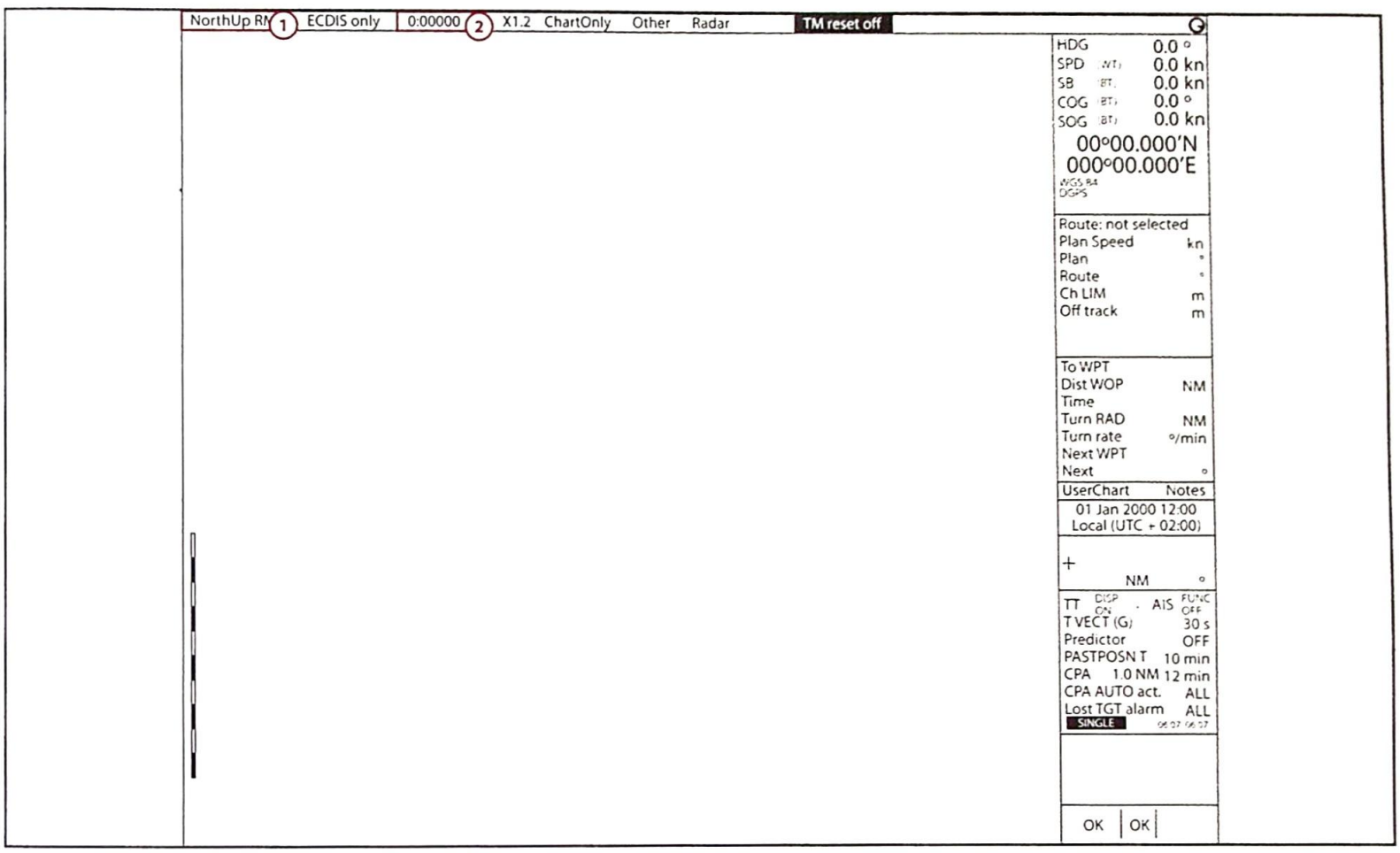
1. Presentation mode
2. ECDIS mode
3. Chart scale
4. Chart only switch
5. Name of display settings
6. Radar selection
7. Information area
8. Mouse functions area
9. Electronic chart area

1.2 Colour Palette/Profiles



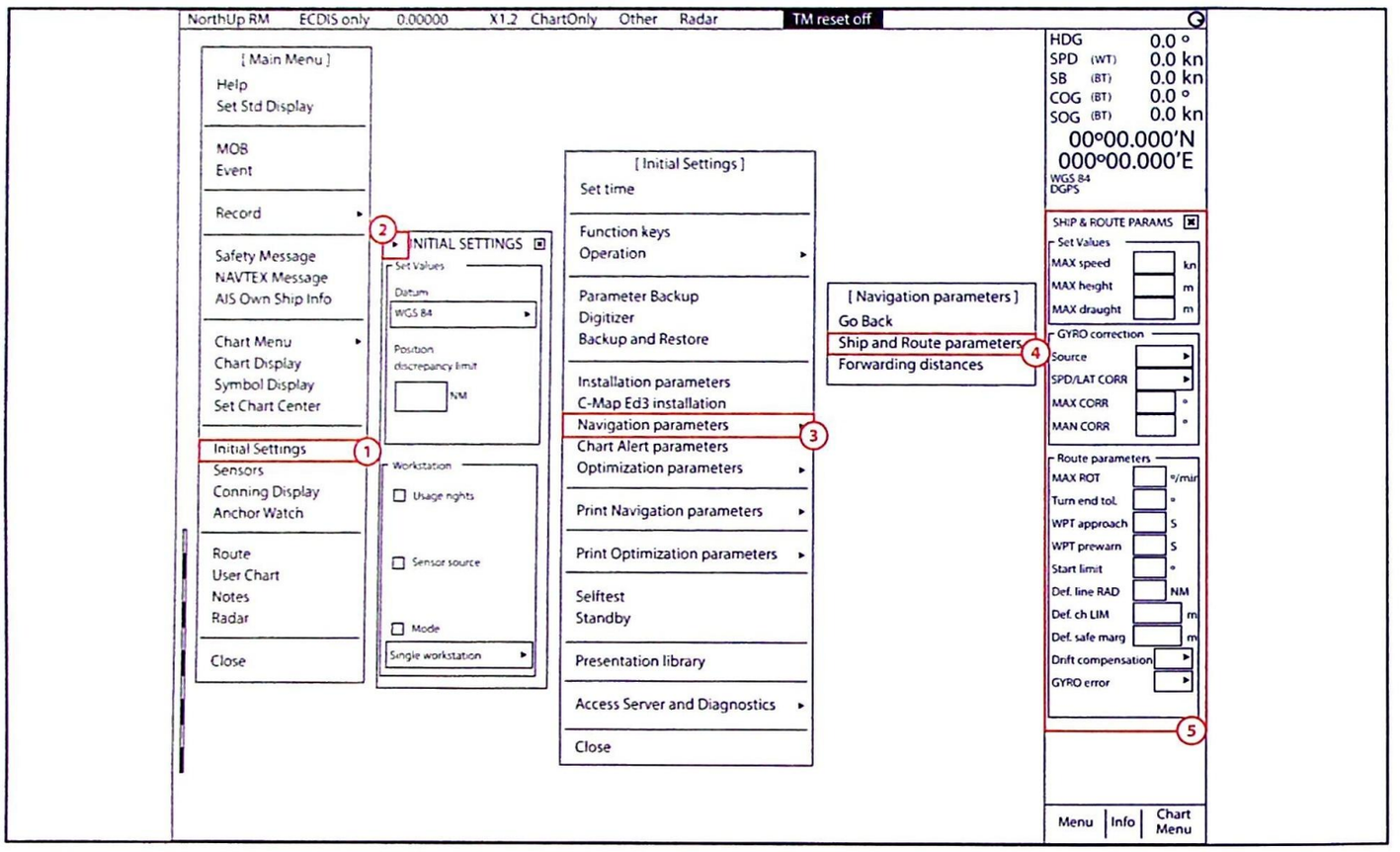
1. Open the main menu.
2. Click 'Chart Display'.
3. Ensure 'Main' is selected.
4. Configure the 'Palette'.

1.3 Range/Scale/Motion



1. Move the cursor over this tab.
   a. Use scroll wheel to select options 'NorthUp TM'/'CourseUp TM'/ 'NorthUp RM'/'CourseUp RM'/'RouteUp RM'.
   b. Push scroll wheel to confirm your selection.
2. Move the cursor over this tab.
   a. Use scroll wheel to move up and down the scale.

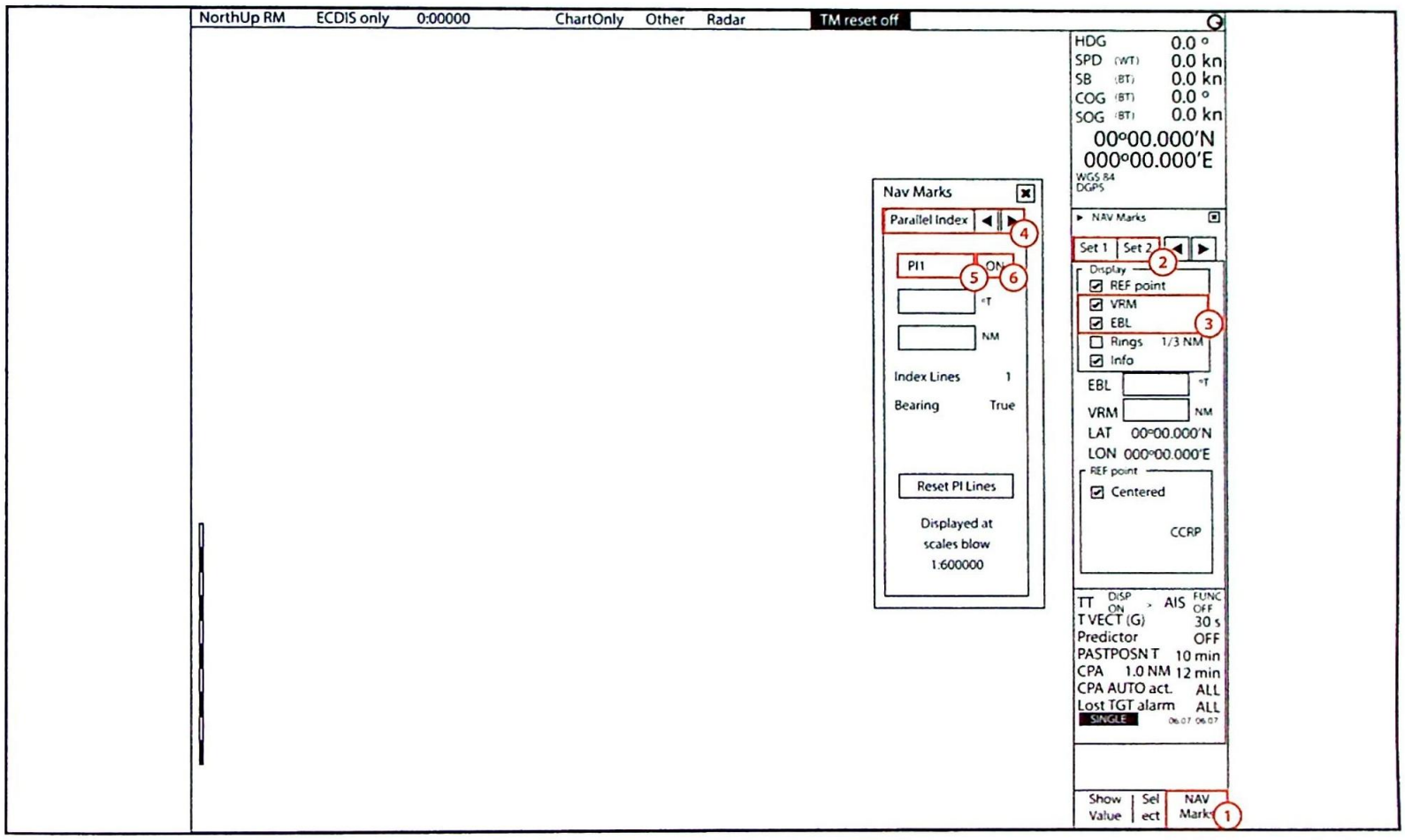
1.4 Setting CCRP



1. Select 'Initial Settings' in the main menu.
2. Move cursor to the triangle to access 'Initial Settings'.
3. Select 'Navigation parameters'.
4. Select 'Ship and Route parameters'.
5. Set ship parameters/GYRO correction/route parameters.

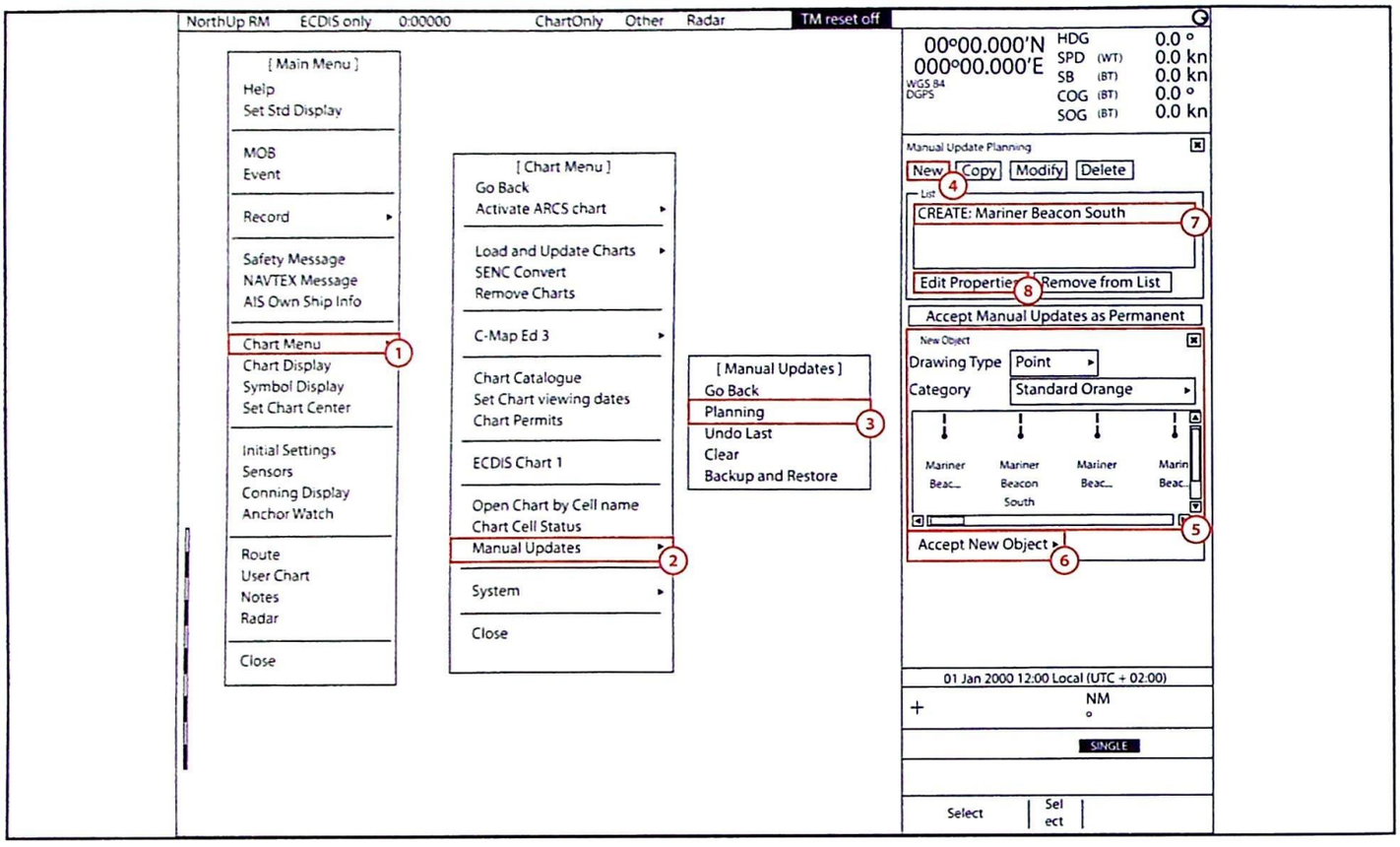
Section 2: Navigation Tools

2.1 **EBL/VRM/PI**



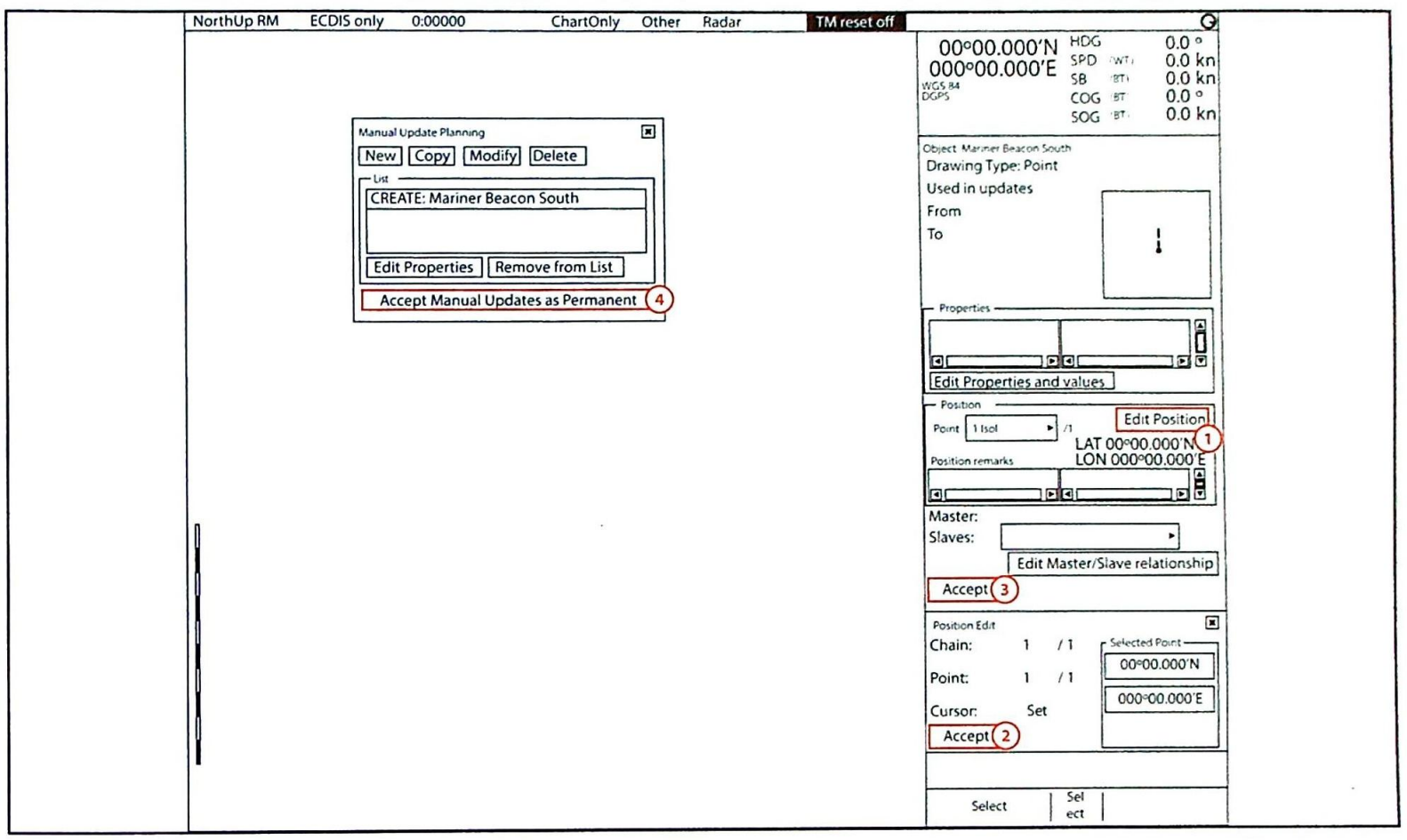
1. Click 'NAV Marks' to open the NAV Marks menu.
2. Click 'Set 1' or 'Set 2'.
3. Enable 'VRM/EBL' by ticking the boxes.
4. Use the arrows to select 'Parallel Index'.
5. Select a PI line.
6. Enable your PI line.

2.2 Manual Corrections Part 1



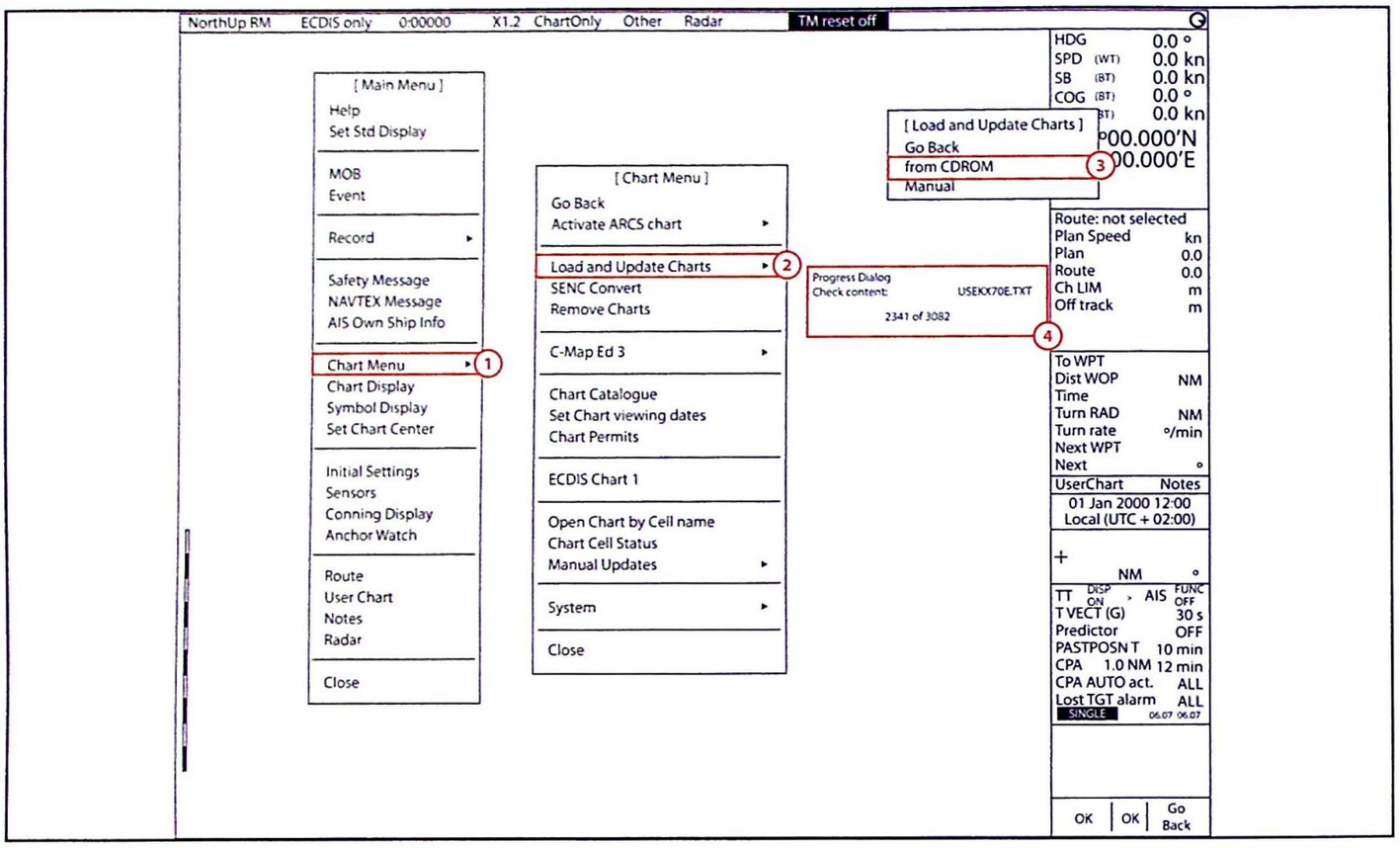
1. Select 'Chart Menu' from the main menu.
2. Select 'Manual Updates'.
3. From the Manual Updates, select 'Planning'.
4. Click 'New'.
5. Select 'Drawing Type' and 'Category' and select an object to add.
6. Click 'Accept New Object'.
7. Select the object you would like to edit.
8. Click 'Edit Properties'.

2.2 Manual Corrections Part 2



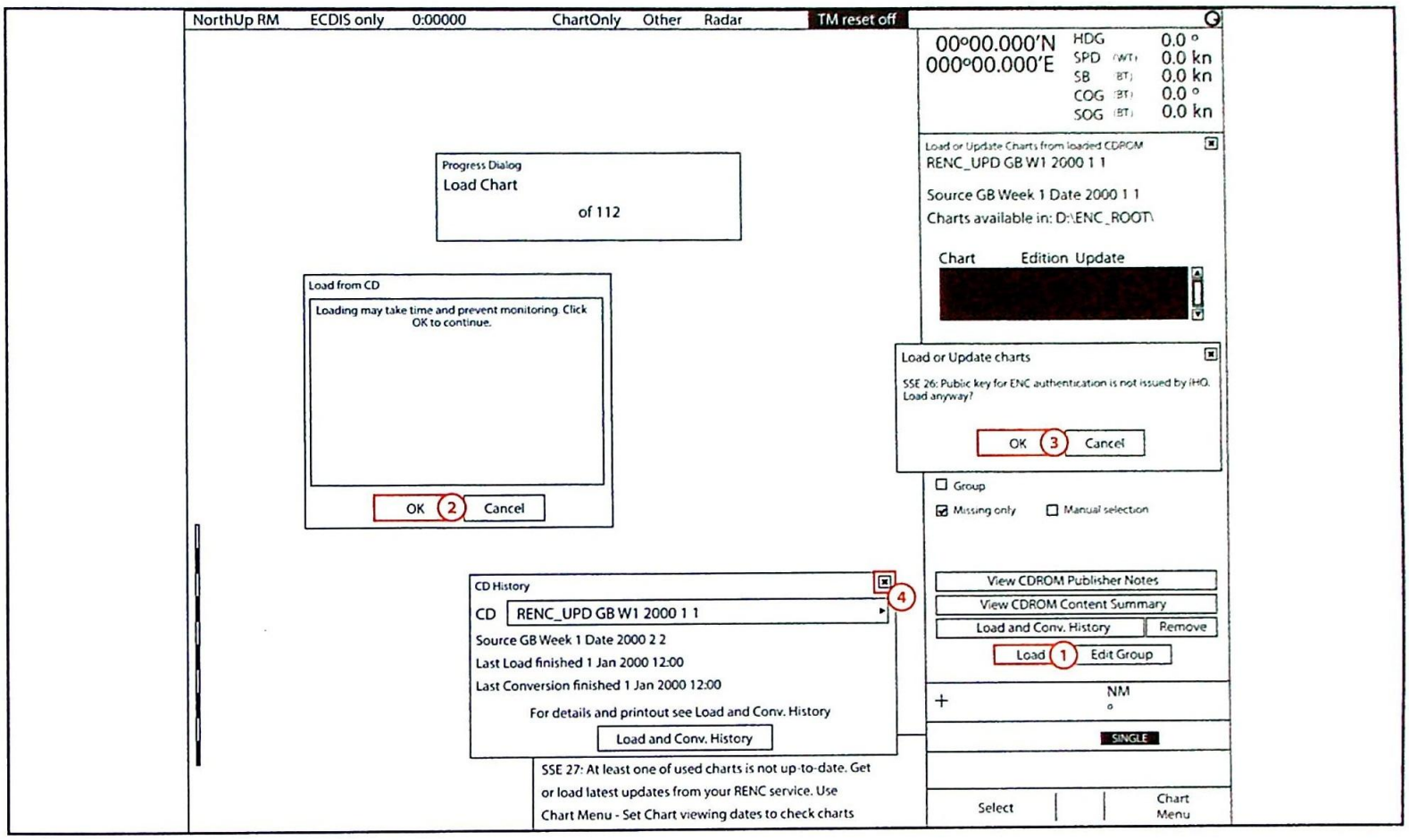
1. Click 'Edit Position'.
   a. Move the cursor to the required position and left click.
2. Click 'Accept'.
3. Click 'Accept' again.
4. Click 'Accept Manual Updates as Permanent'.

2.3 Chart Updates Part 1



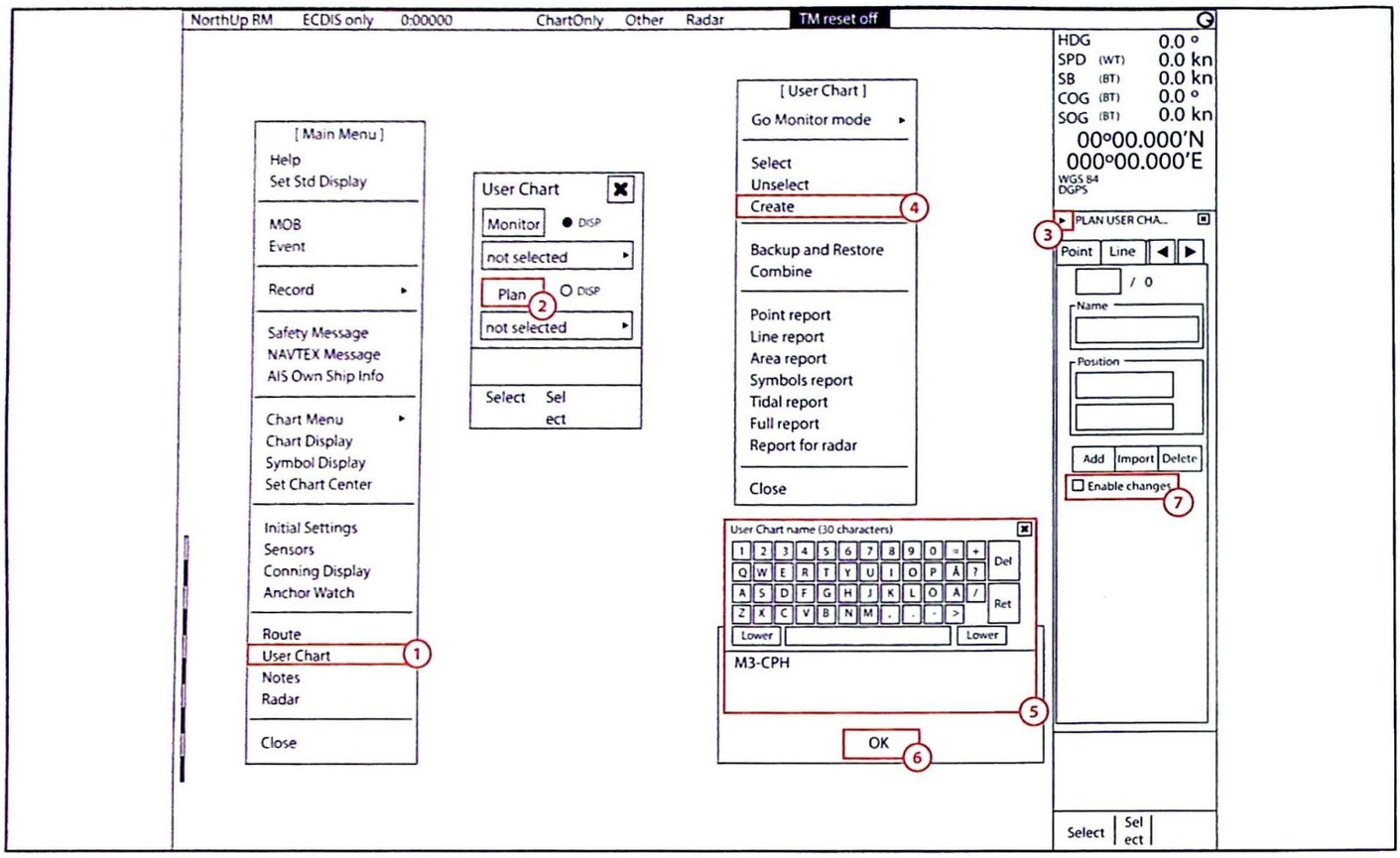
1. Select 'Chart Menu' from the main menu.
2. Select 'Load and Update Charts'.
3. Select 'from CDROM'.
4. Show charts being checked.

2.3 Chart Updates Part 2



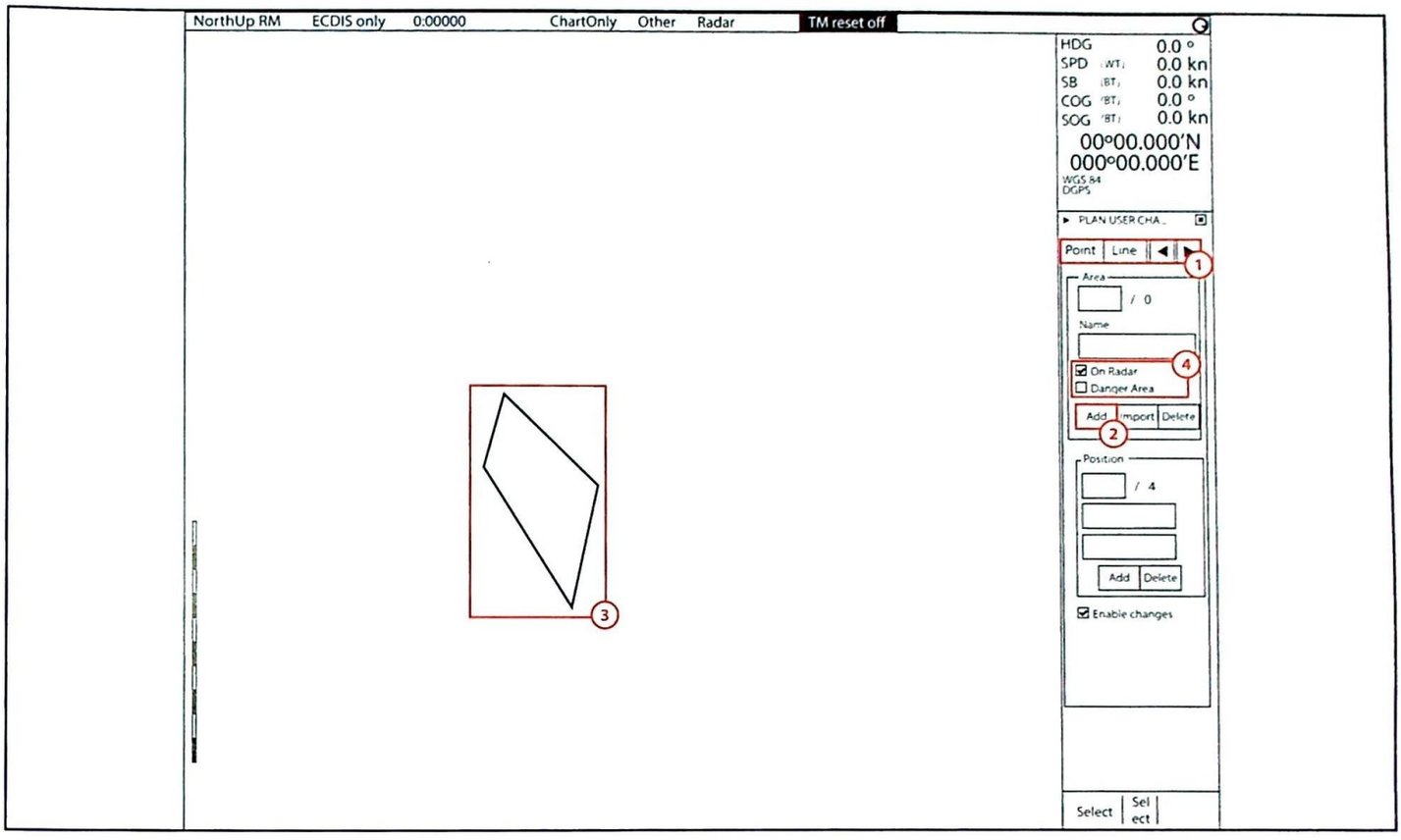
1. Click 'Load'.
2. In the 'Load from CD' window, click 'OK'.
3. Click 'OK' in the 'Load or Update charts' window.
4. Click the cross to close the windows.

2.4 No Go Areas/User Charts Part 1



1. From the main menu, select 'User Chart'.
2. Click 'Plan' to show the 'Plan User Chart' dialog box.
3. Move the cursor onto the triangle to view the User Chart menu.
4. Select 'Create'.
5. Enter a name for the User Chart.
6. Click 'OK' to finish.
7. Check 'Enable changes' to be able to add to the User Chart.

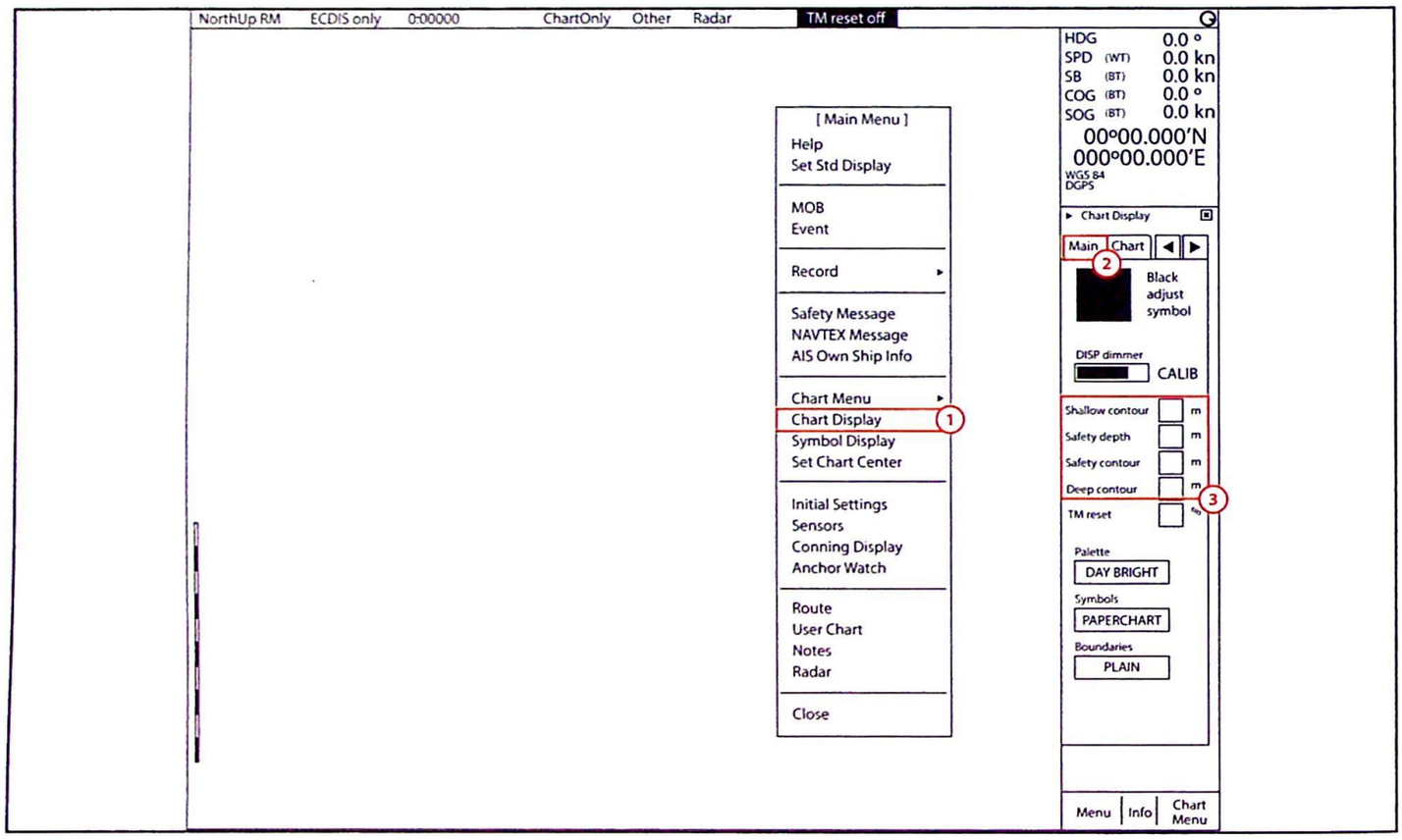
2.4 No Go Areas/User Charts Part 2



1. Use the arrows to show the tab you require:
   - a. Line tab
   - b. Symbol tab
   - c. Area tab
   - d. Area tab
   - e. Tidal tab
   - f. Point tab
2. Click 'Add'.
3. Move the cursor to the desired location and left click to start adding.
4. Check 'On Radar' to also display on the radar display.
5. Check 'Danger Area' to include in the chart area calculation.

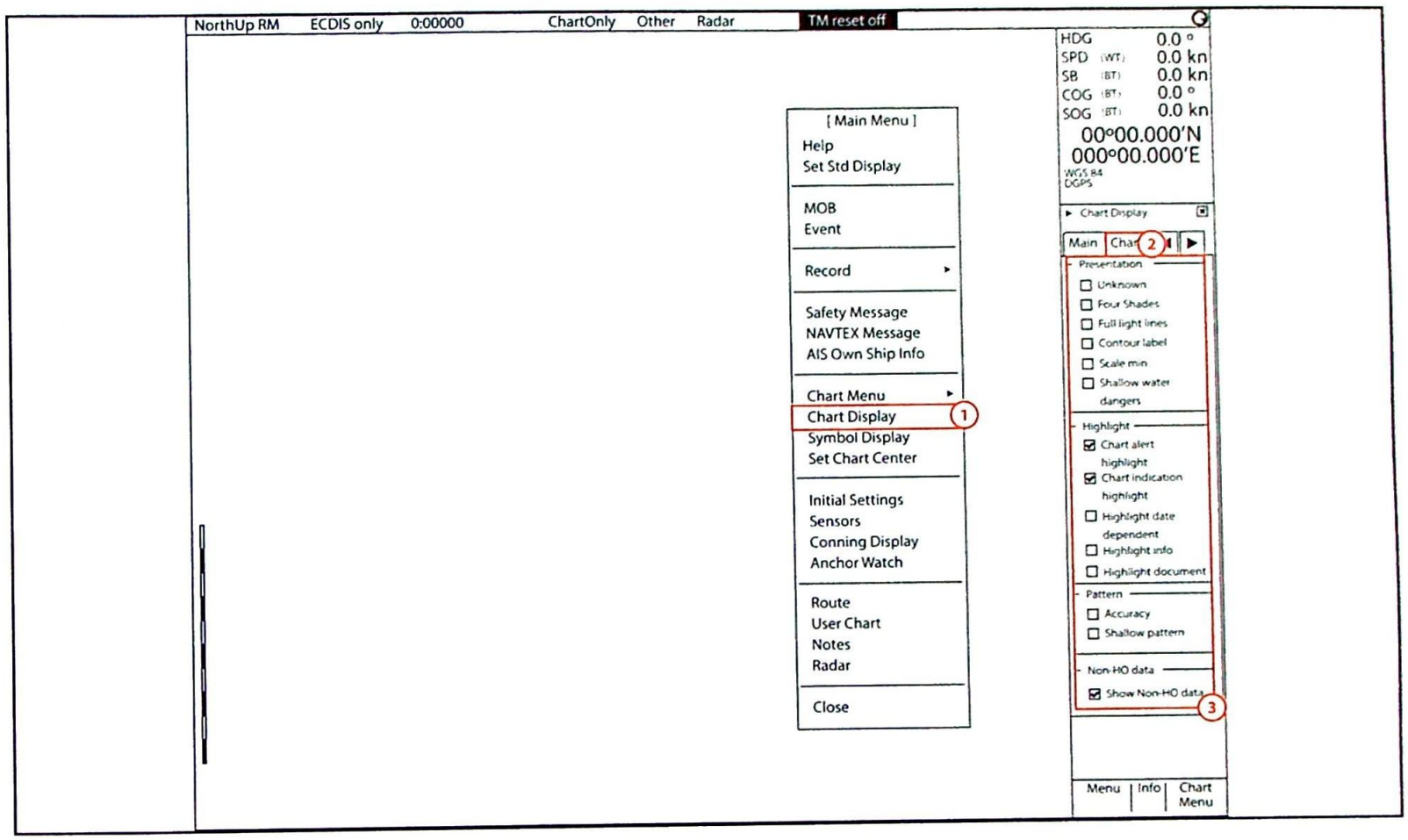
Section 3: Chart Display Settings

3.1 Safety Depth/Contour



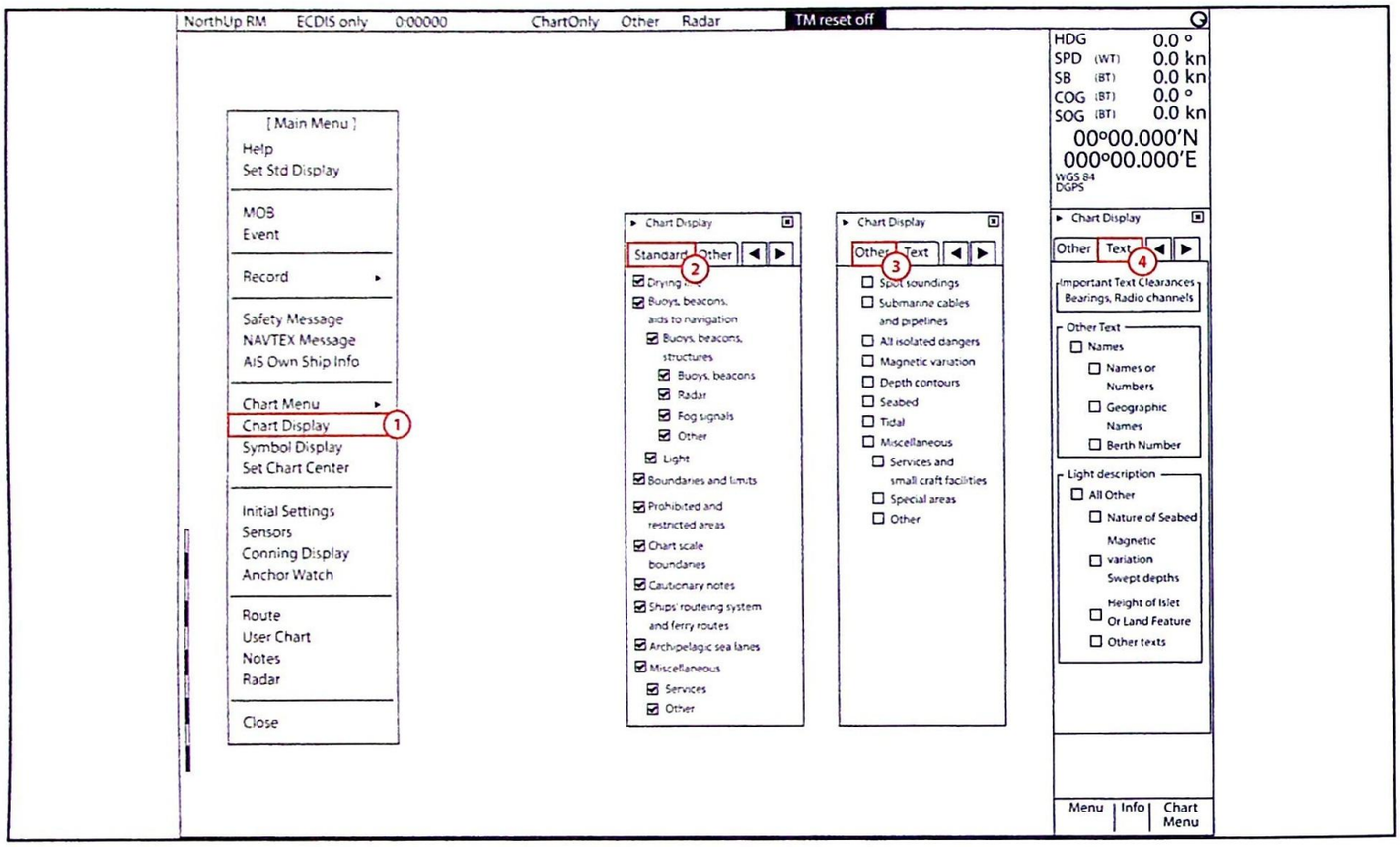
1. From the main menu, select 'Chart Display'.
2. Select the 'Main' tab.
3. Adjust contours and safety depth, as required.

3.2 Display Preference Options



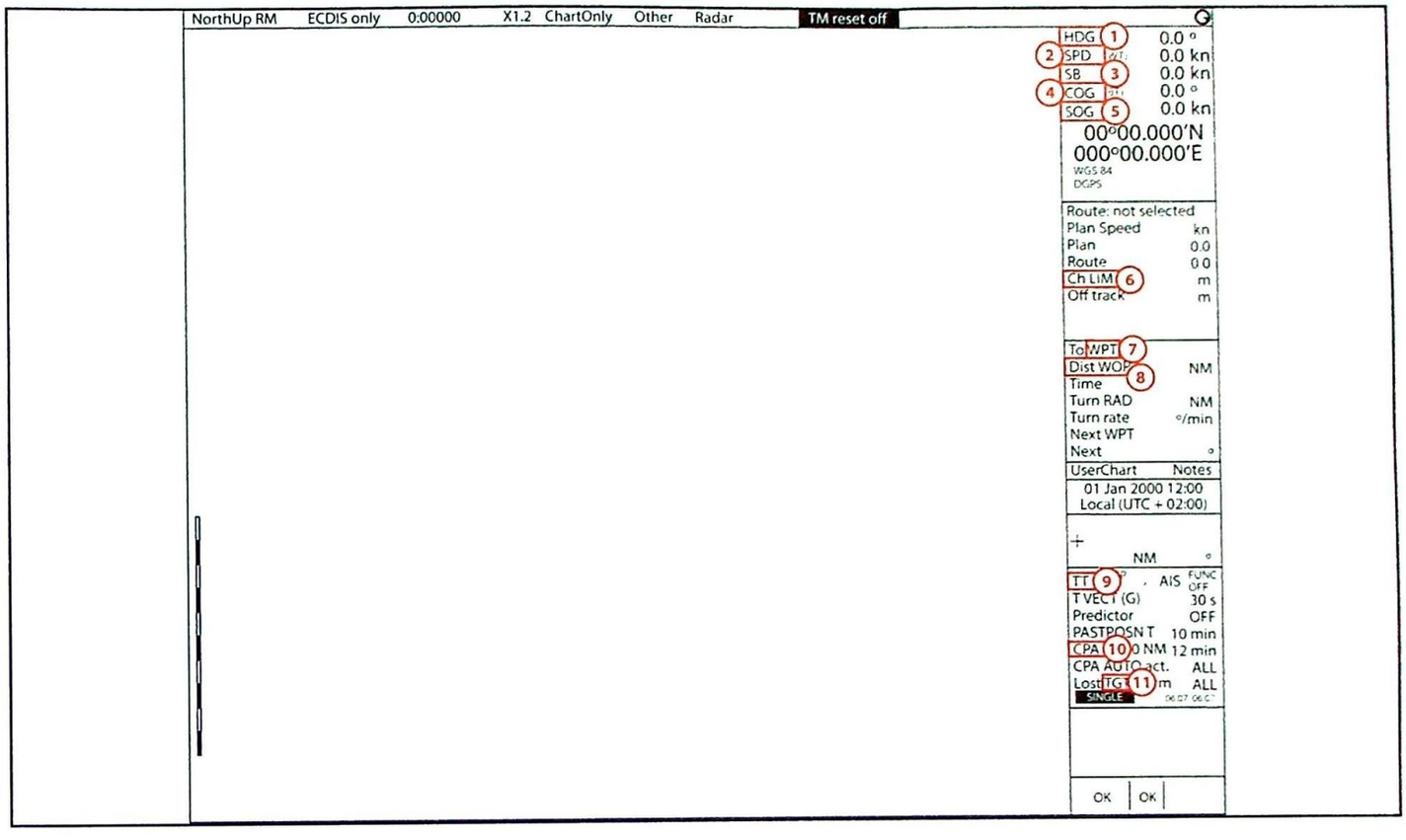
1. From the main menu, select 'Chart Display'.
2. Select the 'Chart' tab.
3. Turn ON/OFF SENC options, as required.

3.3 Display Configuration



1. From the main menu, select 'Chart Display'.
2. Choose layers in the 'Standard' tab.
3. Choose layers in the 'Other' tab.
4. Choose layers in the 'Text' tab.

3.4 Abbreviations

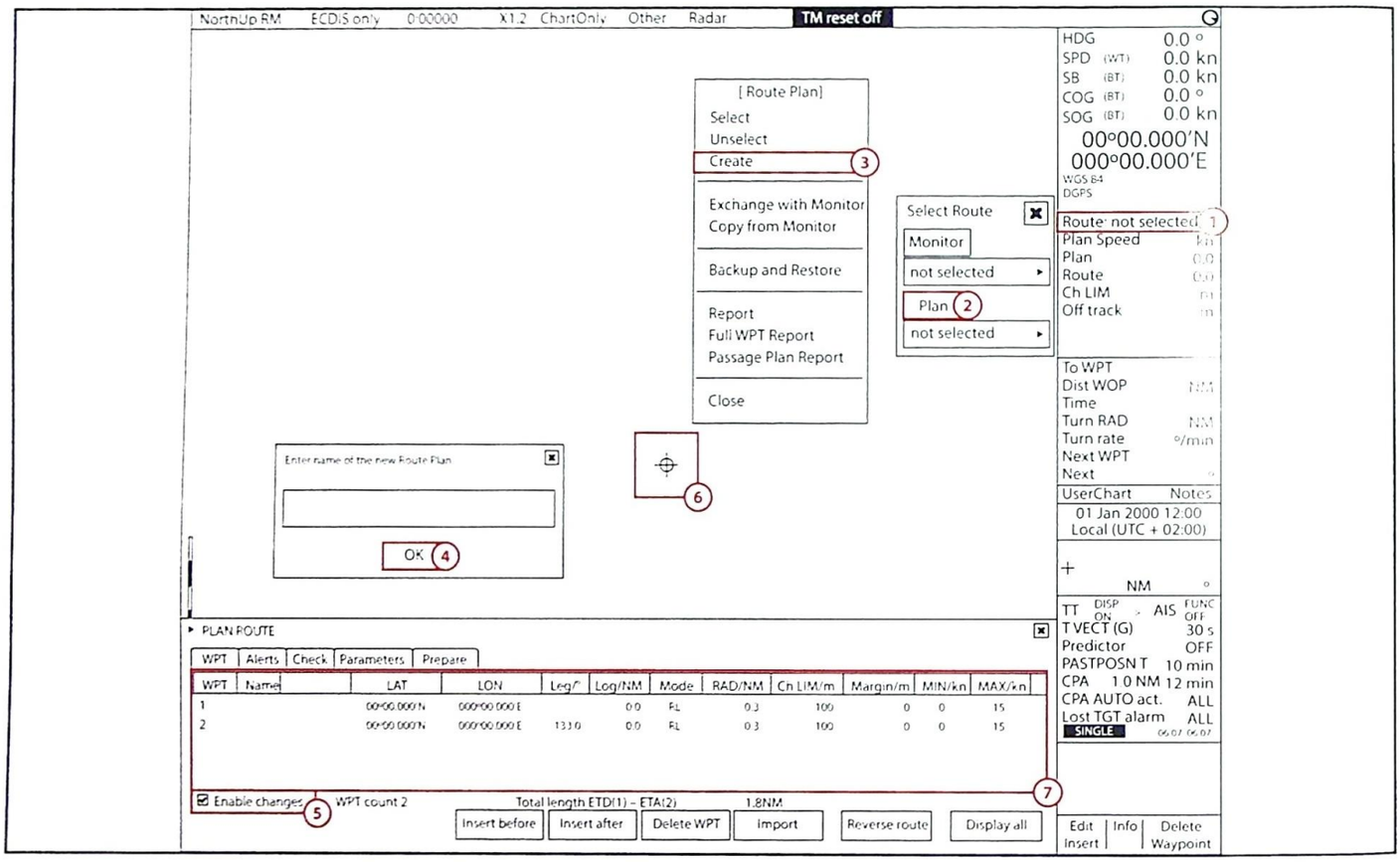


1. Heading
2. Speed
3. Transversal Speed
4. Course Over Ground
5. Speed Over Ground
6. Channel Limit
7. Waypoint
8. Distance Wheel Over Point
9. Target Tracking/Tracked Target
10. Closest Point of Approach
11. Target

1. Continuous Common Reference Point
2. System Electronic Navigational Chart
3. Raster Navigational Chart
4. Dead Reckoning

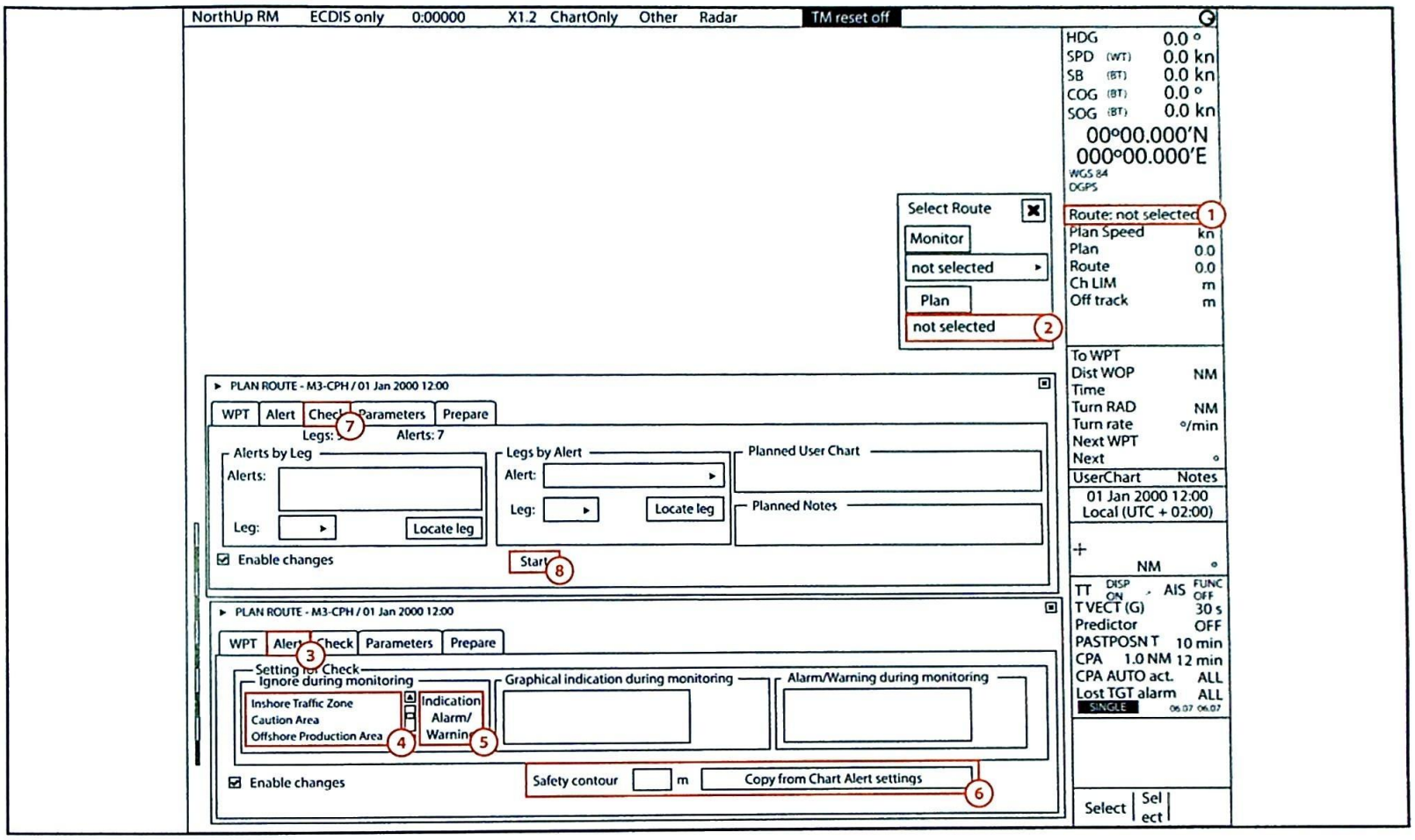
Section 4: Route Planning

4.1 **Creation**



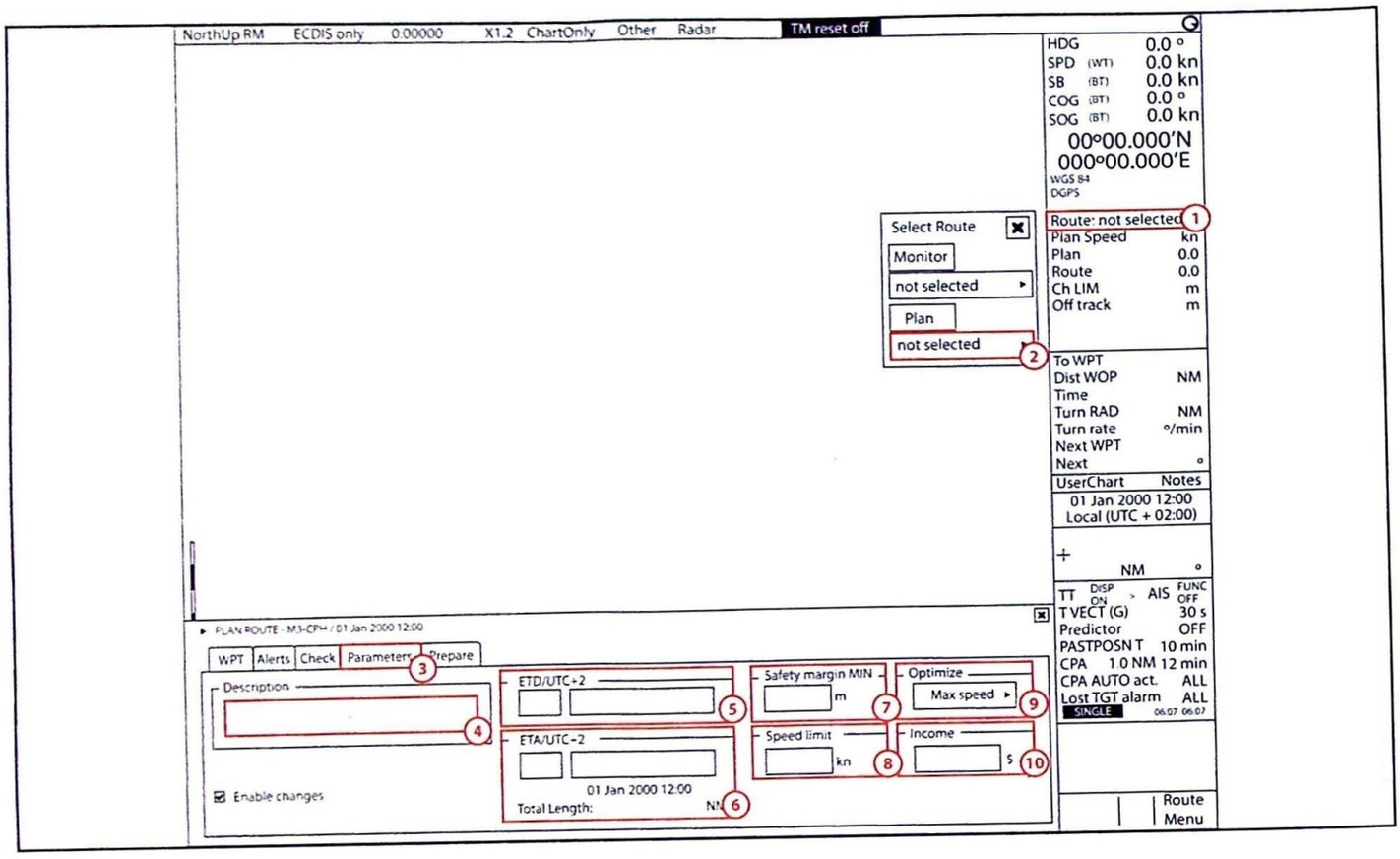
1. Click 'Route' in the information area.
2. Click 'Plan'.
3. Click 'Create'.
4. Enter a name for the route and click 'OK'.
5. Check 'Enable changes'.
6. Move cursor to the desired location and left click to add waypoint.
7. Edit waypoint details by moving cursor into the required field and spin the scroll wheel to change value.

4.2 Schedule/Route Checking



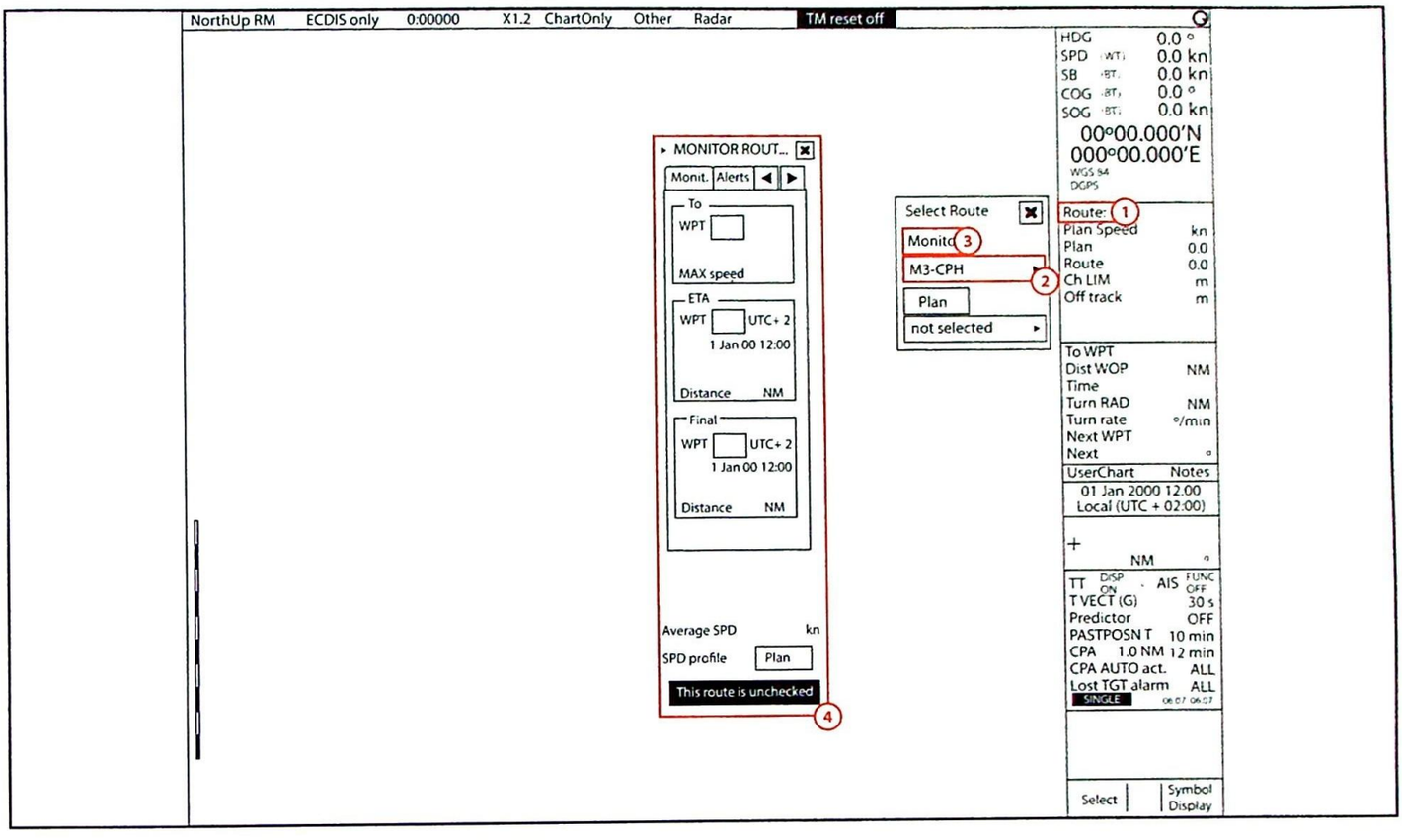
1. Click 'Route' in the information area.
2. Select the route you want to check.
3. Select 'Alerts' from the tabs.
4. Select the object you would like to check.
5. Select whether you want the object to be an 'Indication' or an 'Alarm/Warning'.
6. Set 'Safety contour'.
7. Select 'Check' from the tabs.
8. Click 'Start' to run route check.

4.3 Optimisation



1. Click 'Route' in the information area.
2. Select the route you would like to optimise.
3. Select the 'Parameters' tab.
4. Enter a note concerning the route.
5. Planned estimated time of departure from a specified waypoint.
6. Planned estimated time of arrival to last waypoint.
7. Set 'Safety margin'.
8. Set 'Speed limit' for route.
9. Select 'Optimise' type – 'Max speed'/'Timetable'/'Max profit'/'Min. Cost'.
10. Select budget for voyage.

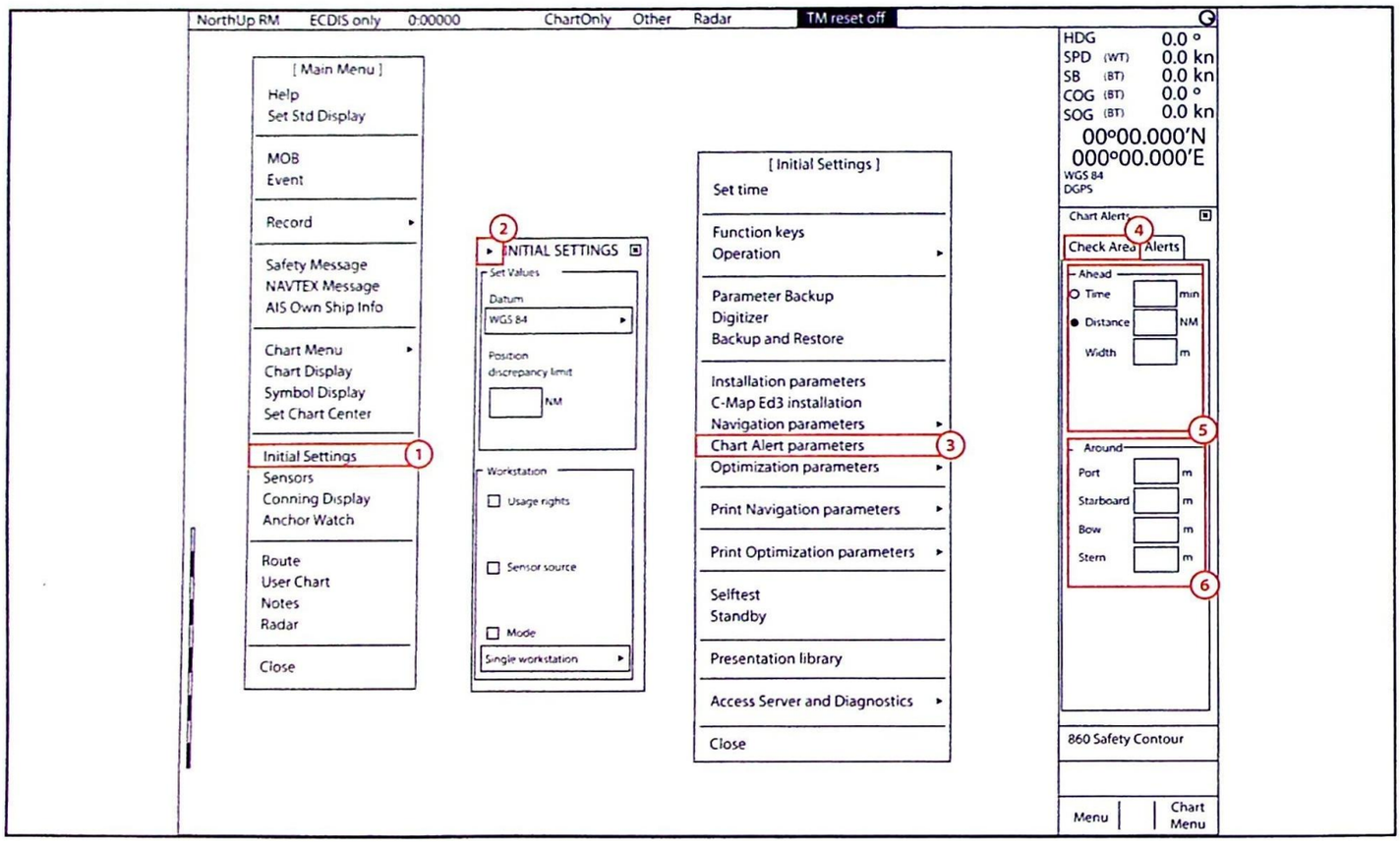
4.4 Selecting Active Route



1. Click 'Route' in the information area.
2. Select the route you want to load.
3. Select 'Monitor'.
4. 'Monitor route dialog' box.

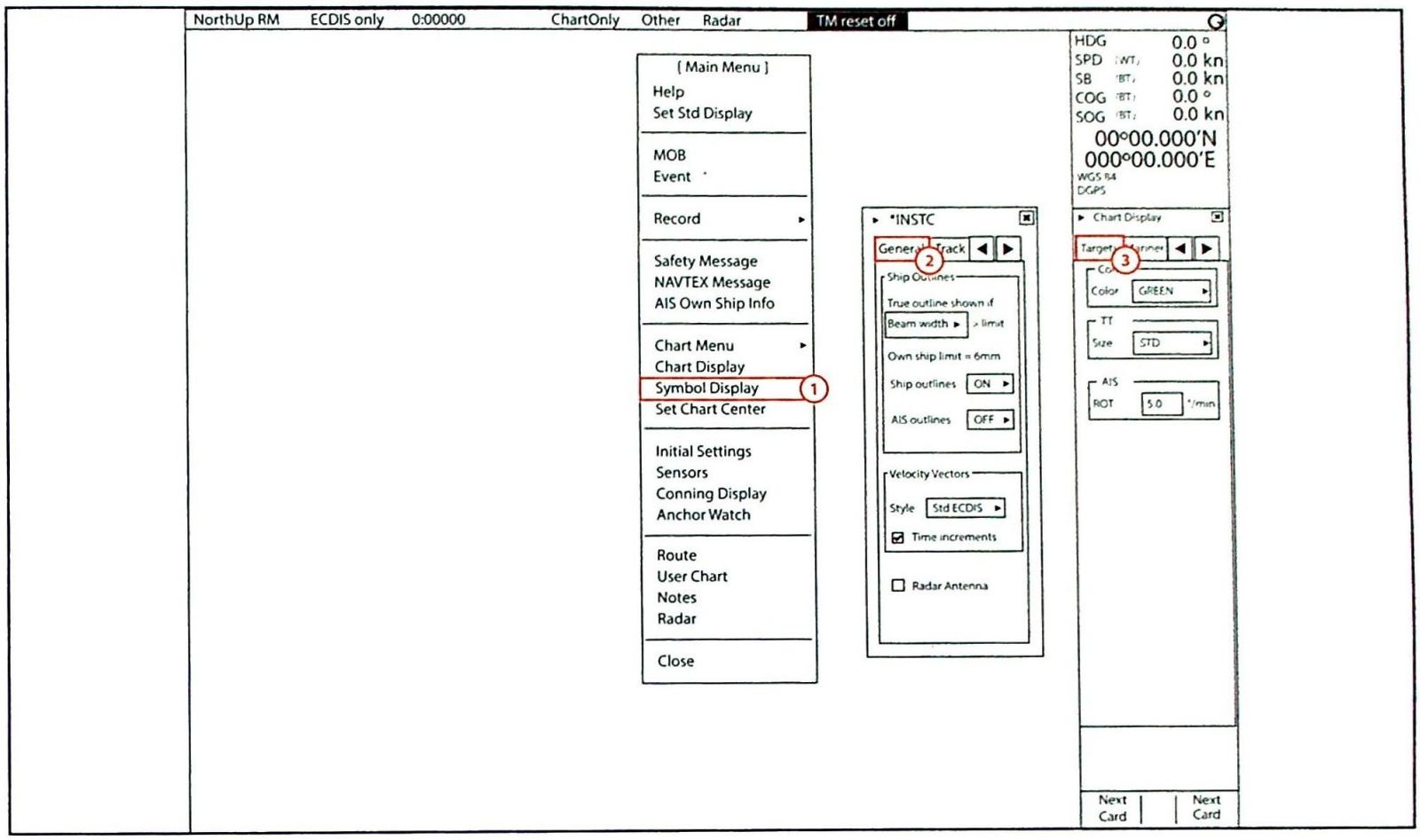
Section 5: Route Monitoring

5.1 Look-Ahead



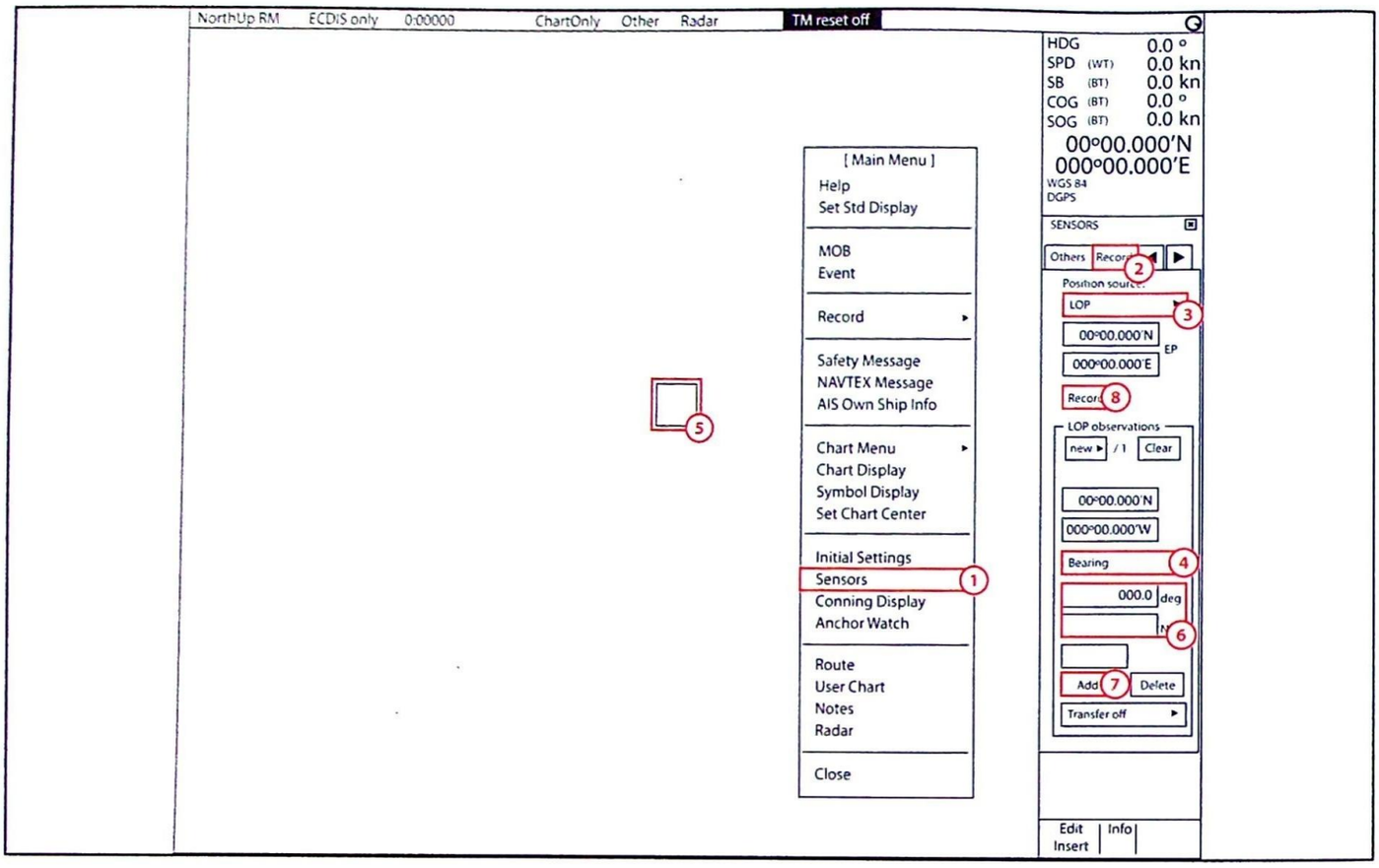
1. Select 'Initial Settings' from the main menu.
2. Move the cursor onto the triangle inside 'Initial Settings'.
3. Select 'Chart Alert parameters'.
4. Select 'Check Area'.
5. Choose check area ahead:
   - a. Time will increase/decrease **based on vessel speed**.
   - b. Distance will be a **fixed distance** ahead.
   - c. Insert width for time/distance.
6. Insert port/starboard/bow/stern values in the 'Around' box.

5.2 TT/AIS/Vectors



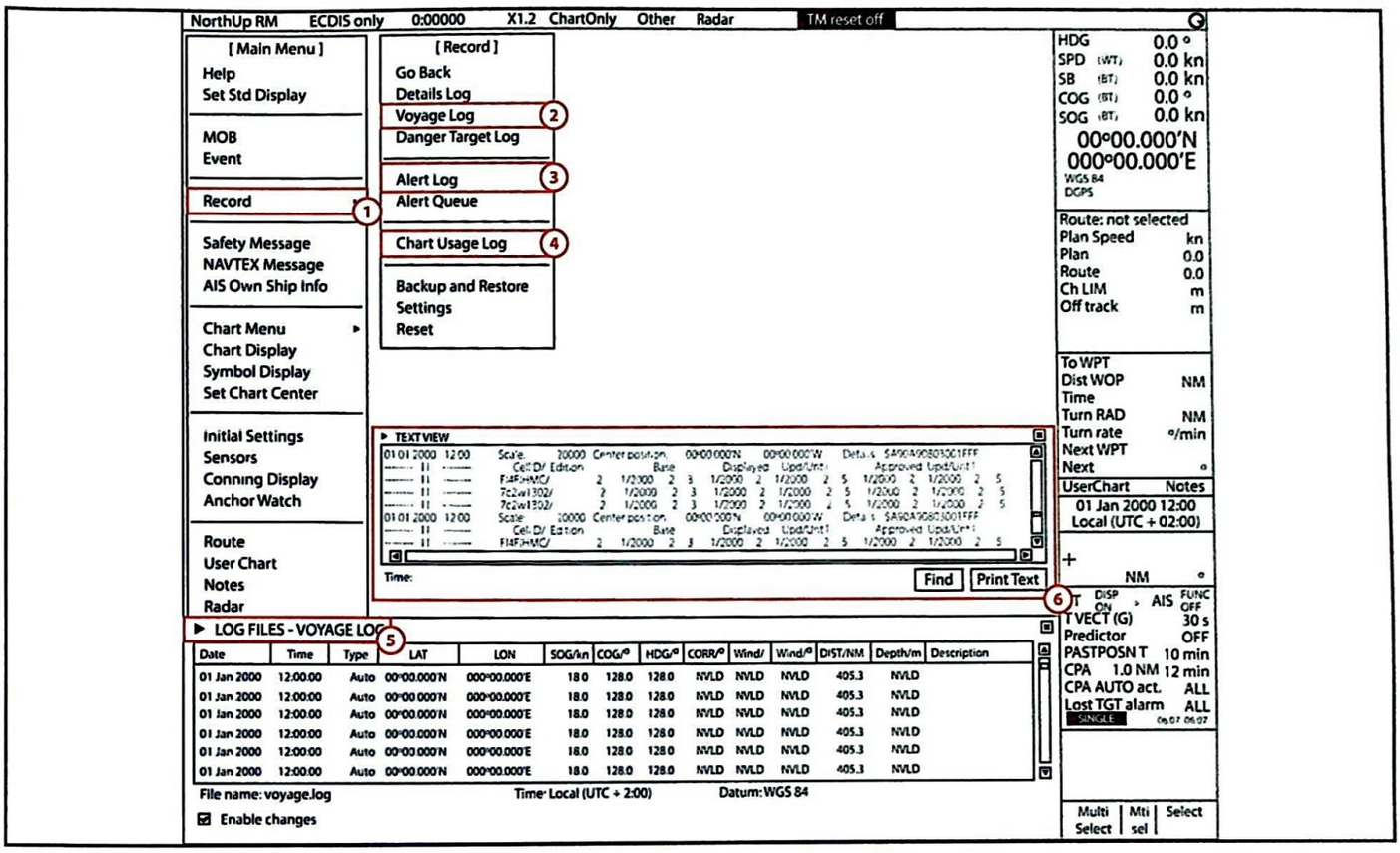
1. Select 'Symbol Display' from the main menu.
2. Select the 'General' tab and adjust settings as necessary.
3. Select the 'Targets' tab and adjust settings as necessary.
4. Click 'Save' to apply changes.

5.3 Position Fixing



1. Select 'Sensors' from the main menu.
2. Select 'Record' tab.
3. Ensure 'LOP' is selected.
4. Ensure 'Bearing' is selected.
5. Click on your first reference point.
6. Enter the bearing.
7. Select 'Add' to confirm first LOP; repeat steps 5 to 7 three times.
8. Confirm your position fix. Vessel will remain in GNSS and a fix stamp will be applied to the chart.

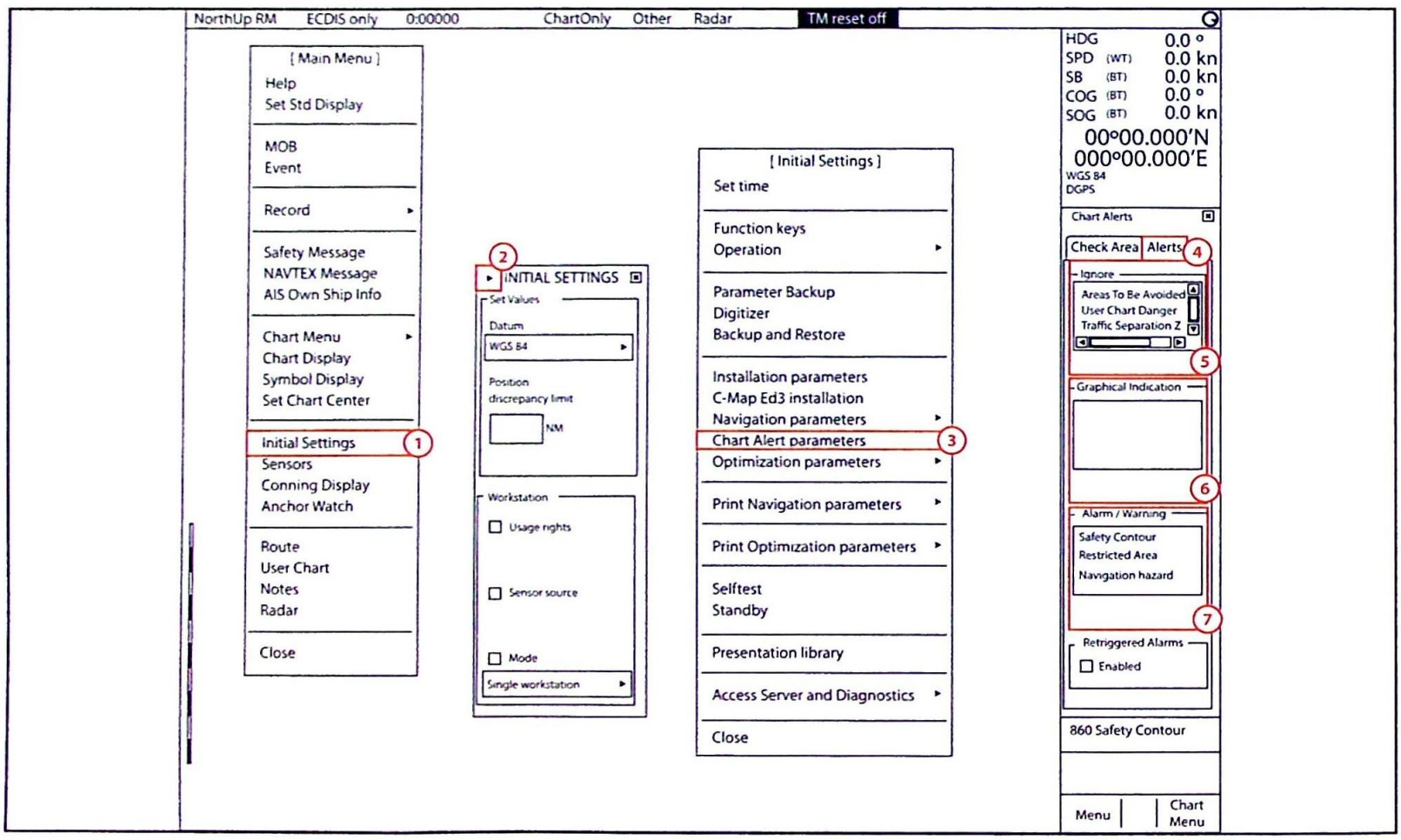
5.4 Logs/Playback



1. Select 'Record' from the main menu.
2. Details Log/Voyage Log/Danger Target Log.
3. Alert Log/Alert Queue.
4. Chart Usage Log.
5. 'Voyage Log' example – To print, move the cursor onto the triangle to show the 'Log File' menu and select 'Print Log'.
6. 'Chart Usage Log' example.

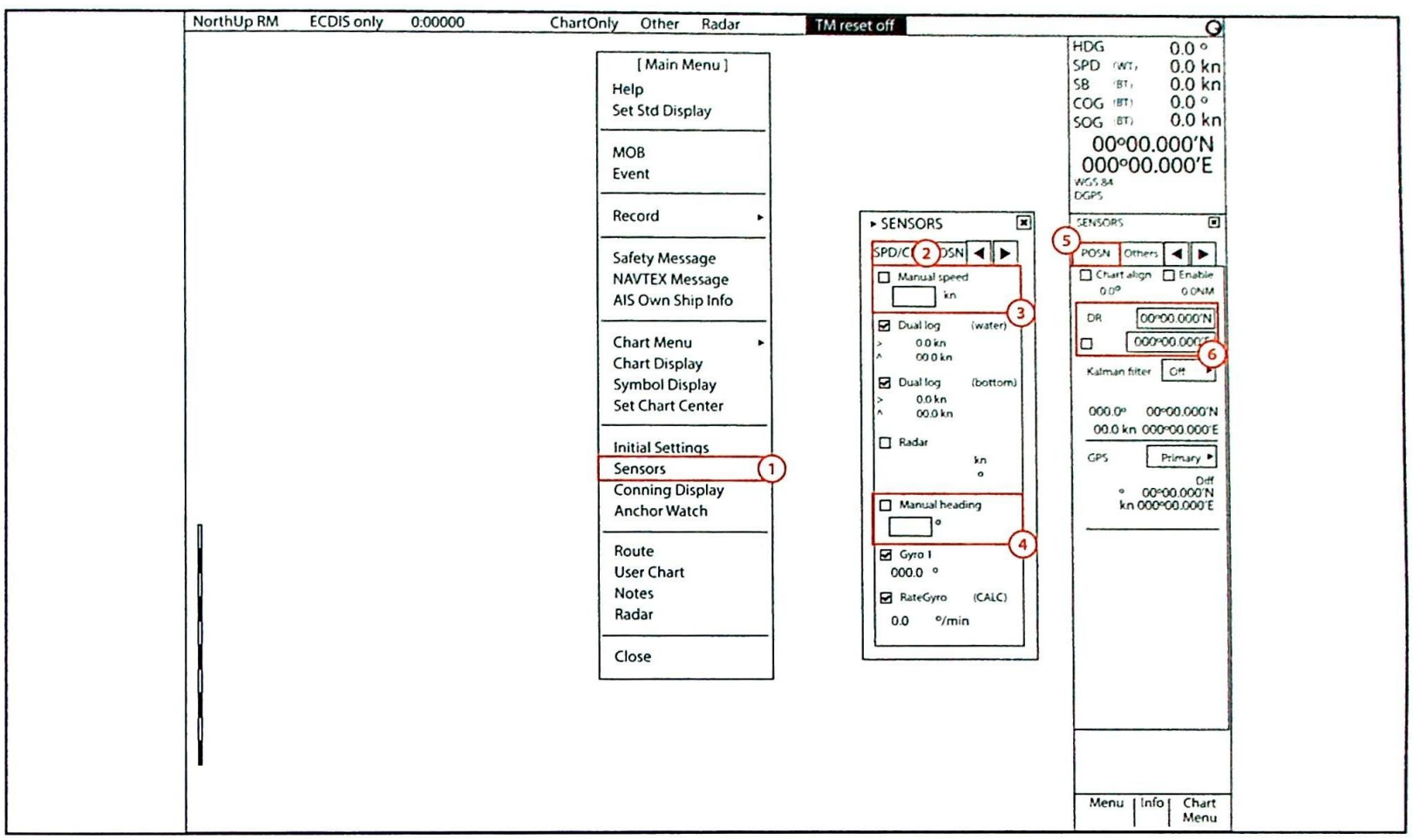
Section 6: System Settings

6.1 Warning/Alarm Configuration



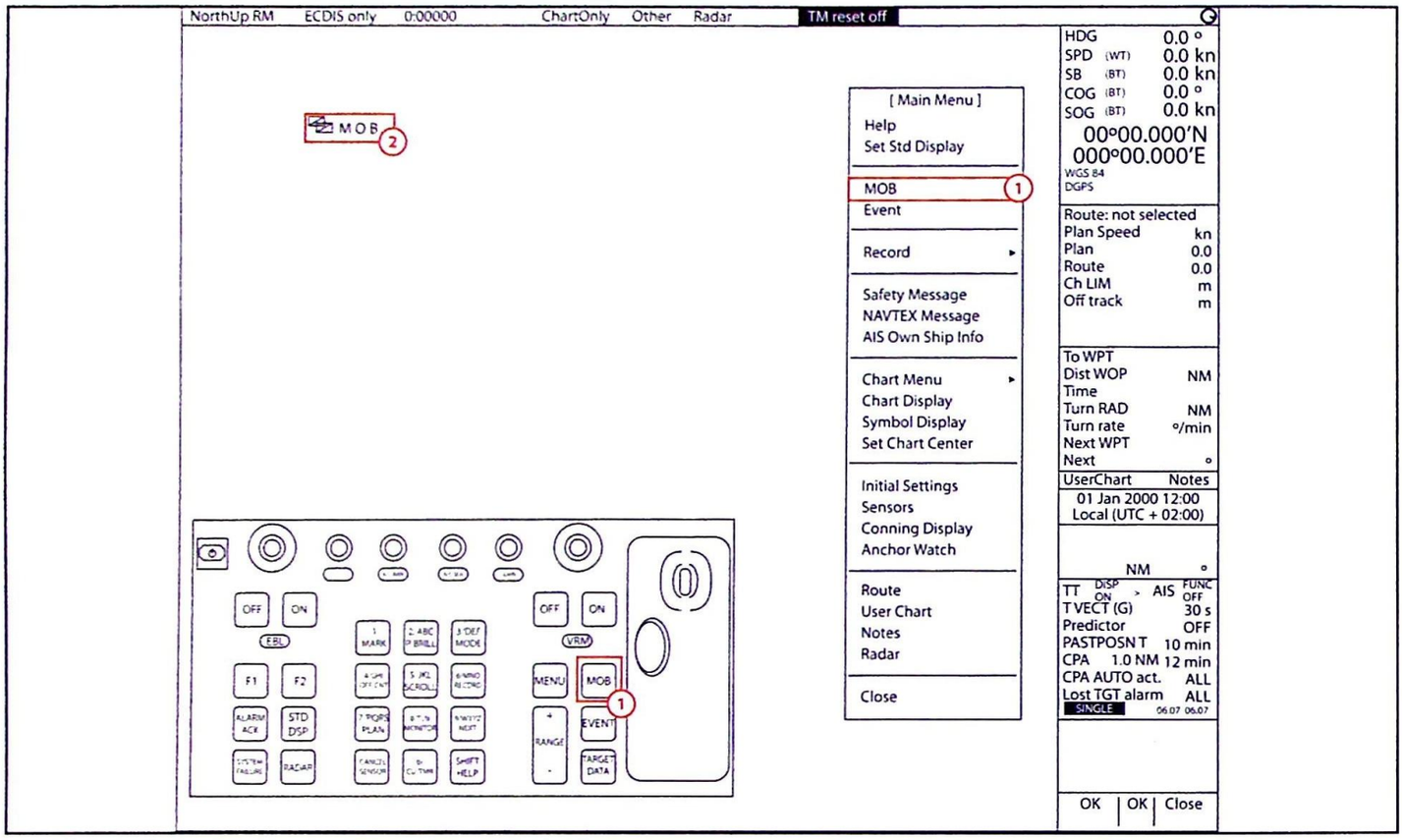
1. Select 'Initial Settings' from the main menu.
2. Move the cursor onto the triangle inside 'Initial Settings'.
3. Select 'Chart Alert parameters'.
4. Select 'Alerts' tab.
5. 'Ignore' – No visual and no audio alarm.
6. 'Graphical Indication' – Only visual alarm shown with yellow outline.
7. Alarm/Warning – Visual and audio alarm shown with red fill colour.

6.2 Position/Heading/Speed



1. Select 'Sensors' from the main menu.
2. Select 'SPD/CRS' tab.
3. To enable, tick the 'Manual speed' tick box and enter manual speed.
4. To enable, tick the 'Manual heading' tick box and enter heading.
5. Select 'POSN' tab.
6. To enable, tick the 'DR' tick box and enter position.

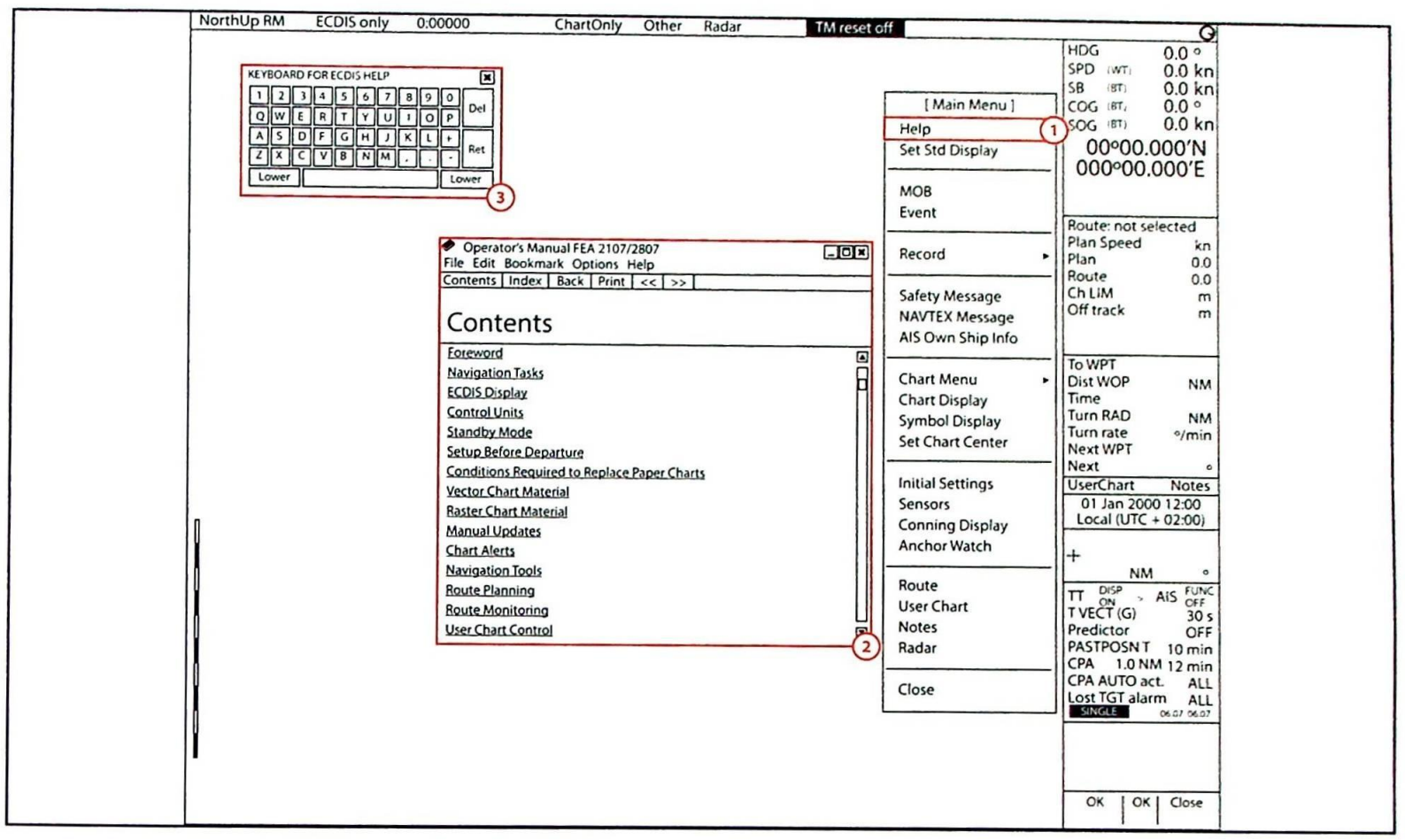
6.3 Emergency Menu



1 From the main menu or from the control unit, you can add 'MOB'.

2 MOB marker.

6.4 Manual/About



1 Select 'Help' from the main menu. 2 Operator's Manual. 3 Keyboard for ECDIS help.

4. FURUNO FMD 3100/3200/3300 – Familiarisation Checklist (Page 1 of 2)

1.	**Company ECDIS Procedures** Review company documentation for ECDIS procedures and complete the below ECDIS Type Specific Familiarisation checklist.			
2.	**Chart Display** Become familiar with the basic chart functionality from the main display.			
	Status Bar			
		Operating Mode – ECDIS/Conning		OTHERS – Standby/Playback
		NAVI – Voyage Navigation mode		Manage Profiles
		CHARTS – Chart maintenance mode		Chart Scale
		PLAN – Voyage planning mode		
3.	**Navigational Tools** Operate all basic navigational functions and vessel setting options contained within the ECDIS for use of navigation.			
	Overlay/Nav Tools			
		TT/AIS		Predictor
		Echo		Anchor Watch
		PI Lines		UKC
		Look-ahead		EBL 1/2 VRM 1/2
		Rings		AIS FILTER (ON/OFF)
4.	**Chart Display Settings** Operate all chart display settings, become familiar with object layers, ENC symbology and define the vessel's safe water settings. Identify where all chart updates are managed in the system.			
	Chart INFO		**DISP Settings**	
		Chart Legend		Basic Settings
		Viewing Dates		Chart Display
		Chart 1		Symbol Display
		DISP		Chart Alert
		Log		Scale min (ON/OFF)
		Palette		Accuracy
		Brilliance		AIS Outlines (ON/OFF)
		MOB		Positions Events (ON/OFF)
		Screenshot		Ship Vectors (ON/OFF)
		Undo		AIS Label (ON/OFF)
5.	**Route Planning** Operate all route planning functions and obtain all relevant schedule information for passage planning and route monitoring purposes.			
	PLAN		**NAVI**	
		Planning		Voyage
		User Chart		MSG
		Report		Mini Conning
		SAR		Weather Overlay
		Optimize		

FURUNO FMD – Familiarisation Checklist (Page 2 of 2)

6. **Route Monitoring**

Operate the variety of voyage data functions for route monitoring to display and obtain relevant information for navigation and the ship's safety.

NAVI		**Route Information Box**	
			Right click
			Select Route
			Unselect Route
XTD			Move to Plan
			Monitor User Chart
			Monitor INFO
			Stop Monitor

7. **Chart Updating**

The operator should know how to update electronic charts and be thoroughly aware of their responsibilities concerning updating. It is a legal requirement that charts are maintained in an up-to-date condition.

CHARTS			
	Auto Import		License
	Manage Charts		Public Key
	Cell Status		System
	ENC User Permit		

8. **System/Local Sensors**

Identify where the operator can select or deselect all sensors connected to the ECDIS and verify the vessel's particulars.

Sensor		**Menu/General**	
	HDG		Ship and Route Parameters
	SPD		Navigation Parameters
	COG/SOG		Cost Parameters
	POSN		Route Information
	Other Sensor		
	Filter Status		

9. **System Alerts**

Identify the ECDIS system's category of Alarms and Prompts generated by the operator and by the ECDIS system.

Alarms			
	Alarms		Look Ahead
	Prompts		Mute Settings
	Chart Dangers		
	Ahead		
	Time set appropriate value		
	DIST set appropriate value		
	Width set appropriate value		

10. **System Units**

Become familiar with the system's logbook, records, data storage and configuration set up.

Status Bar		**Log**	
	About		Update Log
	User Settings		Event Log
	Settings		NAV Log
	Date		Target Log

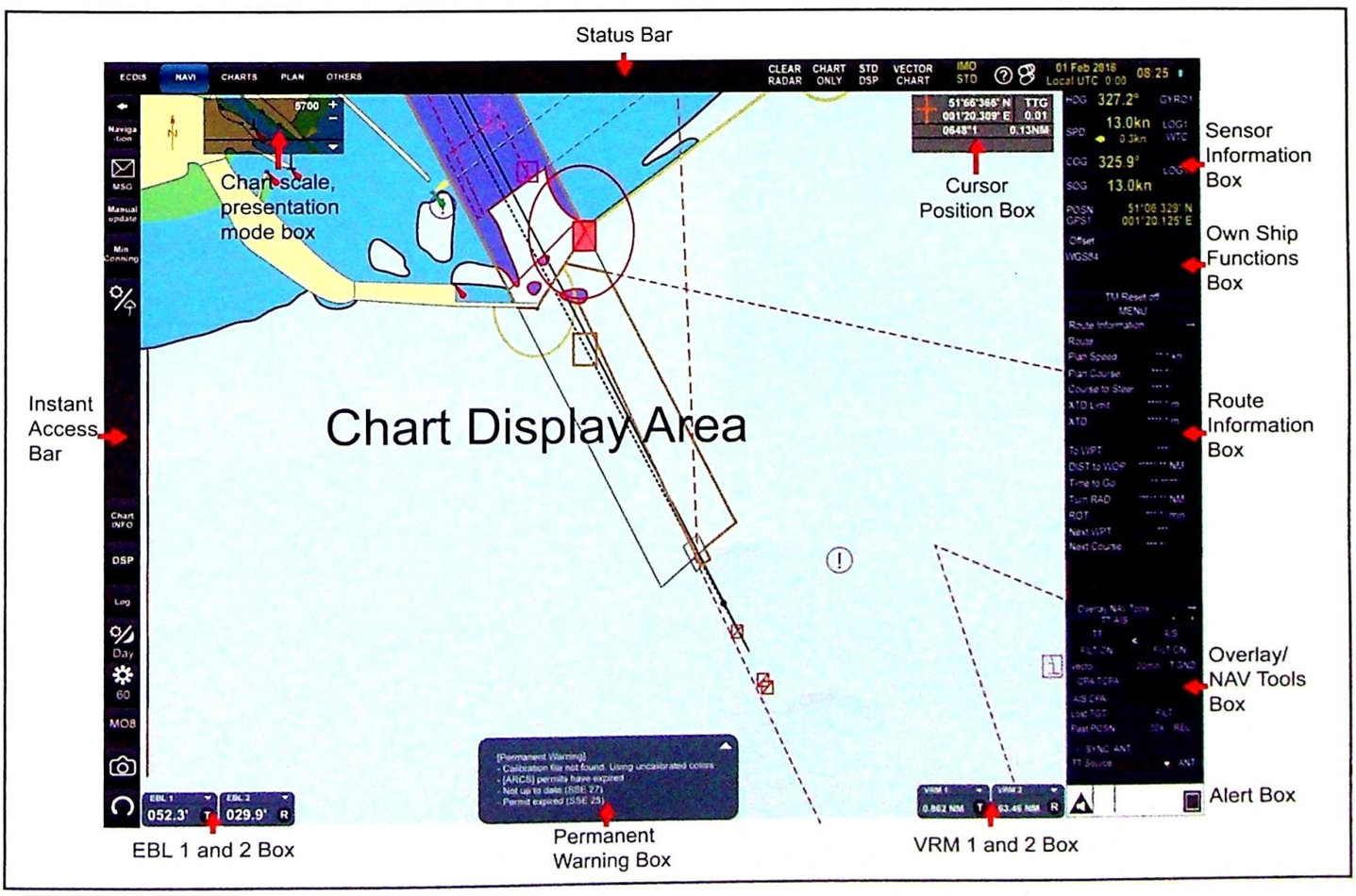
11. **ECDIS Operator's Manual**

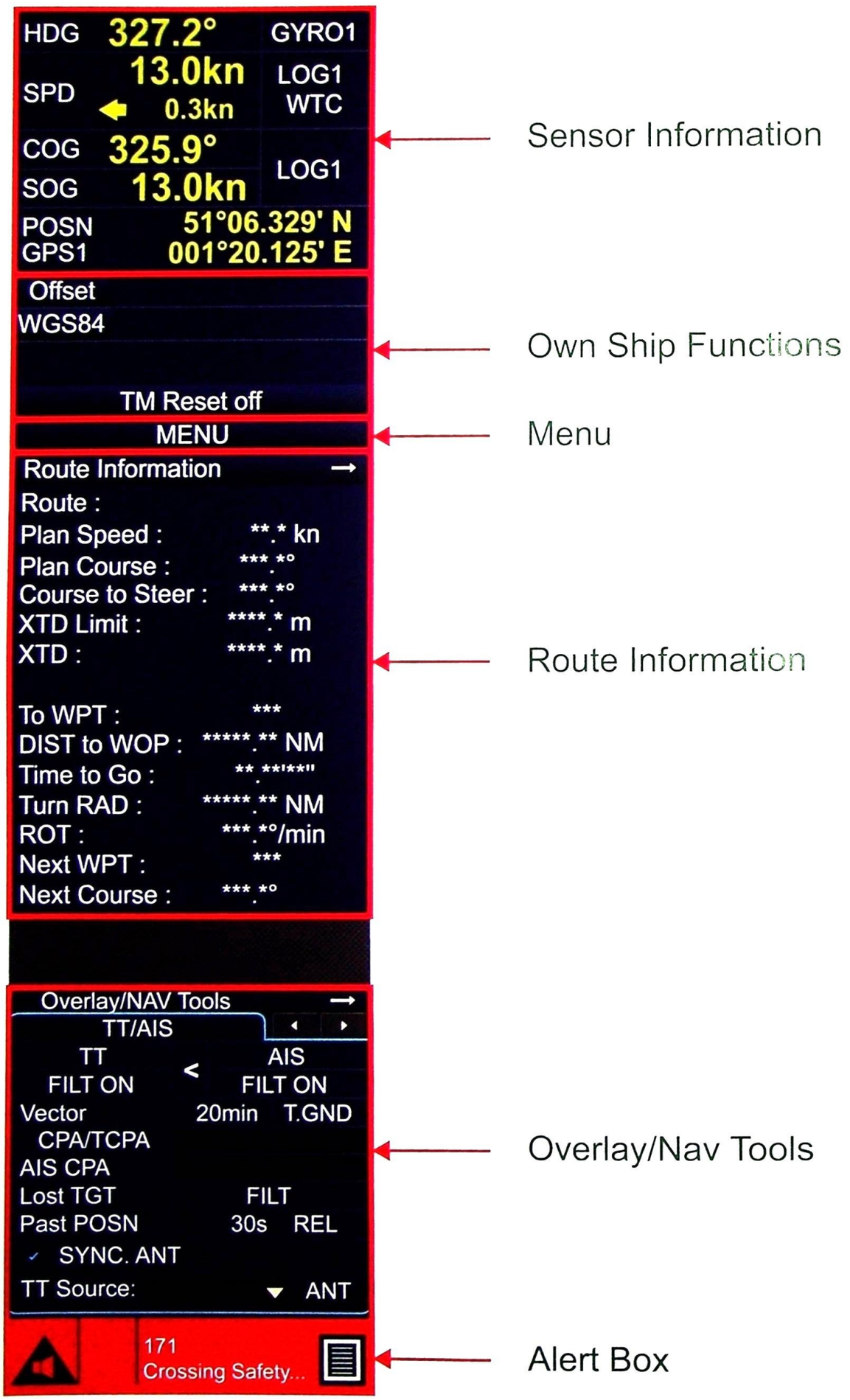
Locate the system's operator's user guide for referencing and help.

Status Bar			
	Manual		

FURUNO FMD 3100/3200/3300

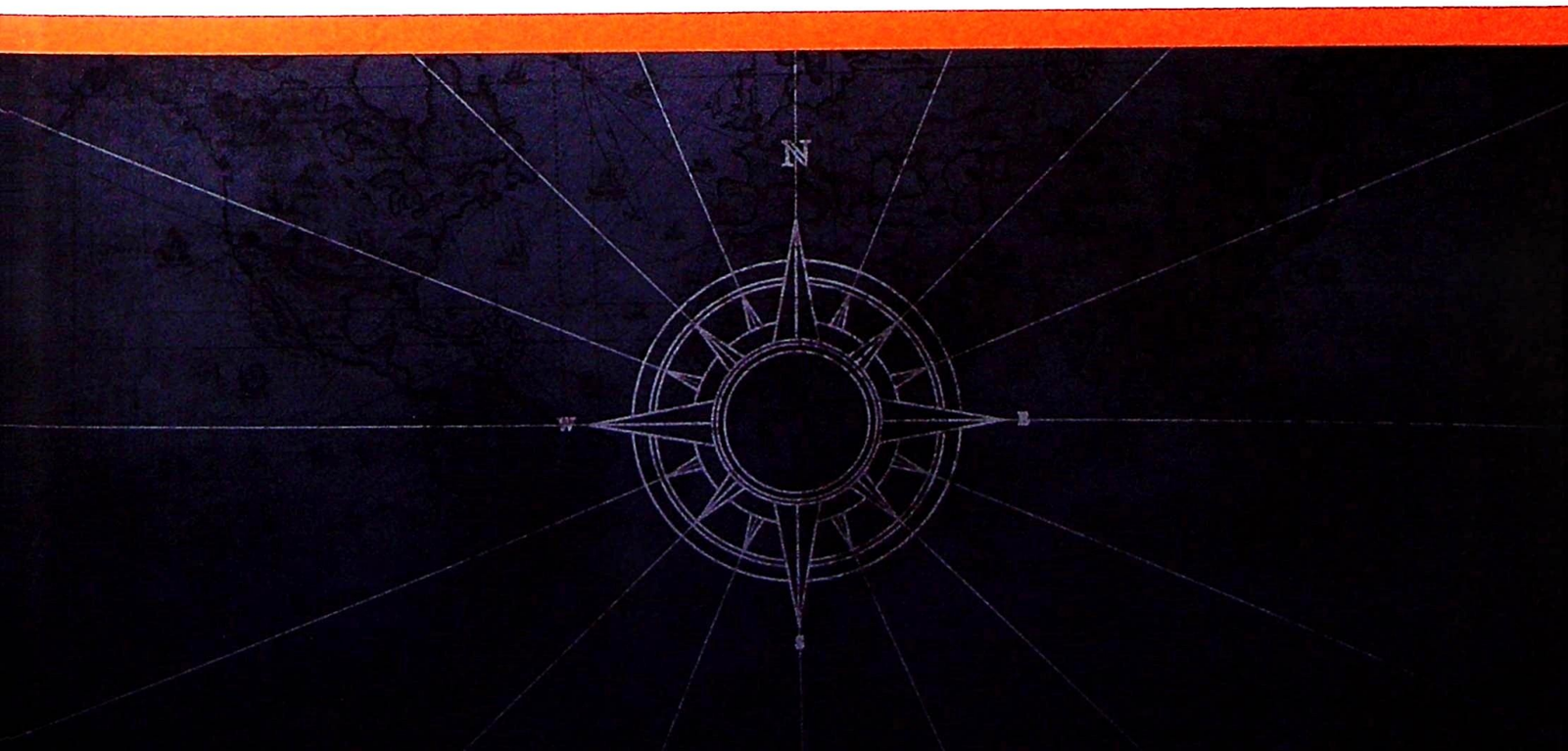
Key FURUNO FMD 3100/3200/3300 ECDIS Menu Functions		
1.	Viewing chart catalogue	**CHARTS>Manage Charts**
2.	Configuration of Ship's Maximum Speed, Draught and ROT	**Menu>Ship and Route Parameters>Ship and Route**
3.	Settings Chart Priority	**Status Bar>Vector/Raster Chart**
4.	View the latest update number installed	**Right click>Chart Legend**
5.	Radar Image Overlay	**Overlay/Nav Tools>Echo**
6.	View information on charted objects and view additional text	**Right click>Pick Report**
7.	Set the Safety Depth, Safety Contour, Shallow and Deep Contour	**Menu>Chart Alert**
8.	Input a User Chart Object	**PLAN>Planning>User Chart**
9.	Input a Manual Update	**NAVI>Manual update**
10.	Turn the ship outline on	**Menu>Symbol Display>General**
11.	Configure the Look-Ahead (Anti-grounding Cone)	**Overlay/Nav Tools>Look-Ahead**
12.	Configure Velocity Vectors	**Menu>Symbol Display>General**
13.	Configure Ship's Track	**Menu>Symbol Display>Tracking**
14.	View past Alarms and Warnings	**Alert Box>Alert List**
15.	Input a Visual or Radar Fix	**Log>Event log>POSN Event**




HDG 327.2° GYRO1
SPD 13.0kn LOG1
0.3kn WTC
COG 325.9°
SOG 13.0kn LOG1
POSN 51°06.329' N
GPS1 001°20.125' E
Offset
WGS84
TM Reset off
MENU
Route Information
Route :
Plan Speed : **.* kn
Plan Course : ***.*°
Course to Steer : ***.*°
XTD Limit : ****.* m
XTD : ****.* m
To WPT : ***
DIST to WOP : *****.** NM
Time to Go : **.**'**"
Turn RAD : *****.** NM
ROT : ***.*°/min
Next WPT : ***
Next Course : ***.*°
Overlay/NAV Tools
TT/AIS
TT
FILT ON
AIS
FILT ON
Vector 20min T.GND
CPA/TCPA
AIS CPA
Lost TGT FILT
Past POSN 30s REL
SYNC. ANT
TT Source: ANT
171
Crossing Safety...
Sensor Information
Own Ship Functions
Menu
Route Information
Overlay/Nav Tools
Alert Box

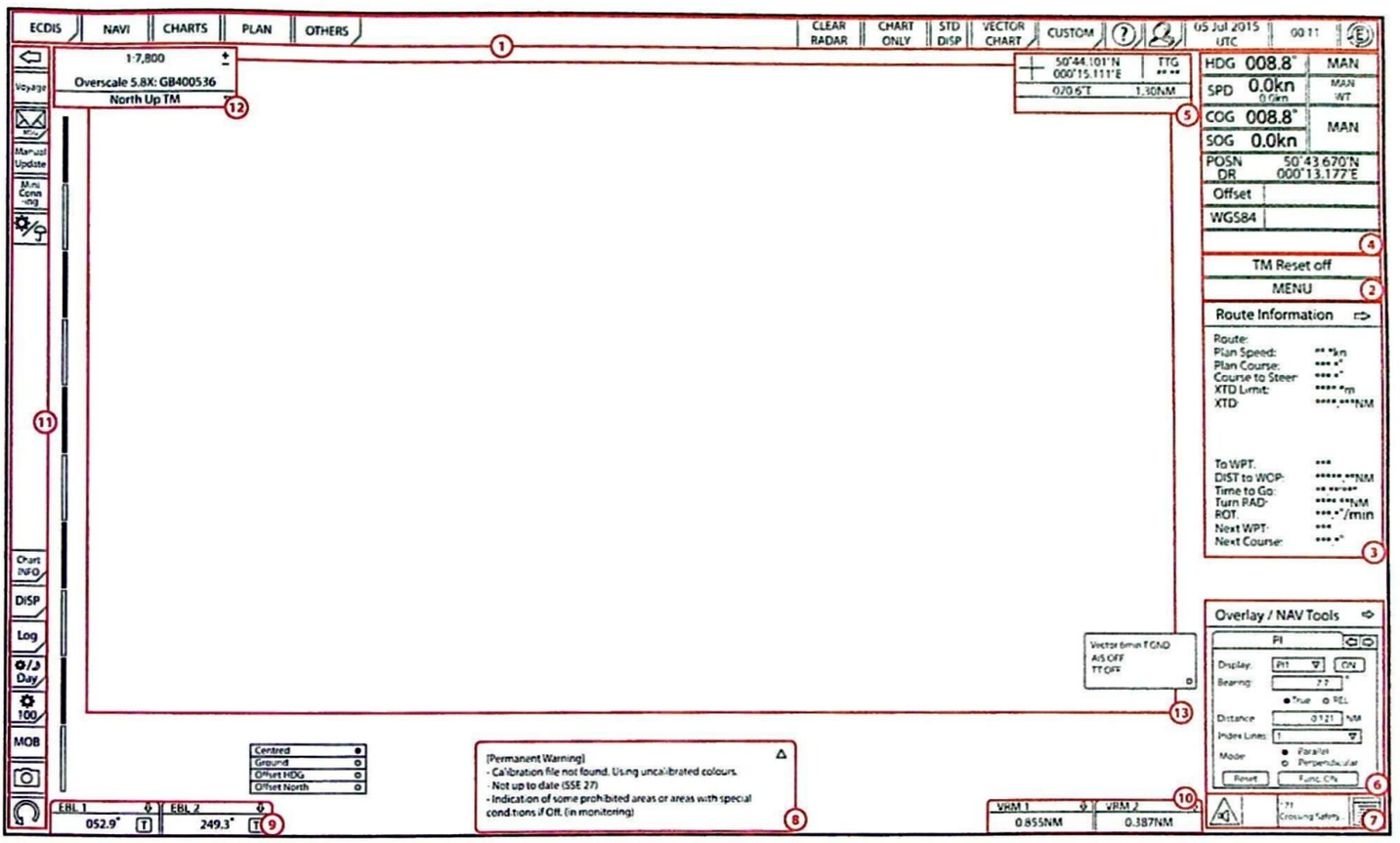
FURUNO

FMD 3100/FMD 3200/FMD 3300



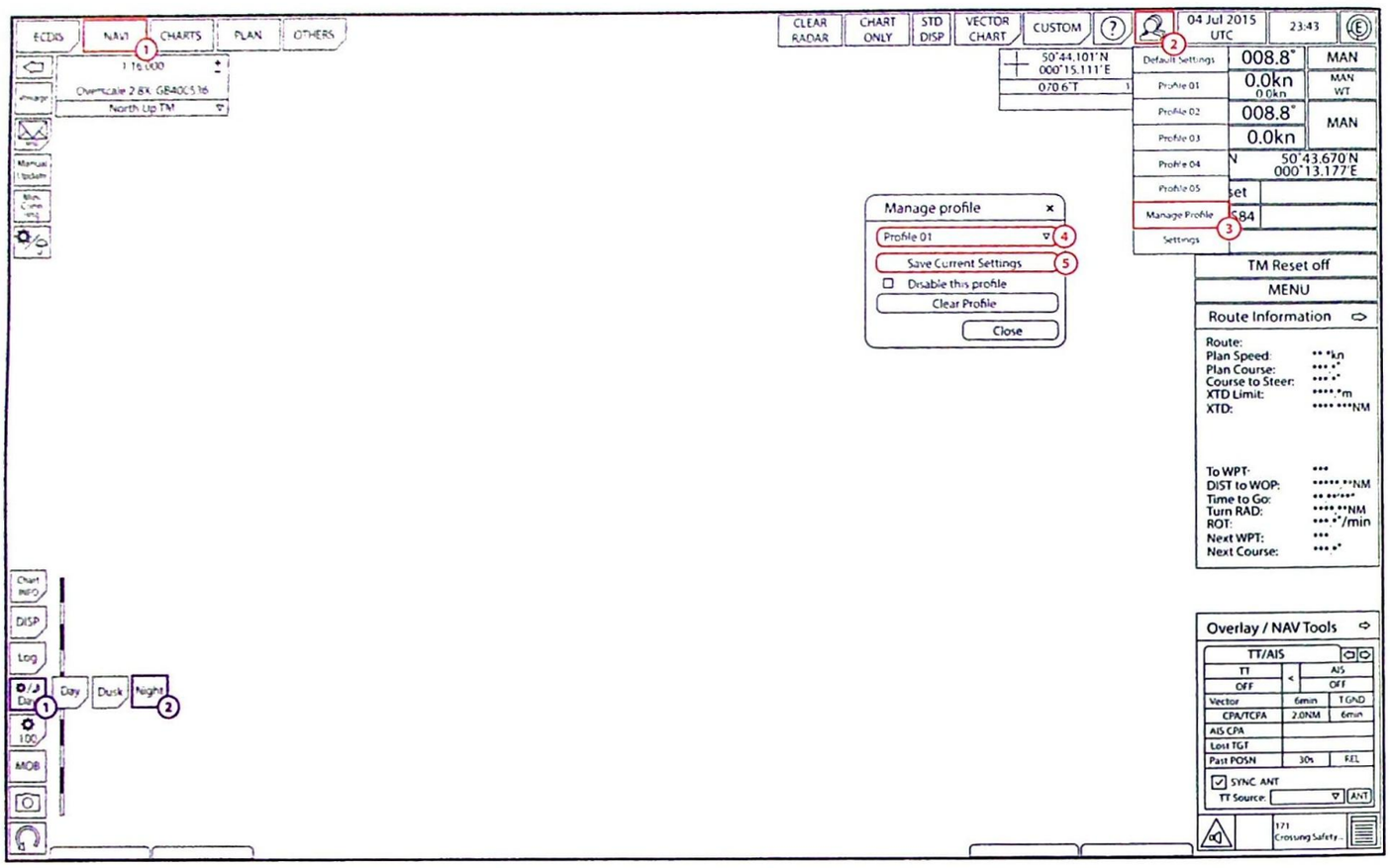
Section 1: Main Display

1.1 Screen Layout



1. Status bar
2. Ownship functions
3. Route information box
4. Sensor information
5. Cursor position box
6. Overlay/NAV tools box
7. Alerts box
8. Permanent warning box
9. EBL 1/EBL 2
10. VRM 1/VRM 2
11. Instant access bar
12. Chart scale. Presentation mode box
13. Chart display

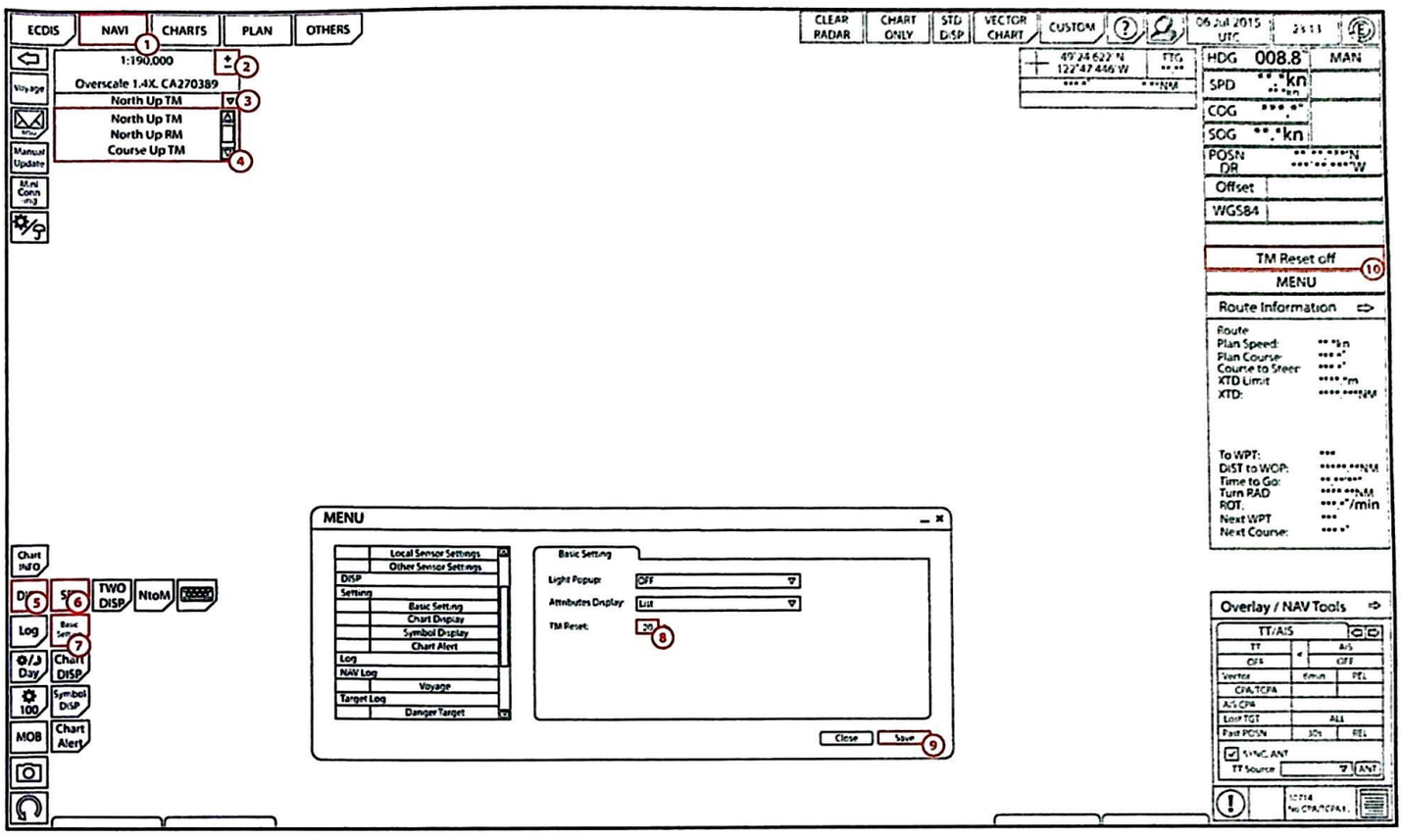
1.2 Colour Palette/Profiles



1. Ensure 'NAVI' is selected.
2. Click the 'Profiles/Settings' icon.
3. Click 'Manage Profile'.
4. Use the dropdown to select the profile you would like to save to.
5. Click 'Save Current Settings' to save your layers.

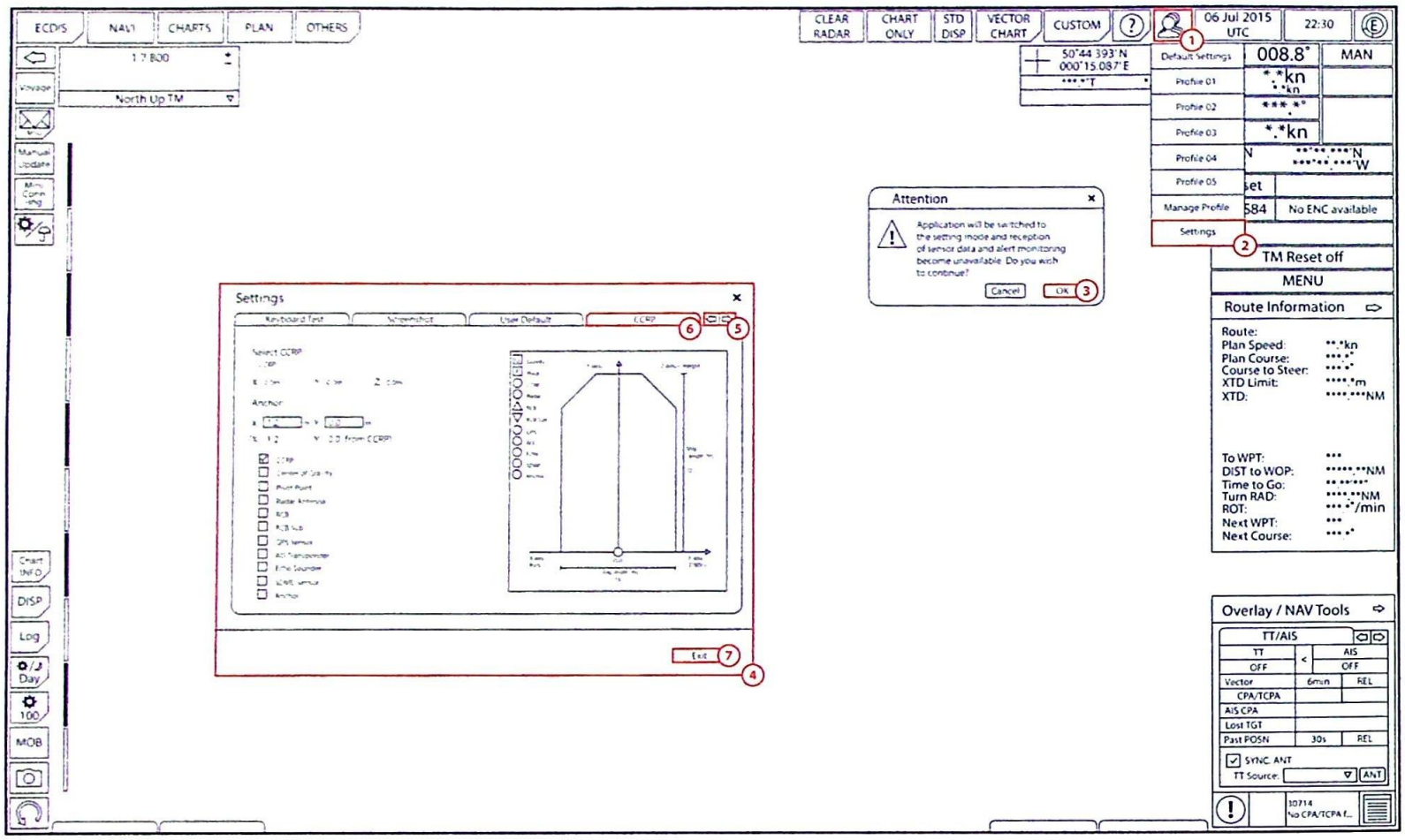
1. Click the day/night palette button.
2. Choose between day, dusk and night.

1.3 Range/Scale/Motion



1. Ensure 'NAVI' is selected.
2. Use '+' and '-' symbols to change scale/range.
3. Click the dropdown.
4. Select orientation and motion (TM or RM).
5. Click 'DISP'.
6. Click 'SET'.
7. Click 'Basic Setting'.
8. Insert a value for 'TM Reset'.
9. Click 'Save' to apply changes.
10. Ensure TM is active by selecting the 'TM Reset' button.

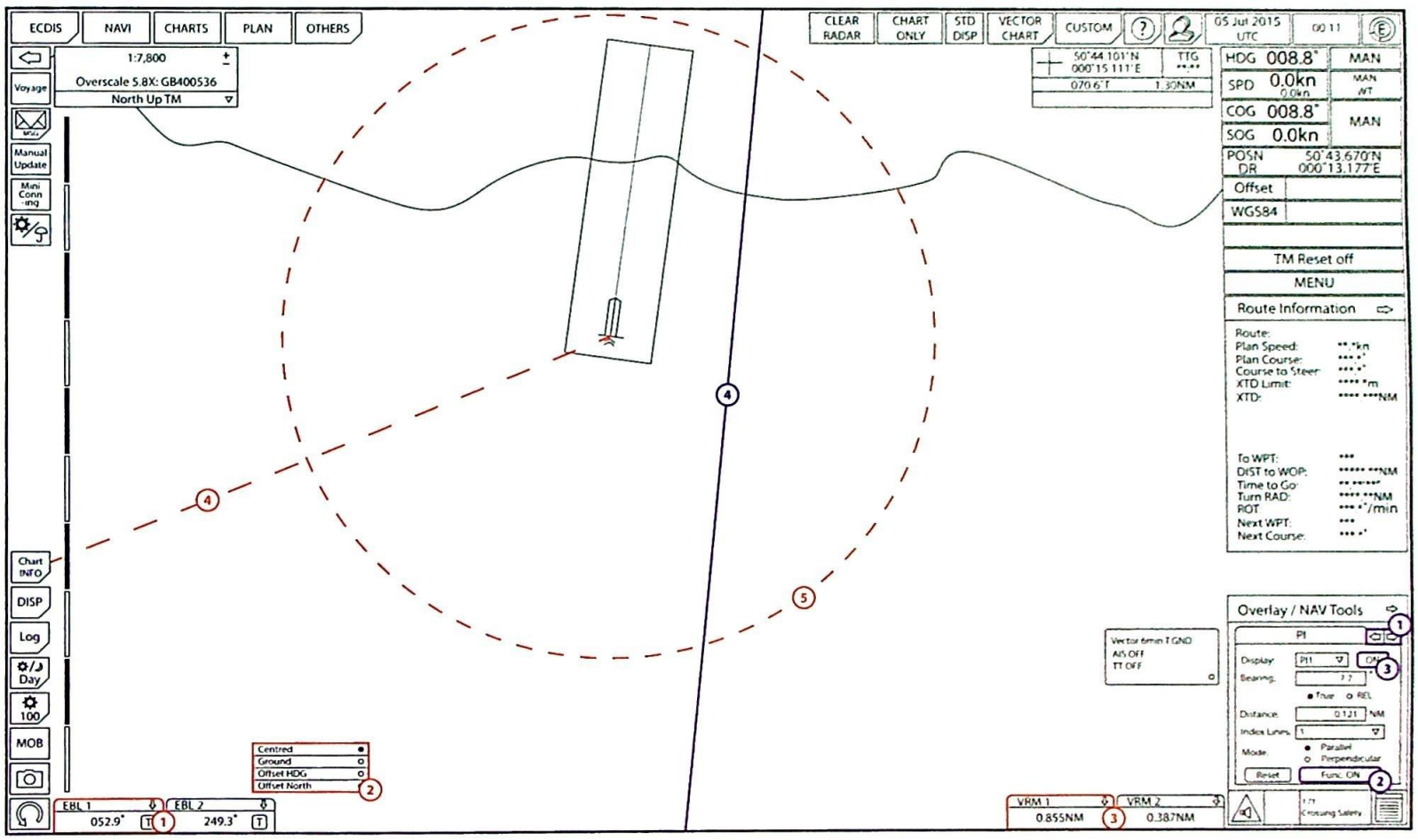
1.4 Setting CCRP



1. Click the 'Profiles/Settings' icon.
2. Click 'Settings'.
3. Click 'OK' when prompted.
4. The 'Settings' menu will open. (Note, the main chart screen will not be visible on your system.)
5. Use the white arrows to go to CCRP.
6. Ensure 'CCRP' is selected.
7. Click 'Exit' when you have finished reviewing CCRP settings.

Section 2: Navigation Tools

2.1 **EBL/VRM/PI**

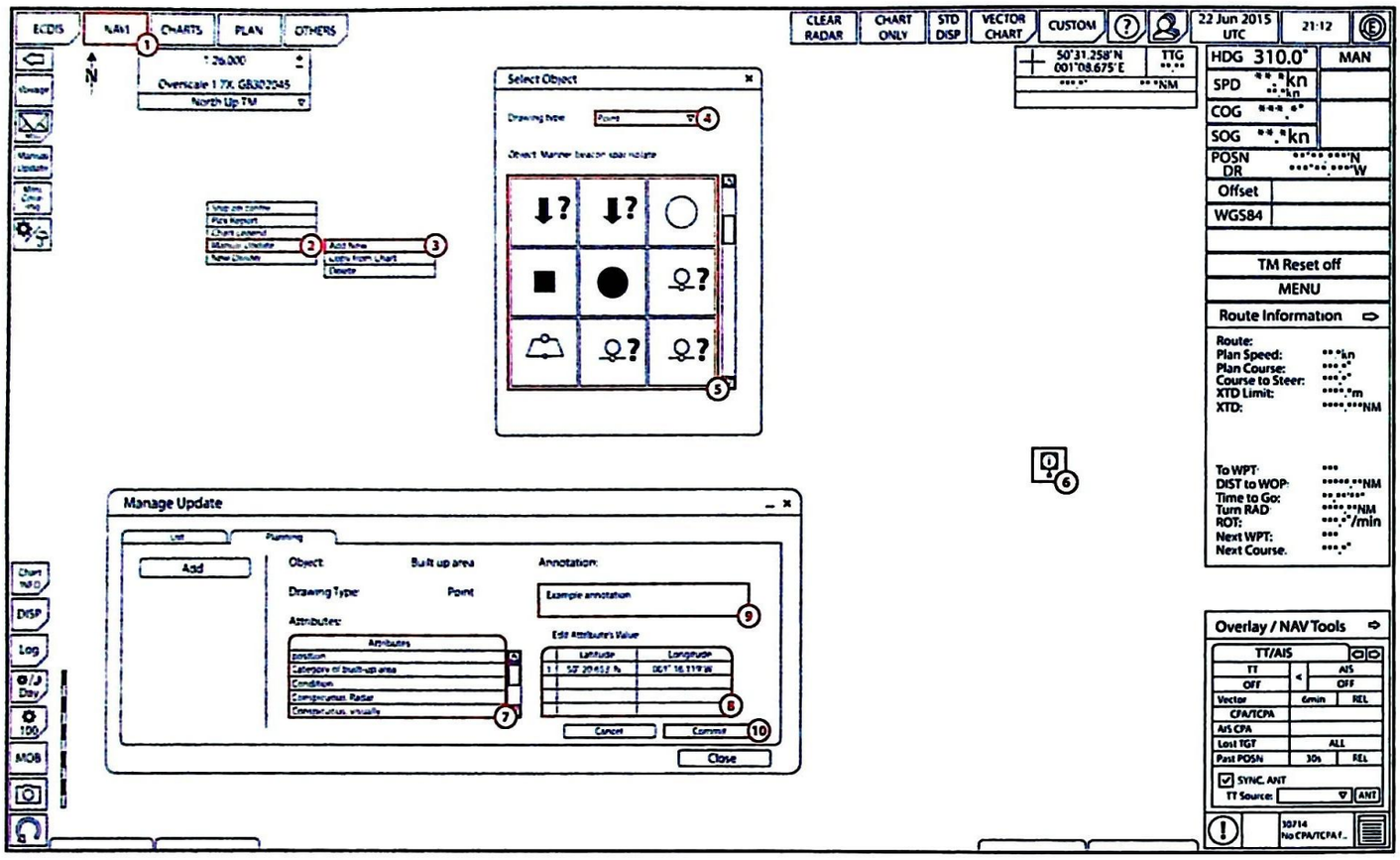


1. Left click to open EBL 1/EBL 2.
2. Right click the EBL box to select 'Centred' or 'Ground'.
3. Left click to open VRM 1/ VRM 2.
4. Electronic bearing line (EBL).
5. VRM circle.

1. Select PI from the 'Overlay/NAV Tools' menu.
2. Turn function ON.
3. Select PI from the dropdown and Turn ON (up to 6 PIs can be on the chart at one time. They must each be switched on individually).

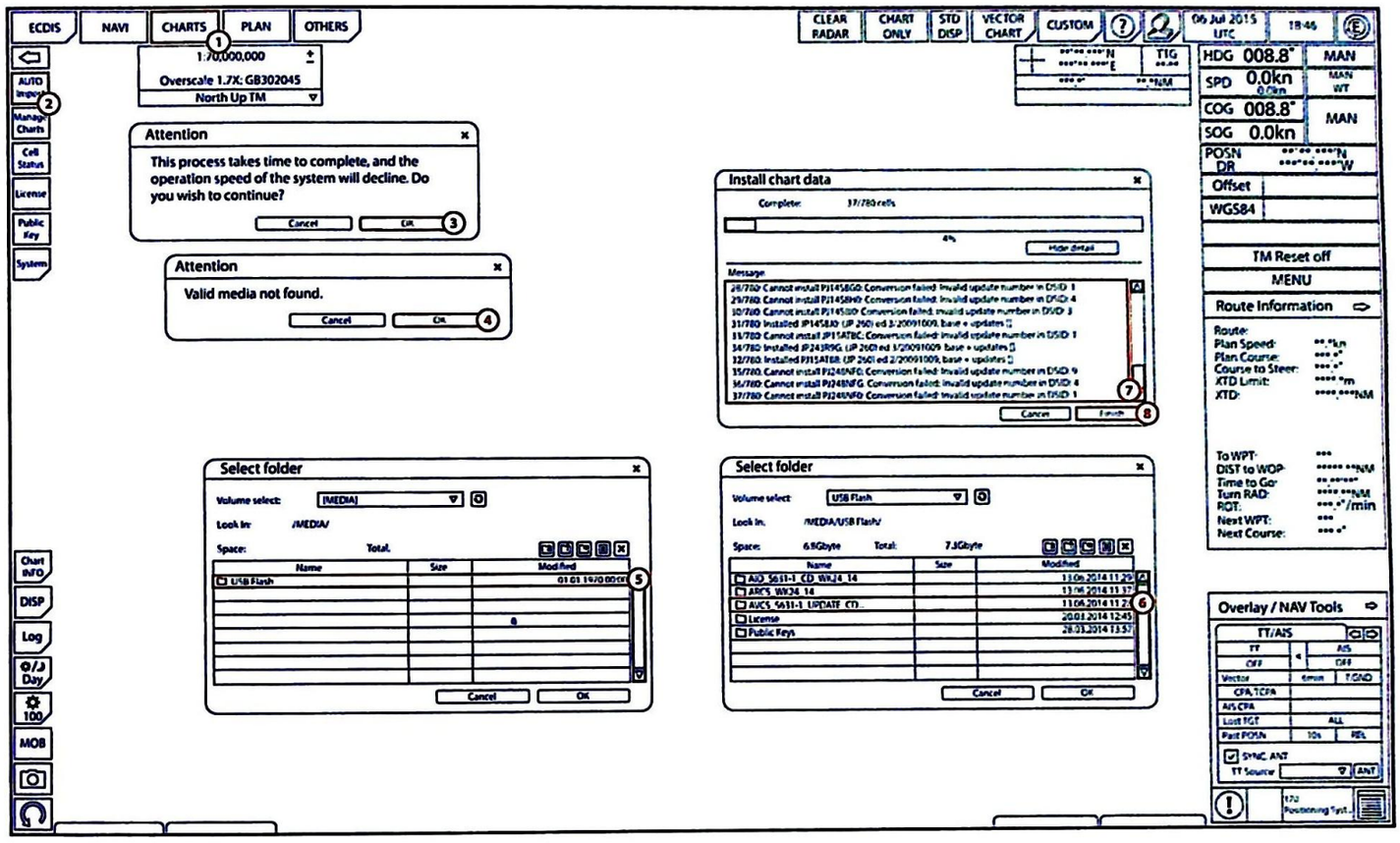
4. Your PI line on screen.

2.2 Manual Corrections



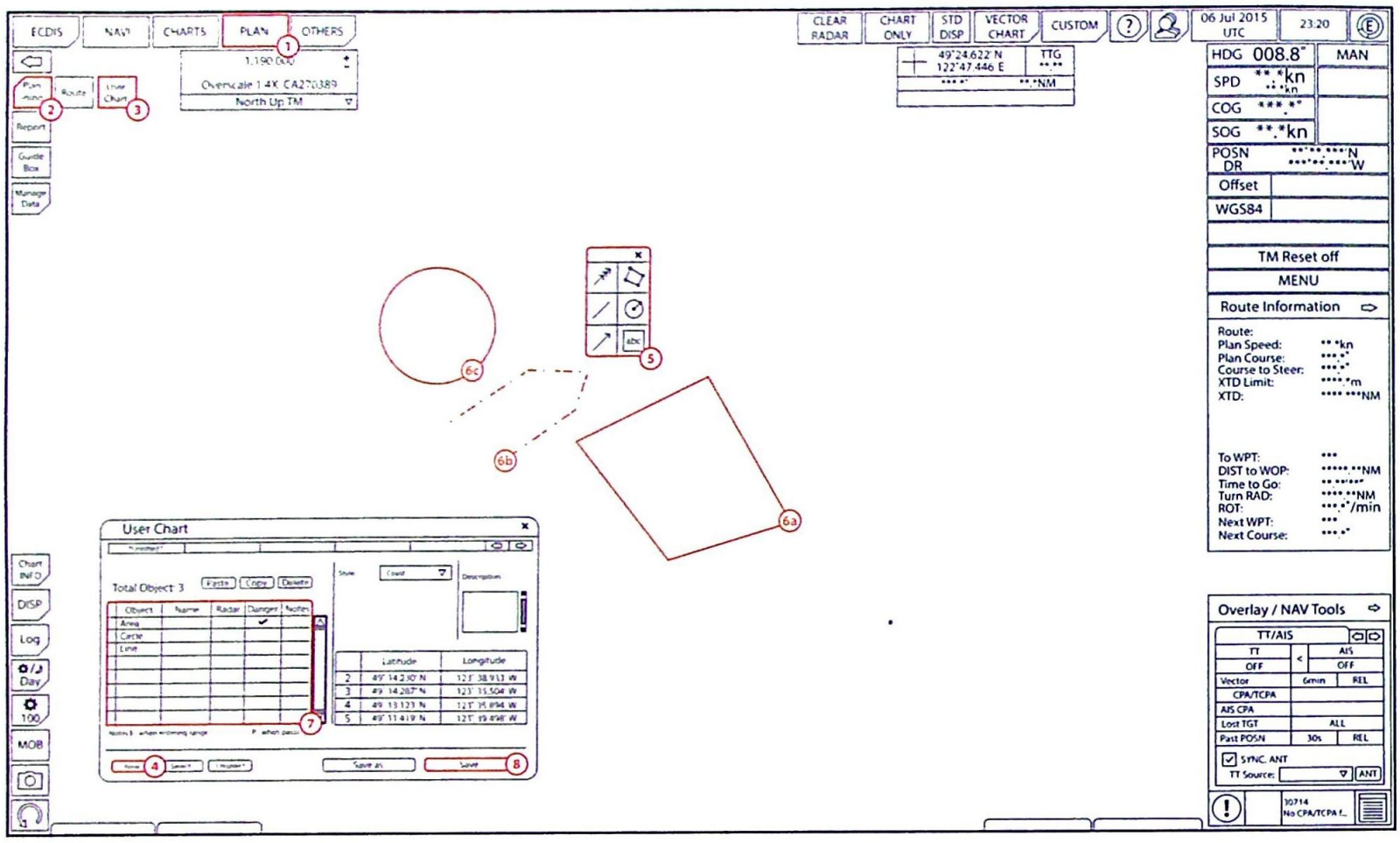
1. Ensure 'NAVI' is selected.
   a. Right click anywhere on the chart.
2. Select 'Manual Update'.
3. Select 'Add New'.
4. Use dropdown to select 'Drawing type'.
5. Select an object from the list available.
6. Left click on chart to place object.
7. Select an attribute to edit.
8. Edit attribute details.
9. Add annotation.
10. Click 'Commit' to save the manual correction.

2.3 Chart Updates



1. Ensure that 'CHARTS' mode is selected.
2. Click 'AUTO Import'.
3. When prompted, click 'OK'.
4. FURUNO will search for a CD by default. If it finds one, move to step 7. If it doesn't, you will have to click 'OK'.
5. Open the folder that contains your charts.
6. Select the charts folder that you would like to install.
7. The installation process will begin.
8. When finished, click 'Finish'.

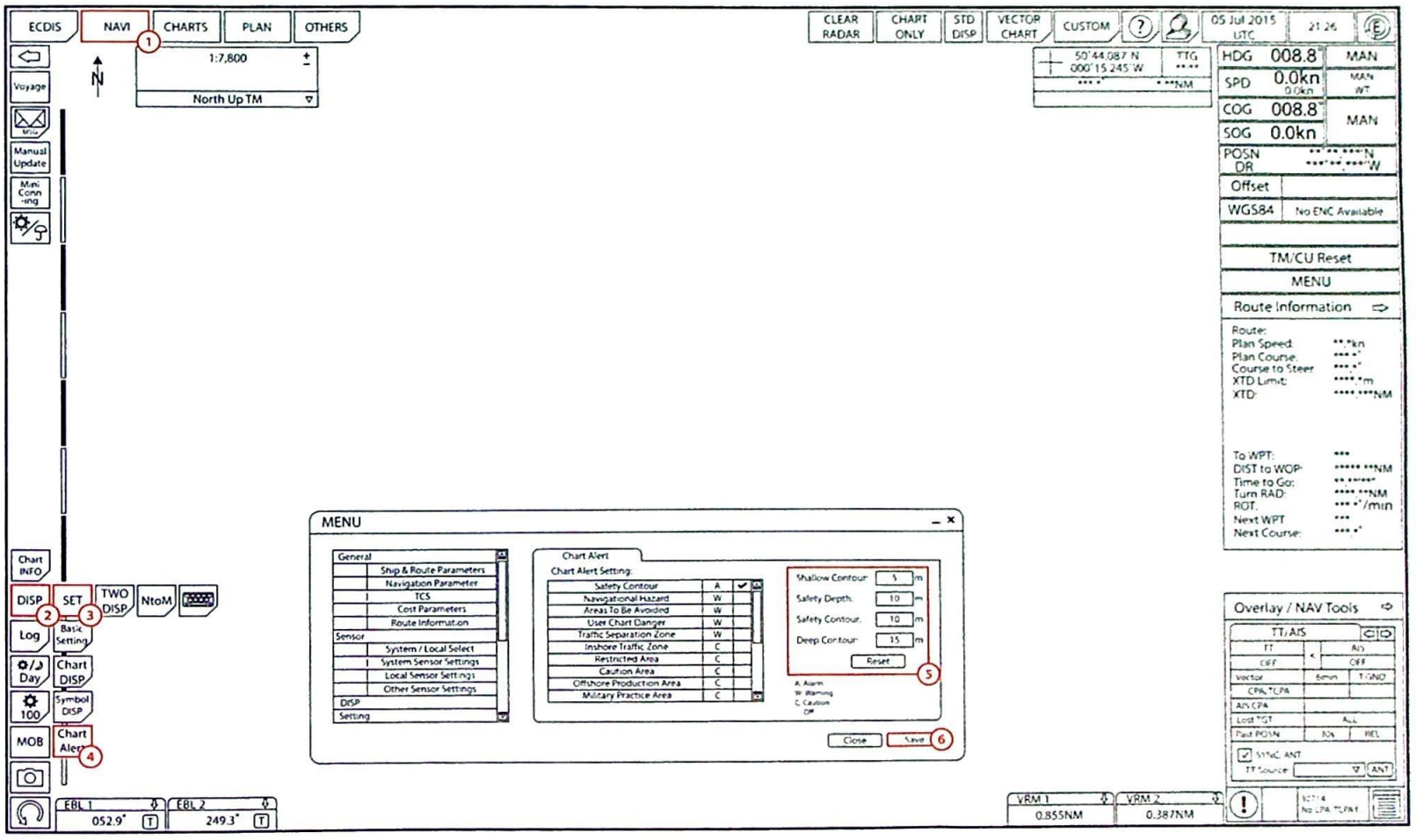
2.4 No Go Areas/User Charts



1. Ensure 'PLAN' is selected.
2. Click 'Planning'.
3. Click 'User Chart'.
4. Click 'New'.
5. Select an object from the selection available.
6. Object examples:
   a. Area
   b. Line
   c. Circle
7. Fill object details.
8. Click 'Save' to save your user chart.

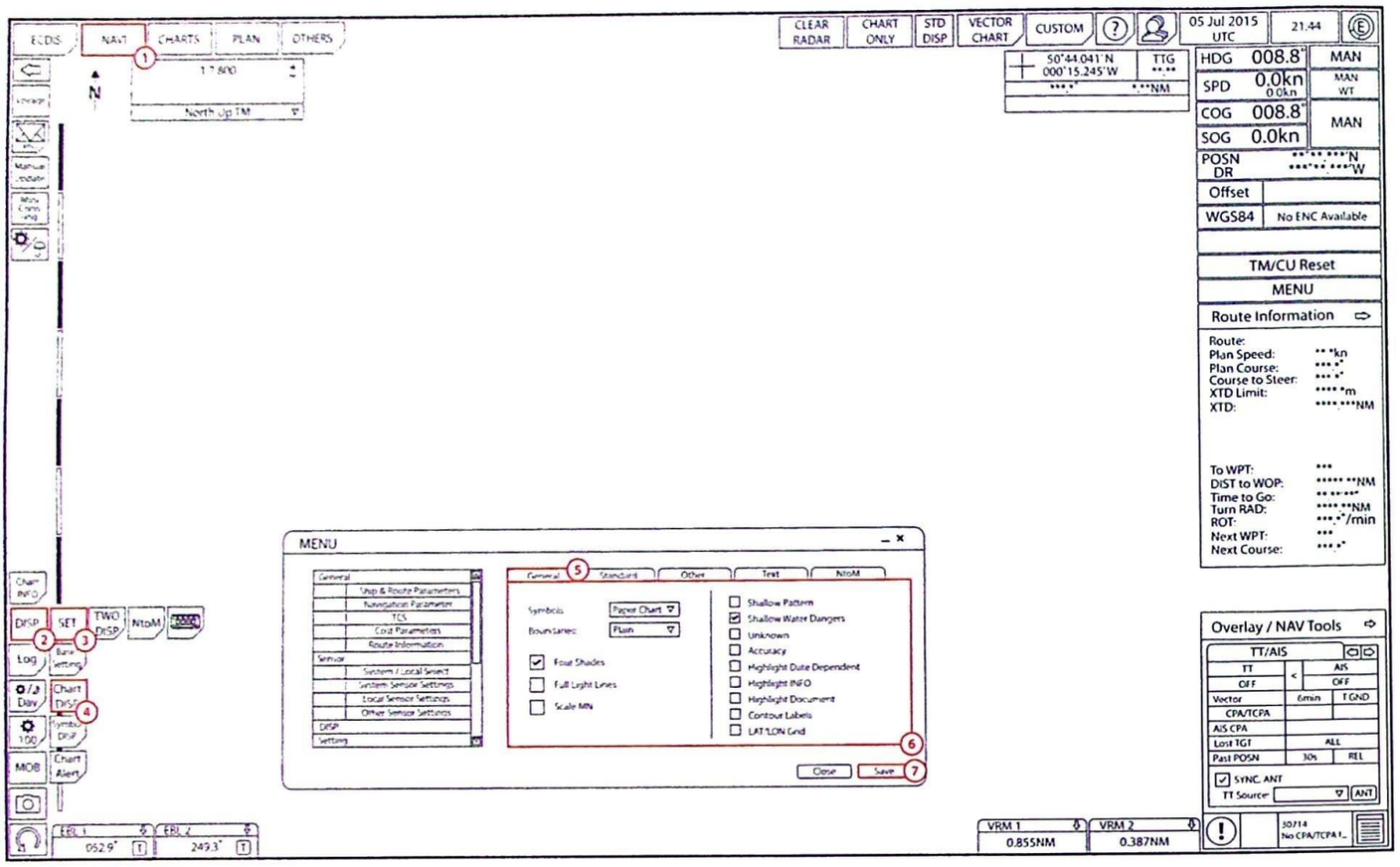
Section 3: Chart Display Settings

3.1 **Safety Depth/Contour**



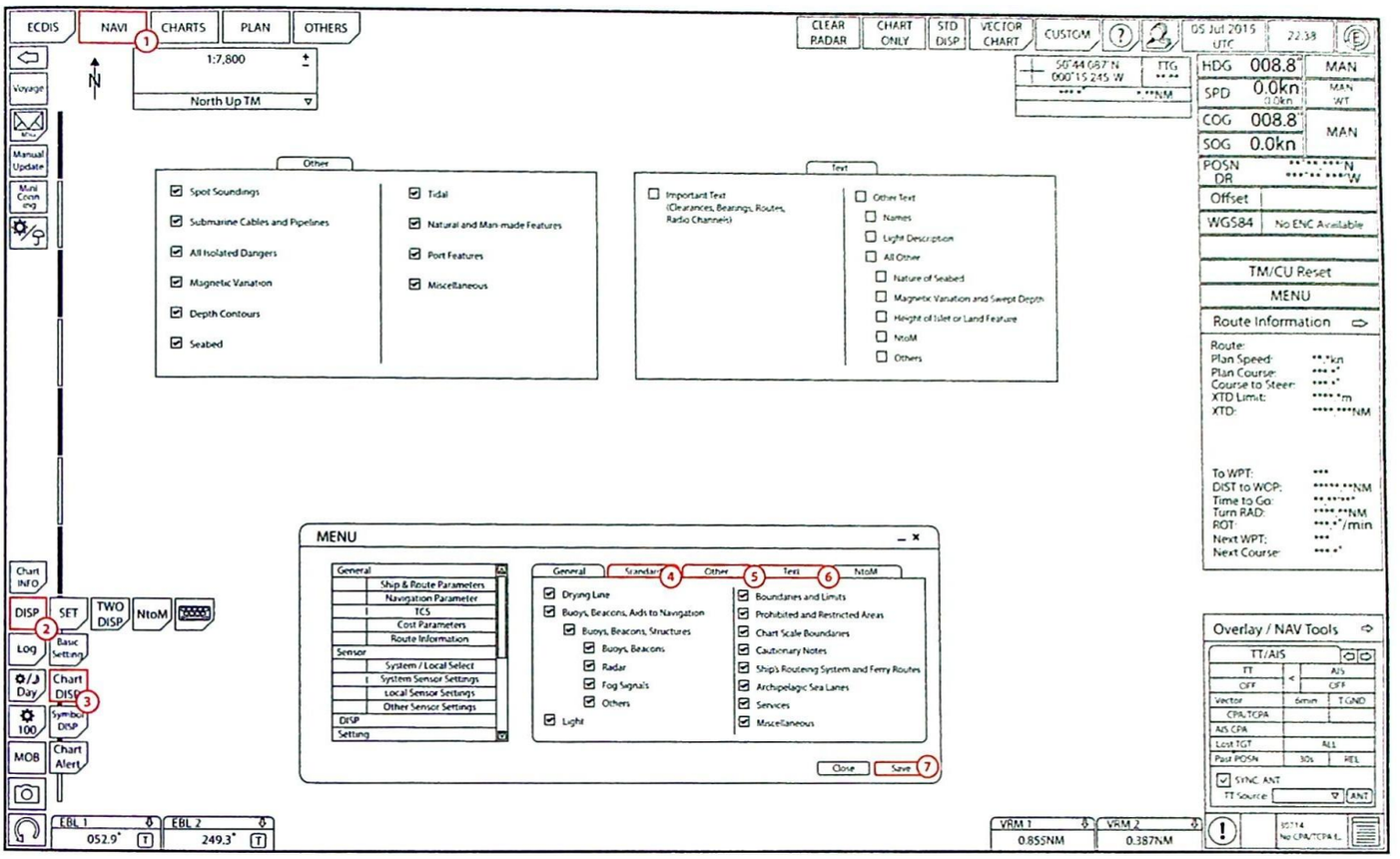
1. Ensure 'NAVI' is selected.
2. Click 'DISP'.
3. Click 'SET'.
4. Click 'Chart Alert'.
5. Adjust contours and safety depth, as required.
6. Click 'Save' to apply changes.

3.2 Display Preference Options



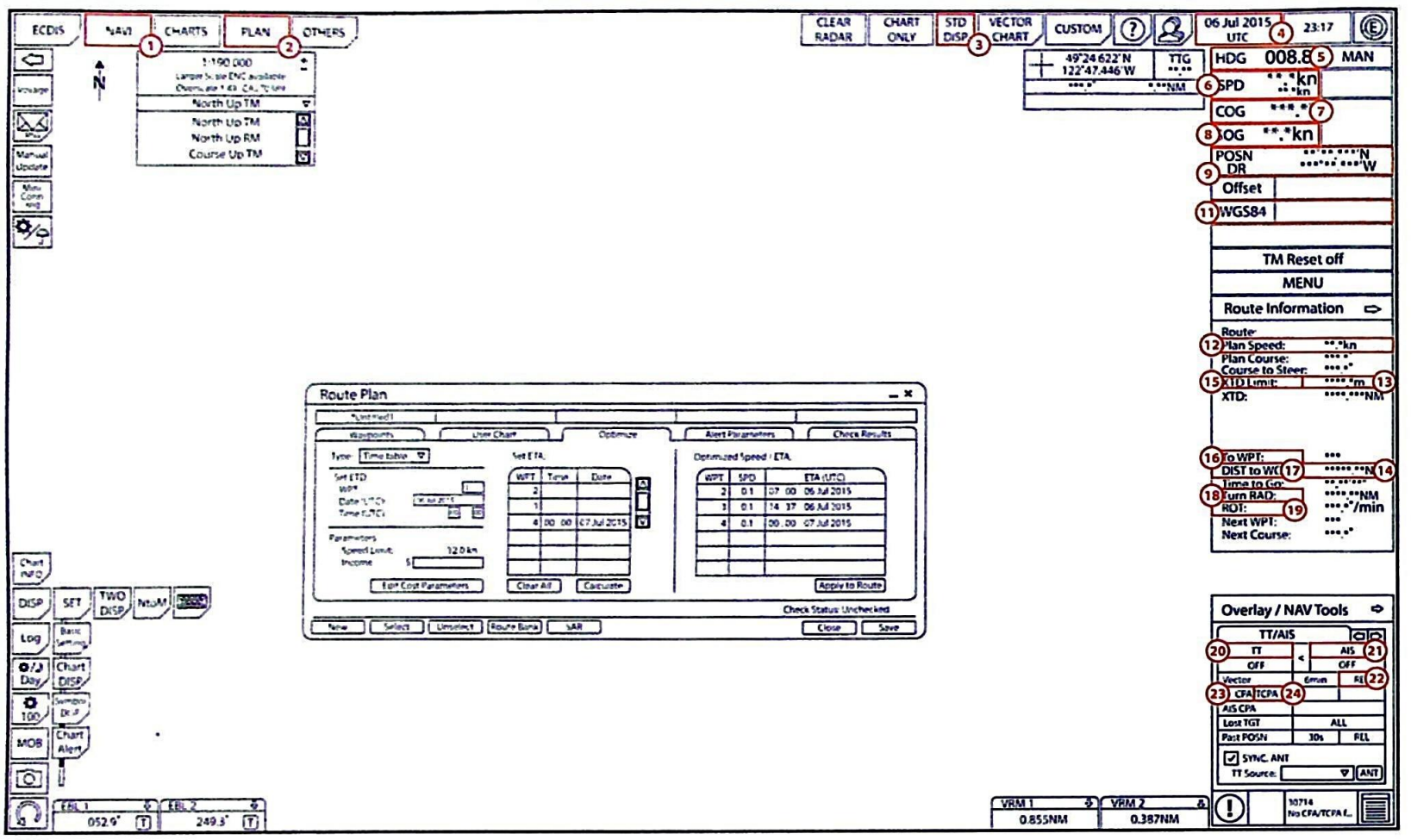
1. Ensure 'NAVI' is selected.
2. Click 'DISP'.
3. Click 'SET'.
4. Click 'Chart DISP'.
5. Ensure 'General' is selected.
6. Turn ON/OFF SENC options, as required.
7. Click 'Save' to apply changes.

3.3 Display Configuration



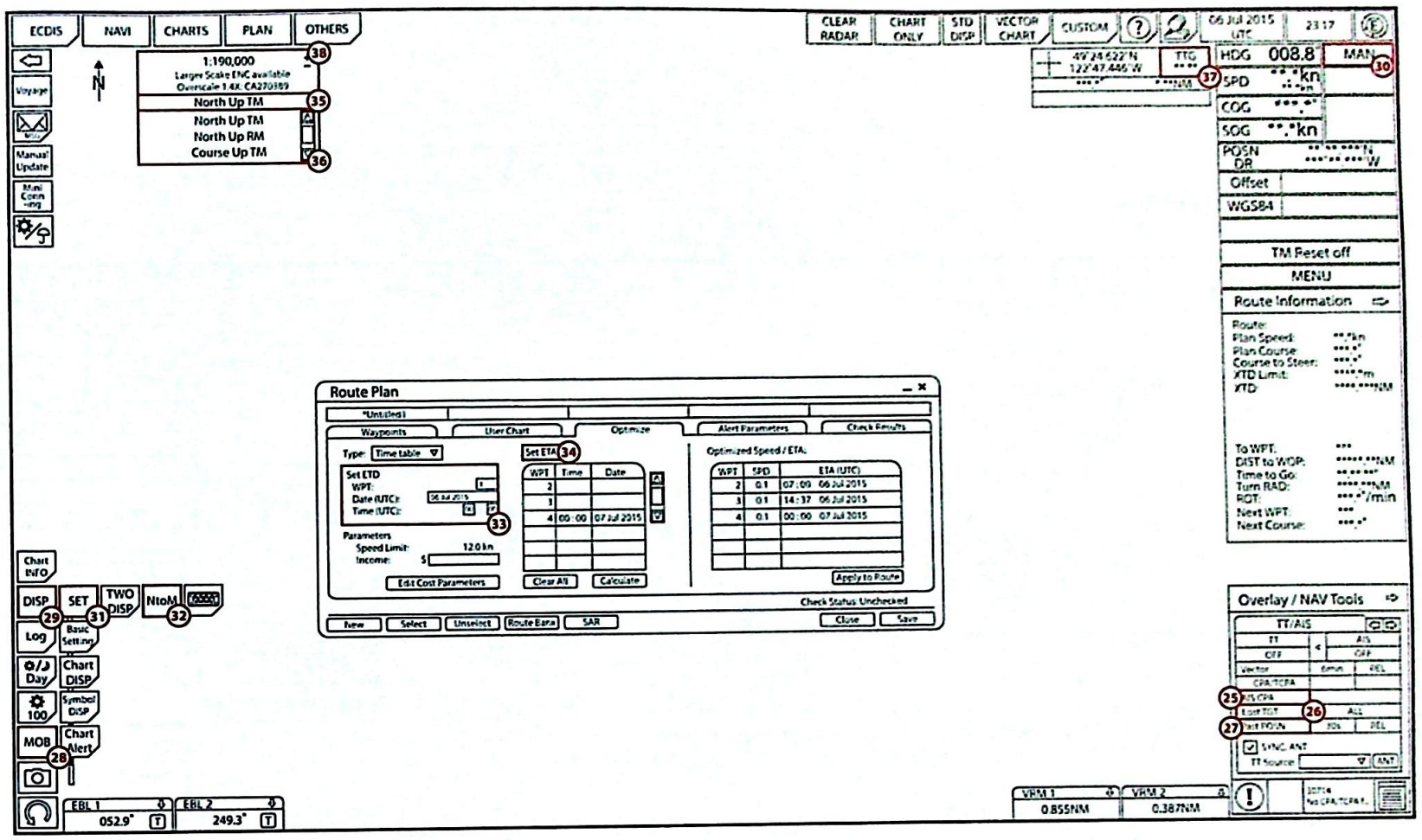
1. Ensure 'NAVI' is selected.
2. Click 'DISP'.
3. Click 'Chart DISP'.
4. Choose layers in the 'Standard' tab.
5. Choose layers in the 'Other' tab.
6. Choose layers in the 'Text' tab.
7. Click 'Save' to apply changes.

3.4 Abbreviations Part 1



1. Navigation
2. Planning
3. Standard Display
4. Universal Time Coordinated
5. Heading
6. Speed
7. Course Over Ground
8. Speed Over Ground
9. Position
10. True Motion Reset
11. World Geodetic System 1984
12. Knots
13. Metres
14. Nautical Miles
15. Cross Track Limit
16. Waypoint
17. Distance to Wheel Over Point
18. Turn Radius
19. Rate of Turn
20. Tracked Targets
21. Automatic Identification System
22. Relative
23. Closest Point of Approach
24. Time to Closest Point of Approach

3.4 Abbreviations Part 2



25 Automatic Identification System Closest Point of Approach

26 Lost Target

27 Past Position

28 Man Overboard

29 Display

30 Manual

31 Settings

32 Notice to Mariners

33 Estimated Time of Departure

34 Estimated Time of Arrival

35 True Motion

36 Relative Motion

37 Time to Go

38 Electronic Navigational Chart

Additional Abbreviations

1 CCRP: Continuous Common Reference Point

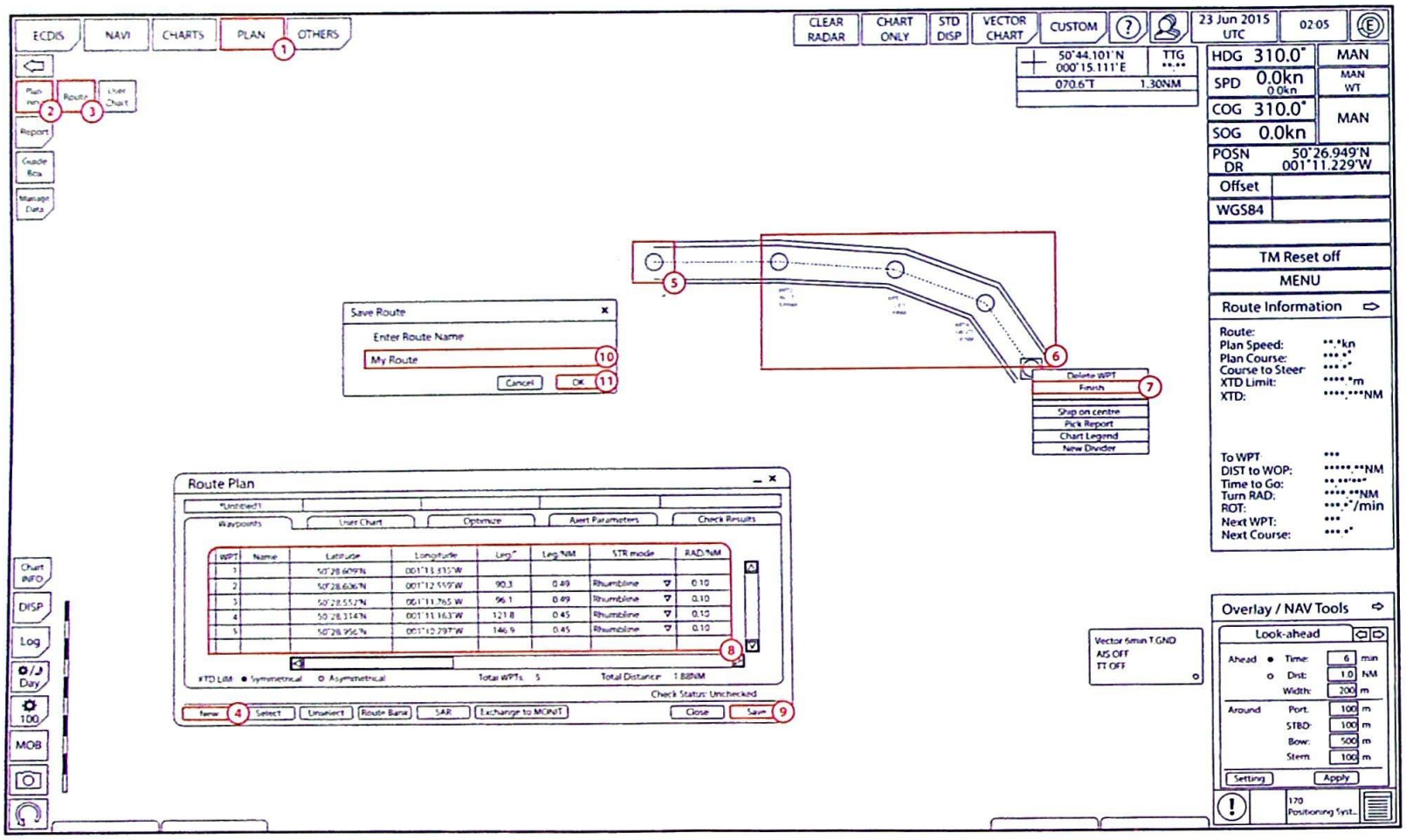
2 SENC: System Electronic Navigational Chart

3 RNC: Raster Navigational Chart

4 DR: Dead Reckoning

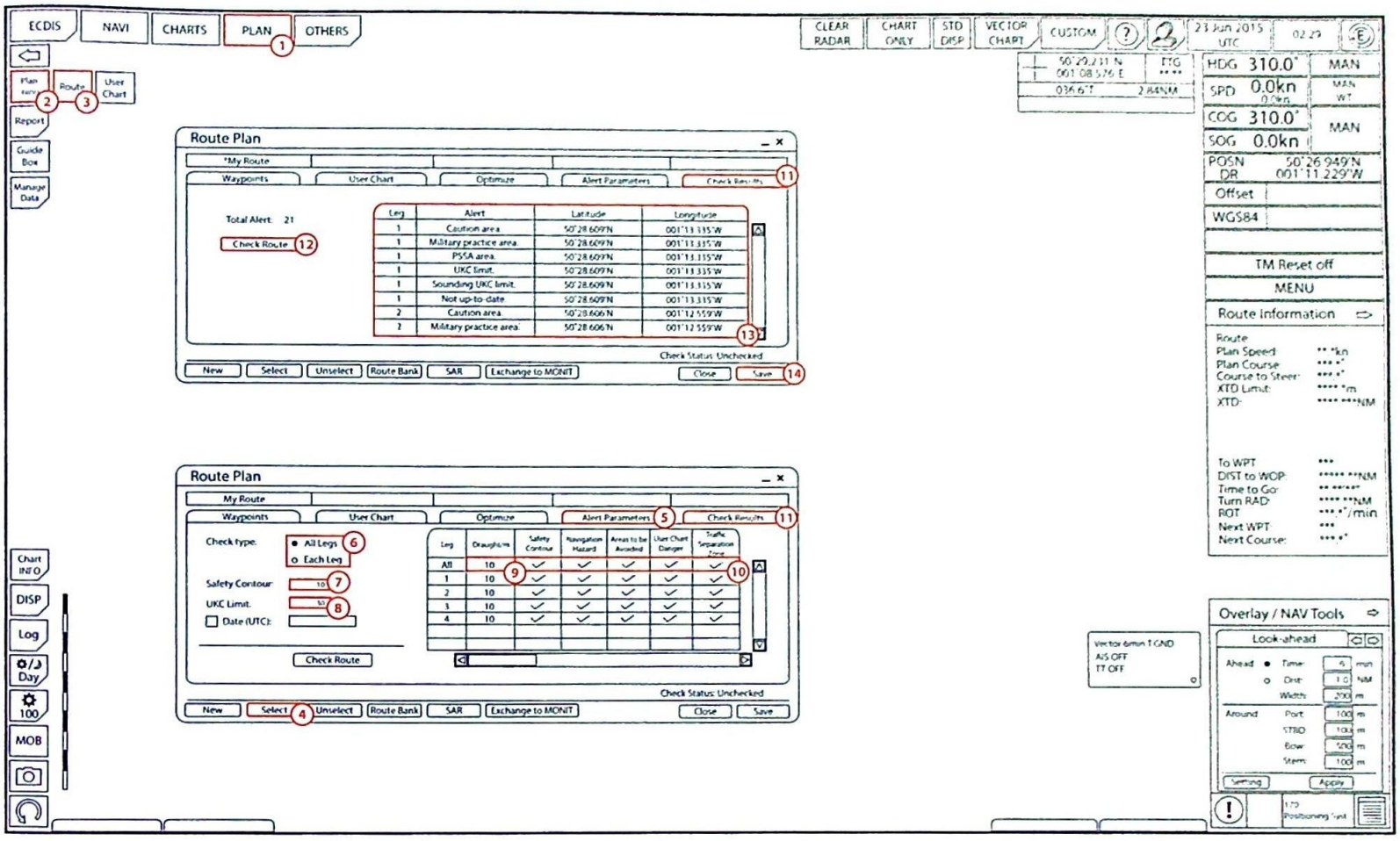
Section 4: Route Planning

4.1 Creation



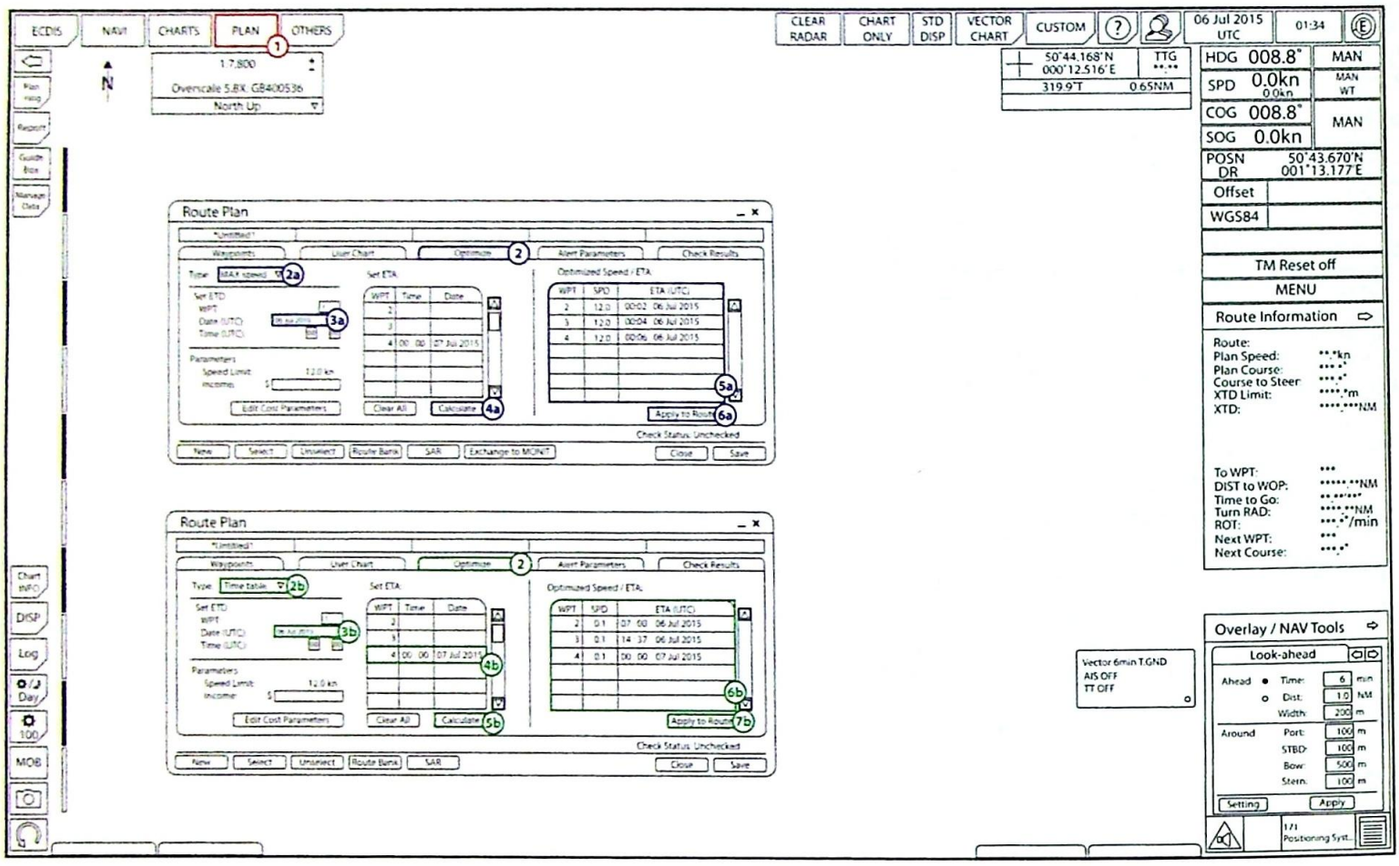
1. Ensure 'PLAN' is selected.
2. Click 'Planning'.
3. Click 'Route'.
4. Click 'New'.
5. Click on the chart to add the first waypoint.
6. Consecutive clicks will place more waypoints.
7. Right click on the chart and click 'Finish'.
8. Edit route parameters in the table.
9. Click 'Save'.
10. Name your route.
11. Click 'OK'.

4.2 Route Checking



1. Ensure 'PLAN' is selected.
2. Select 'Planning'.
3. Select 'Route'.
4. Click 'Select' to load an existing route or follow the steps in Section 4.1 to use a new route.
5. Select 'Alert Parameters'.
6. Choose check type.
7. Set 'Safety Contour'.
8. Set 'UKC Limit'.
9. Set 'Draught'.
10. Tick the boxes for alerts you would like to be highlighted on the chart.
11. Select 'Check Results'.
12. Click 'Check Route'.
13. View alert list.
14. Click 'Save'.

4.3 Optimisation



1. Ensure 'PLAN' is selected and you are editing a route (repeat Section 4.2 to ensure you are editing a route).

2. **Ensure the 'Optimize' tab is selected.**

2a. Select 'MAX speed' from the dropdown.

3a. Set ETD.

4a. Click 'Calculate'.

5a. WPT speed and ETA will be displayed.

6a. Click 'Apply to Route' to apply values to actual waypoints.

2b. Select 'Time table' from the dropdown.

3b. Set ETD.

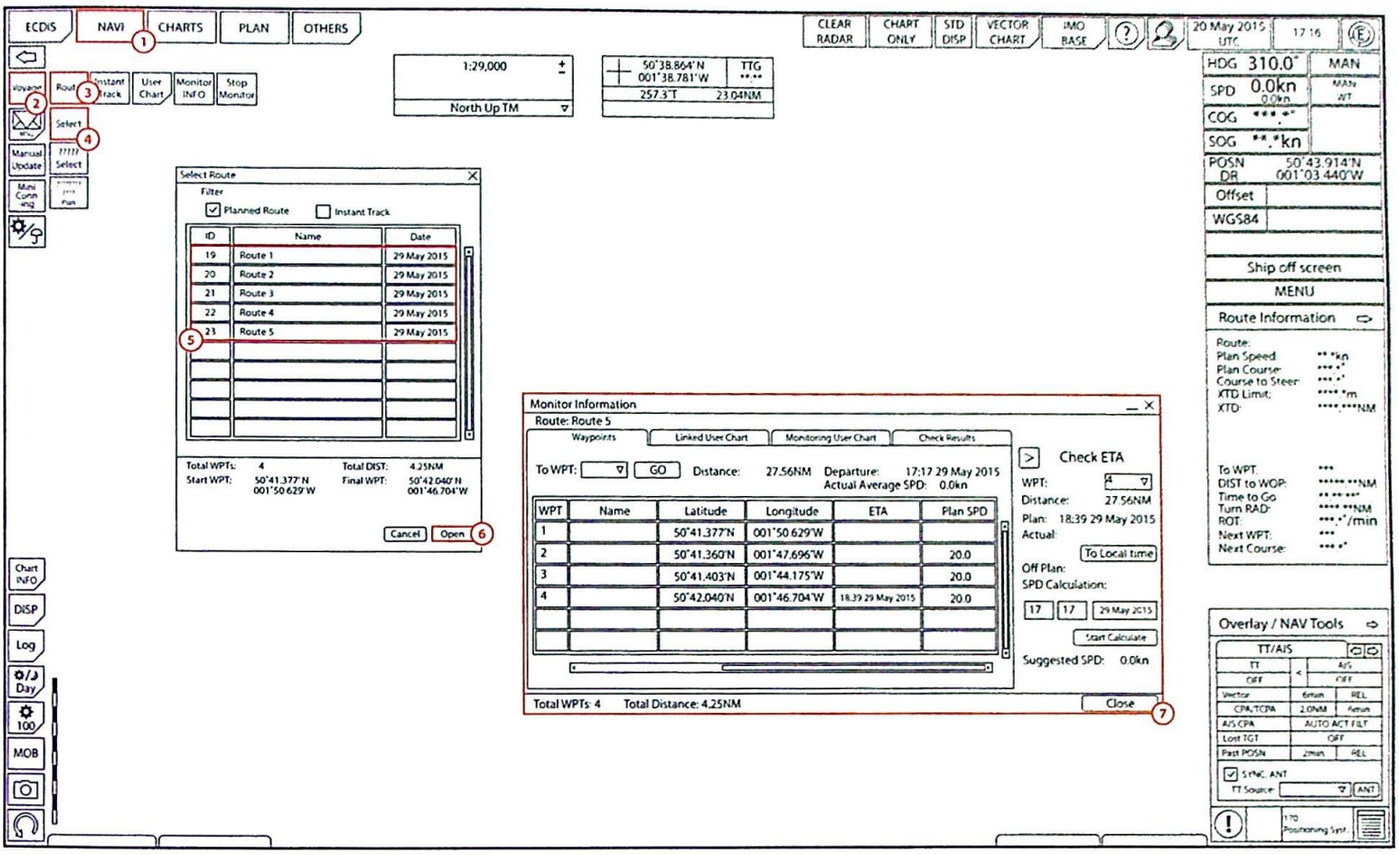
4b. Set ETA for necessary waypoints (last waypoint must contain ETA).

5b. Click 'Calculate'.

6b. WPT speed and ETA will be displayed.

7b. Click 'Apply to Route' to apply values to actual waypoints.

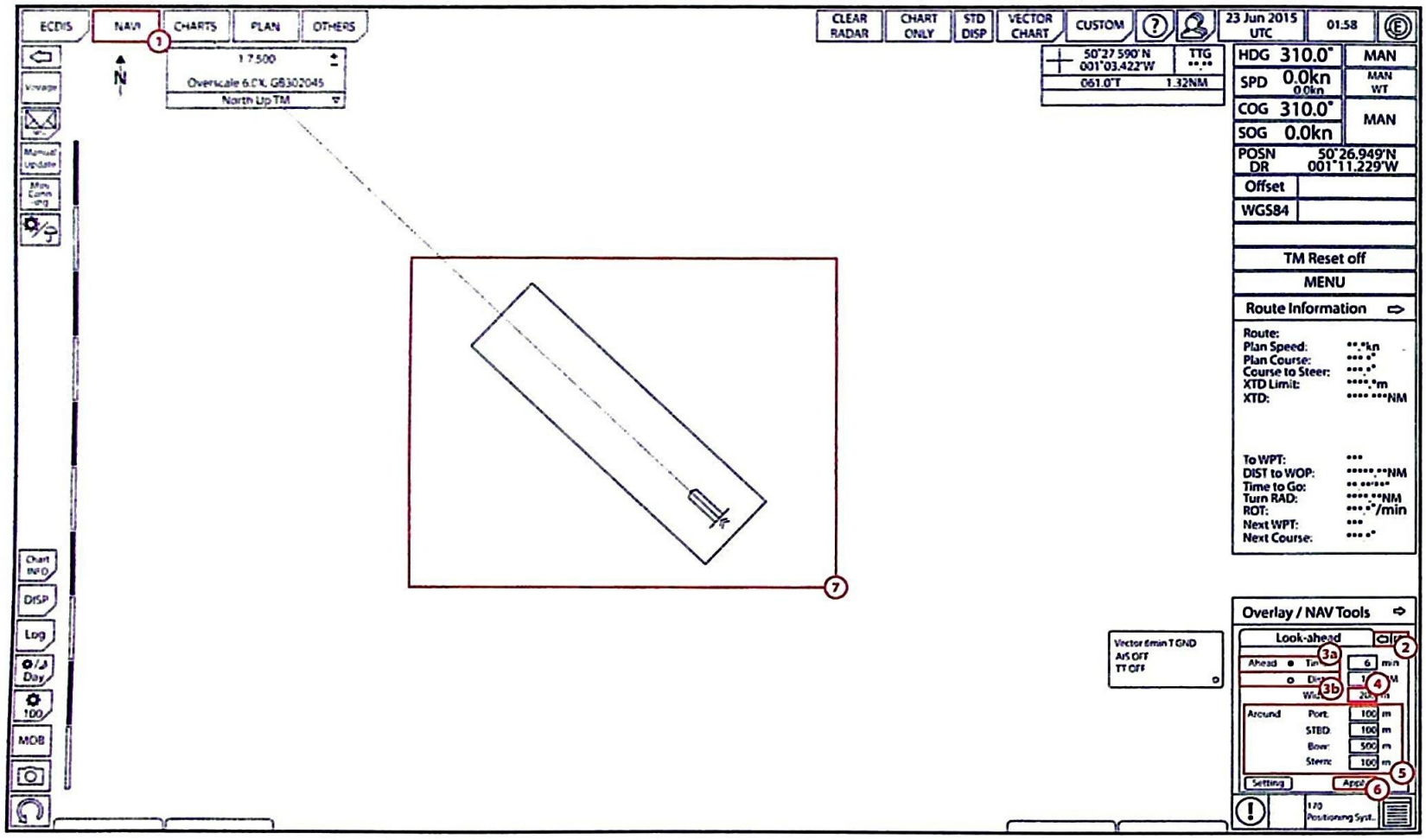
4.4 Selecting Active Route



1. Ensure 'NAVI' is selected.
2. Select 'Voyage'.
3. Select 'Route'.
4. Open 'Select'.
5. Click on a route to highlight it.
6. Select 'Open'.
7. Monitor information.

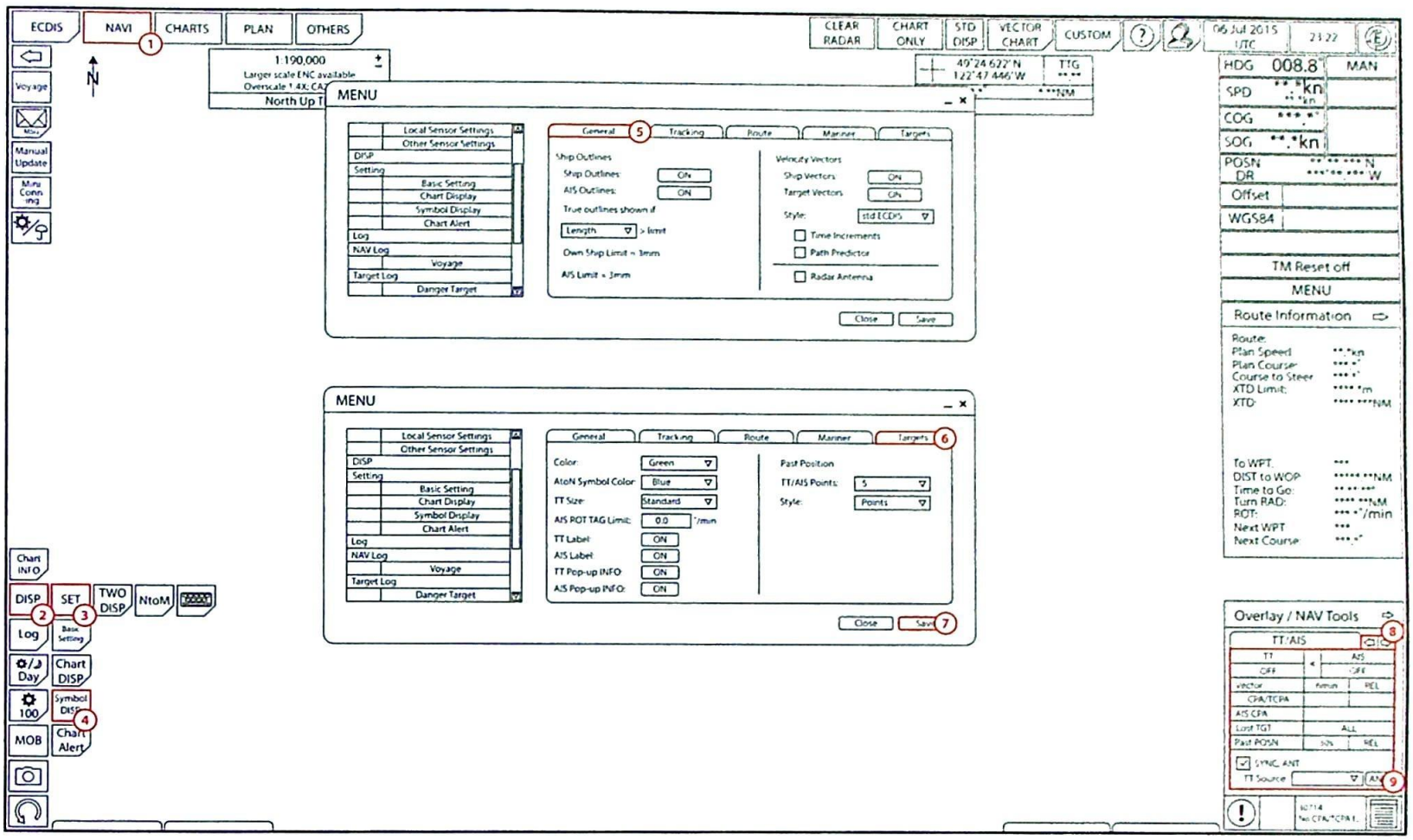
Section 5: Route Monitoring

5.1 **Look-Ahead**



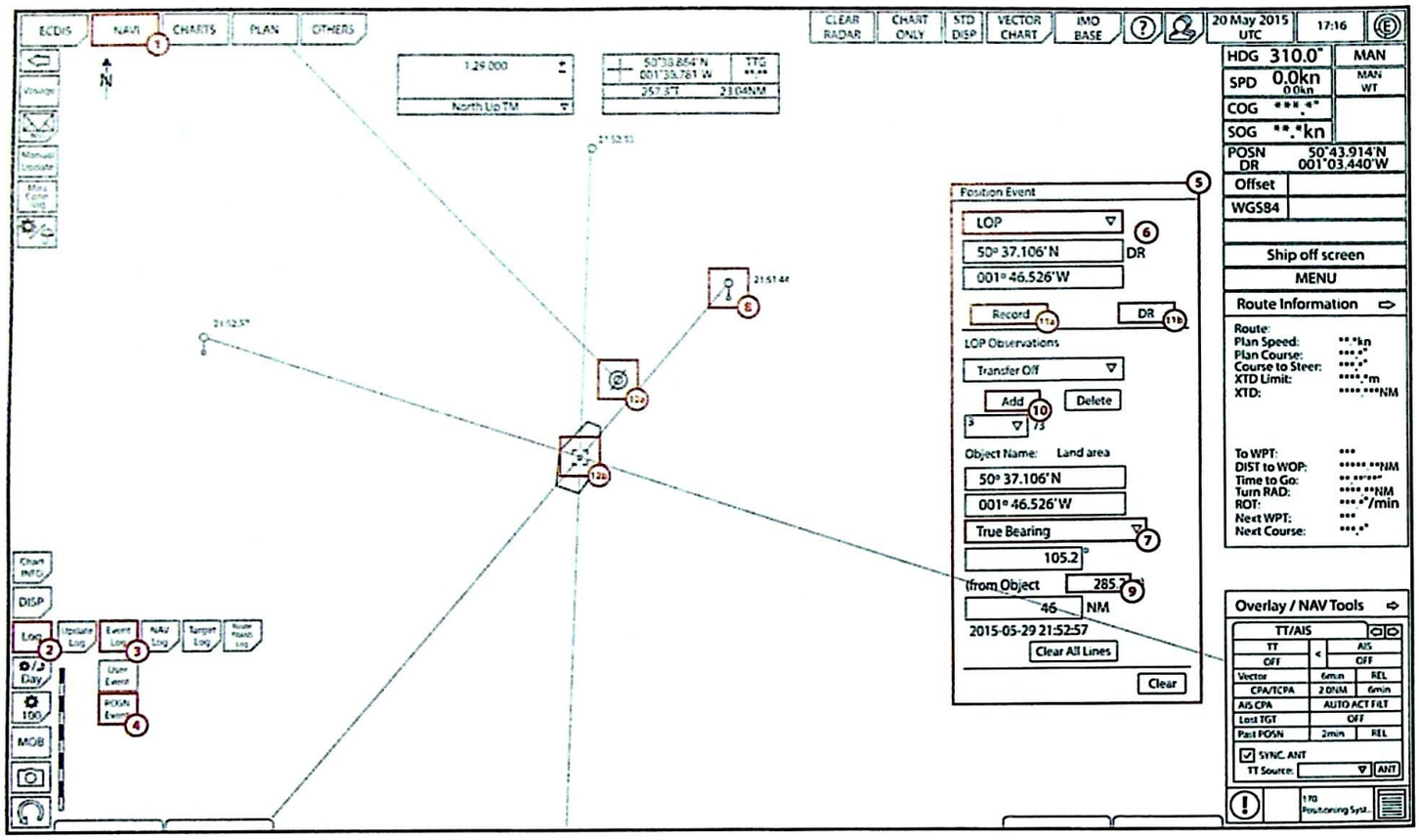
1. Ensure 'NAVI' is selected.
2. Use arrows to find the 'Look-ahead' menu.
3. Choose look-ahead type.
   - a. Look-ahead will increase/decrease, based on vessel speed.
   - b. Look-ahead will be a fixed distance ahead.
4. Insert width for time/distance, based on look-ahead.
5. Insert port/starboard/bow/stern values for the permanent look-ahead box.
6. Click 'Apply' to save changes.
7. A look-ahead box will be drawn around your vessel.

5.2 TT/AIS/Vectors



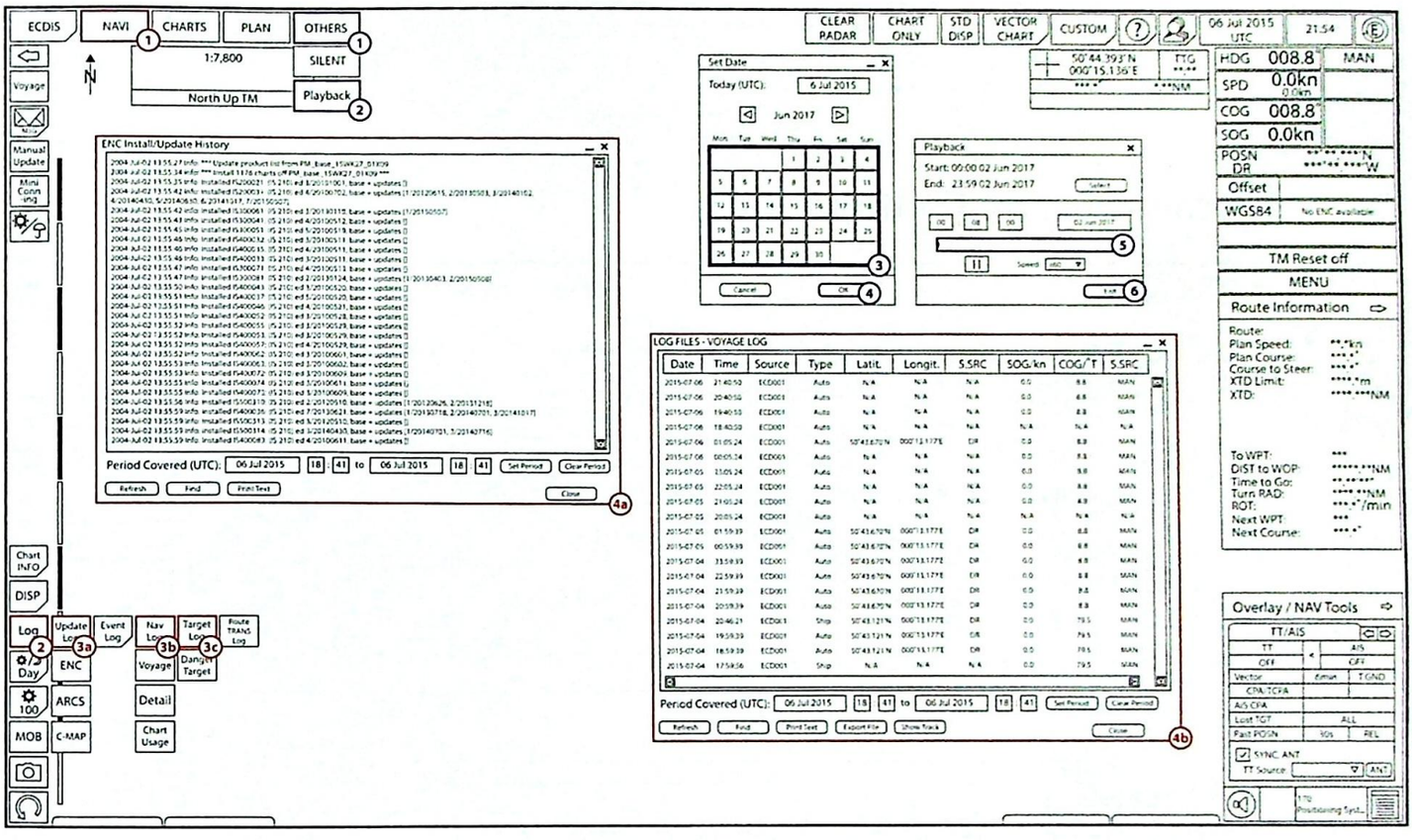
1. Ensure 'NAVI' is selected.
2. Click 'DISP'.
3. Click 'SET'.
4. Click 'Symbol DISP'.
5. Select the 'General' tab and adjust settings as necessary.
6. Select the 'Targets' tab and adjust settings as necessary.
7. Click 'Save' to apply changes.
8. Use white arrows to find the TT/AIS menu.
9. Adjust settings from the 'TT/AIS' menu, as necessary.

5.3 Position Fixing



1. Ensure 'NAVI' is selected.
2. Select 'Log'.
3. Select 'Event Log'.
4. Select 'POSN Event'.
5. The 'Position Event' window will open.
6. Ensure 'LOP' is selected from the dropdown menu.
7. Ensure 'True Bearing' is selected from the dropdown menu.
8. Click on your first reference point.
9. Enter the bearing to your reference point.
10. Select 'Add' to confirm the first LOP. Repeat steps 8 to 10 three times.
11. Confirm your position fix.
    - a. Vessel will remain in GNSS and a fix stamp will be applied to the chart.
    - b. System will switch to 'DR' and the vessel will be repositioned on the chart.
12. Location of vessel after fix.

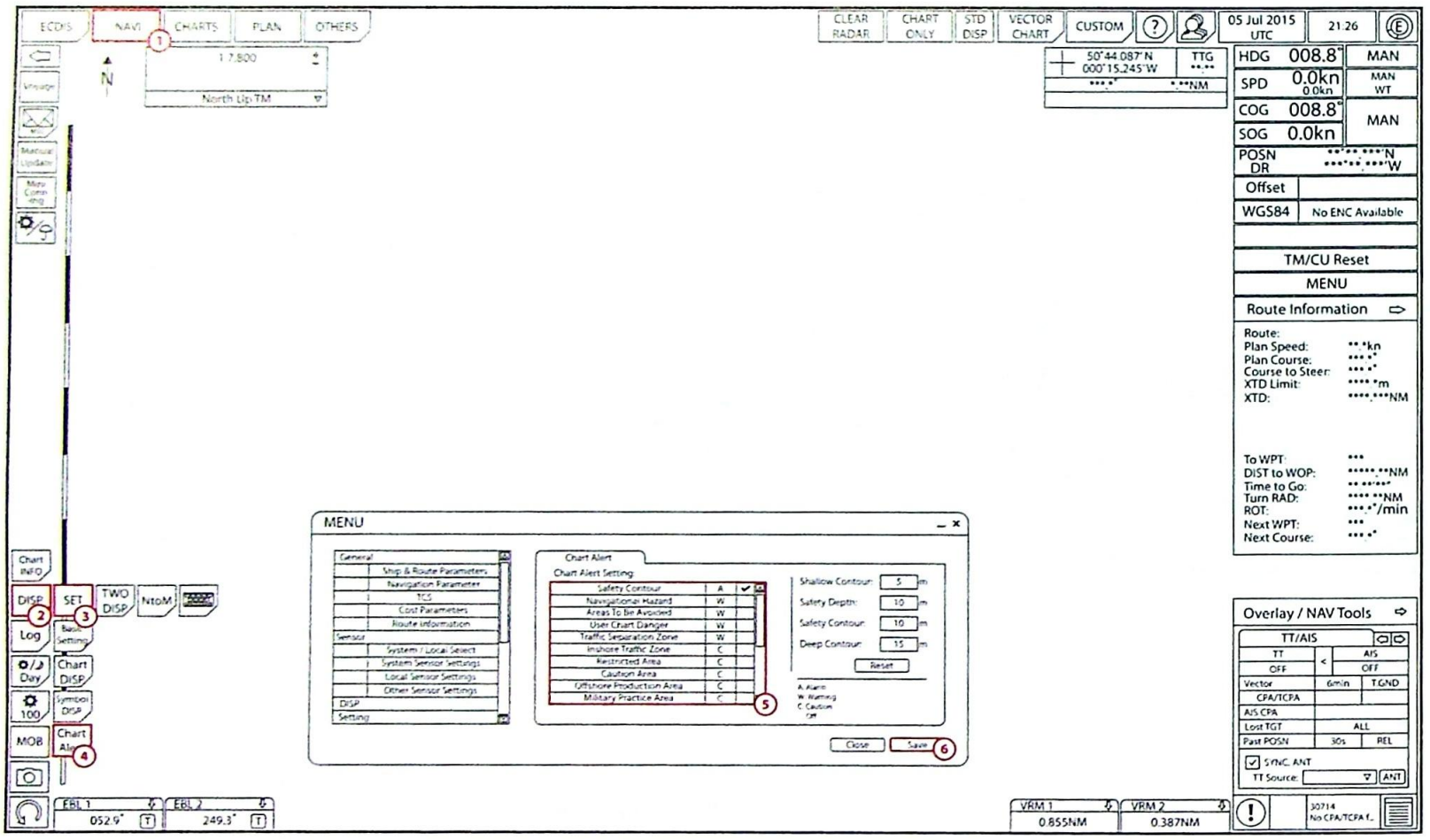
5.4 Logs/Playback



1. Ensure 'NAVI' is selected.
2. Click 'Log'.
3. Available logs:
   - a Update Log.
   - b NAV Log.
   - c Target Log.
4. Example logs:
   - a Example of ENC Update Log.
   - b Example Voyage Log.
1. Click 'OTHERS'.
2. Click 'Playback'.
3. Select a date from the calendar to view playback.
4. Click 'OK'.
5. Use the time bar to select a specific time of day.
6. Click 'Exit' when finished.

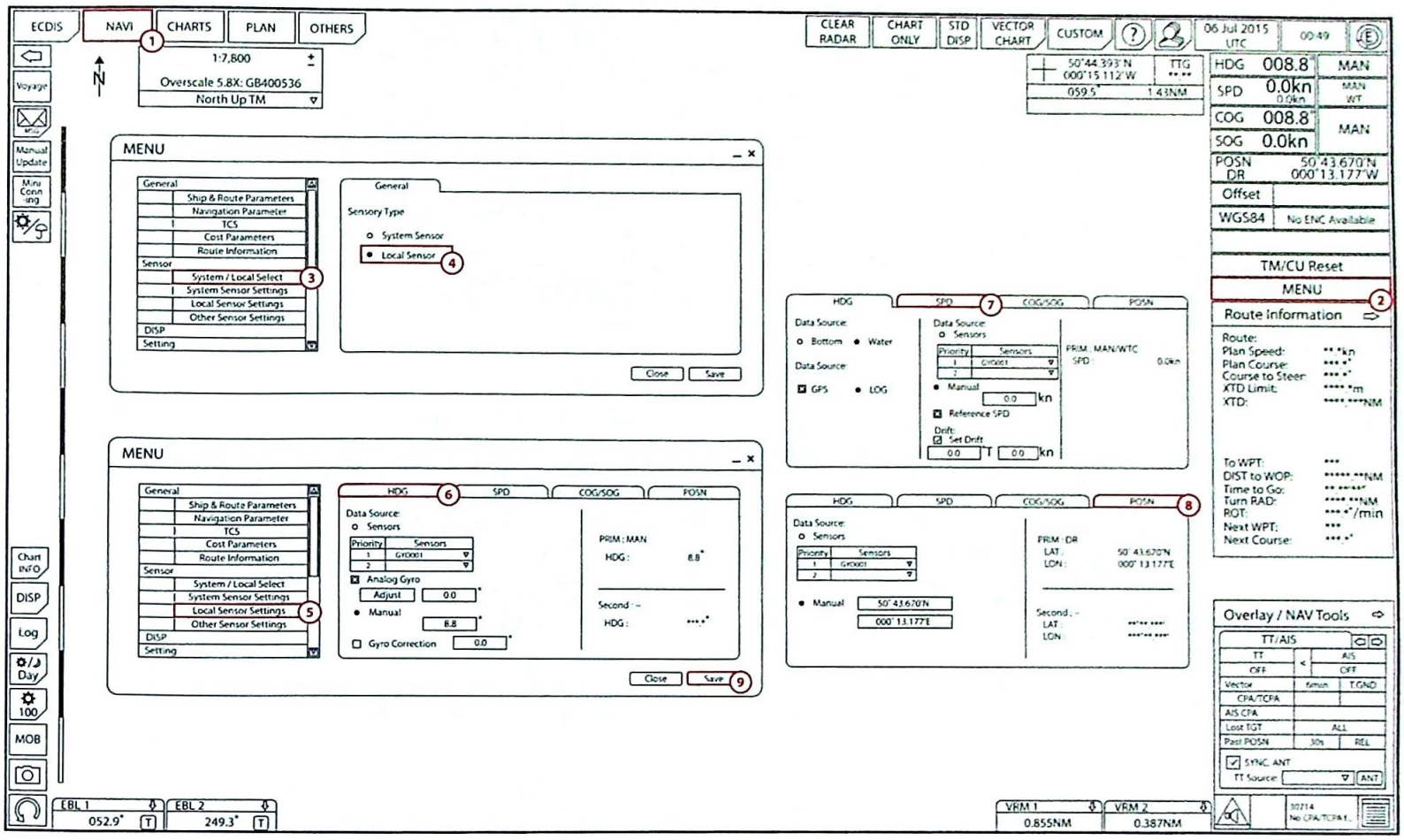
Section 6: System Settings

6.1 Warning/Alarm Configuration



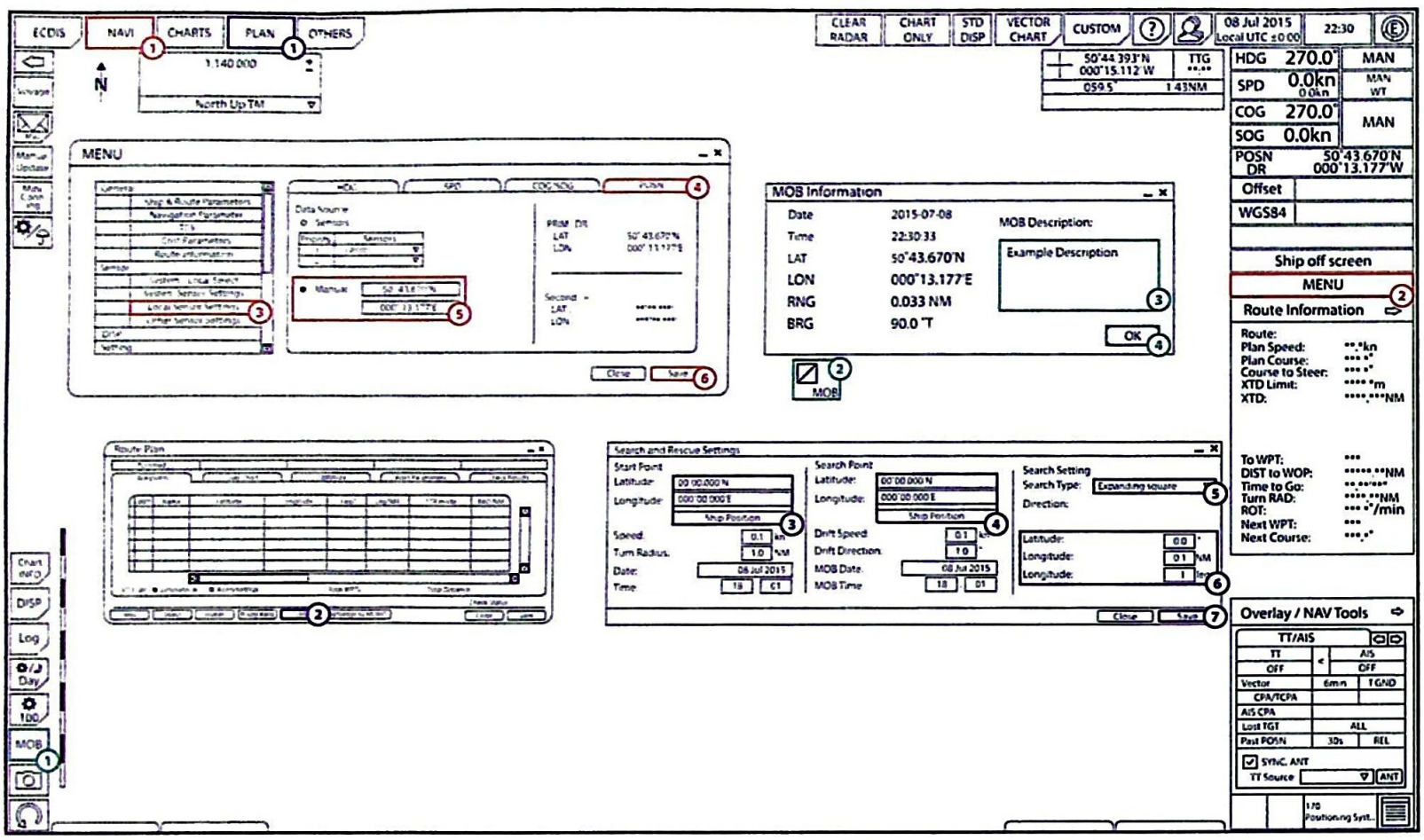
1. Ensure 'NAVI' is selected.
2. Click 'DISP'.
3. Click 'SET'.
4. Click 'Chart Alert'.
5. Choose between alarms, cautions and warnings and use tick boxes to enable/disable.
6. Click 'Save' to apply changes.

6.2 Position/Heading/Speed



1. Ensure 'NAVI' is selected.
2. Click 'MENU'.
3. Select 'System/Local Select'.
4. Tick 'Local Sensors' ('System Sensors' only use physical navigation sensor inputs).
5. Select 'Local Sensor Settings'.
6. Select 'HDG' to make changes to heading information.
7. Select 'SPD' to make changes to speed information.
8. Select 'POSN' to make changes to position information.
9. Click 'Save' to apply changes.

6.3 Emergency Menus



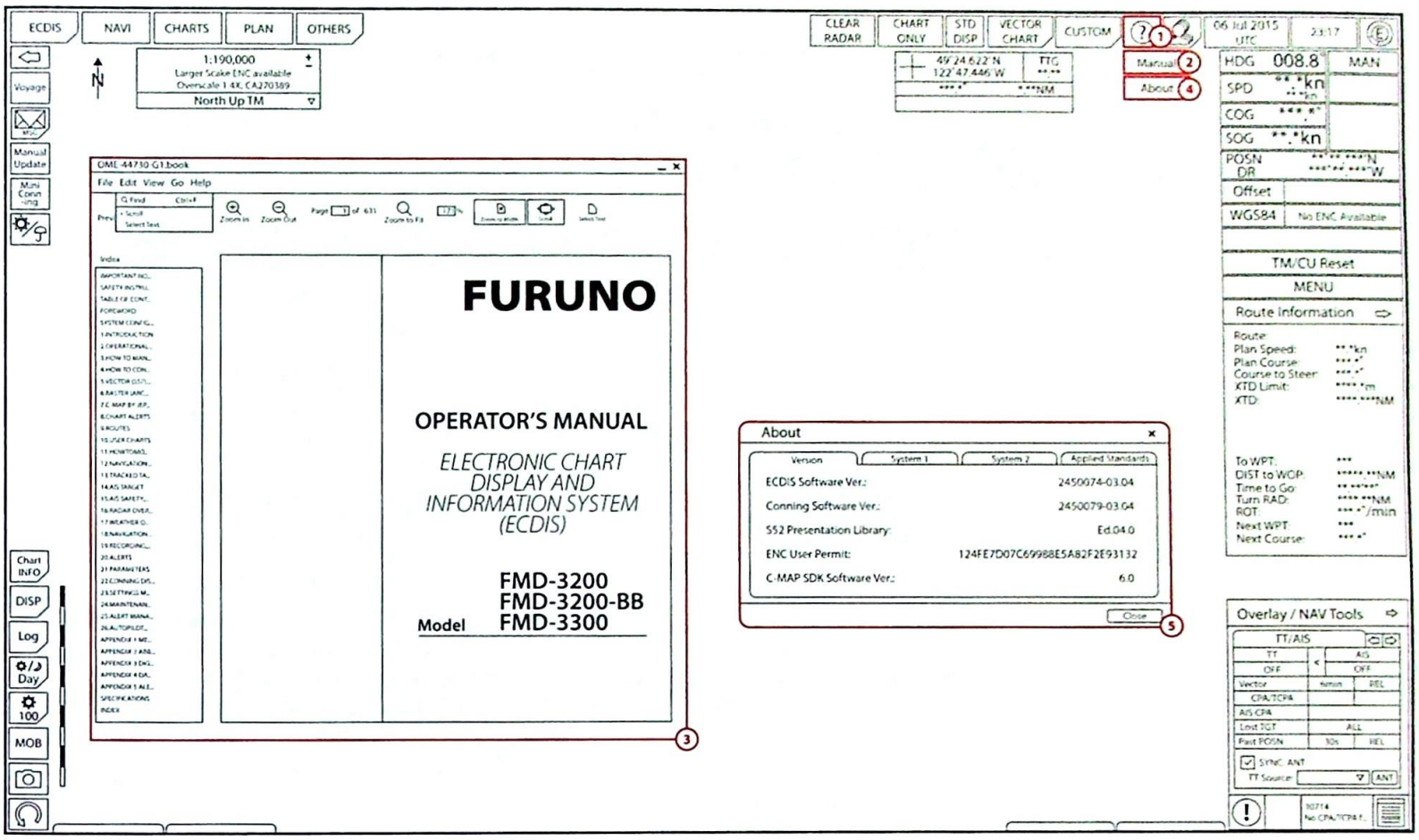
1. Ensure 'NAVI' mode is selected.
2. Click 'MENU'.
3. Select 'Local Sensor Settings'.
4. Click 'POSN'.
5. Enter manual position.
6. Click 'Save' to apply changes.

1. Click 'MOB'.
2. Left click on the MOB marker.
3. Fill description.
4. Click 'OK' when finished.

1. Ensure 'PLAN' mode is selected.
2. From the 'Route Plan' table, click 'SAR'.

3. Insert a 'Start Point'.
4. Insert a 'Search Point'.
5. Select 'Search Setting' from the dropdown.
6. Configure settings.
7. Click 'OK' to accept.

6.4 Manual/About



1. Click the help icon.
2. Click 'Manual' to open the manual.
3. The manual will open.
4. Click 'About'.
5. The 'About' menu will open to show software versions.

5. iXblue Gecdis-C – Familiarisation Checklist (Page 1 of 2)

1.	**Company ECDIS Procedures** Review company documentation for ECDIS procedures and complete the below ECDIS Type Specific Familiarisation checklist.			
2.	**Chart Display** Become familiar with the basic chart functionality from the main display.			
	Menu Bar			
	Display			
		Centre on Own Ship		Zoom x10
		Orientation		Zoom +
		Relative motion		Zoom –
		Centre on Place		Charts
		Scale		Colour Mode
		Radar Range		ECDIS Mode
		Best Scale		Minimal Mode
		Window Zoom		View
3.	**Navigational Tools** Operate all basic navigational functions and vessel setting options contained within the ECDIS for use of navigation.			
	Navigation			
		Man Over board (ON/OFF)		Piloting Fix
		Danger Detection (ON/OFF)		Geographical Calculations
		Fix Own ship	**User Objects**	
		Clearing Line (No More)		Open Objects List
		Clearing Line (No Less)		
4.	**Chart Display Settings** Operate all chart display settings, become familiar with object layers, ENC symbology and define the vessel's safe water settings. Identify where all chart updates are managed in the system.			
	Charts			
		Chart Display Mode		Chart Information
		Chart Objects		Danger on the Route
		Fixed Cell...		Chart Legend (Chart 1)...
		Set Viewing Dates...		Hidden Prohibited Area (highlight)...
5.	**Route Planning** Operate all route planning functions and obtain all relevant schedule information for passage planning and route monitoring purposes.			
	Navigation			
		Geographical Calculations		Create Route
		Create SAR diagram		Create Route with Cursor
		Create Instant Route		Edit Selected Route
		Active Alerts		
6.	**Route Monitoring** Operate the variety of voyage data functions for route monitoring to display and obtain relevant information for navigation and the ship's safety.			
	Route		**Tracks**	
		Display		
		Critical Point Alarm		
		Route monitoring		

iXblue Gecdis-C – Familiarisation Checklist (Page 2 of 2)

7.	**Chart Updating** The operator should know how to update electronic charts and be thoroughly aware of their responsibilities concerning updating. It is a legal requirement that charts are maintained in an up-to-date condition.			
	Charts			
	Chart Provider		Objects Detection	
	Projection		Presentation	
	Safety Option ENC		Charts Catalogue	
8.	**System Sensors** Identify where the operator can select or deselect all sensors connected to the ECDIS and verify the vessel's particulars.			
	Sensor Settings			
9.	**System Alerts** Identify the ECDIS system's category of Alarms and Prompts generated by the operator and by the ECDIS system.			
	Alerts			
	ARCS		Default	
	Areas		Advanced	
	ENCs		Safety	
	Display zone to watch		Use Guard Sector (ON/OFF)	
10.	**System Units** Become familiar with the system's logbook, records, data storage and configuration set up.			
	System			
	Import		Settings	
	Print		General Configuration	
11.	**ECDIS Operator's Manual** Locate the system's operator's user guide for referencing and help.			
	Help			

6. JRC JAN-701B/901B/2000 – Familiarisation Checklist (Page 1 of 2)

1. **Company ECDIS Procedures**

   Review company documentation for ECDIS procedures and complete the below ECDIS Type Specific Familiarisation checklist.

2. **Chart Display**

   Become familiar with the basic chart functionality from the main display.

Main Chart Display			
	Main Title Bar		Tools
	Own Ship Information		Brilliance
	Other Ship Information		Cursor position
	AIS Filter		TCS Bar
	Auto Sail Status	**Chart**	
	Route Watch		Multi View
	Route Information		S-57/C-MAP/ARCS
	Chart information		

3. **Navigational Tools**

   Operate all basic navigational functions and vessel setting options contained within the ECDIS for use of navigation.

Tools			
	MOB		Cursor Readout
	EBL/VRM		File Manager
	LOP		

4. **Chart Display Settings**

   Operate all chart display settings, become familiar with object layers, ENC symbology and define the vessel's safe water settings. Identify where all chart updates are managed in the system.

Chart			
	Marking/Highlighting		Date-dependent View...
	Off Center		Multi View
	User Settings		Chart Portfolio...
	Select S-57 Chart...		Chart Abbreviation...
	Fix View		Chart Setting...
	Accept S-57 Updates...		Chart Common
	Graphical Index...		Chart View
	Manual Updates		[O] Accuracy (ON/OFF)
	Display Chart Name (ON/OFF)		Chart Symbol – Scale min (ON/OFF)

5. **Route Planning**

   Operate all route planning functions and obtain all relevant schedule information for passage planning and route monitoring purposes.

Route Planning			
	Table Editor		Settings
	Graphic Editor		Route Type
	Create Alternate Route		Auto Sail
	Distance Measurement		Anchor Watch
	Use XTD Alarm		User Map
	Select Route – ETA (ON/OFF)		Check Safety in Editing (ON/OFF)

6. **Route Monitoring**

   Operate the variety of voyage data functions for route monitoring to display and obtain relevant information for navigation and the ship's safety.

Display Panel			
	Own Ship Information		Route Watch
	Other Sip Information Setting		Route Information
	AIS Filter		Brilliance
	Auto Sail Status		Cursor Position

JRC JAN-701B/901B/2000 – Familiarisation Checklist (Page 2 of 2)

7. Chart Updating

The operator should know how to update electronic charts and be thoroughly aware of their responsibilities concerning updating. It is a legal requirement that charts are maintained in an up-to-date condition.

Main Menu			
	Chart		Accept S-57 Updates
	Manual Update		Chart Portfolio

8. **System Sensors**

Identify where the operator can select or deselect all sensors connected to the ECDIS and verify the vessel's particulars.

Sensor Selection/Status			
	Heading		Time Zone
	STW		Date/Time Settings
	POSN 1	**Position Status**	
	POSN 2		
	Date		

9. **System Alerts**

Identify the ECDIS system's category of Alarms and Prompts generated by the operator and by the ECDIS system.

Alert Limit Settings			
	Difference between POSN1 and POSN2		Timer
	Shift of POSN1		Vector
	Course difference (Off Course)		Sector
	Early Course Change Indication		Area
	End of Track (Arrived LAST WPT)		Vector (ON/OFF)
	Sector (ON/OFF)		Traffic Separation Zone

10. **System Units**

Become familiar with the system's logbook, records, data storage and configuration set up.

Main		**Setting**	
	Print		Color and Brilliance Setting
	Save Screen		Option Key Setting
	Logbook		Date/Time Setting
	Rader Overly		Marker Setting
	Make AZ		Logbook Setting
	File Manager		Logbook Setting (NAVTEX Setting)
	Test		Voyage Distance Clear
	Sensor		Display Panel Option
	Setting		Alarm Setting (Limit)
			Buzzer Setting

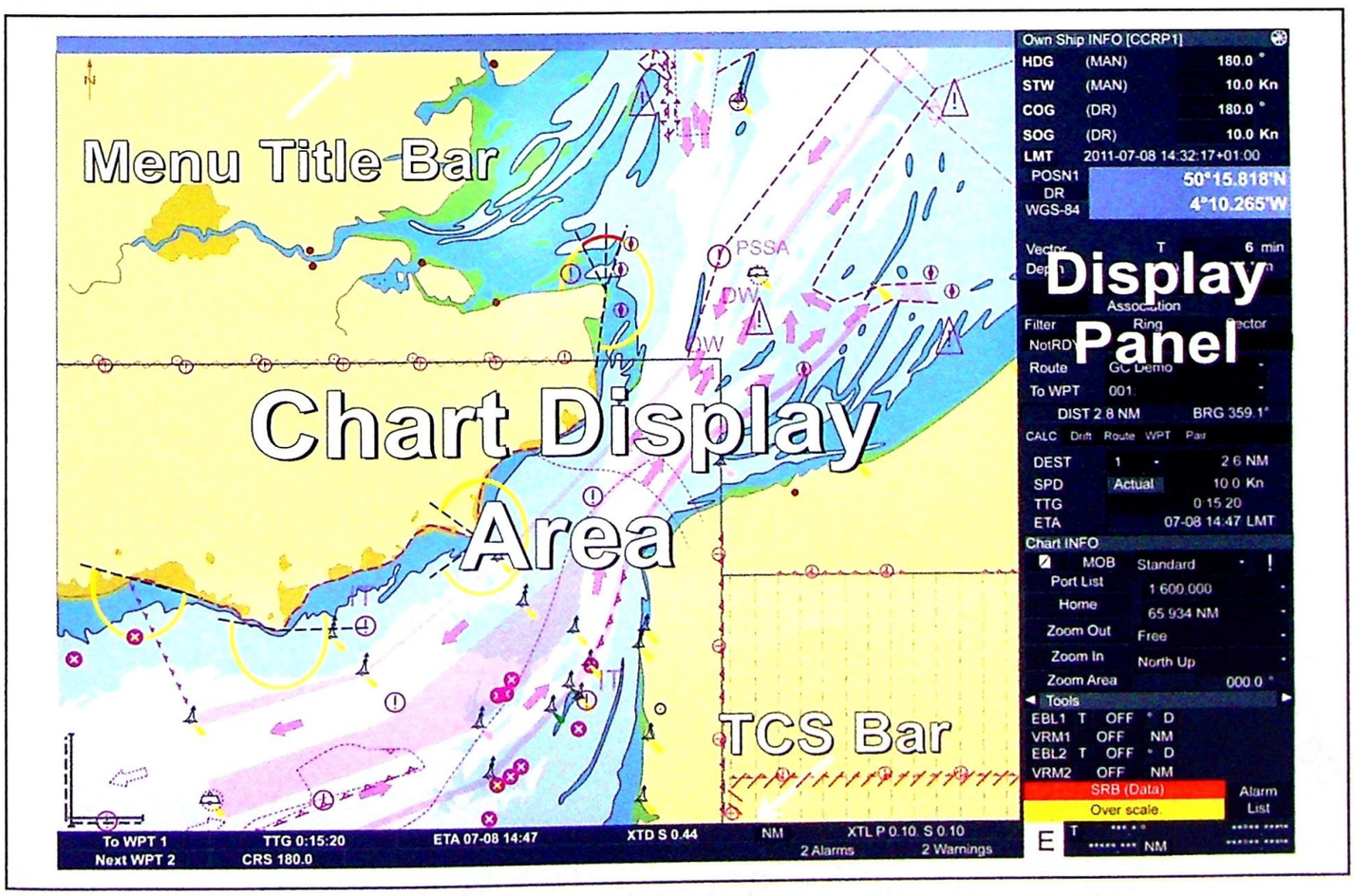
11. **ECDIS Operator's Manual**

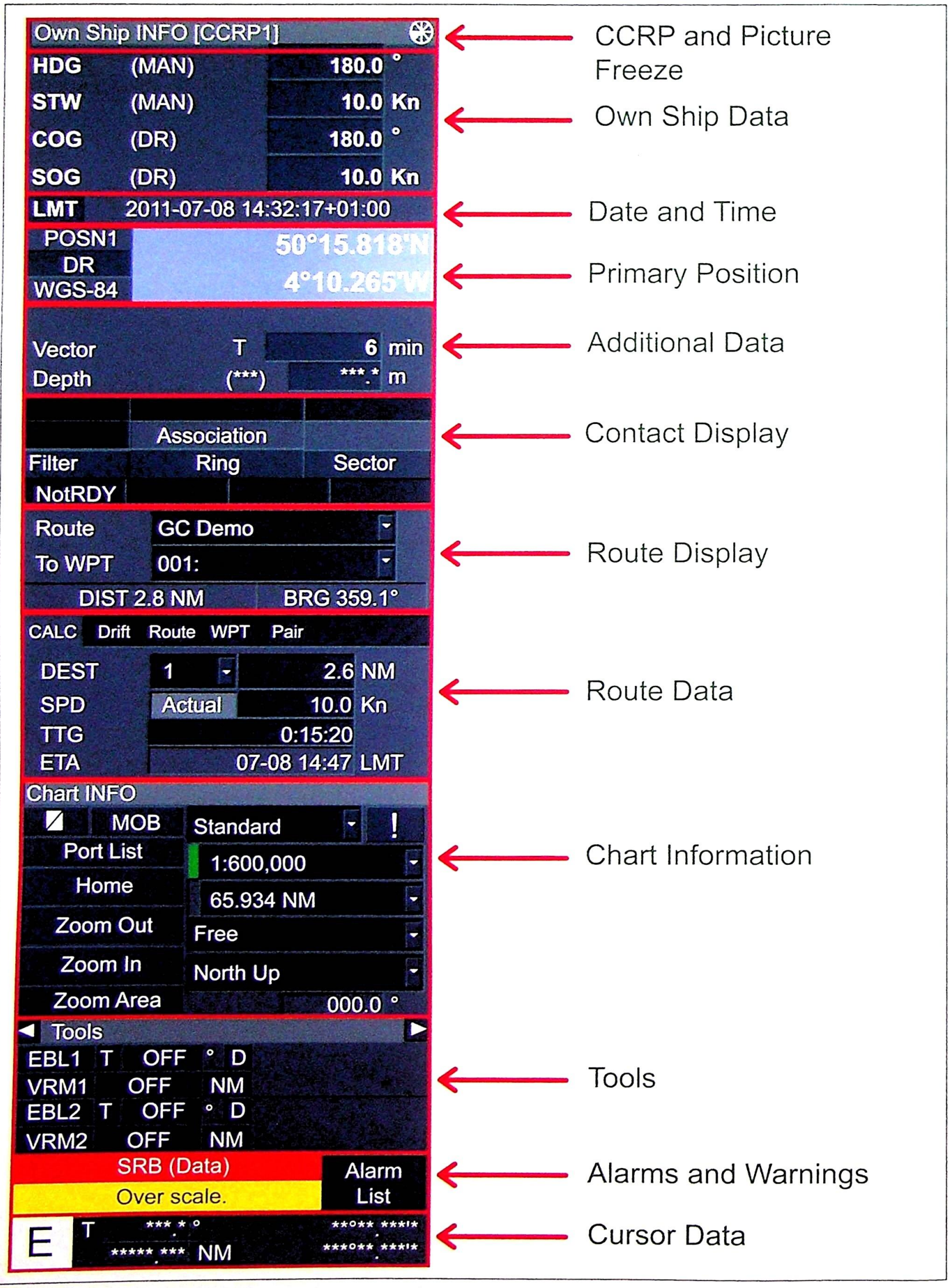
Locate the system's operator's user guide for referencing and help.

Hard copy of Operator's Manual only available			

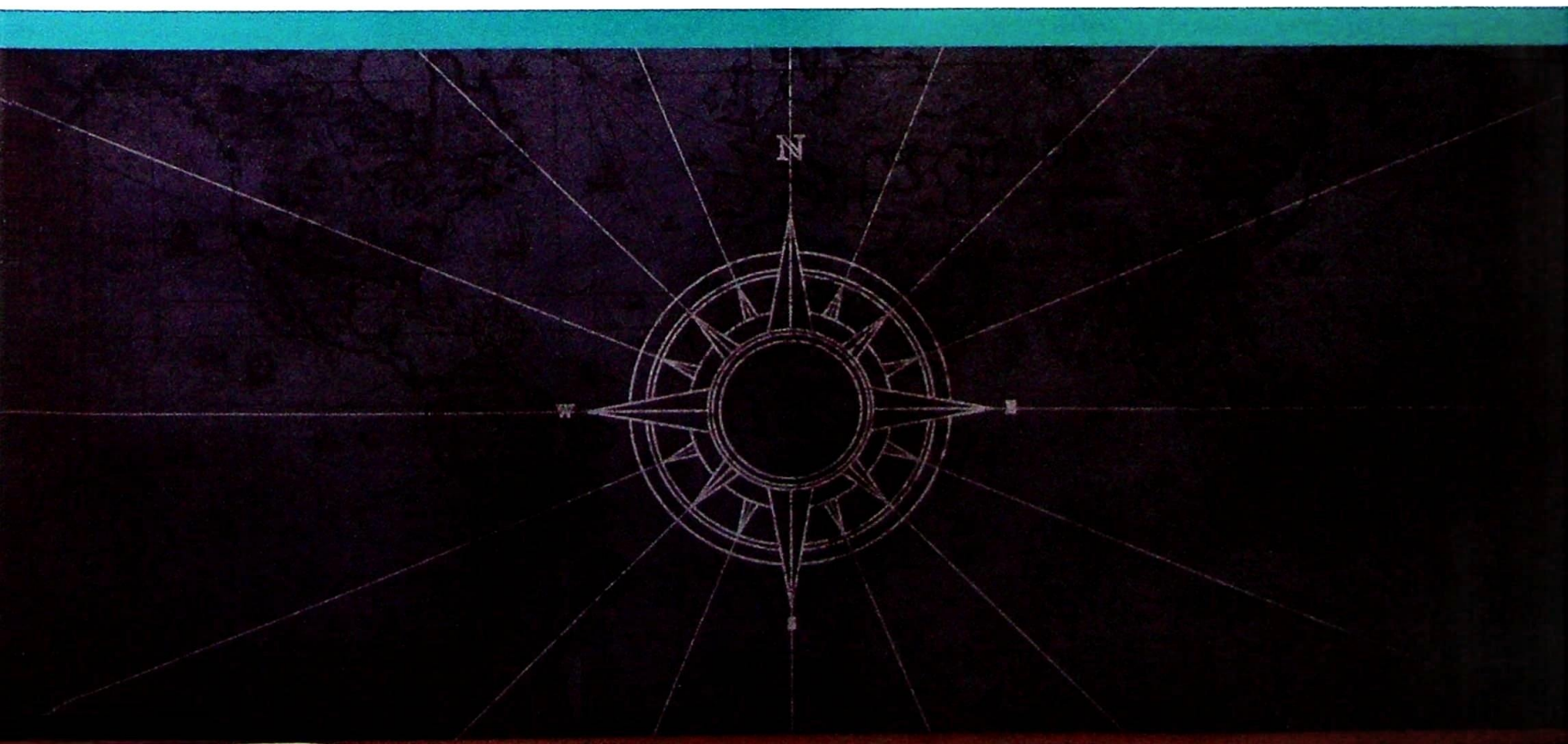
JRC JAN-701B/901B/2000

Key JRC JAN-701B/901B/2000 ECDIS Menu Functions		
1.	Selection of additional side panels (Docking, Voyage, Wind)	**Main>Multi Window**
2.	Configuration of Ship's Length, Beam, Maximum Speed and ROT	**Serviceman>Ship's Parameter...**
3.	View list of installed Charts	**Chart>Chart Portfolio>[S-57]/[ARCS]**
4.	View the latest update number installed	**Chart Portfolio>[S-57]/[ARCS] System Chart>Last Update**
5.	Save Chart Settings	**Chart>User Setting>Save Chart Setting...**
6.	View information on charted objects and view additional text	**Context Menu>S-57/C-MAP/ARCS Information>Left Click**
7.	Set the Safety Depth, Safety Contour, Shallow and Deep Contour	**Chart>Setting...>S-57/C-MAP/ARCS>View Common>Depth Alarm**
8.	Input a User Map Object	**User Map>User Map Editor>New**
9.	Input a Manual Update	**Chart>Manual Update>Start**
10.	Turn the ship outline on	**Own Ship/Track>Setting...>Own Ship Symbol**
11.	Configure the Danger Detection Area (Anti-grounding Cone)	**Own Ship/Track>Setting...>Danger Detection**
12.	Configure Velocity Vectors and Ship's Track	**Own Ship/Track>Setting...>Vector/Track**
13.	Manually change WPT information of an Active Route	**Manually select WPT in the Route Display Panel**
14.	View past Alarms and Warnings	**Alarm List or Main>Logbook>Event Column**
15.	Input a Visual or Radar Fix	**Main>LOP>Create LOP...**



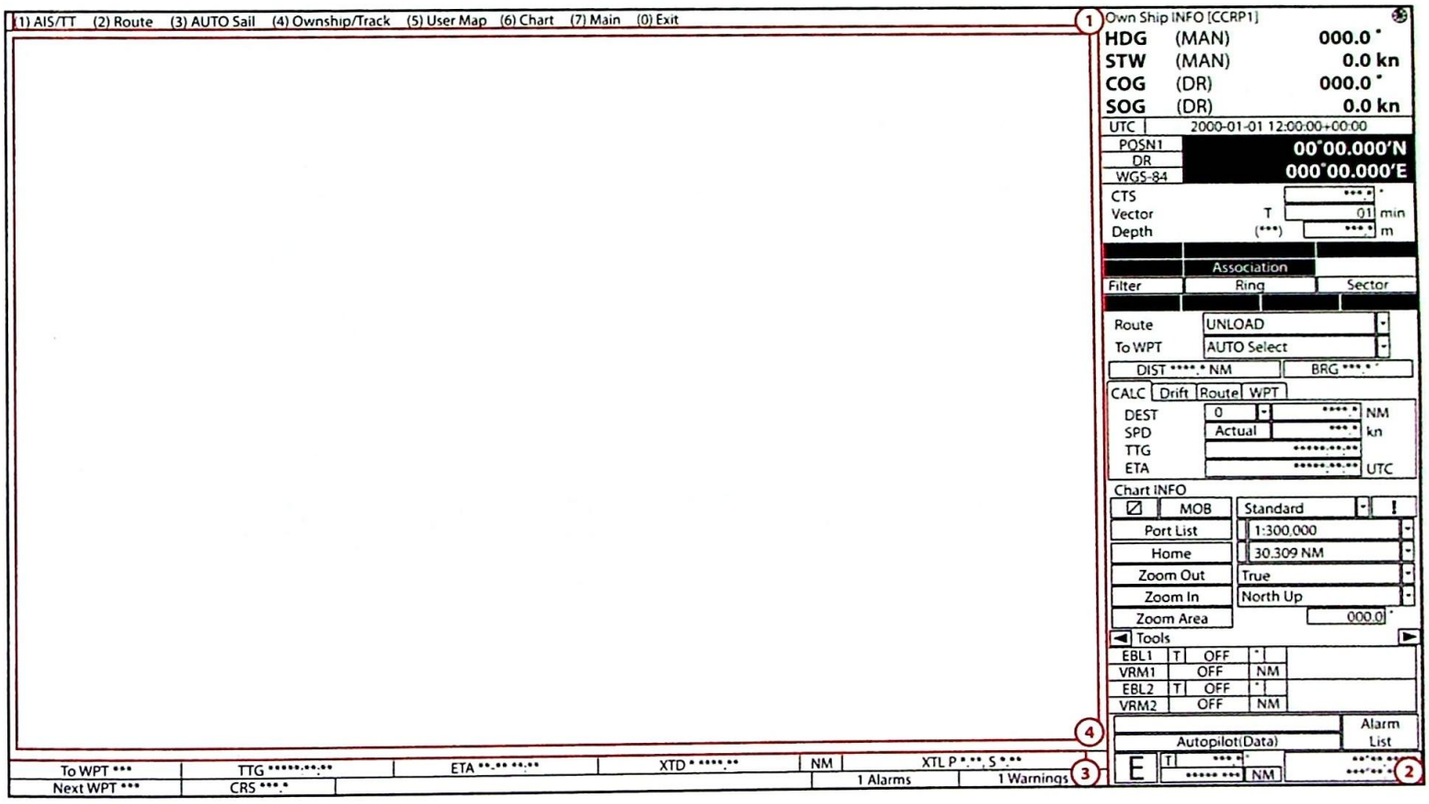

Own Ship INFO [CCRP1]
HDG (MAN) 180.0 °
STW (MAN) 10.0 Kn
COG (DR) 180.0 °
SOG (DR) 10.0 Kn
LMT 2011-07-08 14:32:17+01:00
POSN1
DR
WGS-84
50°15.818'N
4°10.265'W
Vector T 6 min
Depth (***) ***.* m
Association
Filter Ring Sector
NotRDY
Route GC Demo
To WPT 001:
DIST 2.8 NM BRG 359.1°
CALC Drift Route WPT Pair
DEST 1 2.6 NM
SPD Actual 10.0 Kn
TTG 0:15:20
ETA 07-08 14:47 LMT
Chart INFO
MOB
Standard
Port List
1:600,000
Home
65.934 NM
Zoom Out
Free
Zoom In
North Up
Zoom Area
000.0 °
Tools
EBL1 T OFF ° D
VRM1 OFF NM
EBL2 T OFF ° D
VRM2 OFF NM
SRB (Data)
Over scale.
Alarm List
E T ***.* °
*****.*** NM
°**.'*
°**.'*
CCRP and Picture Freeze
Own Ship Data
Date and Time
Primary Position
Additional Data
Contact Display
Route Display
Route Data
Chart Information
Tools
Alarms and Warnings
Cursor Data

JRC
JAN-701B/JAN-901B/JAN-2000



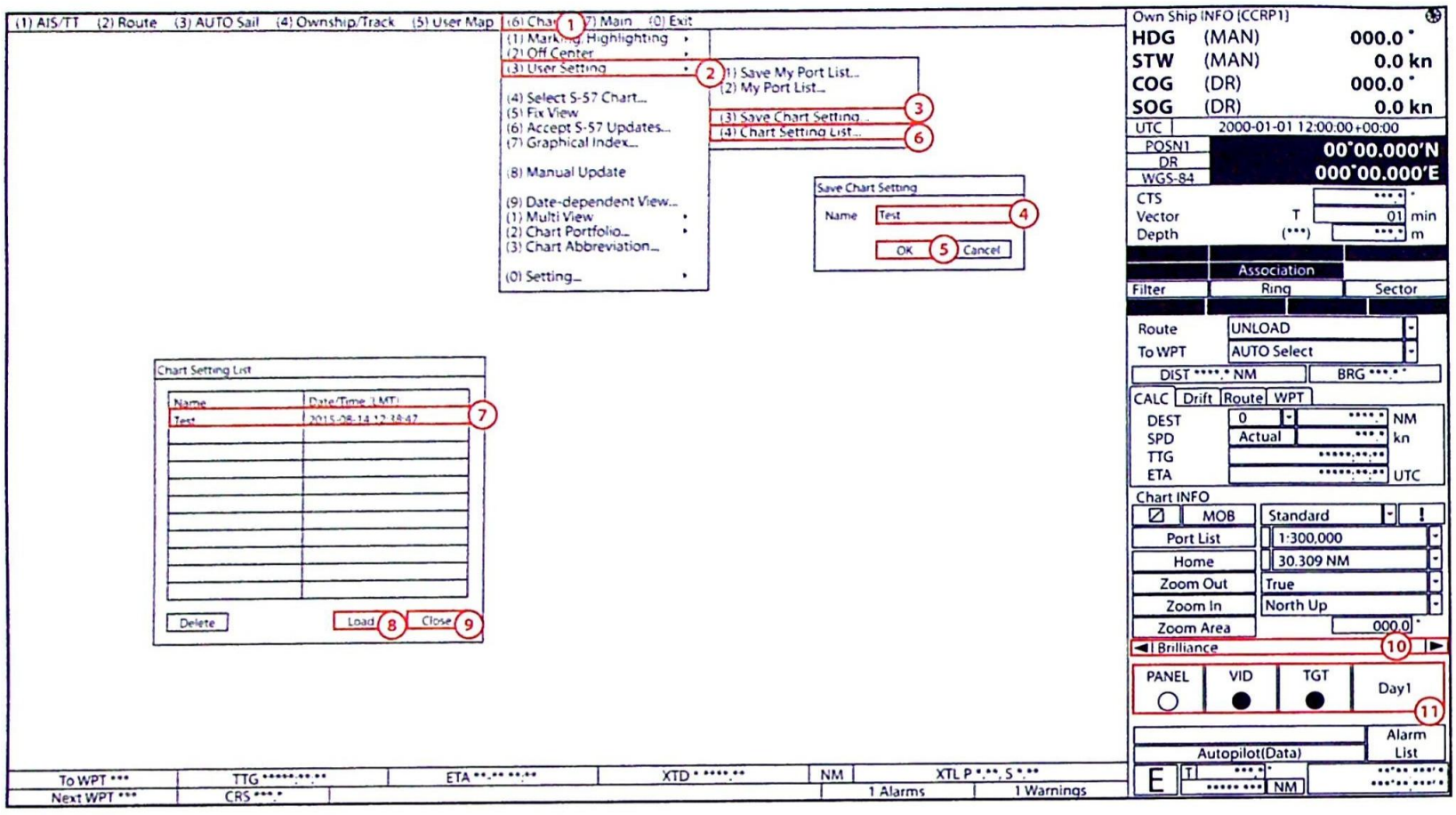
Section 1: Main Display

1.1 **Screen Layout**



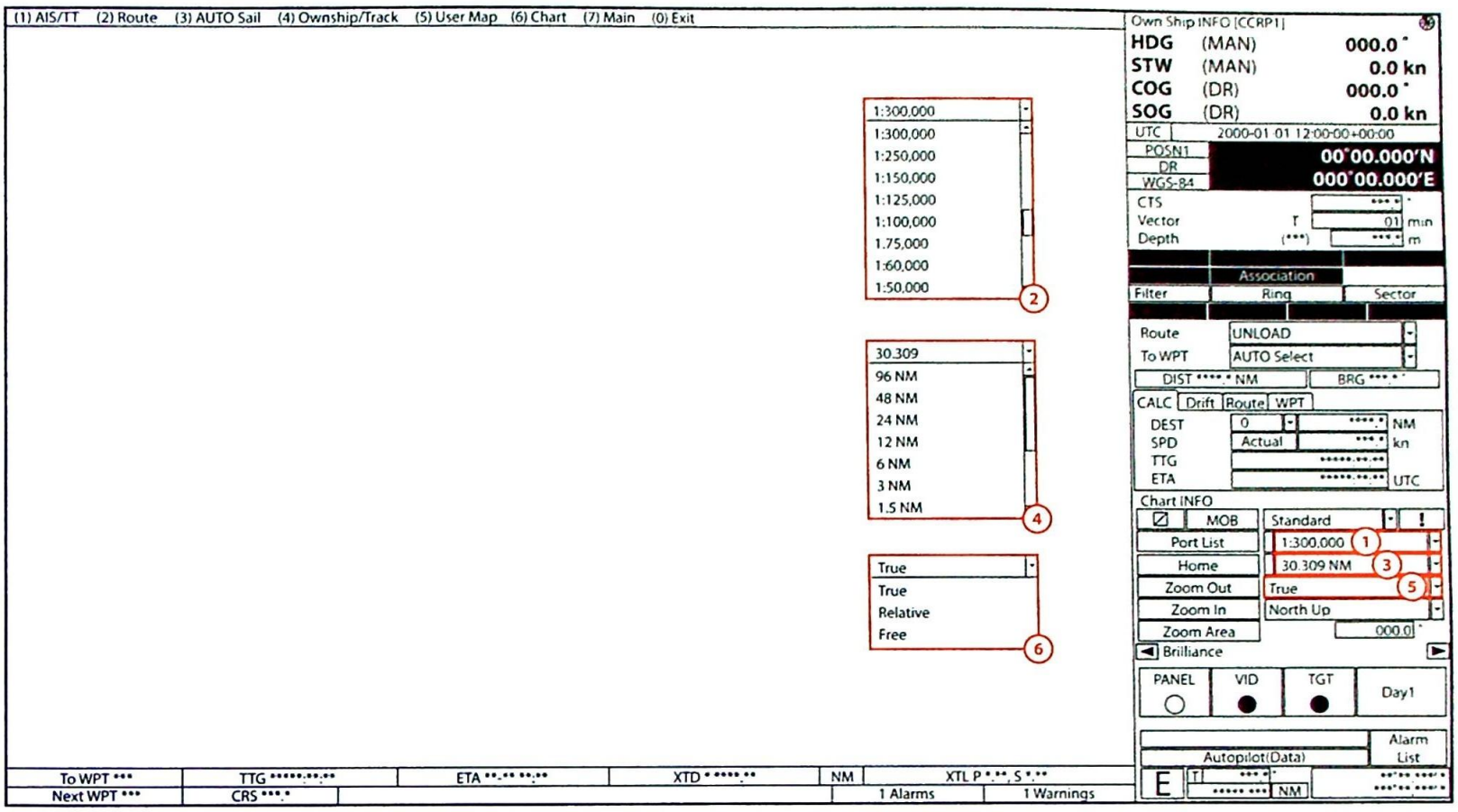
1. Main title bar
2. Display panel
3. TCS bar
4. Chart display area

1.2 Colour Palette/Profiles



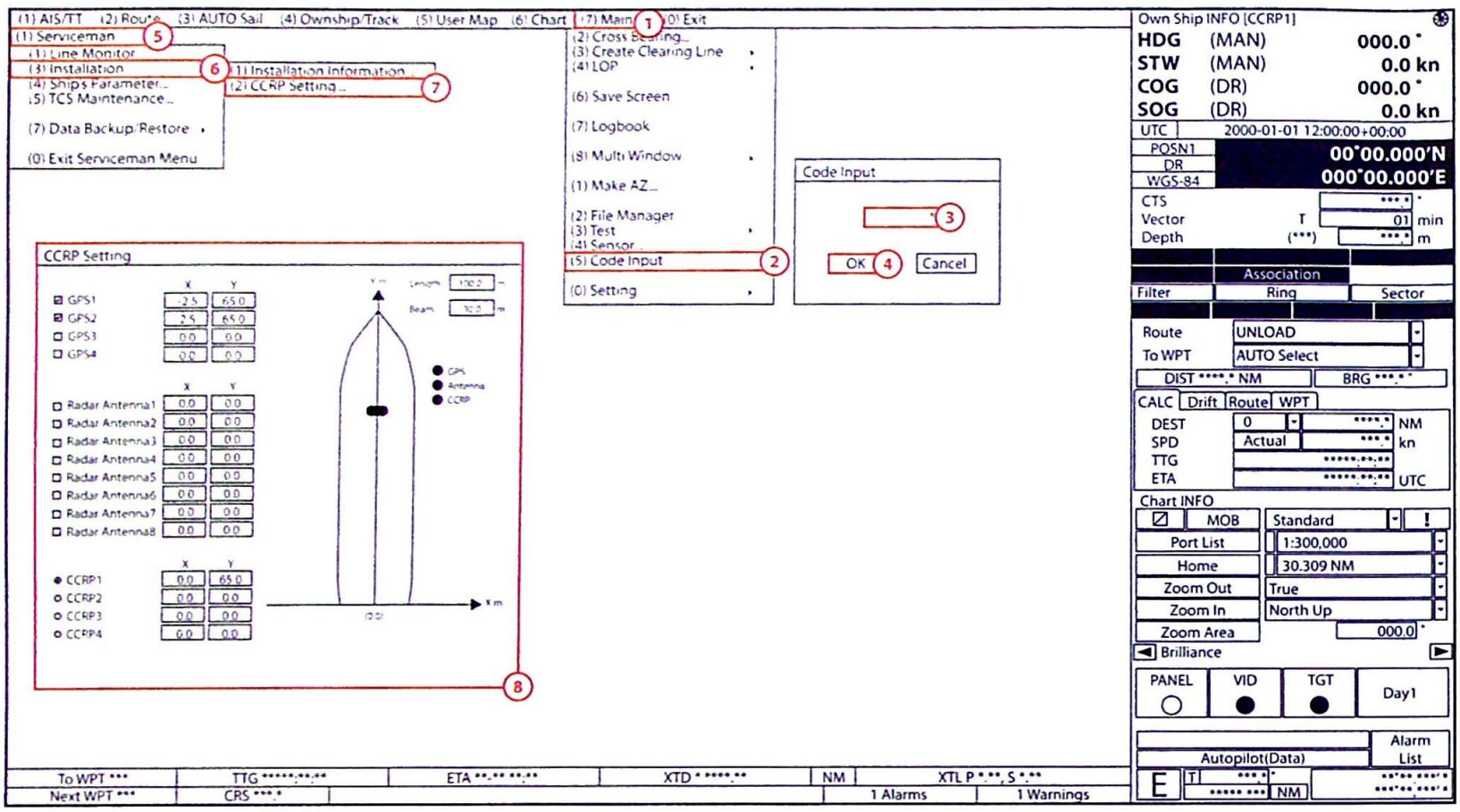
1. Click 'Charts' in the main title bar.
2. Click 'User Settings'.
3. Click 'Save Chart Setting...'
4. Enter a chart setting name.
5. Click 'OK' to save the setting.
6. Open 'Chart Setting List...'
7. Select your chart setting.
8. Click 'Load'.
9. Click 'Close'.
10. Find 'Brilliance' settings using left/right arrows.
11. Change settings here.

1.3 Range/Scale/Motion



1. Click on the scale dropdown.
2. Select a manual scale from the list.
3. Click on the range dropdown.
4. Select a manual range from the list.
5. Click the motion dropdown.
6. Select True/Relative/Free from the list.

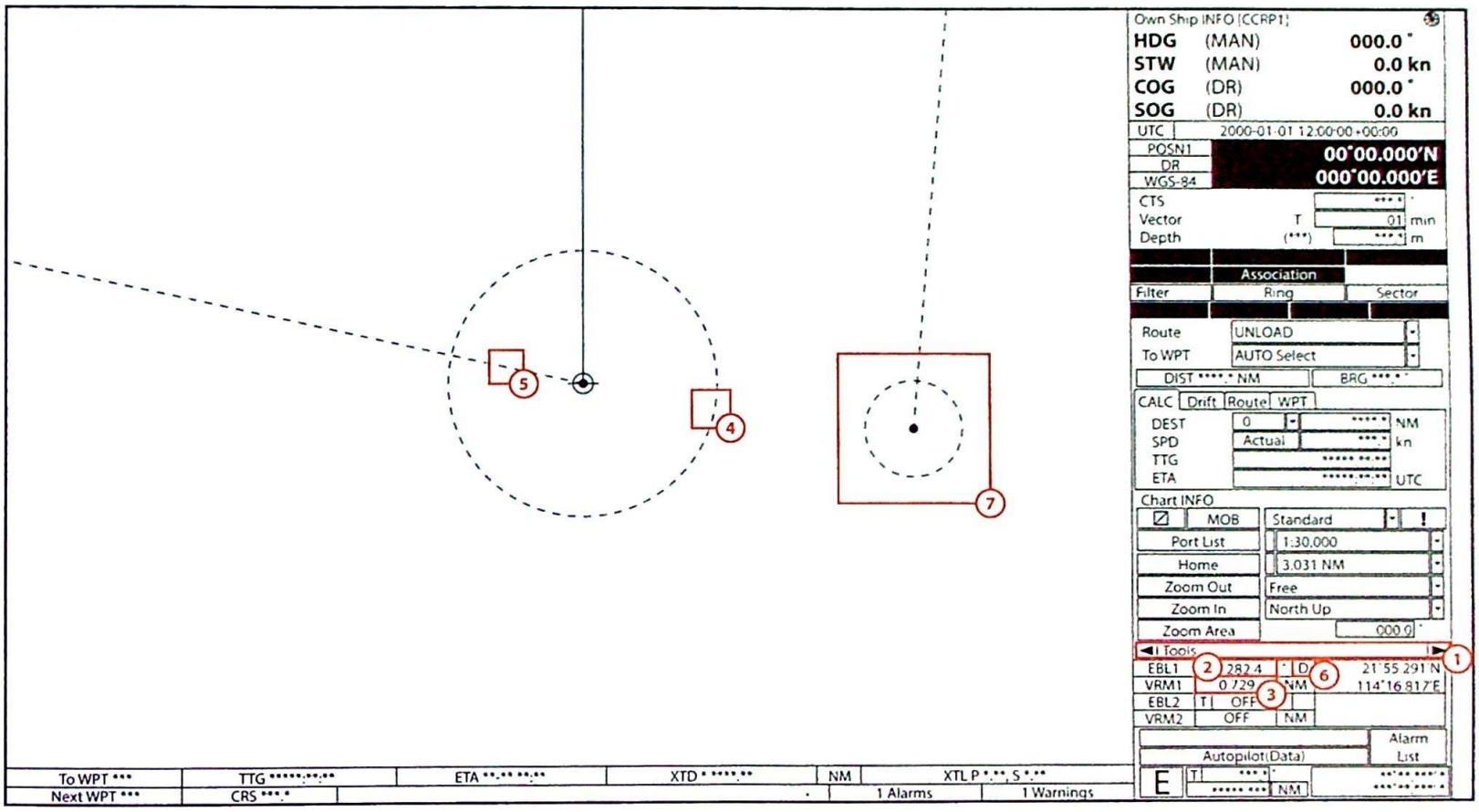
1.4 Setting CCRP



1. Click 'Main' in the menu title bar.
2. Open 'Code Input'.
3. Enter Code '0'.
4. Click 'OK' to confirm code input.
5. Click 'Serviceman'.
6. Select 'Installation'.
7. Open 'CCRP Setting...'
8. View/configure CCRP setting in this window.

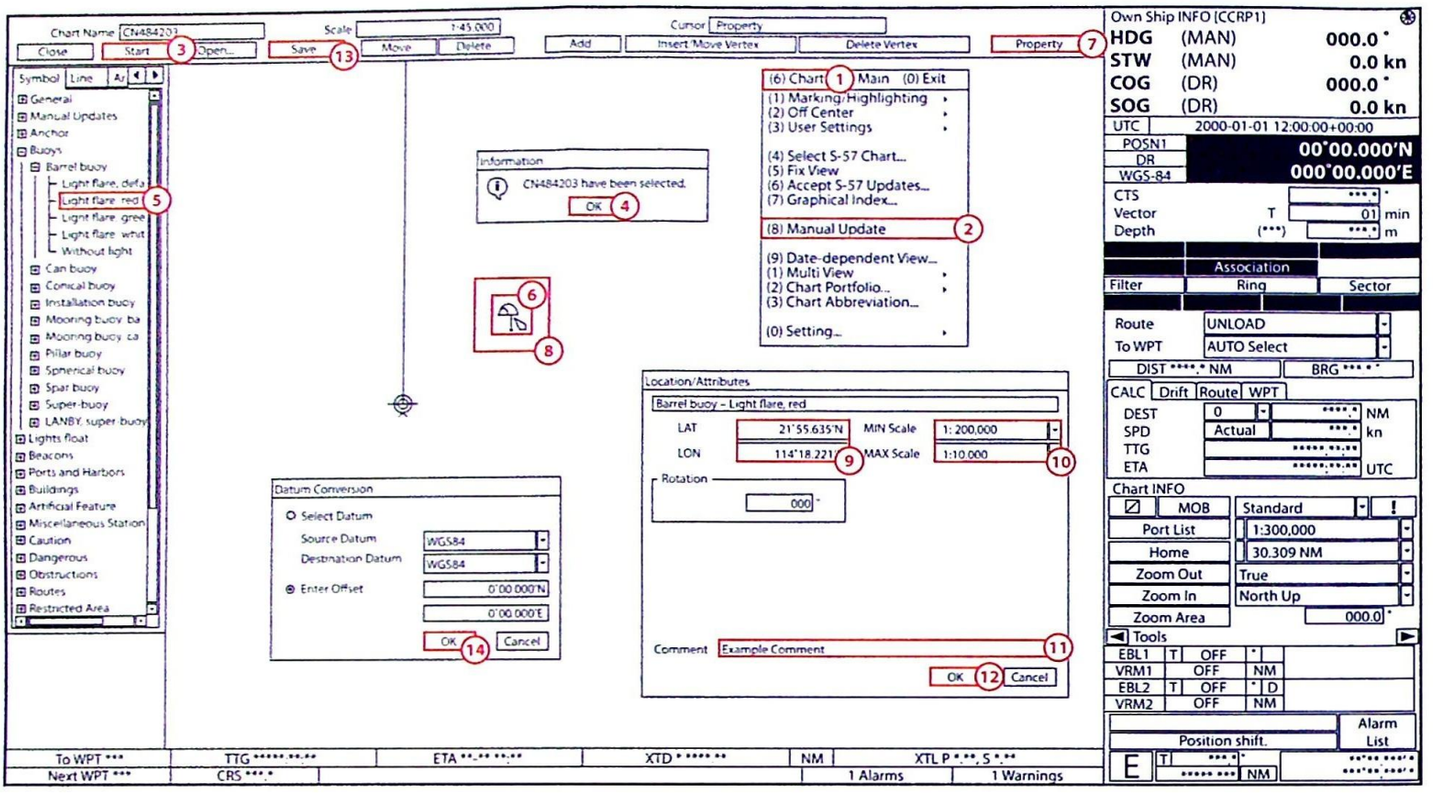
Section 2: Navigation Tools

2.1 **EBL/VRM/PI**



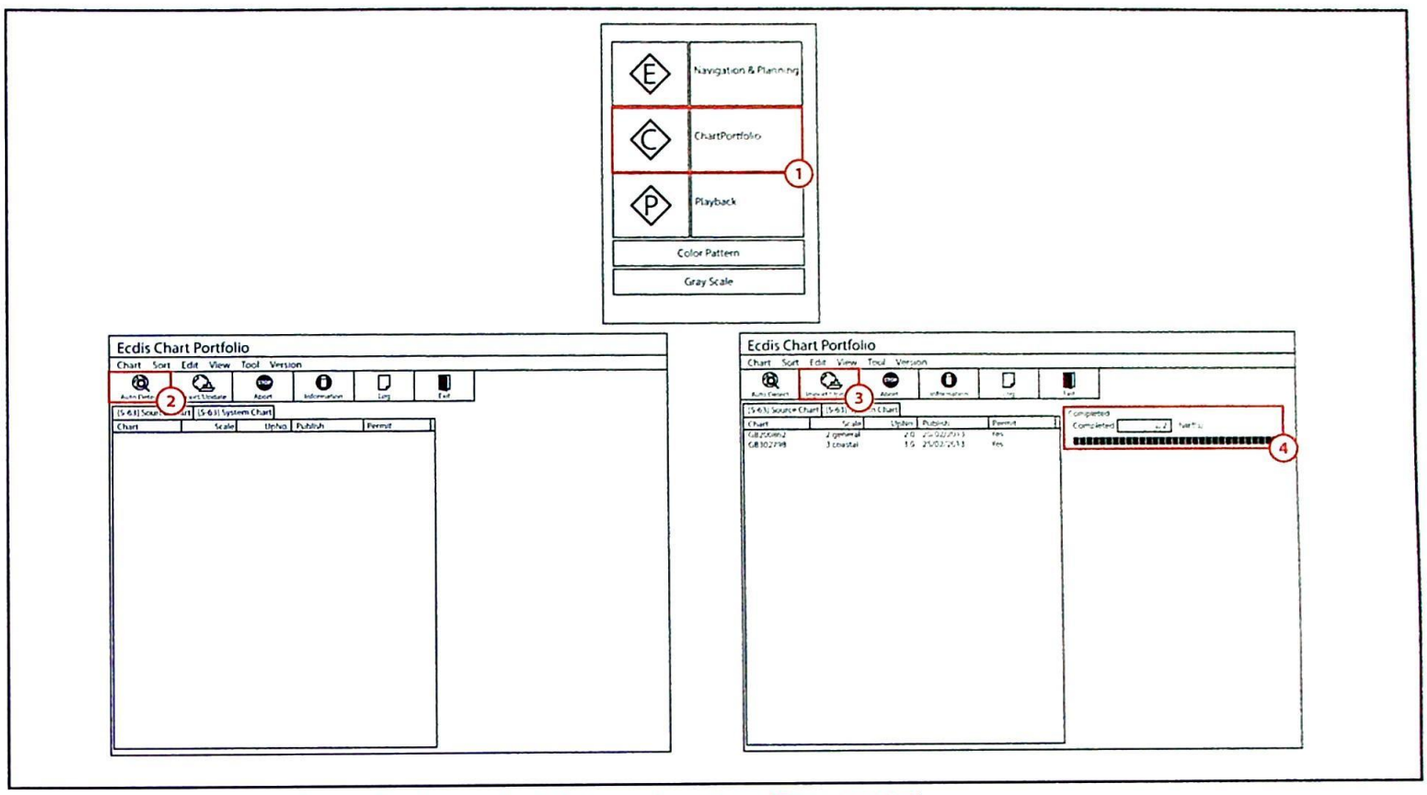
1. Use the left/right arrows to show the 'Tools' menu.
2. Left click 'Off' to turn on the EBL.
3. Left click 'Off' to turn on the VRM.
4. Example VRM on the chart.
5. Example EBL on the chart.
6. Left click on the little empty box.
7. Left click on the chart to offset the EBL/VRM.

2.2 Manual Corrections



1. Click 'Chart' on the main title bar.
2. Open 'Manual Update'.
3. Click 'Start'.
4. Left click on the main chart panel to select a chart, then click 'OK'.
5. Select an object from the list.
6. Left click on the location to place your object.
7. Select 'Property'.
8. Left click on the object.
9. Verify position.
10. Verify viewing scale.
11. Enter a comment.
12. Click 'OK'.
13. Click 'Save'.
14. Click 'OK'.

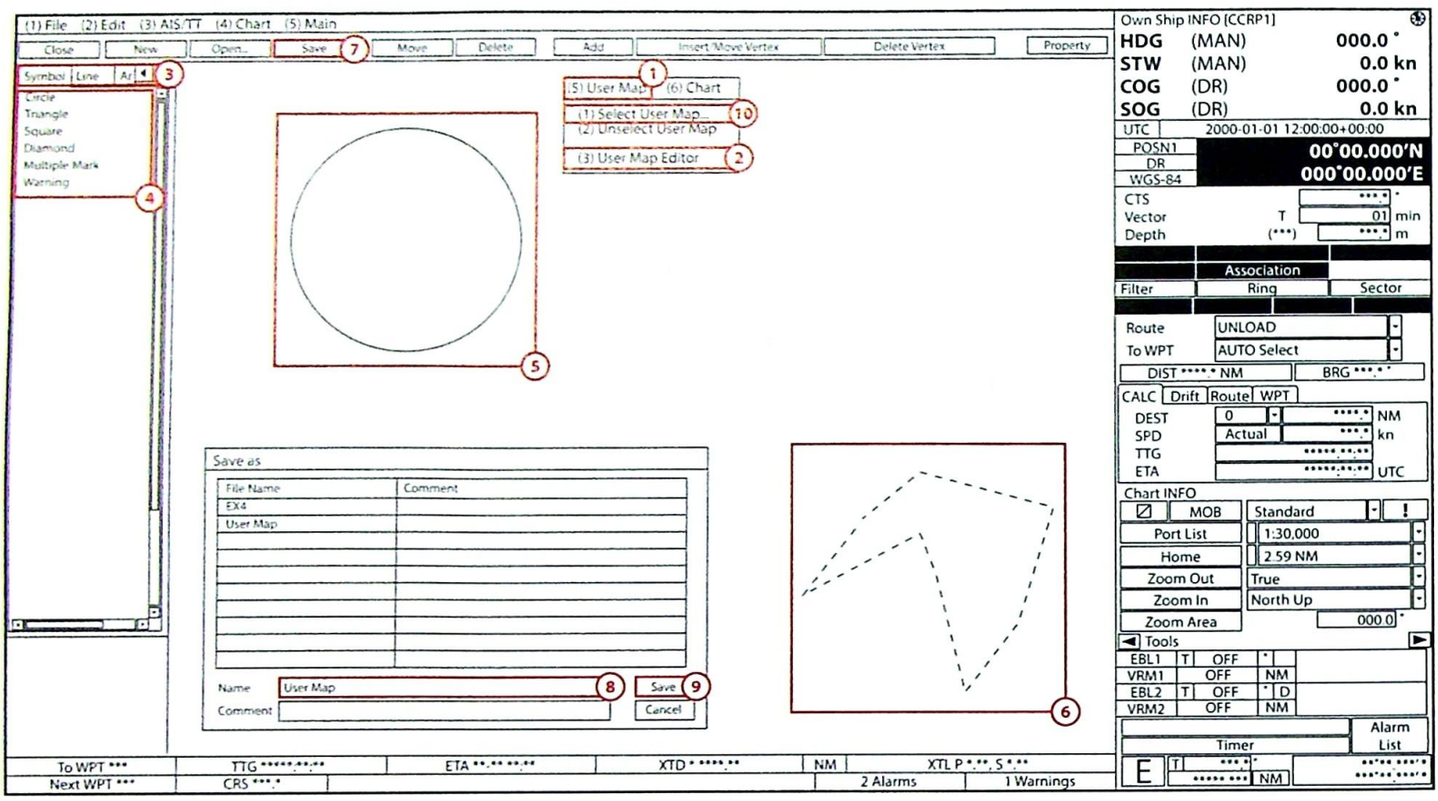
2.3 Chart Updates



Note to user: Ensure your update media is inserted and that permits and base CD are installed.

1. Open 'Chart Portfolio' from the start-up screen.
2. Click 'Auto Detect'.
3. Click 'Import/Update'.
4. Completed.

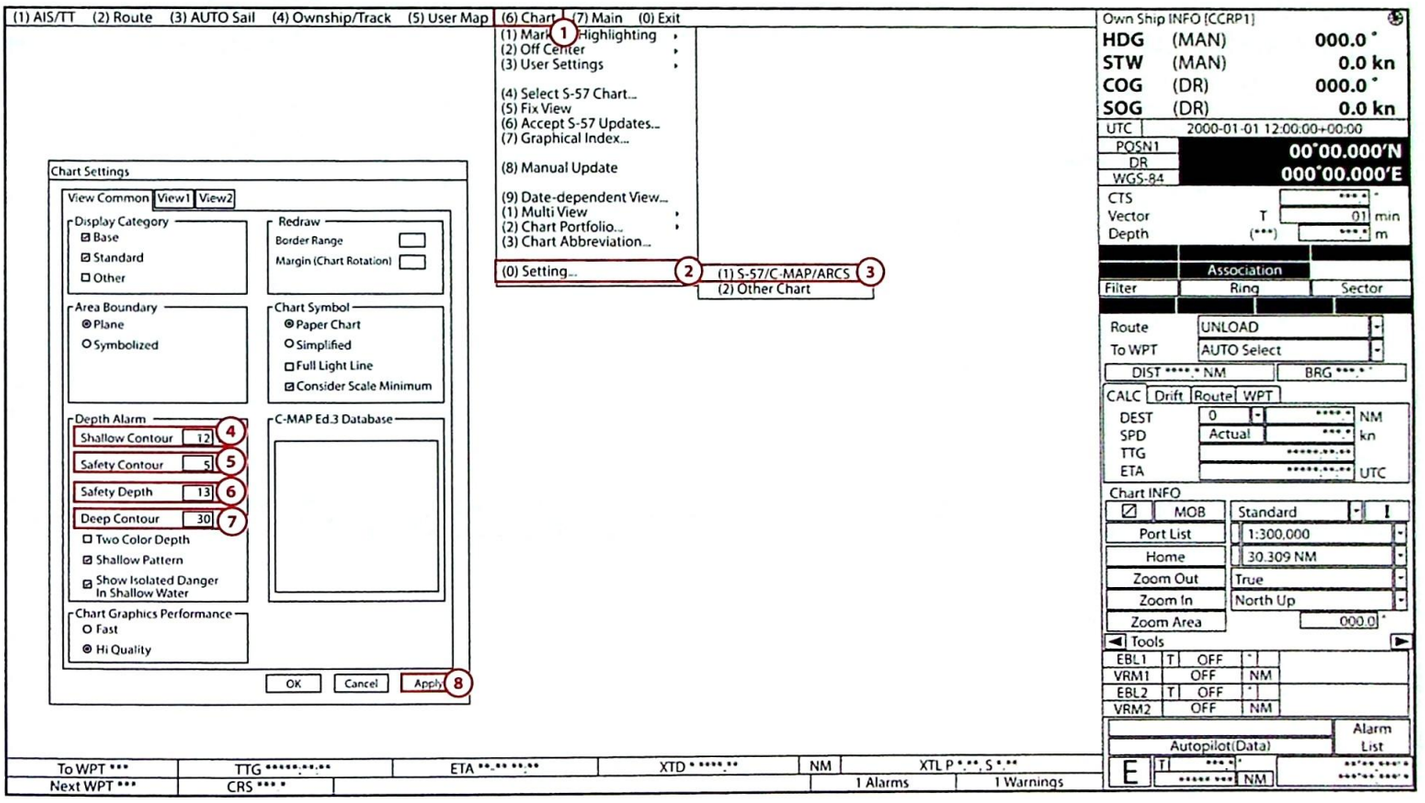
2.4 No Go Areas/User Charts



1. Click 'User Map'.
2. Open 'User Map Editor'.
3. Select object type.
4. Select object shape from the list.
5. Example circle object.
6. Example area object.
7. Click 'Save'.
8. Name your user map.
9. Click 'Save'.
10. Click 'Select User Map...' to open your map in navigation mode.

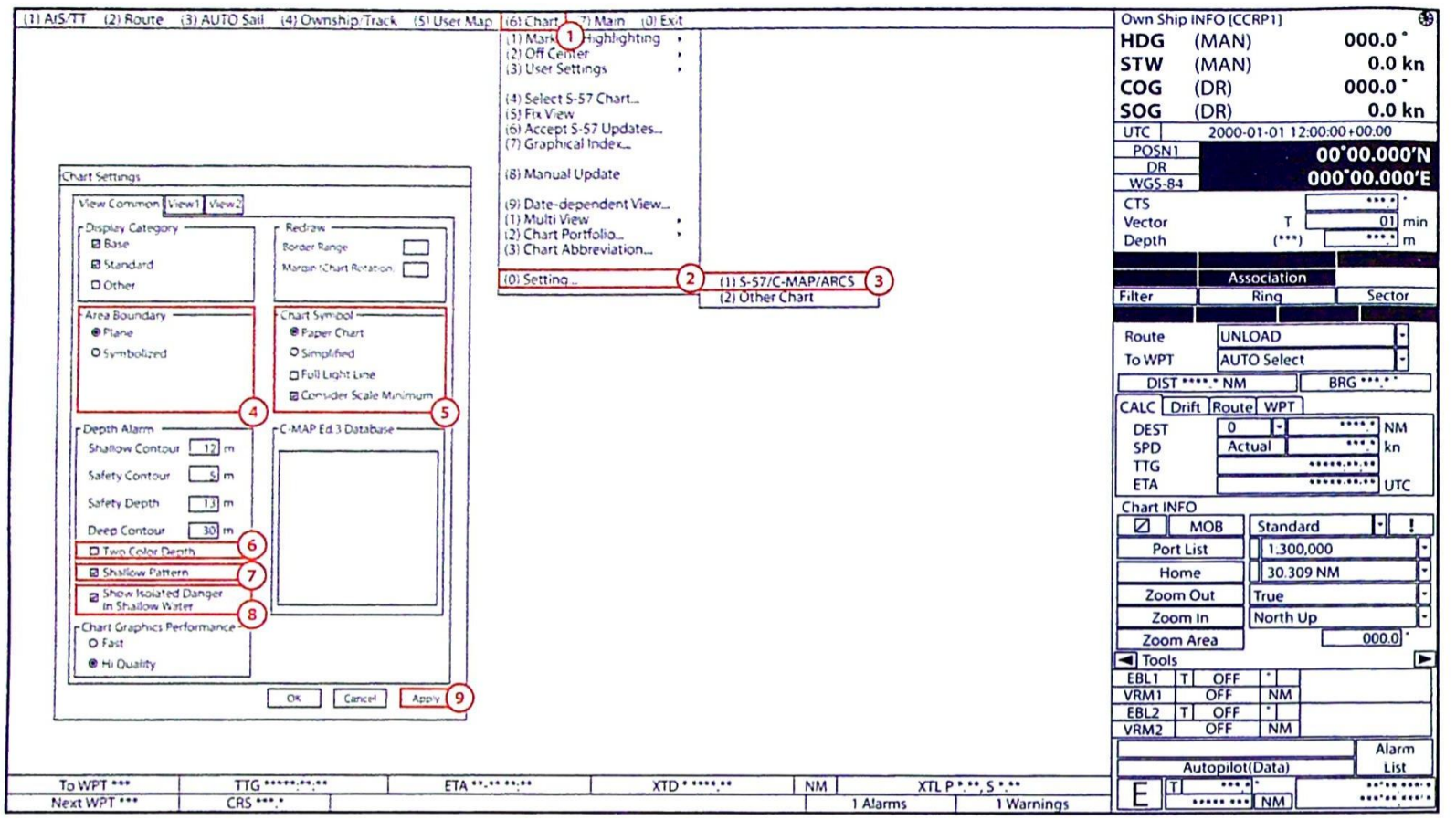
Section 3: Chart Display Settings

3.1 **Safety Depth/Contour**



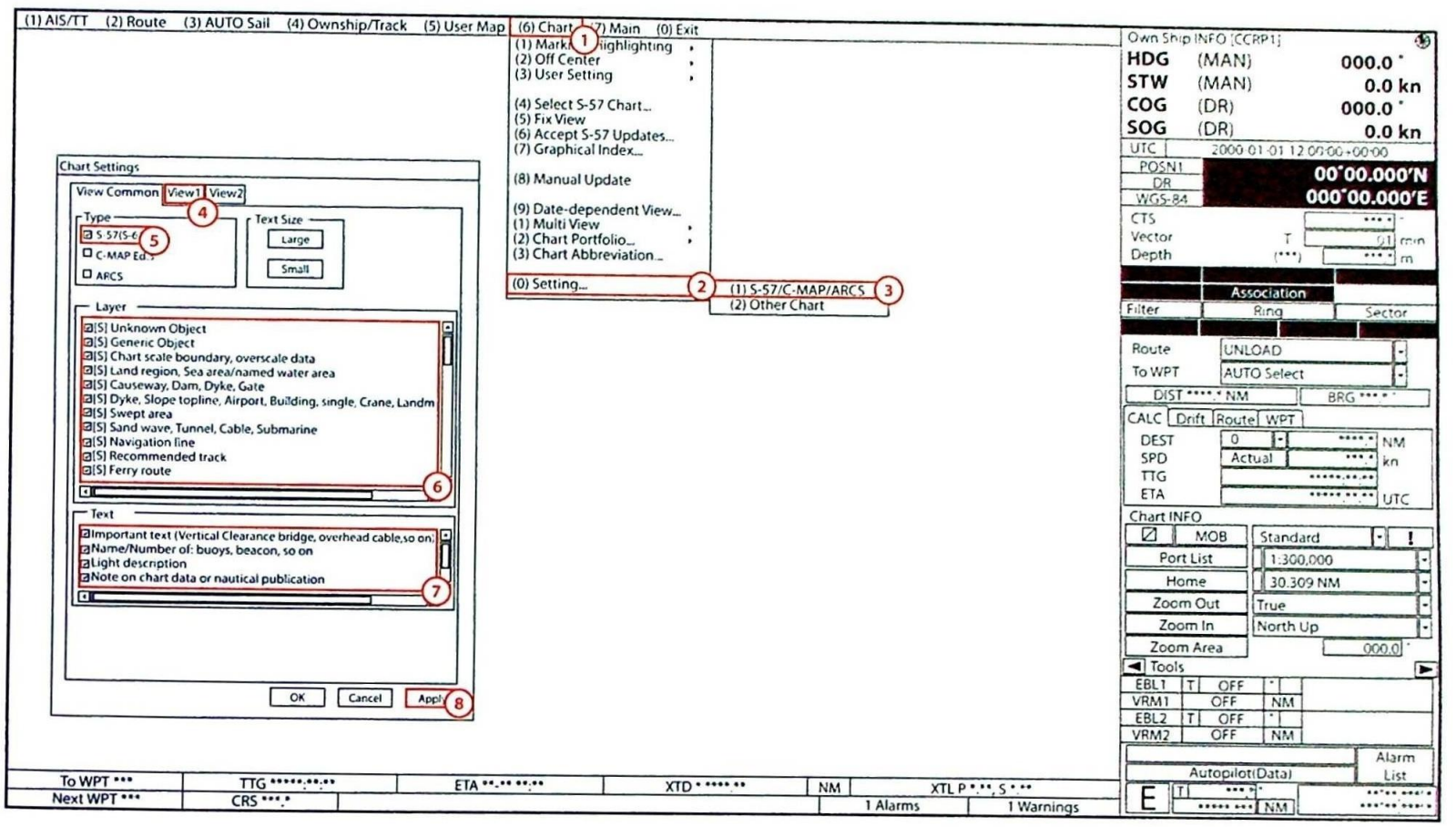
1. Click 'Chart'.
2. Click 'Setting...'
3. Open 'S-57/C-MAP/ARCS'.
4. Edit 'Shallow Contour'.
5. Edit 'Safety Contour'.
6. Edit 'Safety Depth'.
7. Edit 'Deep Contour'.
8. Click 'Apply' to save changes.

3.2 Display Preference Options



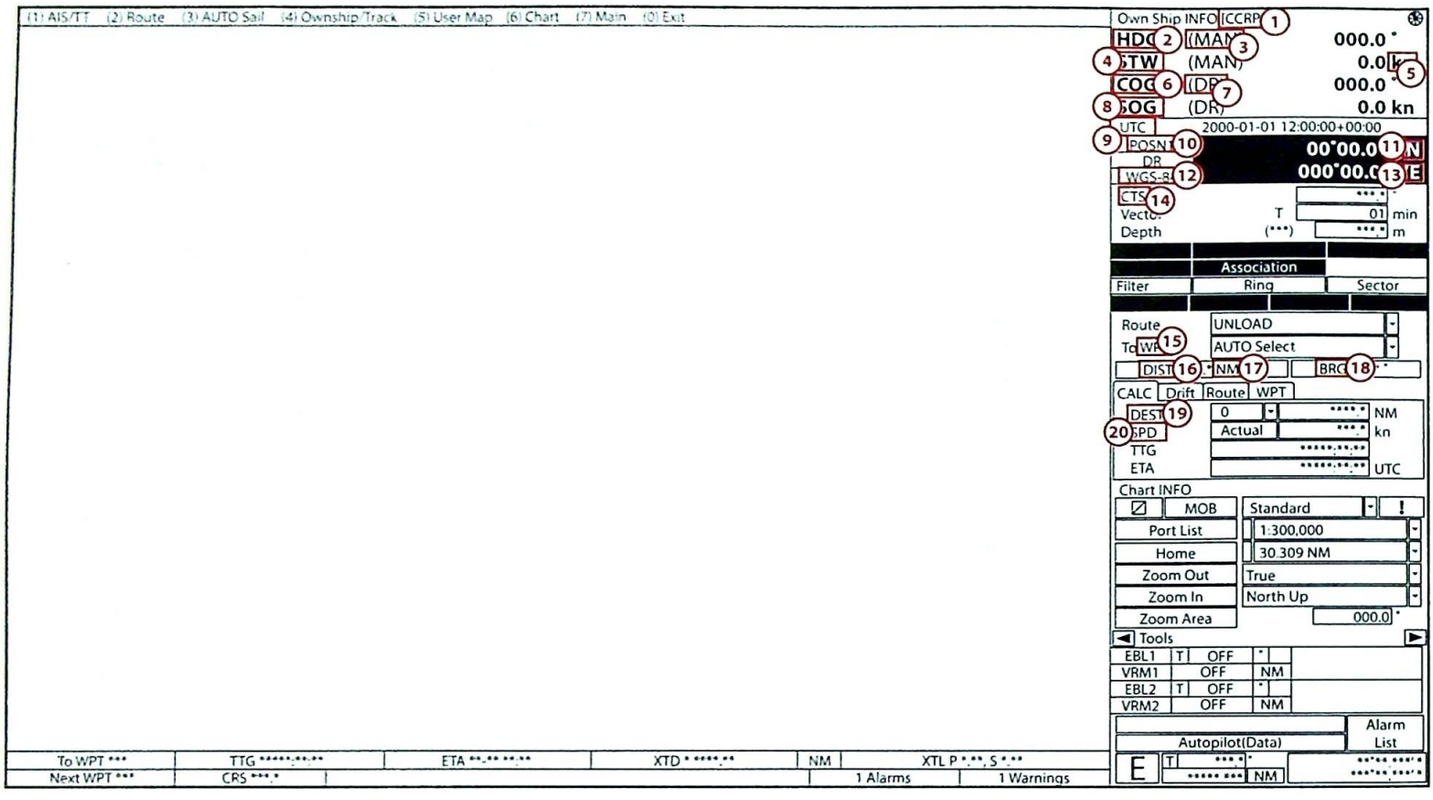
1. Click 'Chart'.
2. Click 'Setting...'
3. Open 'S-57/C-MAP/ARCS'.
4. Configure 'Area Boundary' settings.
5. Configure 'Chart Symbol' settings.
6. Enable/disable 'Two Color Depth'.
7. Enable/disable 'Shallow Pattern'.
8. Enable/disable 'Show Isolated Danger In Shallow Water'.
9. Click 'Apply' to save changes.

3.3 Display Configuration



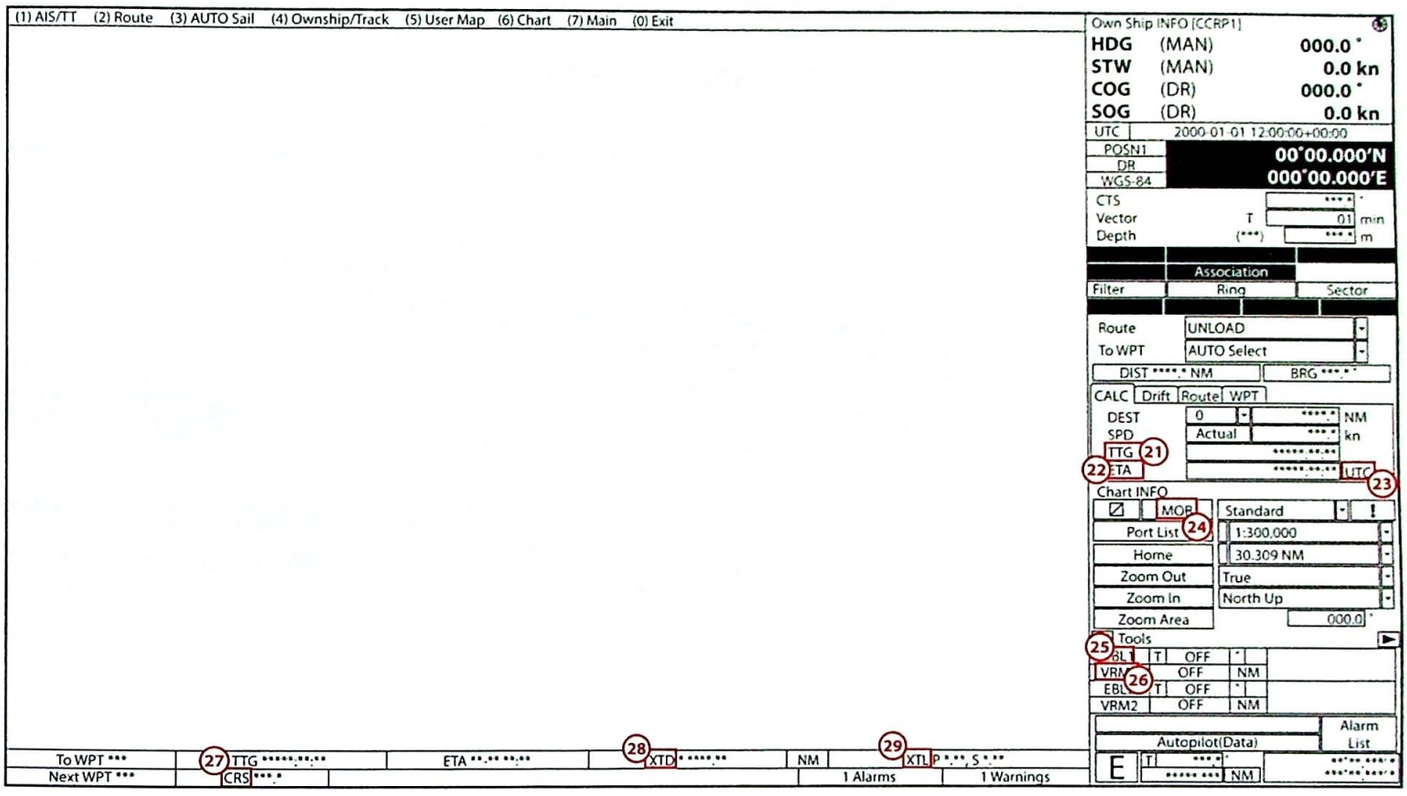
1. Click 'Chart'.
2. Click 'Setting...'
3. Open 'S-57/C-MAP/ARCS'.
4. Click 'View1'.
5. Select 'S-57(S-63)'.
6. Enable/disable layers, as required.
7. Enable/disable text layers, as required.
8. Click 'Apply' to save changes.

3.4 Abbreviations Part 1



1. Continuous Common Reference Point
2. Heading
3. Manual
4. Speed Through Water
5. Knots
6. Course Over Ground
7. Dead Reckoning
8. Speed Over Ground
9. Universal Time Coordinated
10. Position
11. North
12. World Geodetic System 1984
13. East
14. Course to Steer
15. Waypoint
16. Distance
17. Nautical Miles
18. Bearing
19. Destination
20. Speed

3.4 Abbreviations Part 2



21 Time to Go

22 Estimated Time of Arrival

23 Universal Time Coordinated

24 Man Overboard

25 Electronic Bearing Line

26 Variable Range Marker

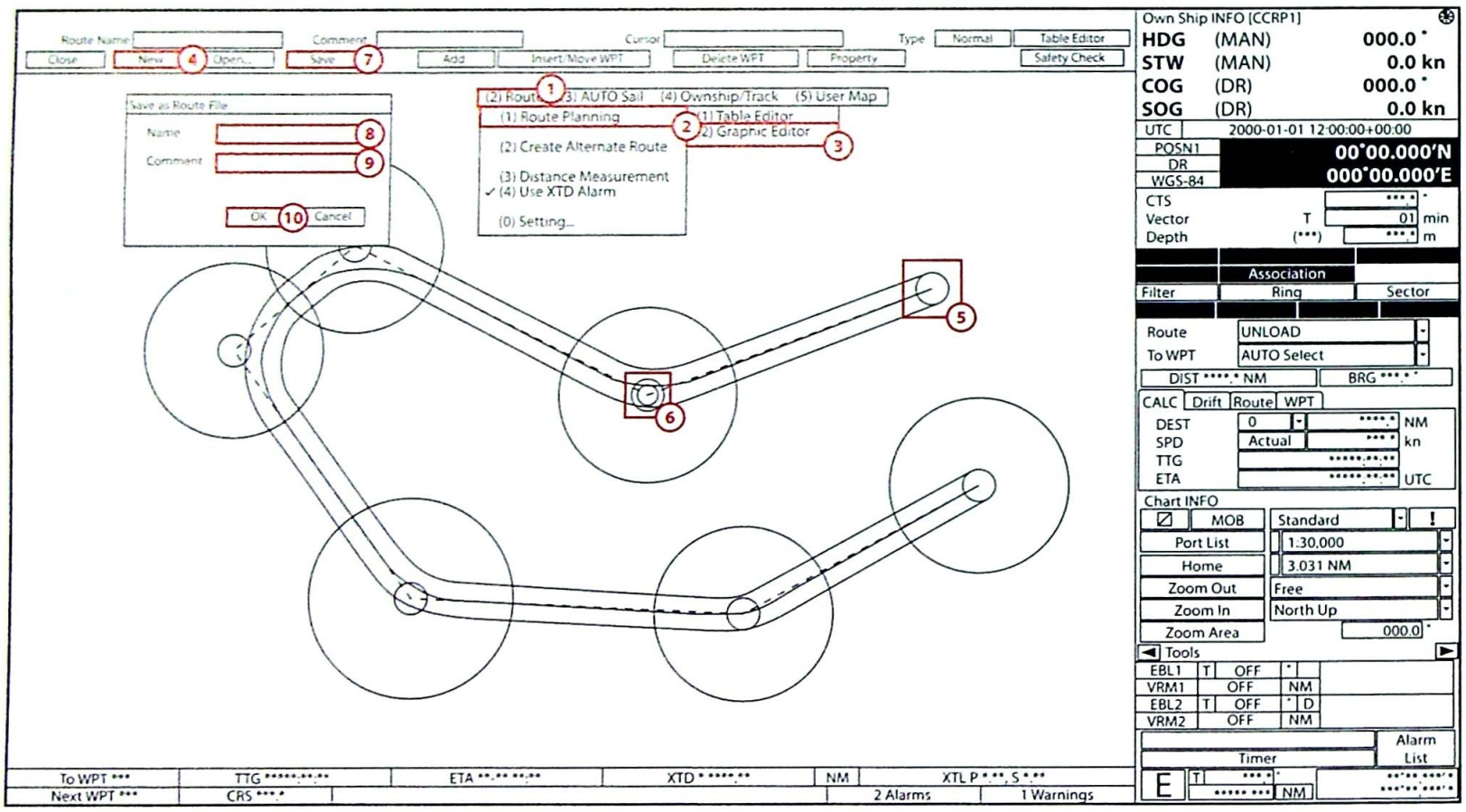
27 Course

28 Cross Track Distance

29 Cross Track Limit

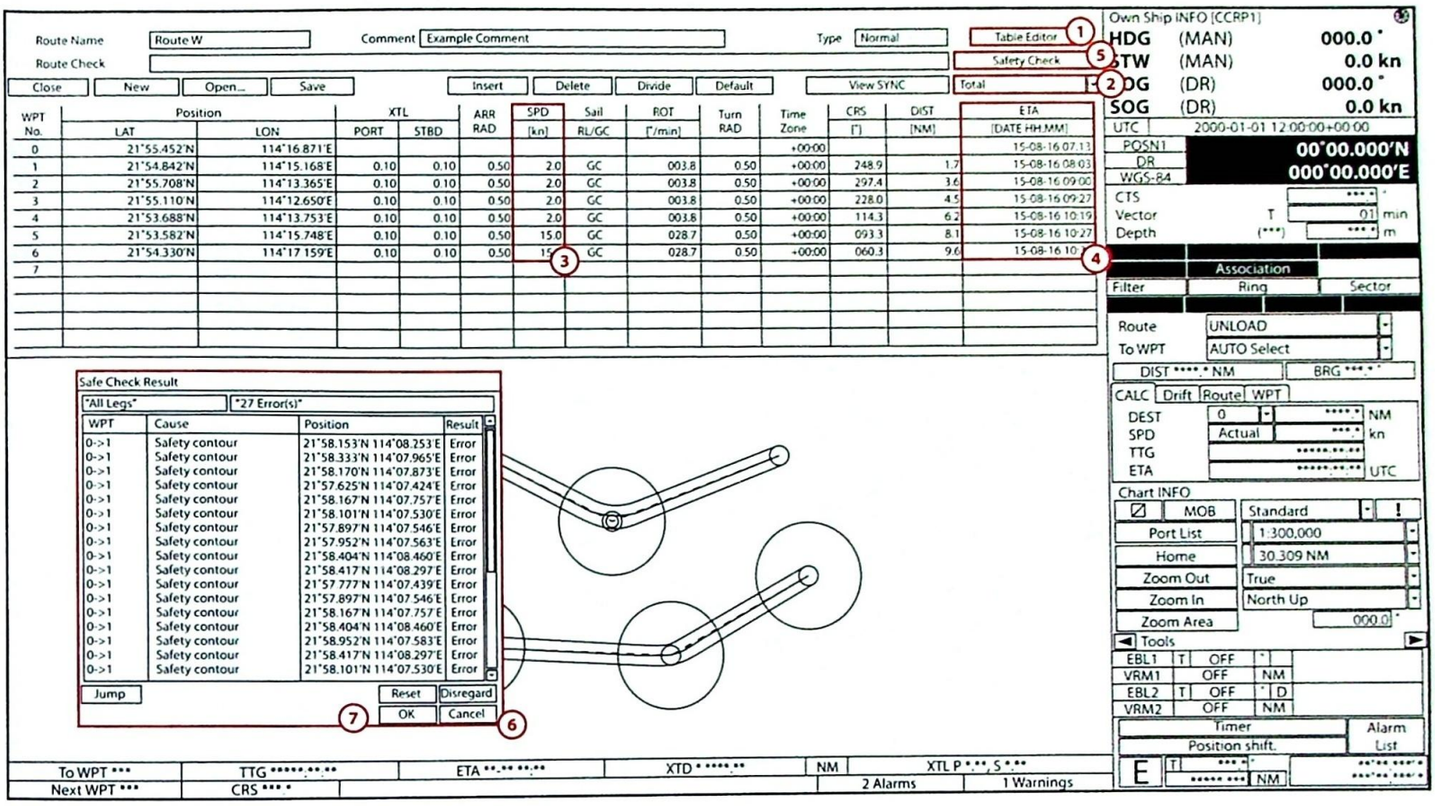
Section 4: Route Planning

4.1 Creation



1. Click 'Route'.
2. Click 'Route Planning'.
3. Open 'Graphic Editor'.
4. Click 'New'.
5. Left click to place first waypoint.
6. Consecutive left clicks will place more waypoints.
7. Click 'Save'.
8. Name your route.
9. Comment on your route.
10. Click 'OK' to finish.

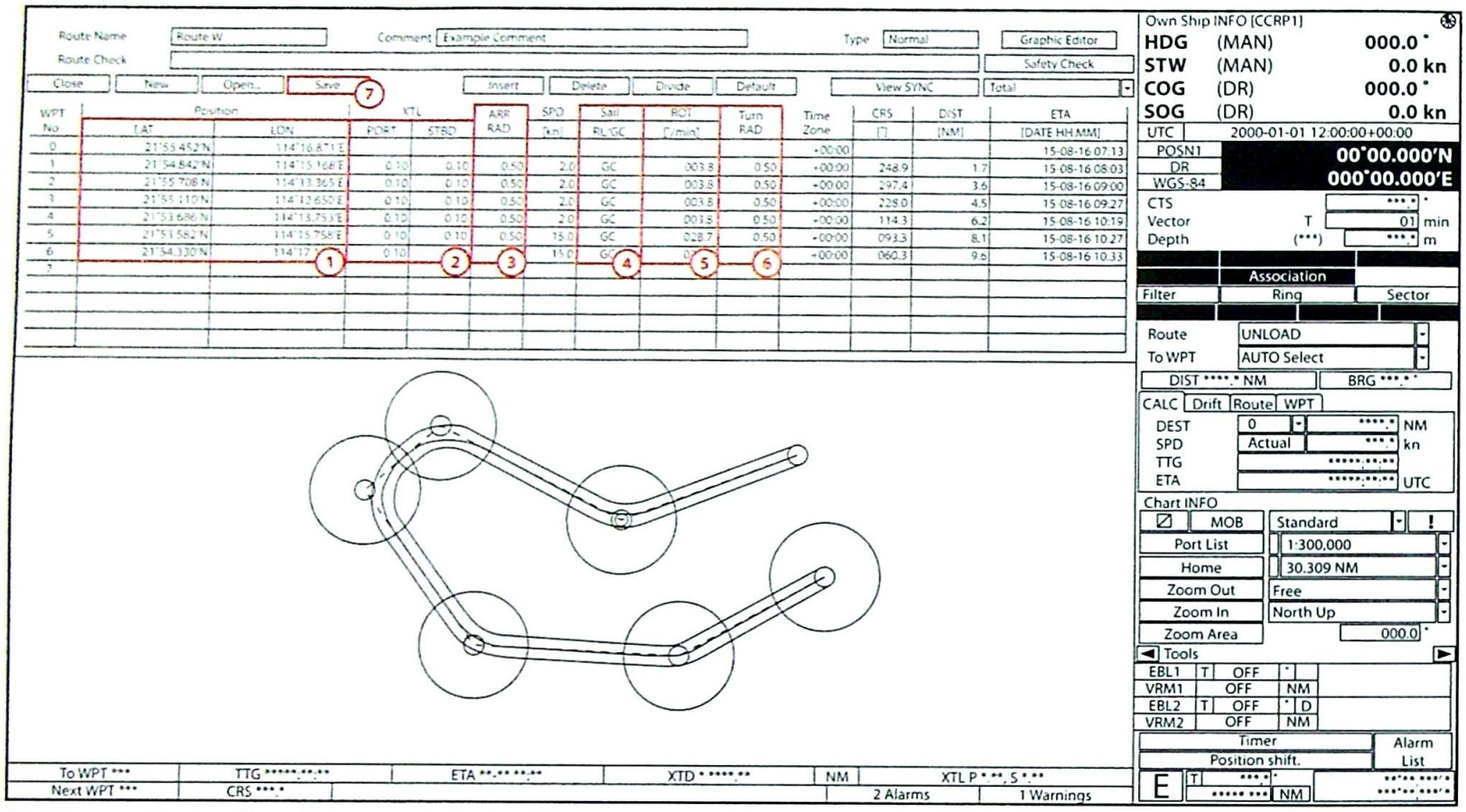
4.2 Schedule/Route Checking



Note to user: Speed has priority over ETA in the route editor table. For example, if the ETA for the last waypoint has changed, the ETA for previous waypoints will change to meet the new arrival time. If the speed for all legs is changed by 1 knot, the overall ETA will be sooner.

1. Continue from Section 4.1 and then click 'Table Editor'.
2. Ensure 'Total' is selected from the dropdown.
3. Adjust speeds in the 'SPD' column, as necessary.
4. Adjust the 'ETA' column, as necessary.
5. Click 'Safety Check'.
6. The 'Safe Check Result' list will open if hazards are found.
7. Click 'OK' to finish.

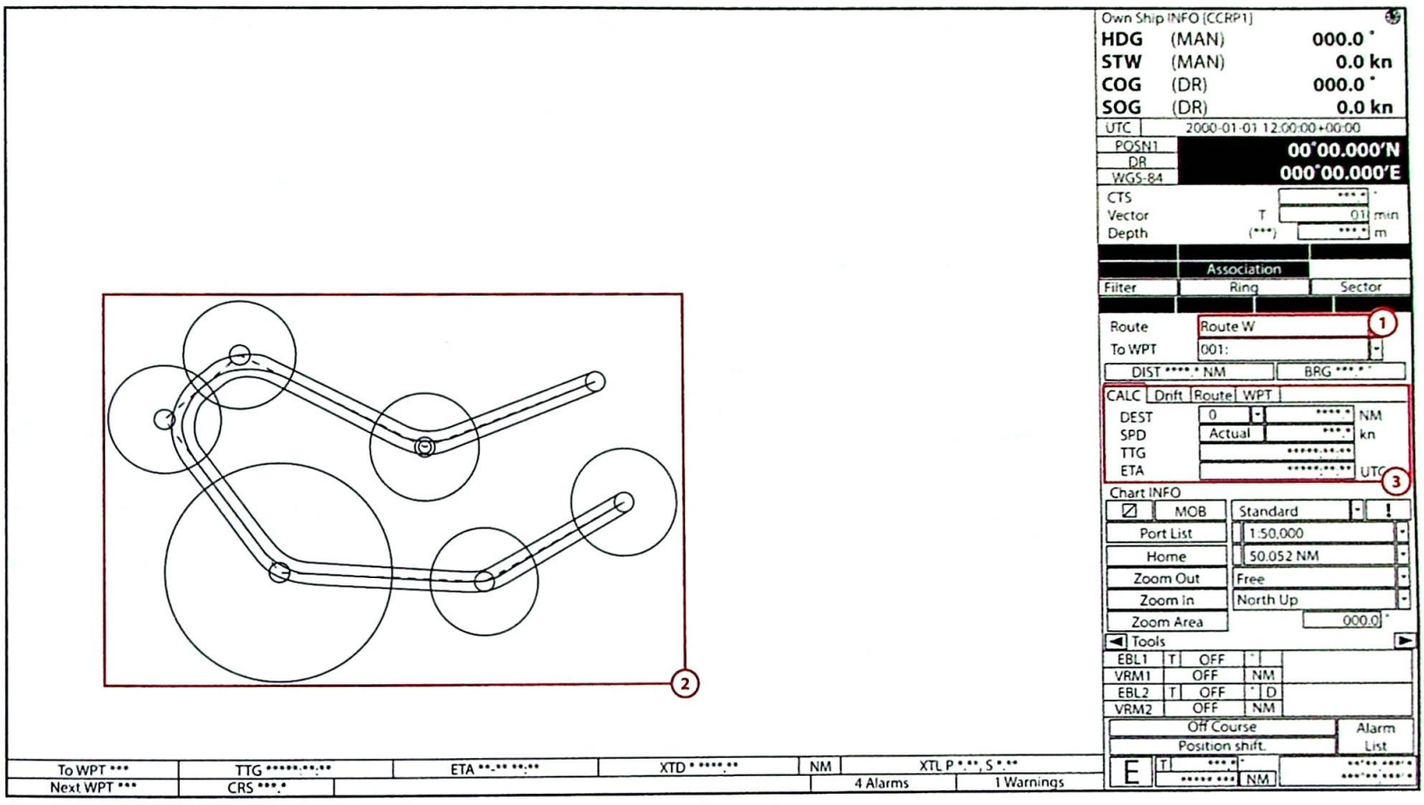
4.3 Optimisation



Note to user: Continue from the last step in Section 4.2.

1. Verify waypoint positions.
2. Configure PORT/STBD cross track limit.
3. Configure arrival circle radius.
4. Set each leg to Rhumb Line/Great Circle.
5. Configure Rate of Turn for each waypoint.
6. Configure turn radius for each waypoint.
7. Click 'Save' to save changes.

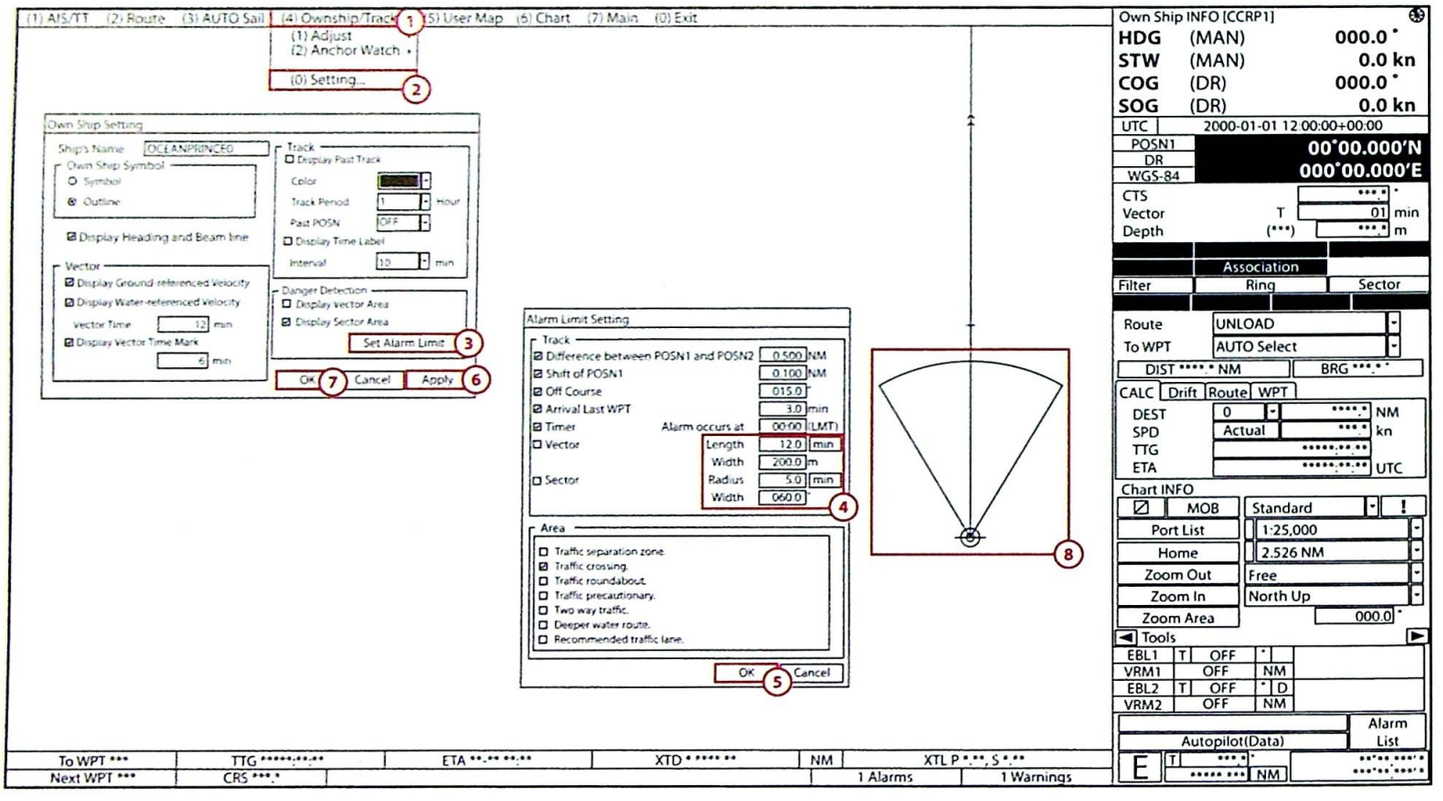
4.4 Selecting Active Route



1. Select your route from the dropdown.
2. The route will load onto your chart.
3. Use navigation tools to gather route information.

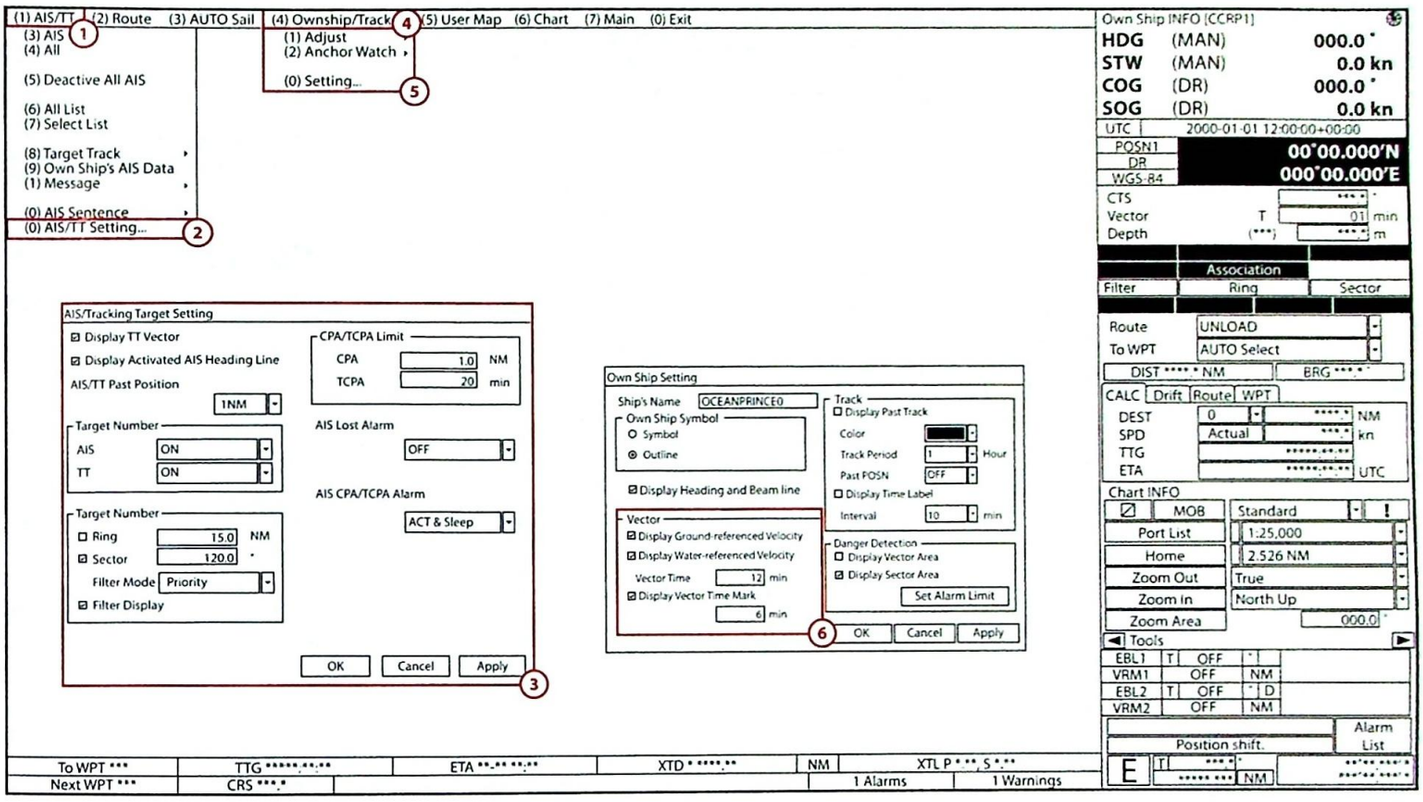
Section 5: Route Monitoring

5.1 Look-Ahead



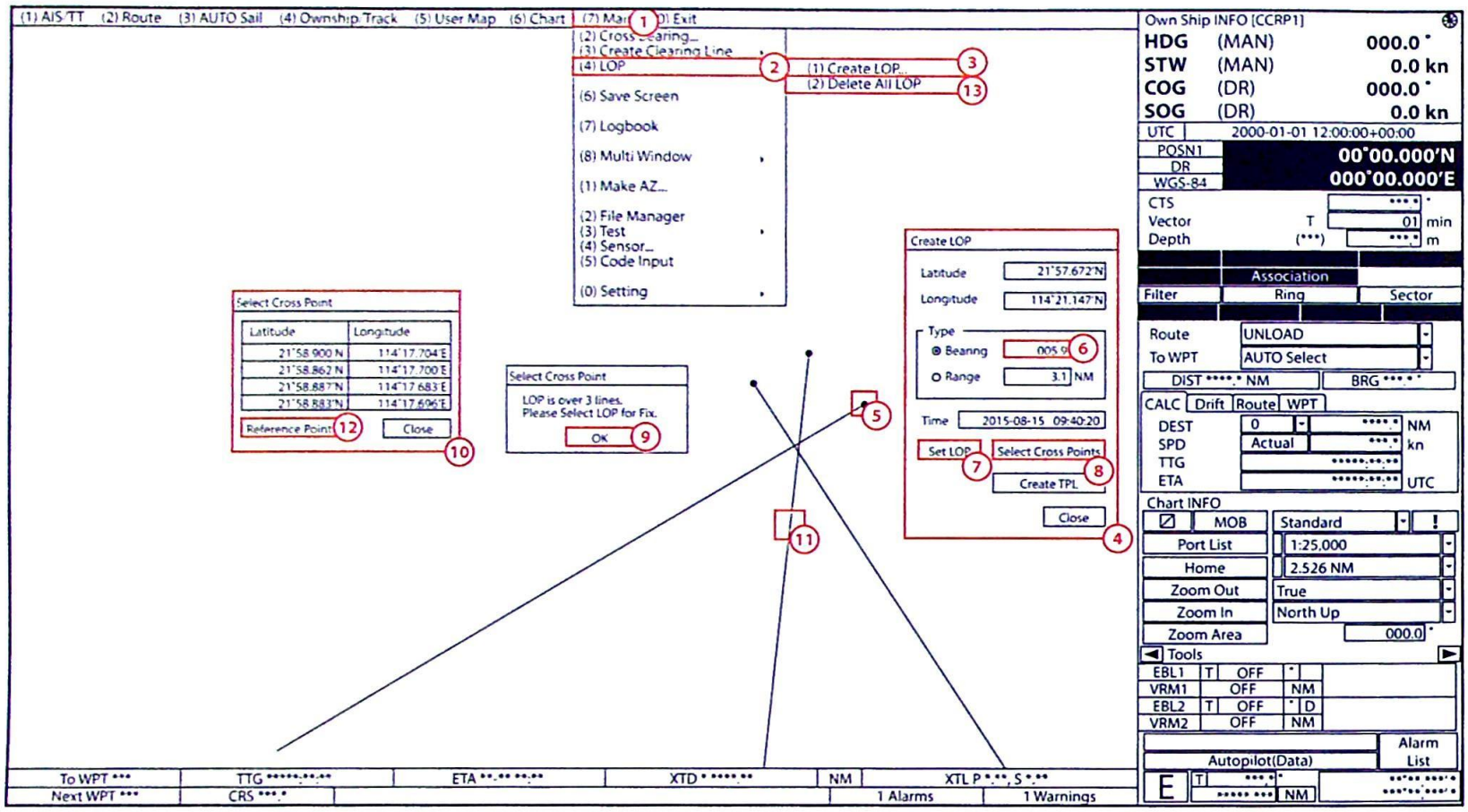
1. Click 'Ownship/Track'.
2. Open 'Setting...'
3. Click 'Set Alarm Limit'.
4. Adjust settings here to modify look-ahead.
5. Click 'OK'.
6. Click 'Apply'.
7. Click 'OK' to finish.
8. Example look-ahead sector.

5.2 TT/AIS/Vectors



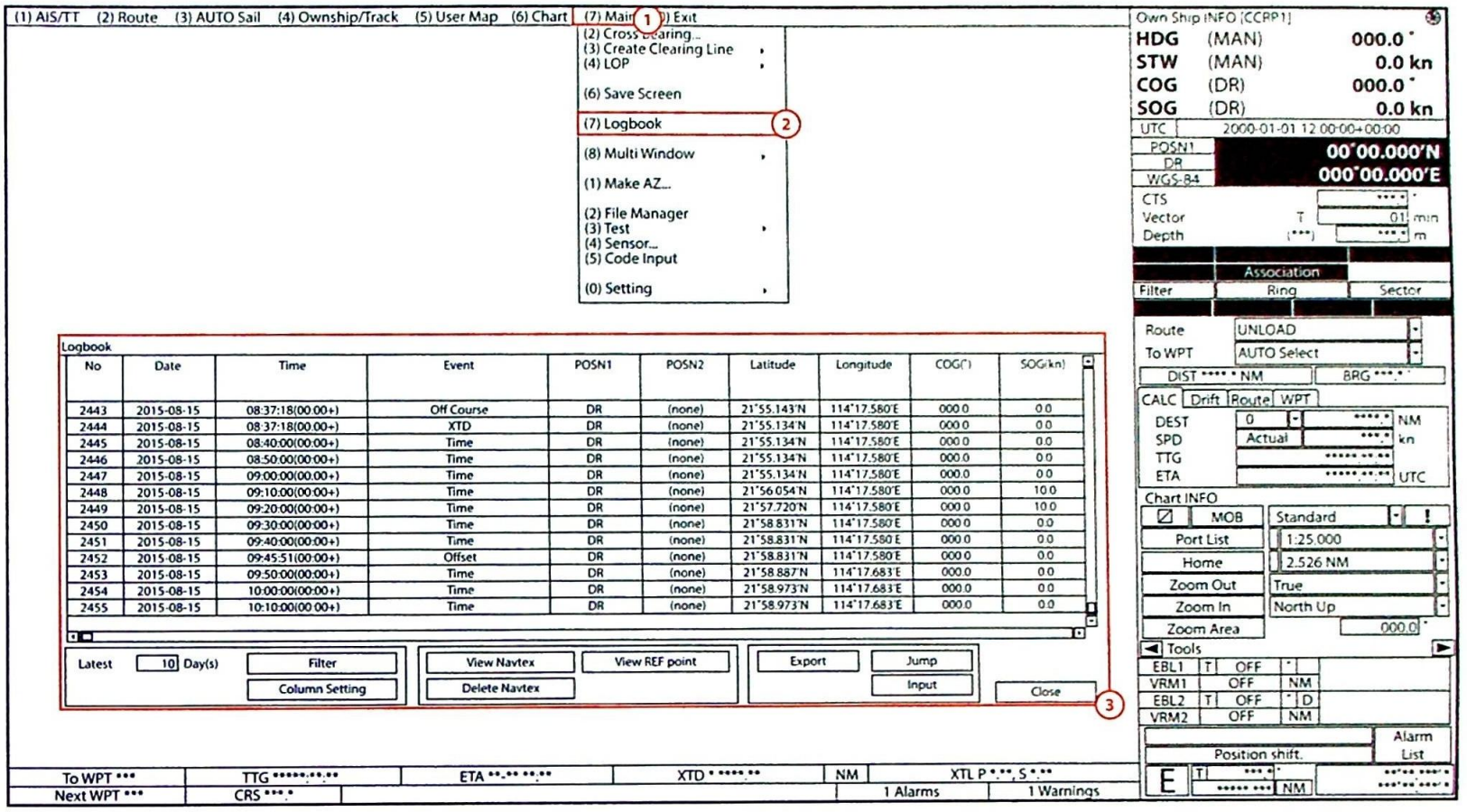
1. Click 'AIS/TT'.
2. Open 'AIS/TT Setting...'
3. Configure settings within the 'AIS/Tracking Target Setting' window, as necessary.
4. Click 'Ownship/Track'.
5. Open 'Setting...'
6. Adjust Ownship vector, as necessary.

5.3 Position Fixing



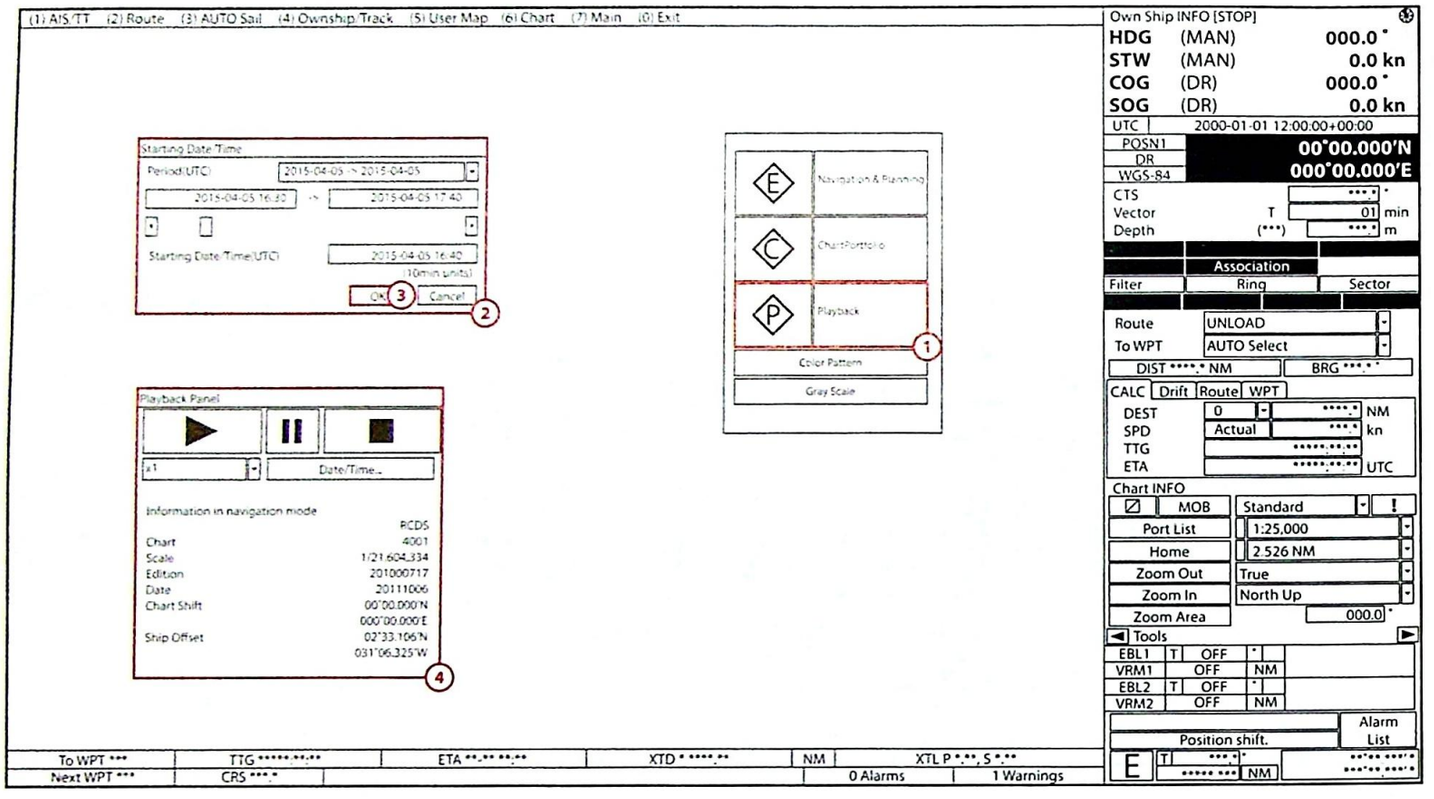
1. Click 'Main'.
2. Click 'LOP'.
3. Open 'Create LOP...'.
4. The 'Create LOP' window will open.
5. Left click the location of your first reference point.
6. Enter the actual bearing to the object using visual/radar.
7. Click 'Set LOP'.
8. Once at least two LOPs (maximum 3) have been set, click 'Select Cross Point'.
9. Click 'OK'.
10. The 'Select Cross Point' window will open.
11. Left click the LOP to select it. (Do this with all lines you would like to use for the fix.)
12. Click 'Reference Point' to accept the fix.
13. Click 'Delete All LOP' to clear the LOPs.

5.4 Logs/Playback Part 1



1. Click 'Main'.
2. Click 'Logbook'.
3. The 'Logbook' window will open for review.

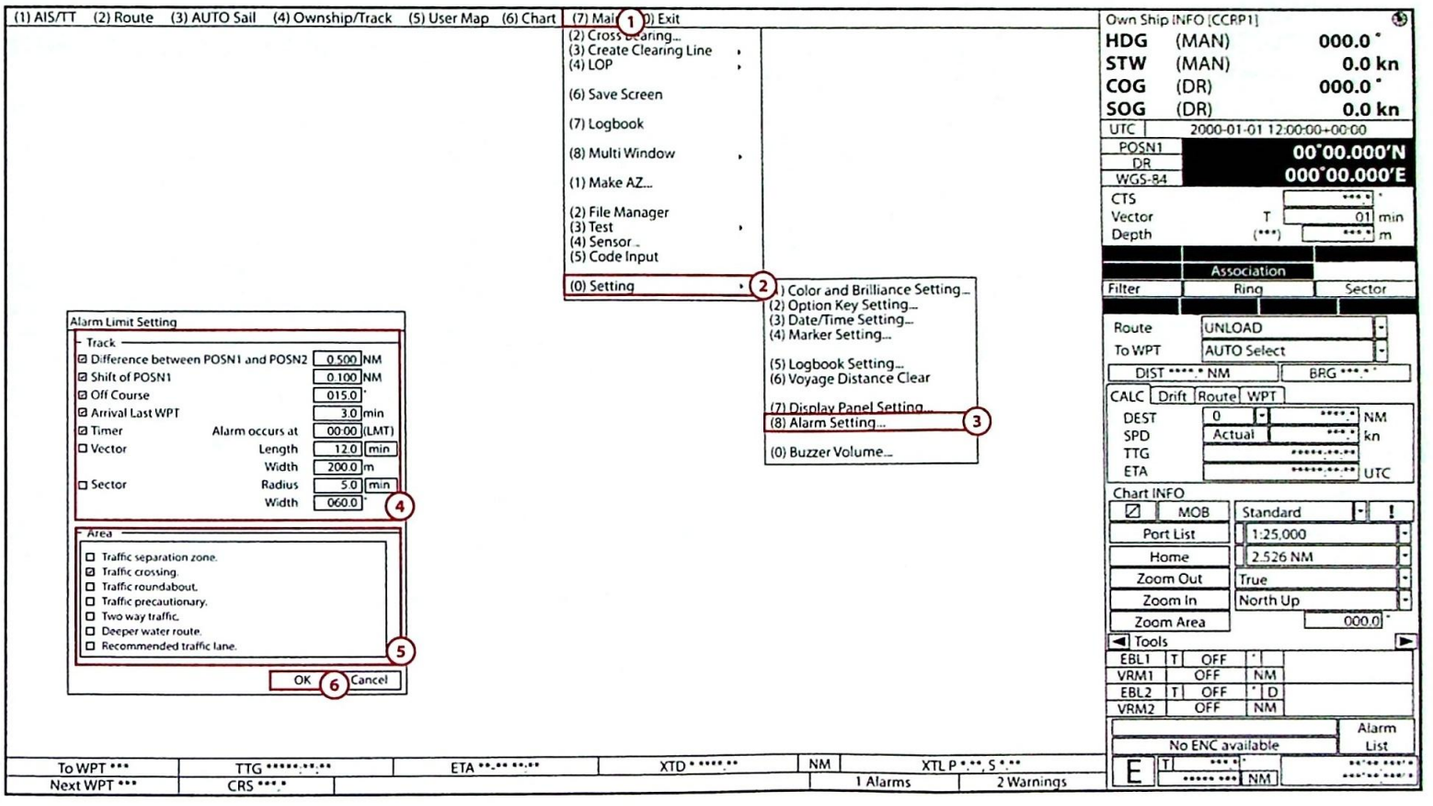
5.4 Logs/Playback Part 2



1. Click 'Playback' in the start-up menu.
2. Set starting date/time.
3. Click 'OK' to confirm.
4. Use the playback panel to control playback speed.

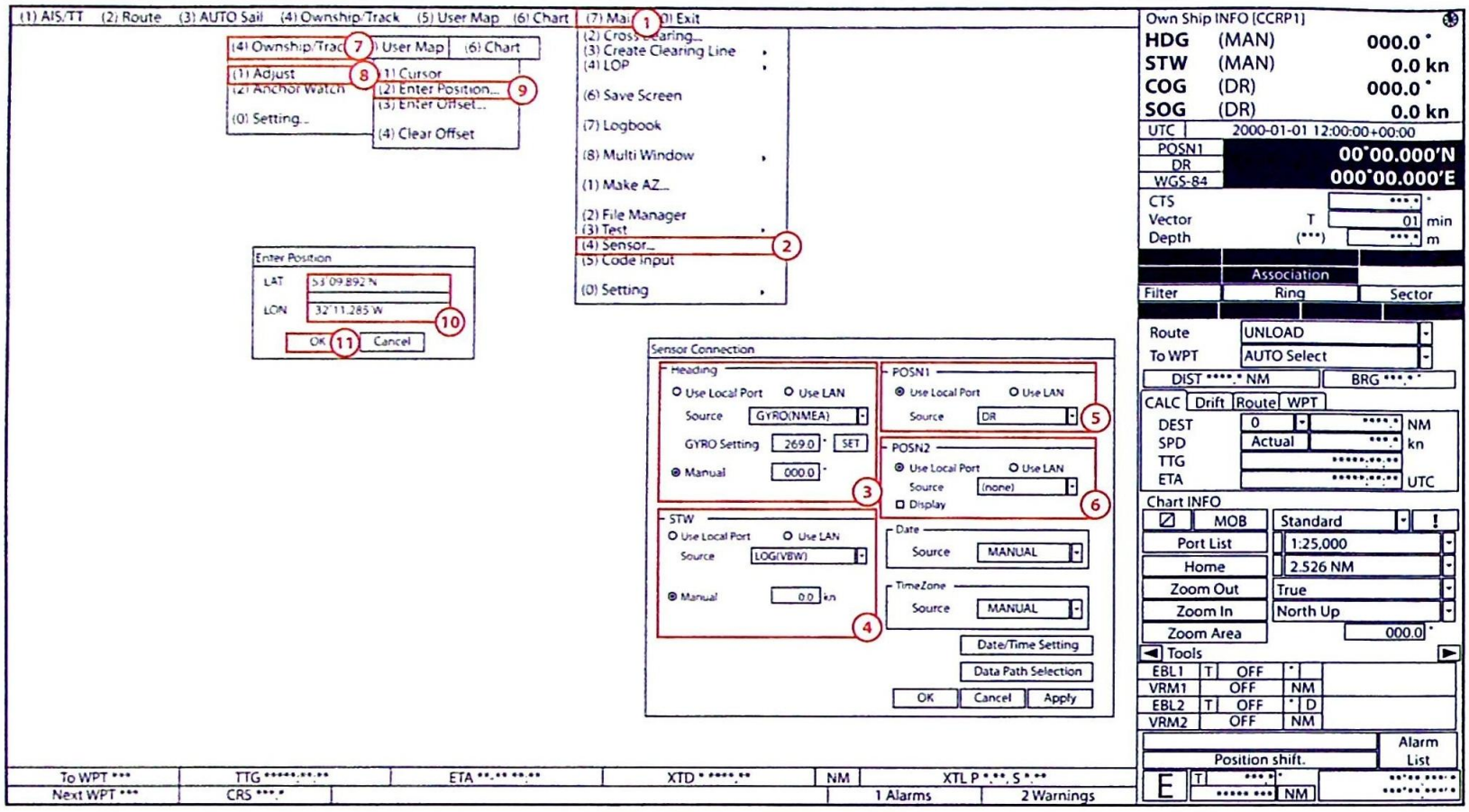
Section 6: System Settings

6.1 Warning/Alarm Configuration



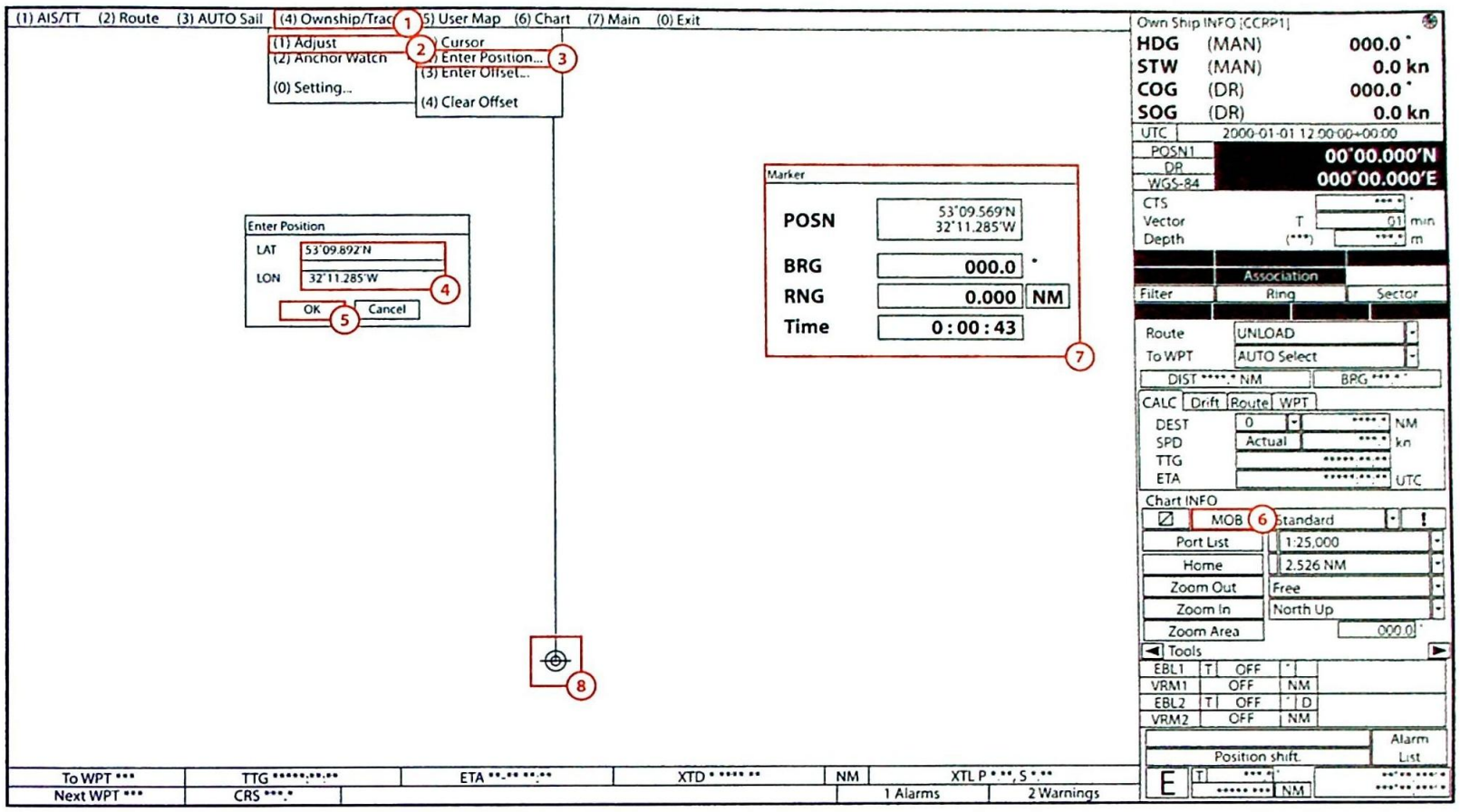
1. Click 'Main'.
2. Click 'Setting...'
3. Open 'Alarm Setting...'
4. Configure alarm limits, as necessary.
5. Configure 'Area' alarms, as necessary.
6. Click 'OK' to save changes.

6.2 Position/Heading/Speed



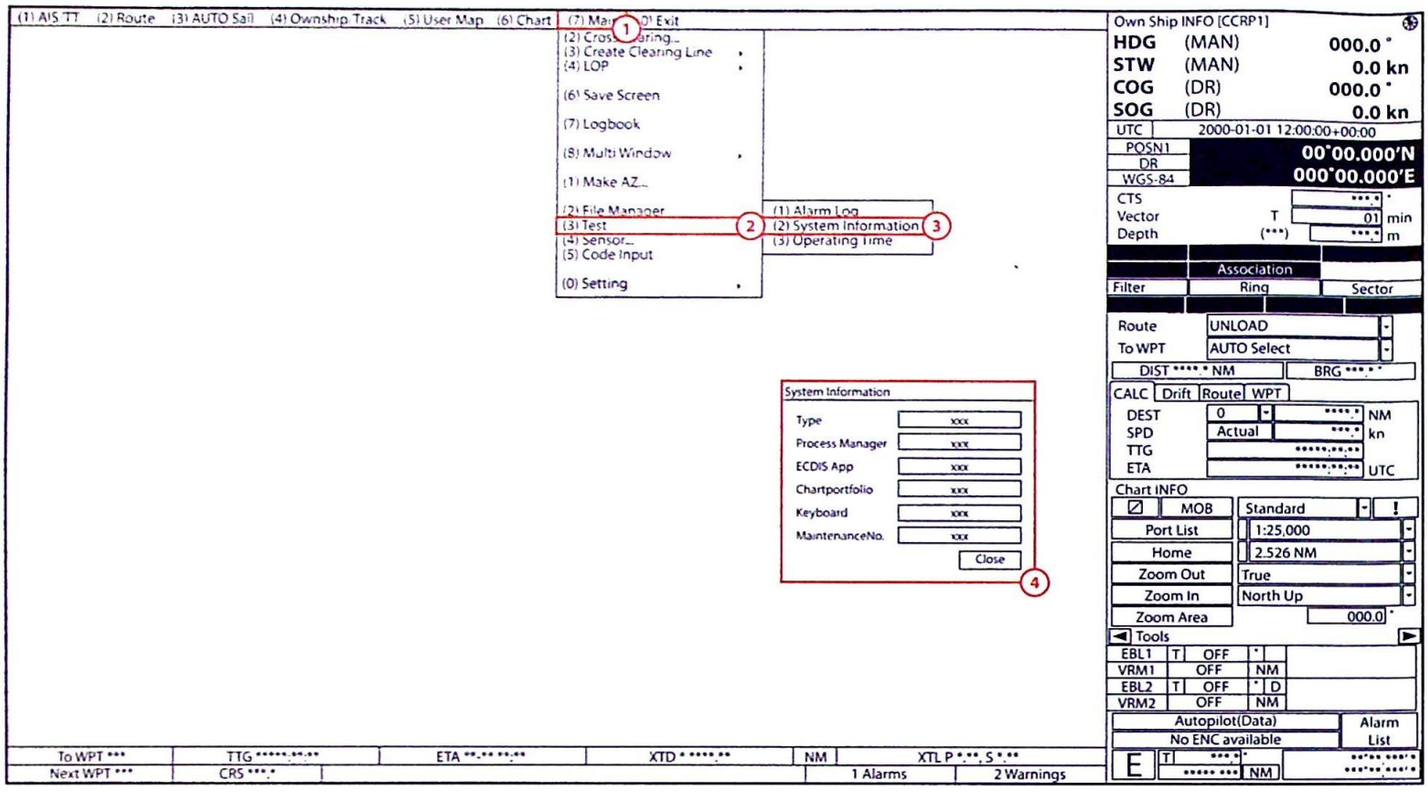
1. Click 'Main'.
2. Open 'Sensor...'
3. Heading sensor settings.
4. Speed sensor settings.
5. Position sensor settings.
6. Secondary position sensor settings.
7. Click 'Ownship/Track'.
8. Click 'Adjust'.
9. Click 'Enter Position...'
10. Enter position.
11. Click 'OK' to update position.

6.3 DR Position



1. Click 'Ownship/Track'.
2. Click 'Adjust'.
3. Click 'Enter Position...'
4. Enter position.
5. Click 'OK' to update position.
6. Click 'MOB'.
7. Marker position window will open.
8. Marker placed on chart.

6.4 System Information



1. Click 'Main'.
2. Click 'Test'.
3. Select 'System Information'.
4. Review information from the 'System Information' window.

7. JRC JAN-7201/9201 – Familiarisation Checklist (Page 1 of 2)

1. **Company ECDIS Procedures**
   Review company documentation for ECDIS procedures and complete the below ECDIS Type Specific Familiarisation checklist.

2. **Chart Display**
   Become familiar with the basic chart functionality from the main display.

Main Chart Display		**View**	
	Chart Information Area		Multi View Mode
	Sub Information Area		View Options
	Alert Notification area		Chart Common
	Right Toolbar		Chart View
	Own Ship Information		AIO
	INFO Monitoring		
	Left Toolbar		

3. **Navigational Tools**
   Operate all basic navigational functions and vessel setting options contained within the ECDIS for use of navigation.

Tools			
	MOB		Manual Position Fix
	EBL/VRM readout		Node Fixed EBL/VRM
	PI Menu		Cursor Readout
	EBL Manoeuvre Setting		File Manager

4. **Chart Display Settings**
   Operate all chart display settings, become familiar with object layers, ENC symbology and define the vessel's safe water settings. Identify where all chart updates are managed in the system.

Charts			
	Manual Update		Chart Boundary
	My Port List		Chart Abbreviation
	Chart Projections		ENC Update Status Report
	Select S-57 Chart	**View**	
	Off Center		Chart Common
	Accept S-57 Updates		Chart View
	Date-dependent View		AIS AIO Objects (ON/OFF)
			Scale min (ON/OFF)
			[A] Accuracy (ON/OFF)

5. **Route Planning**
   Operate all route planning functions and obtain all relevant schedule information for passage planning and route monitoring purposes.

Route Planning			
	New		Anchor Watch
	Route Monitoring		User Map
	Auto Sail		Show Route Check 'Check Route' dialog box
	Setting 'Settings' dialog box		

6. **Route Monitoring**
   Operate the variety of voyage data functions for route monitoring to display and obtain relevant information for navigation and the ship's safety.

Route Monitoring			
	Route		Voyage Information
	To WPT		Voyage Calculation
	File Operations dialog button		Pair of data

JRC JAN-7201/9201 – Familiarisation Checklist (Page 2 of 2)

7. **Chart Updating**

The operator should know how to update electronic charts and be thoroughly aware of their responsibilities concerning updating. It is a legal requirement that charts are maintained in an up-to-date condition.

Menu			
	Code Input		Time Zone
	Chart Maintenance		

8. **System Sensors**

Identify where the operator can select or deselect all sensors connected to the ECDIS and verify the vessel's particulars.

Sensor Selection/Status		Position Status	
	POSN (Main)		
	POSN (Sub)		
	Heading		
	STW		
	COG/SOG		
	Time		
	Depth		

9. **System Alerts**

Identify the ECDIS system's category of Alarms and Prompts generated by the operator and by the ECDIS system.

Alert			
	Collision Avoidance		Track Control
	New Target Alarm		Position
	Depth/Safety Contour		AMS
	Vector/Sector		Timer
	Use Vector (ON/OFF)		Safety Contour
	Area Warning		
	Traffic separation zone (ON/OFF)		

10. **System Units**

Become familiar with the system's logbook, records, data storage and configuration set up.

Settings		Maintenance	
	Echo		Date/Time/Time Zone
	TT/AIS Common		System Information
	AIS		Software H/W Key
	Sector Filter (ON/OFF)		Operating Time
	Target Track		Voyage Distance
	Route		Diagnostics
	Autosail		Software Update
	Chart		DVD Drive Cleaning
	Chart Redraw		
	Logbook		
	NAVTEX		
	Nav Equipment		
	General		
	Day/Night – Day 1/Day 2/Day 3/Dusk/Night		

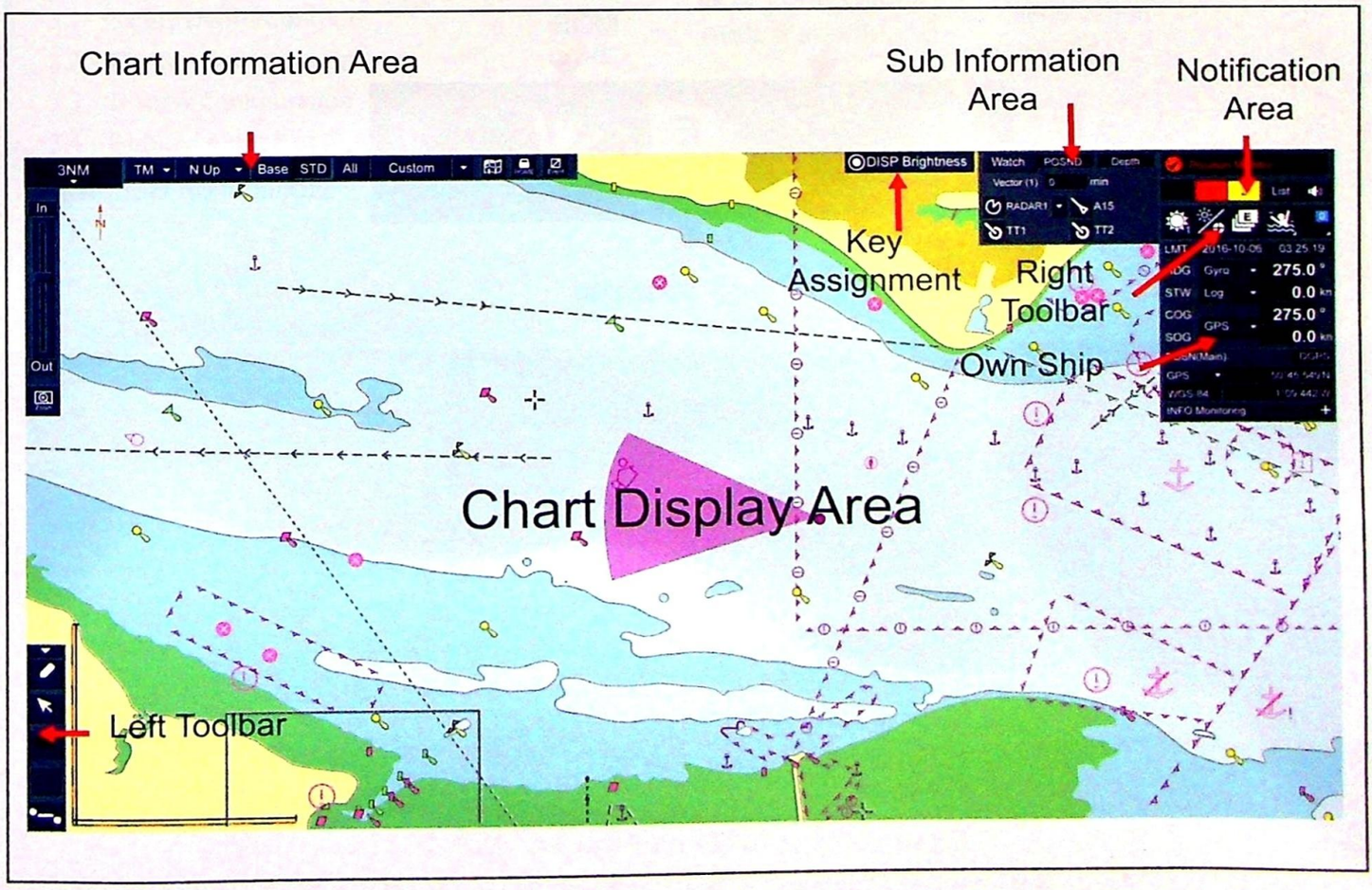
11. **ECDIS Operator's Manual**

Locate the system's operator's user guide for referencing and help.

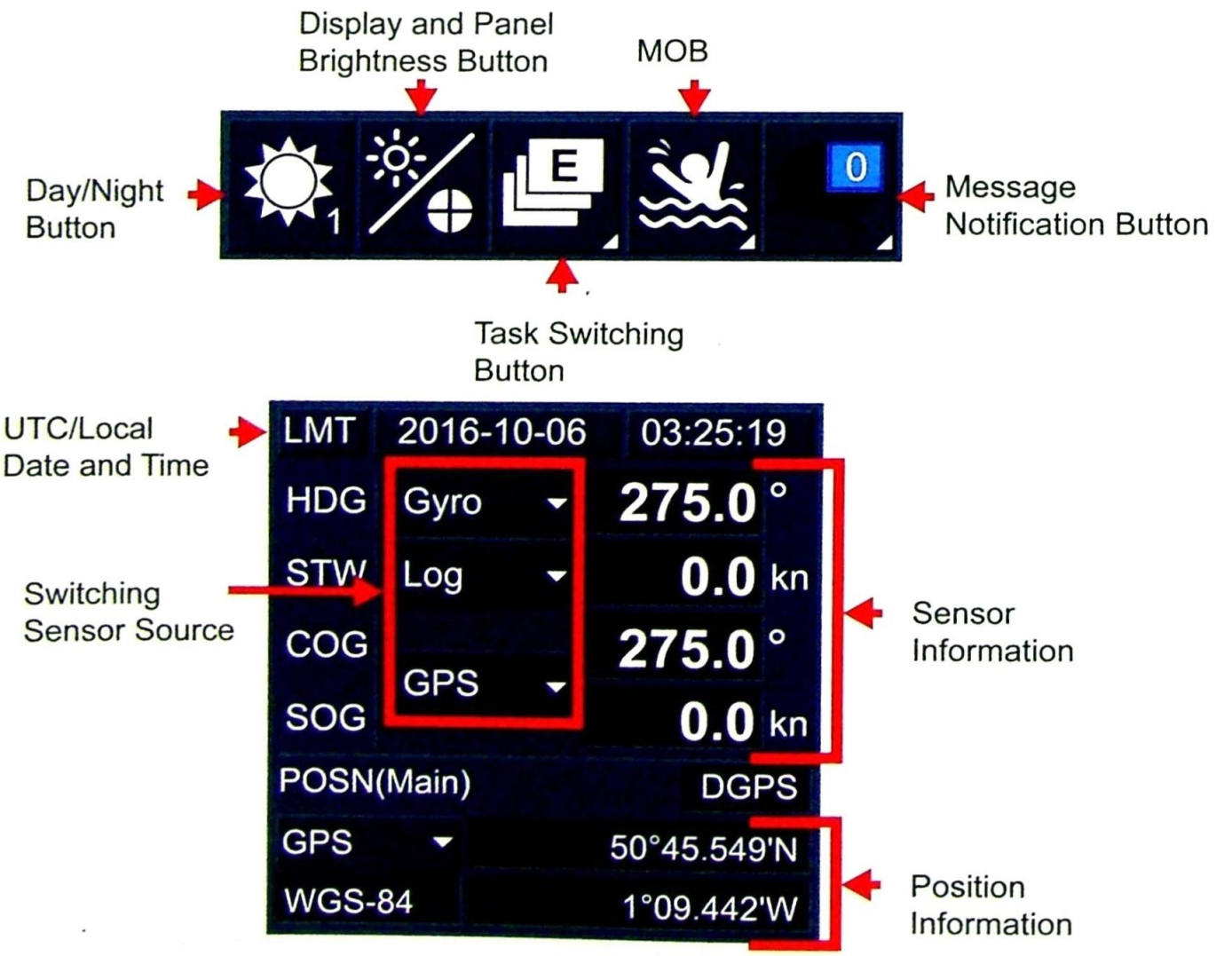
Help			
	Home		Search tab
	Contents tab		

JRC JAN-7201/9201

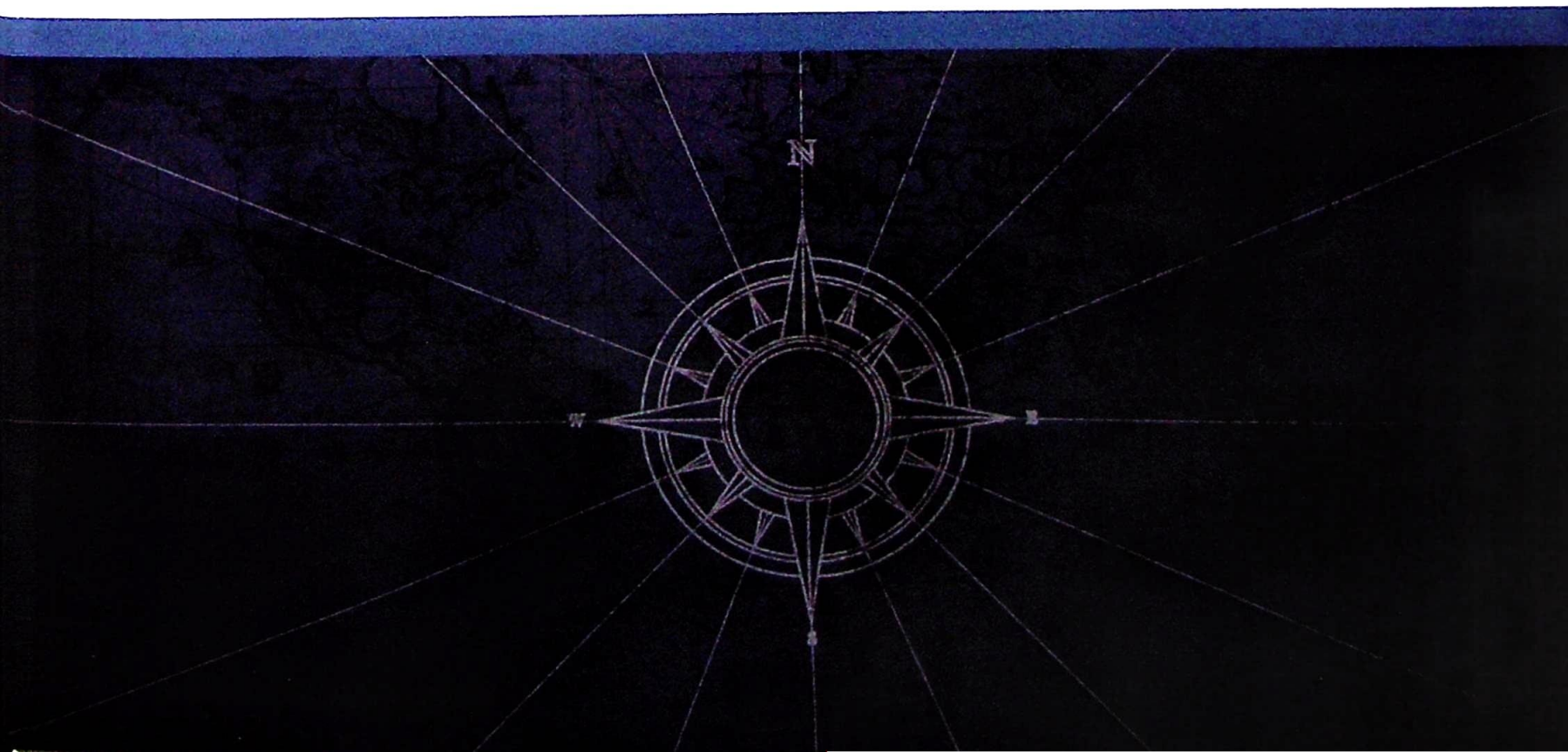
Key JRC JAN-7201/9201 ECDIS Menu Functions		
1.	Configuration of Units	**Menu>View>Options>Unit**
2.	Configuration of Ship's Length, Beam, Maximum Speed and ROT	**Menu>Service>Installation>Ship's Parameters**
3.	View list of installed Charts	**Chart>Chart Portfolio>[S-57]/[ARCS]**
4.	Sensor Selection/Status	**Menu>Maintenance>Sensor selection/Status**
5.	Save Chart Settings	**Menu>Settings>Preferences**
6.	View information on charted objects and view additional text	**Context Menu>Readout chat Information>Left Click**
7.	Set the Safety Depth, Safety Contour, Shallow and Deep Contour	**Menu>View>Options>Chart Common>Page 2**
8.	Input a User Map Object	**Left Toolbar>U.Map**
9.	Input a Manual Update	**Menu>Chart>Manual update**
10.	Turn the ship outline on	**Menu>View>Options>Own ship**
11.	Configure the Danger Detection Area (Anti-grounding Cone)	**Menu>Alert>Vector/Sector**
12.	Configure Velocity Vectors	**Menu>View>Options>Own ship**
13.	Configure Ship's Track	**Menu>View>Options>Own Track**
14.	View past Alarms and Warnings	**Notification Area>List>Alert History**
15.	Input a Visual or Radar Fix	**Menu>Tools>Manual Position Fix**




Scale/Range
Bearing Mode
Customise Chart Settings
Home
1:60,000
TM
N Up
Base
STD
All
Custom
HOME
Event
Motion Mode
Display Category
Original Scale Display
Event
In
Out
Zoom Slider
Zoom
Zoom Function
Max speed limit not set
Alert Status Area
1
5
2
List
Silence
Alarms
Warnings
Caution
Alert List

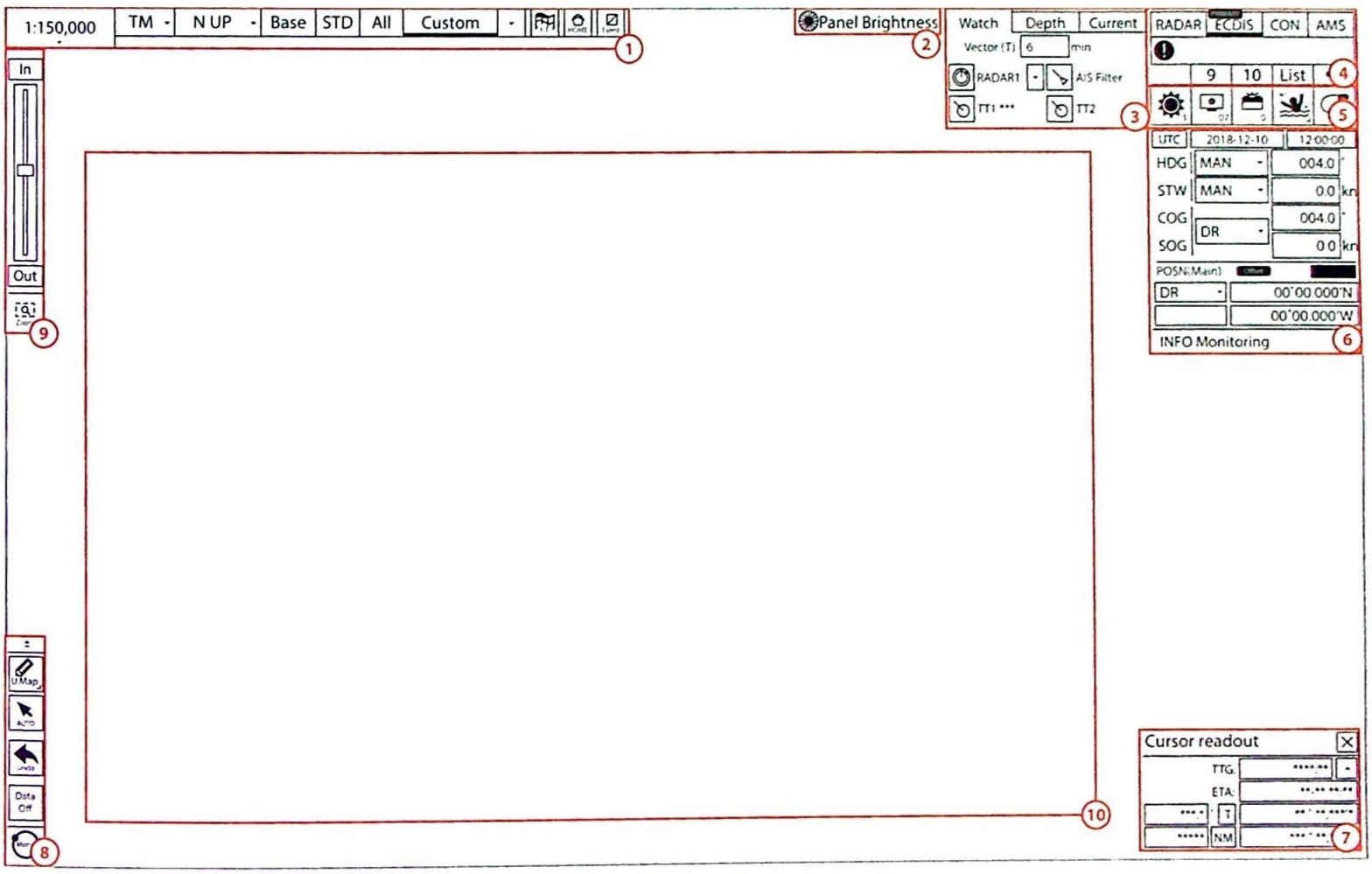

Display and Panel Brightness Button
MOB
Day/Night Button
E
0
Message Notification Button
Task Switching Button
UTC/Local Date and Time
LMT
2016-10-06
03:25:19
HDG
Gyro
275.0 °
STW
Log
0.0 kn
Switching Sensor Source
COG
275.0 °
GPS
SOG
0.0 kn
Sensor Information
POSN(Main)
DGPS
GPS
50°45.549'N
WGS-84
1°09.442'W
Position Information

JRC
JAN-7201/JAN-9201



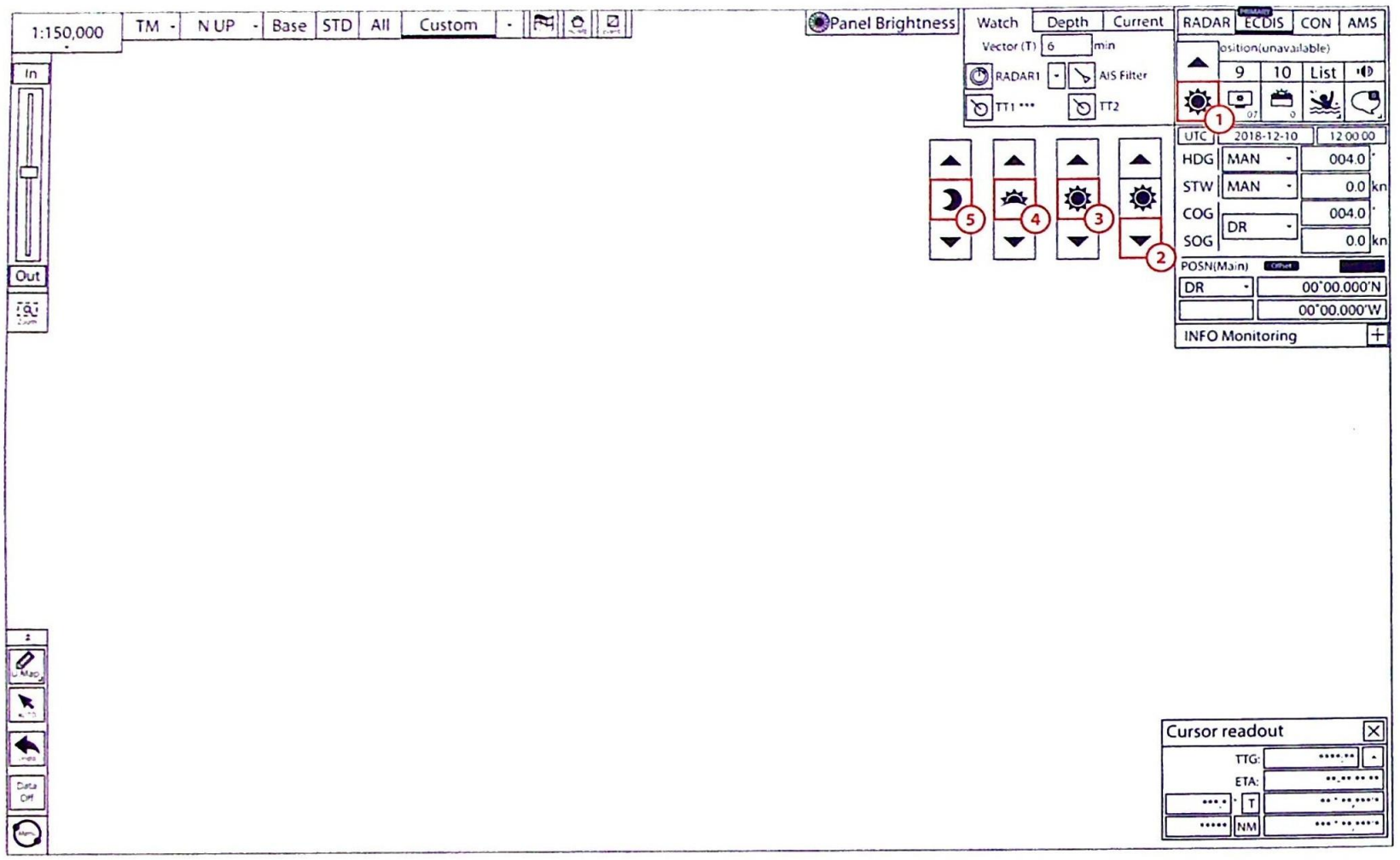
Section 1: Main Display

1.1 Screen Layout



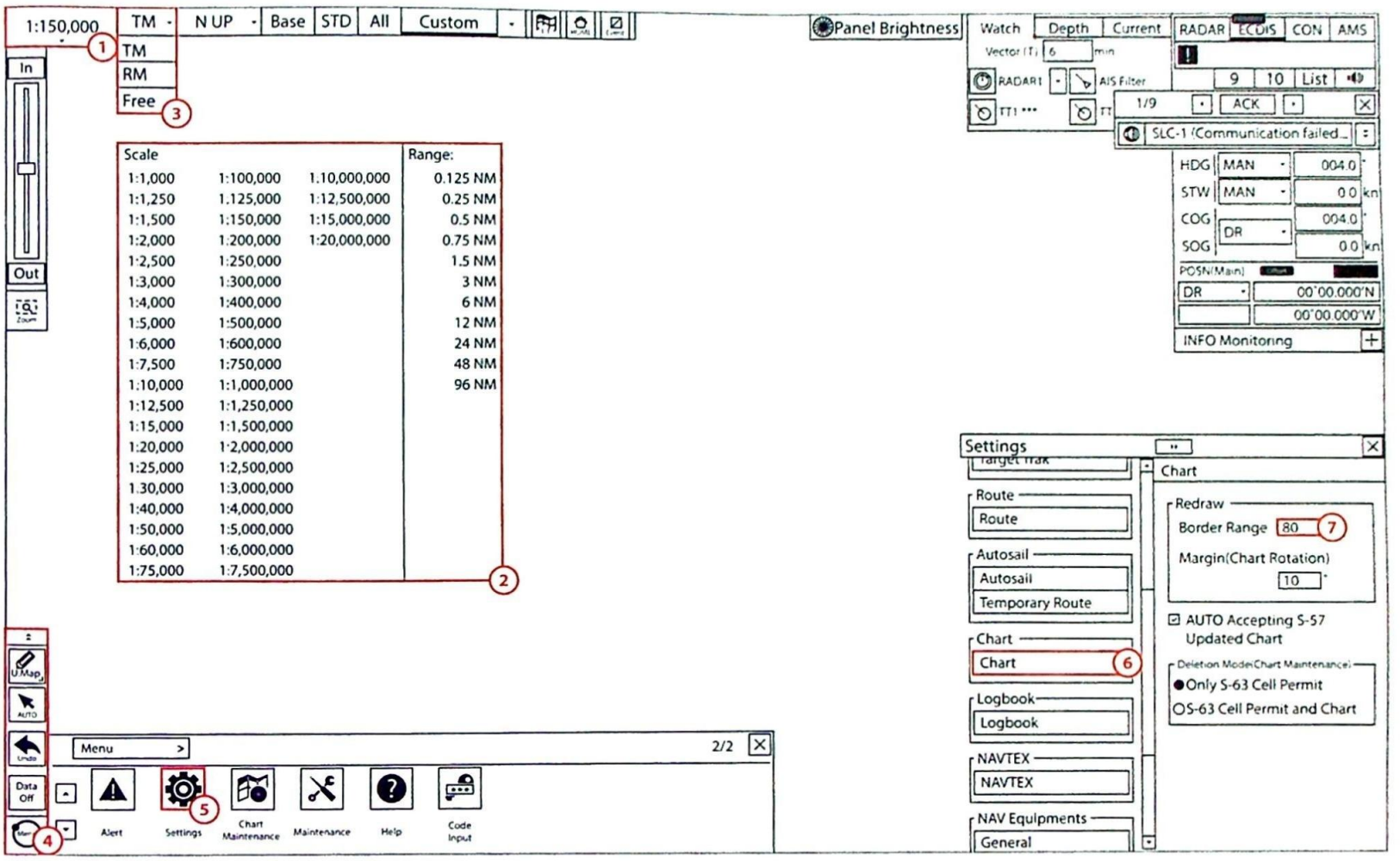
1. Chart information area
2. Key assignment
3. Sub information area
4. Notification area
5. Right toolbar
6. Own ship
7. 'Cursor readout' box
8. Left toolbar
9. Zoom bar
10. Chart display area

1.2 Colour Palette



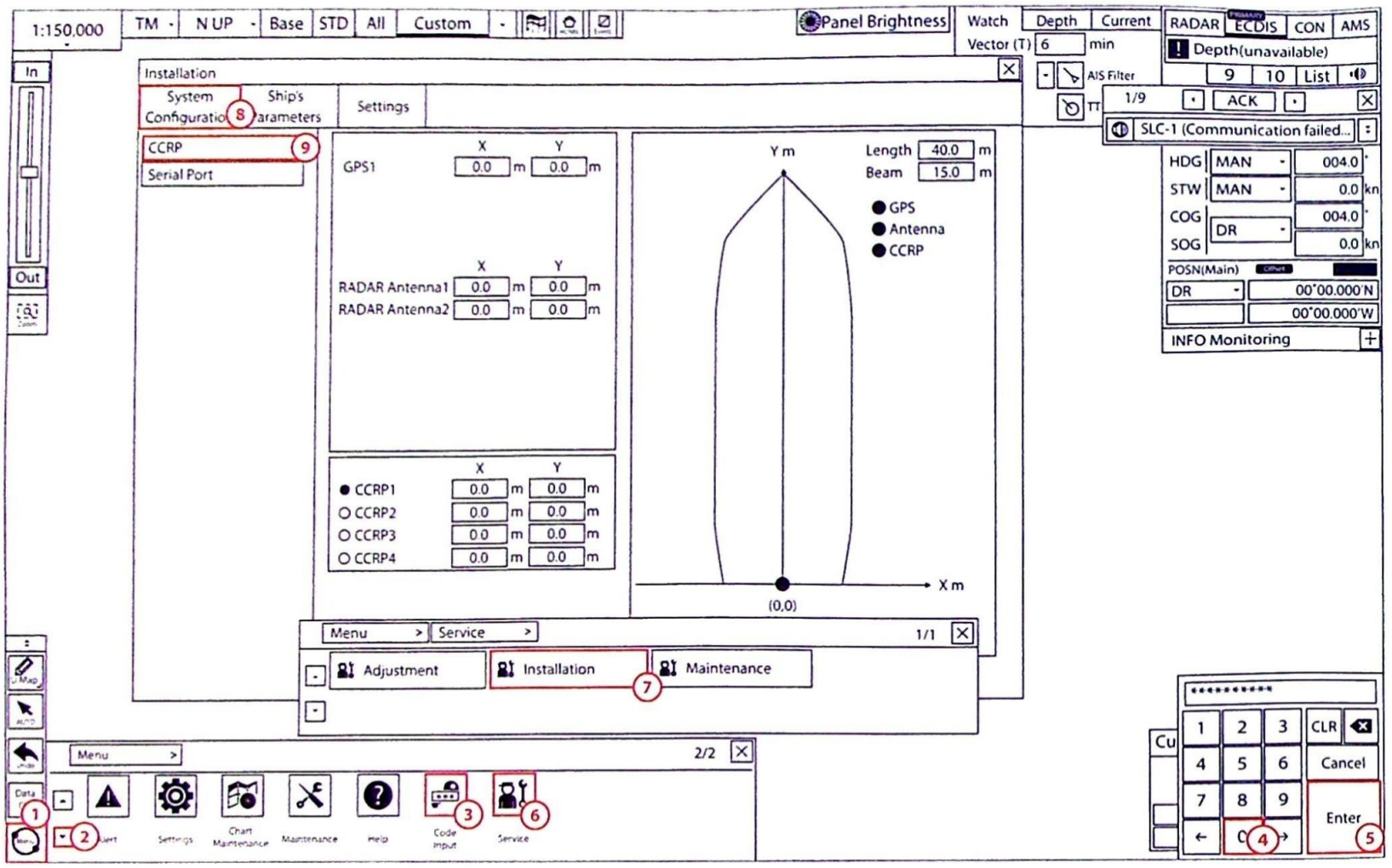
1. Click the icon that looks like a sun.
2. Click the down arrow to change colour palette.
3. Day palette.
4. Dusk palette.
5. Night palette.

1.3 Range/Scale/Motion



1. Click the scale dropdown menu.
2. Select a scale or range from the list.
3. Click the ship motion button to change between 'TM', 'RM' and 'Free'.
4. Click 'Menu'.
5. Click 'Settings'.
6. Select 'Chart'.
7. Change 'Border Range' (TM reset), as required.

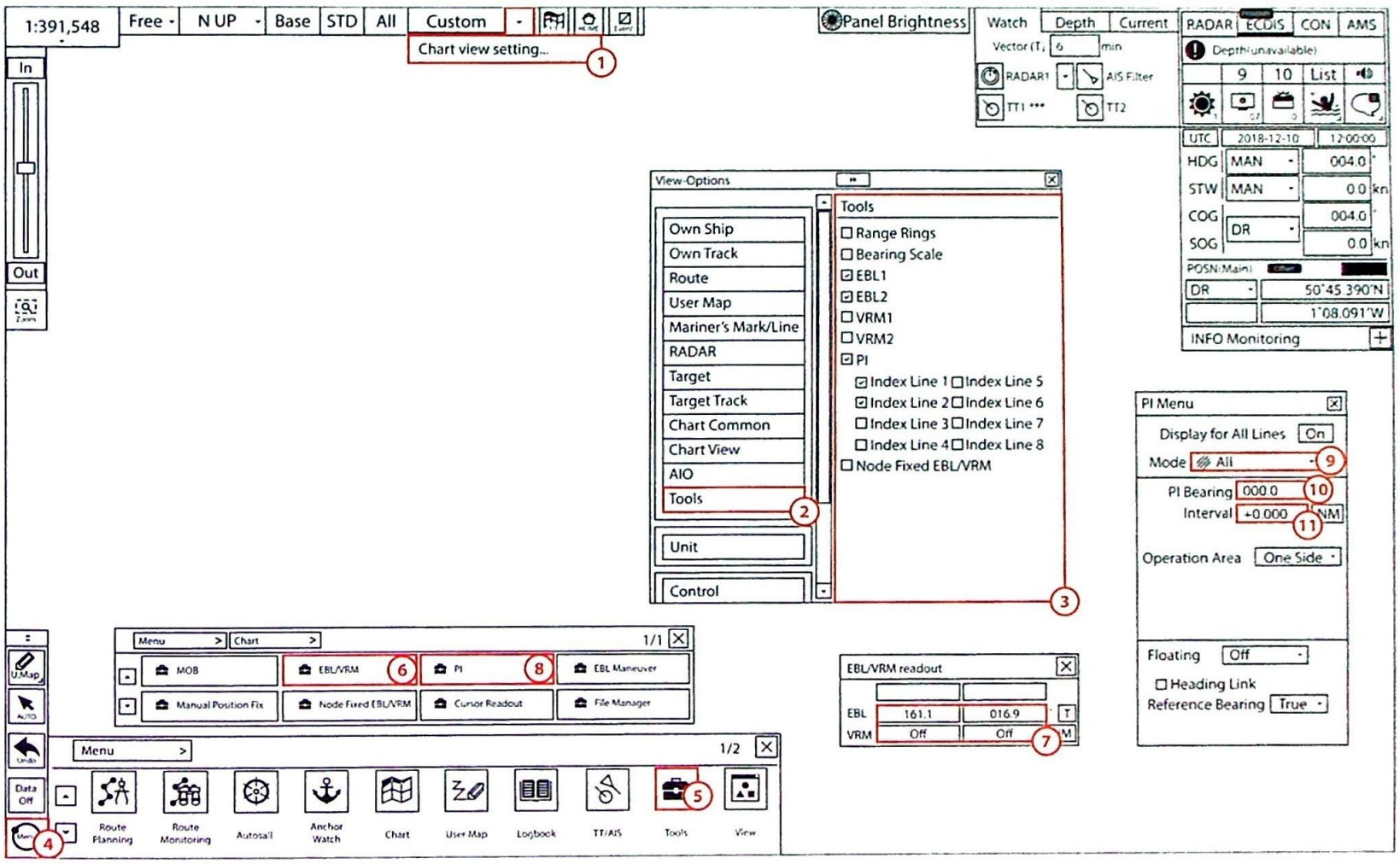
1.4 Setting CCRP



1. Click 'Menu'.
2. Click the down arrow.
3. Click 'Code Input'.
4. Enter Code: '0'.
5. Click 'Enter'.
6. Click 'Service'.
7. Click 'Installation'.
8. Select 'System Configuration'.
9. Select 'CCRP'.

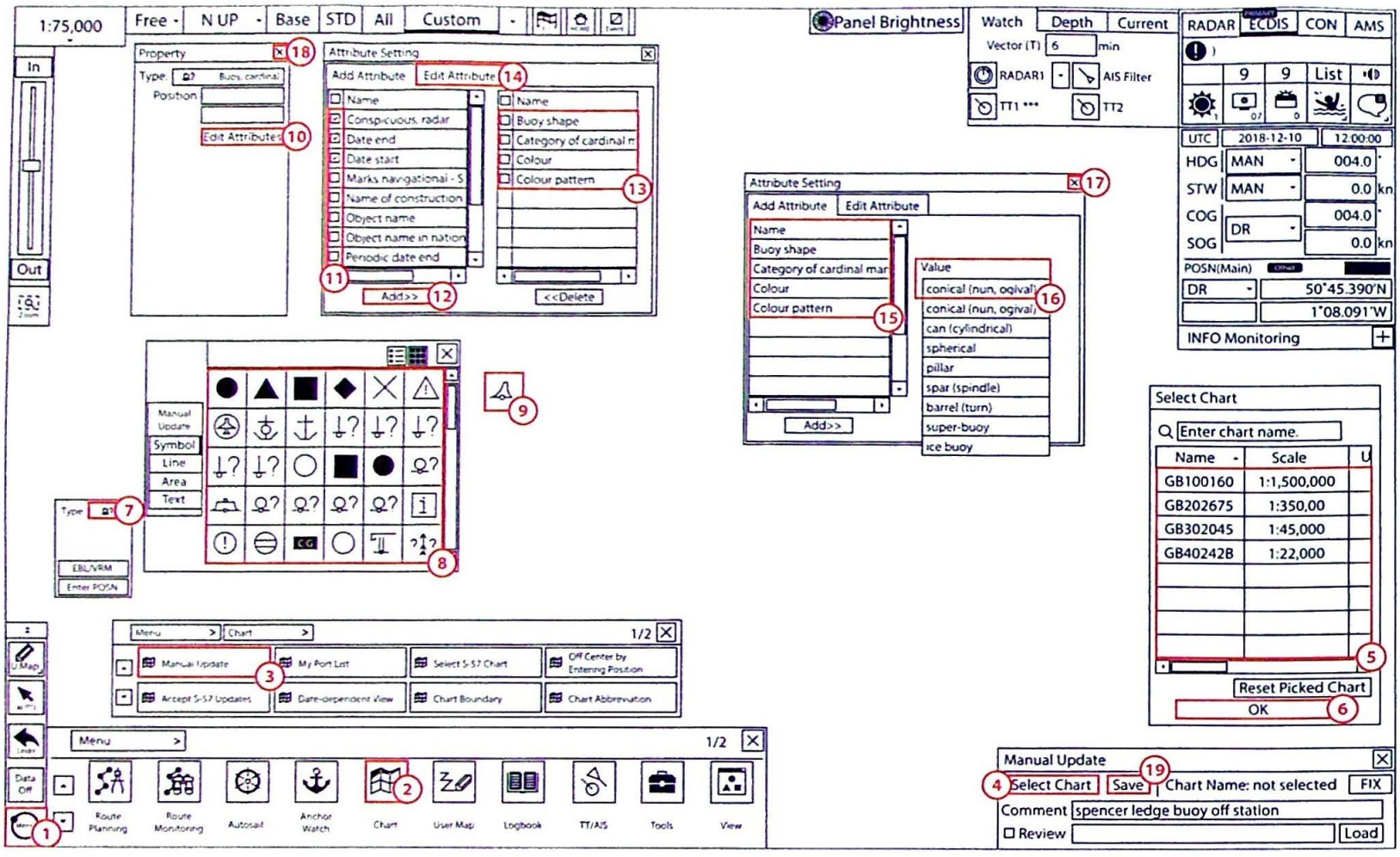
Section 2: Navigation Tools

2.1 **EBL/VRM/PI**



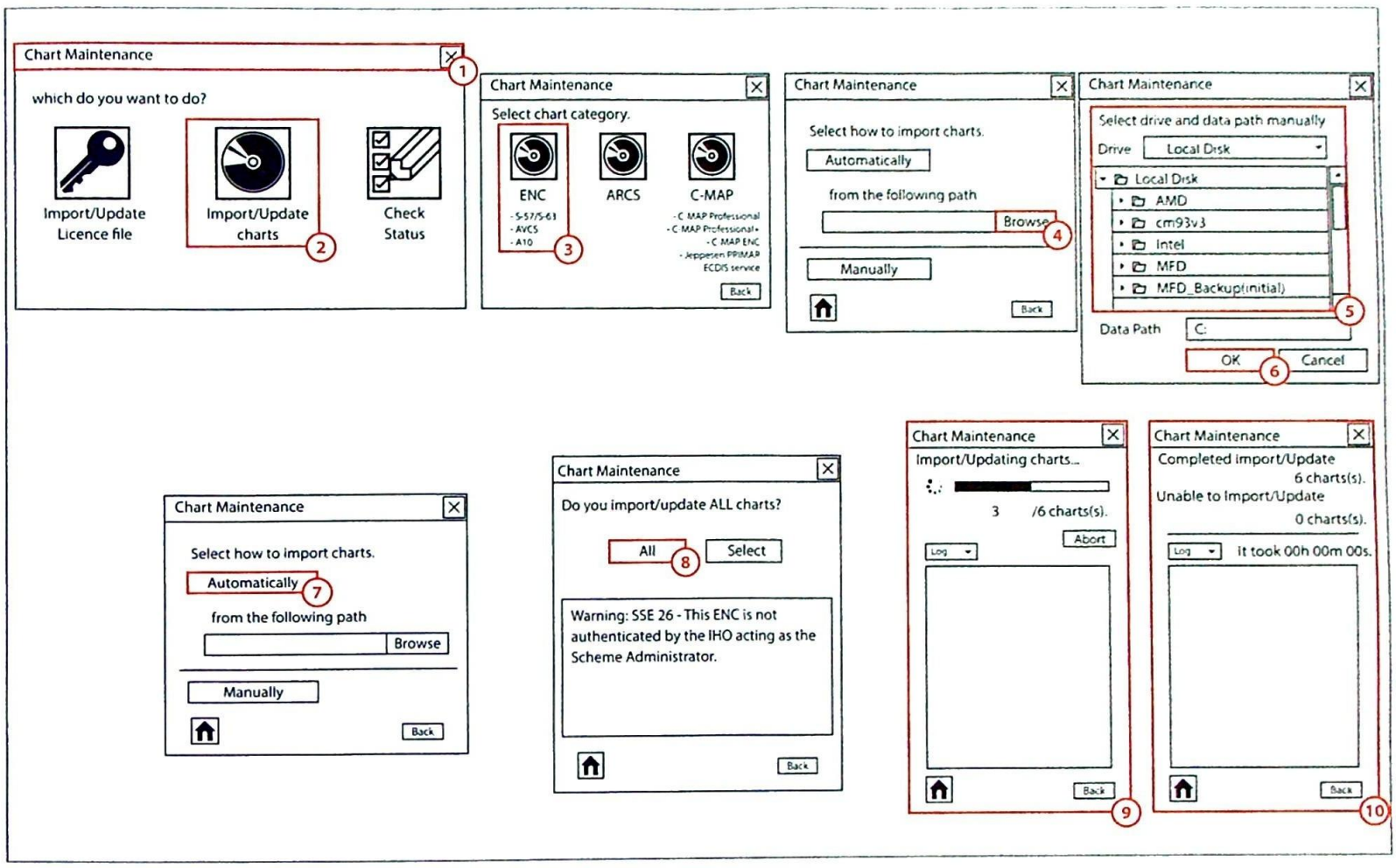
1. Click 'Chart view setting…' from the dropdown.
2. Select 'Tools'.
3. Enable/disable PI, EBL or VRM, as required.
4. Click 'Menu'.
5. Click 'Tools'.
6. Click 'EBL/VRM'.
7. Click the boxes to turn on or off.
8. Click 'PI'.
9. Select 'Mode' from the dropdown.
10. Insert 'Bearing', as required.
11. Insert 'Interval', as required.

2.2 Manual Corrections



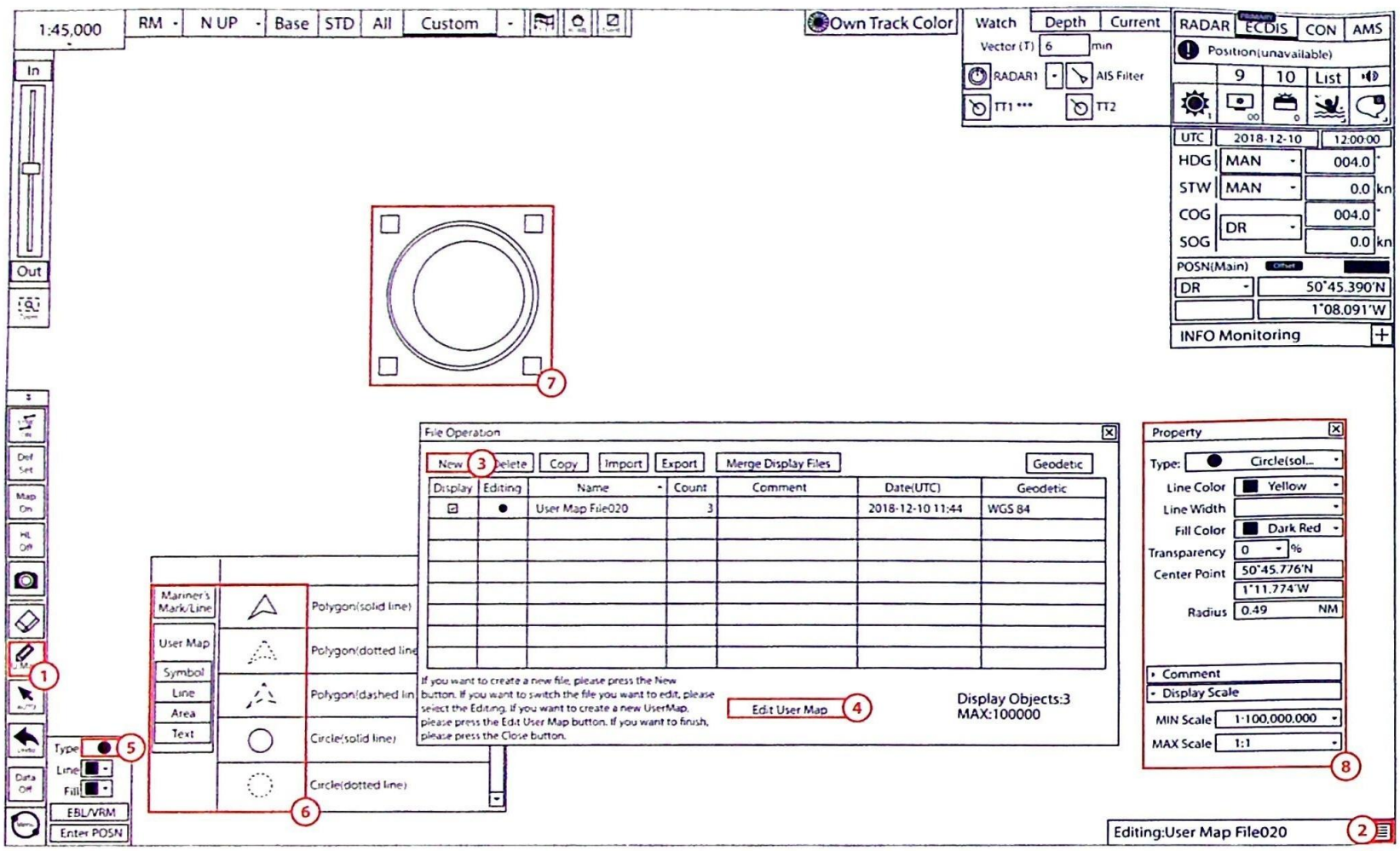
1. Click 'Menu'.
2. Click 'Chart'.
3. Click 'Manual Update'.
4. Click 'Select Chart'.
5. Select a chart from the list available.
6. Click 'OK'.
7. Click on the 'Type' field.
8. Select a symbol, as required.
9. Left click to place the symbol on the chart.
10. Click 'Edit Attributes'.
11. Tick the boxes for attributes you would like to edit.
12. Click 'Add'.
13. Selected object will be moved.
14. Click 'Edit Attribute'.
15. Select an attribute to edit.
16. Adjust values, as required.
17. Exit 'Attribute Setting'.
18. Exit 'Property'.
19. Click 'Save'.

2.3 Chart Updates



1. To update your charts you must exit ECDIS mode and enter 'Chart Maintenance' mode.
2. Click 'Import/Update charts'.
3. Click 'ENC'.
4. Click 'Browse'.
5. Select the folder containing your charts.
6. Click 'OK'.
7. Click 'Automatically'.
8. Click 'All'.
9. Installation will begin.
10. Installation completed.

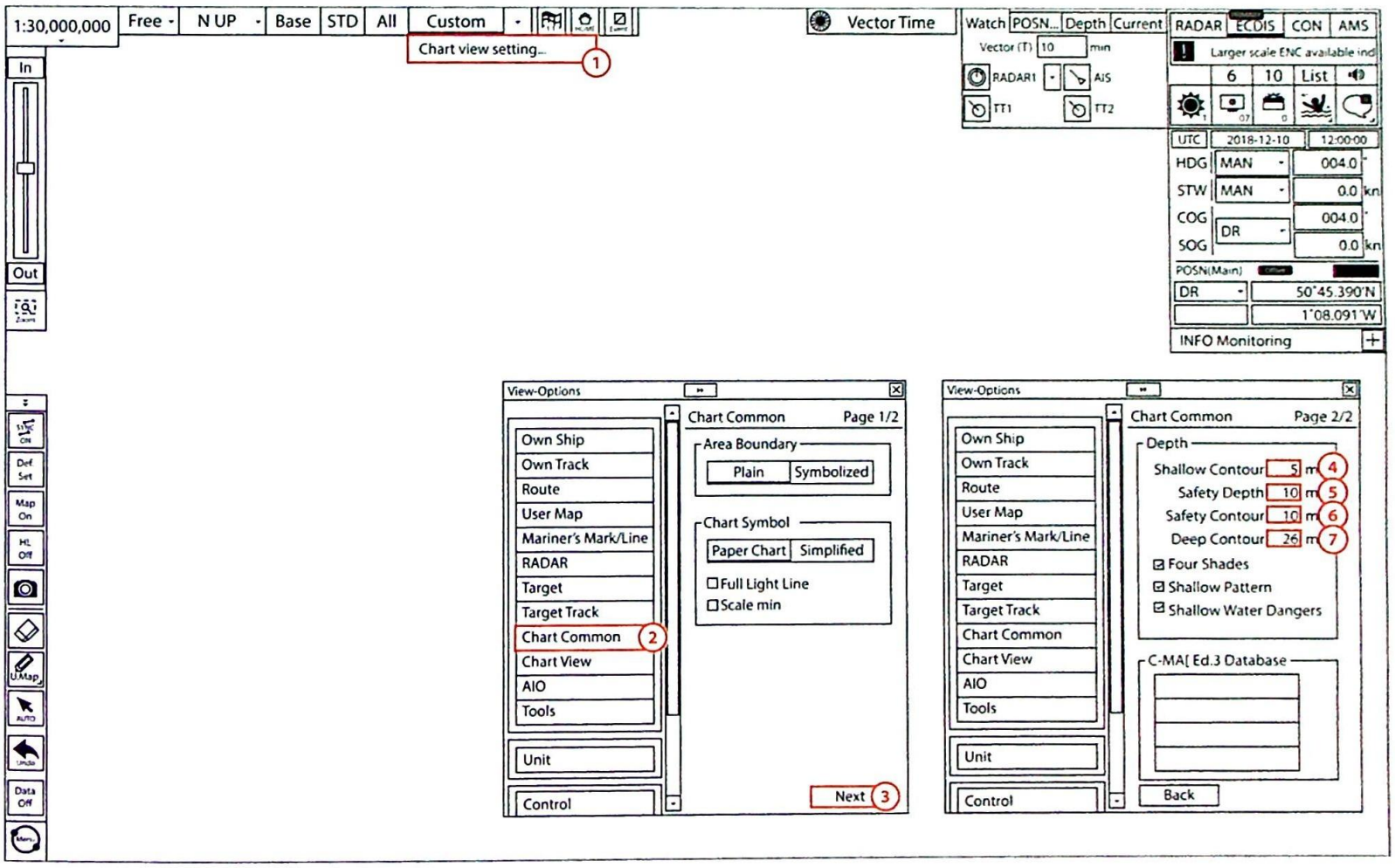
2.4 No Go Areas/User Charts



1. Click 'U-Map'.
2. Click the 'U-Map' list button.
3. Click 'New'.
4. Click 'Edit User Map'.
5. Click 'Type'.
6. Select an object type and an object.
7. Left click to place your object on the chart.
8. Edit object properties, as required.

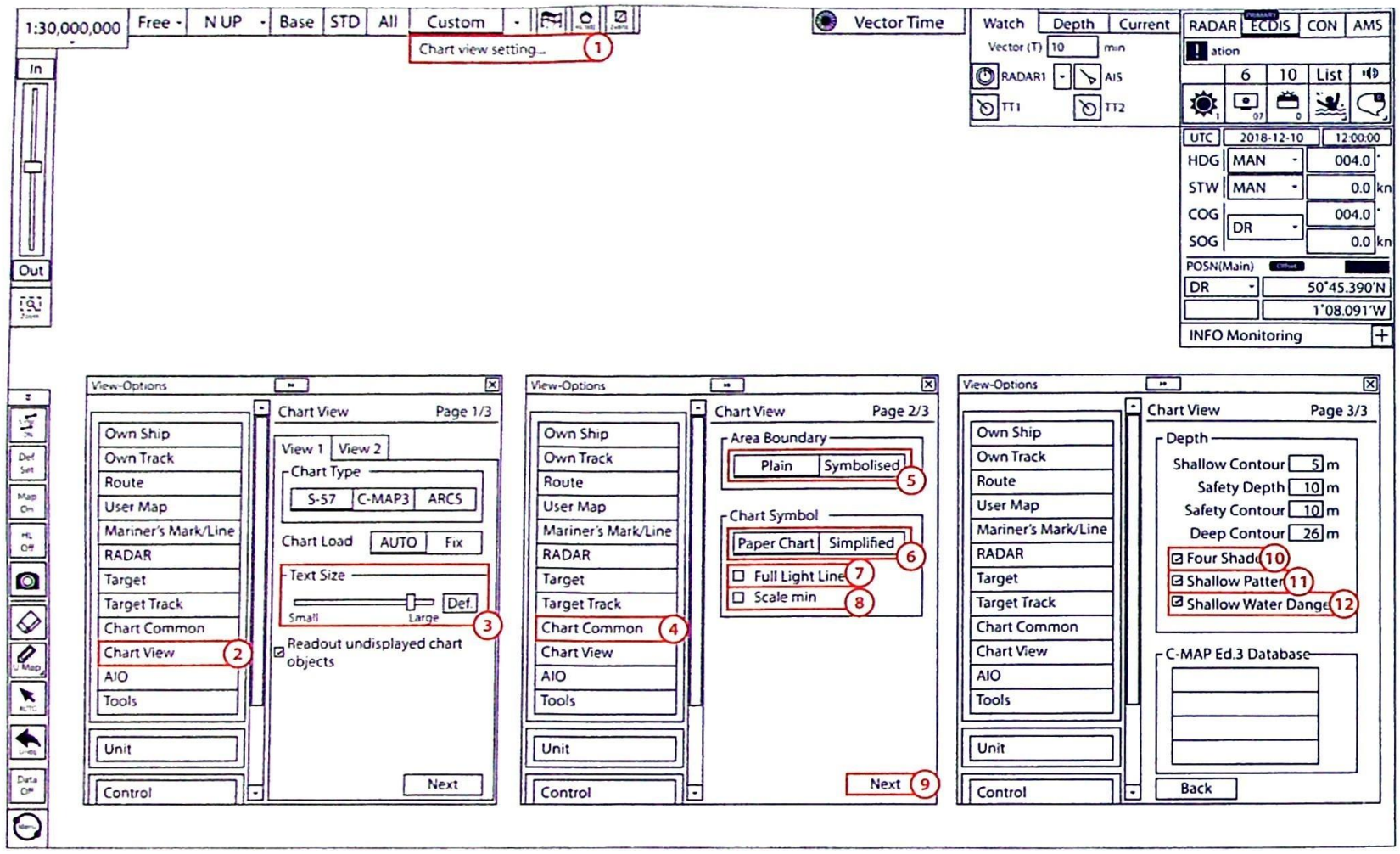
Section 3: Chart Display Settings

3.1 **Safety Depth/Contour**



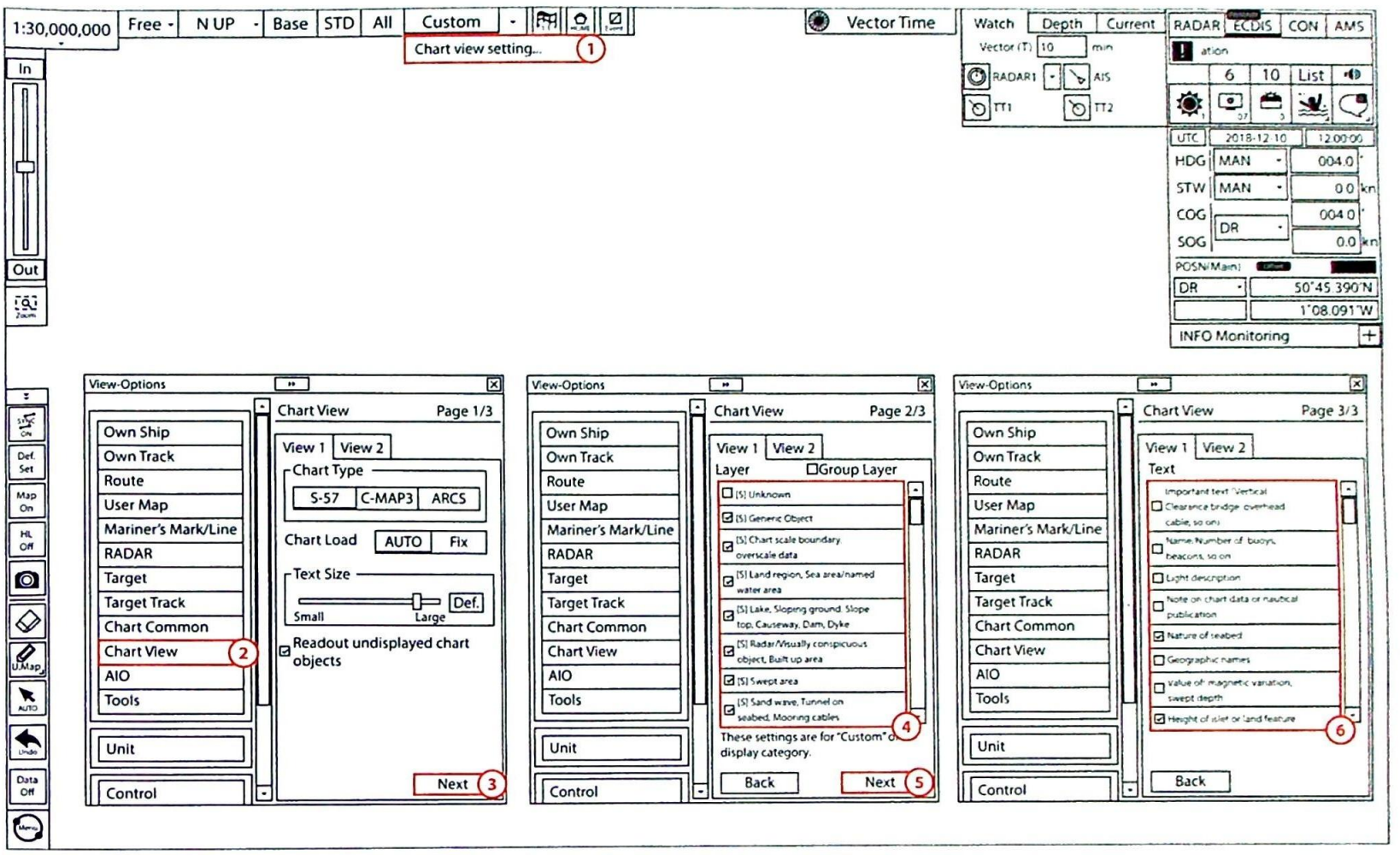
1. Click 'Chart view setting...' from the dropdown.
2. Select 'Chart Common'.
3. Click 'Next'.
4. Adjust 'Shallow Contour'.
5. Adjust 'Safety Depth'.
6. Adjust 'Safety Contour'.
7. Adjust 'Deep Contour'.

3.2 Display Preference Options



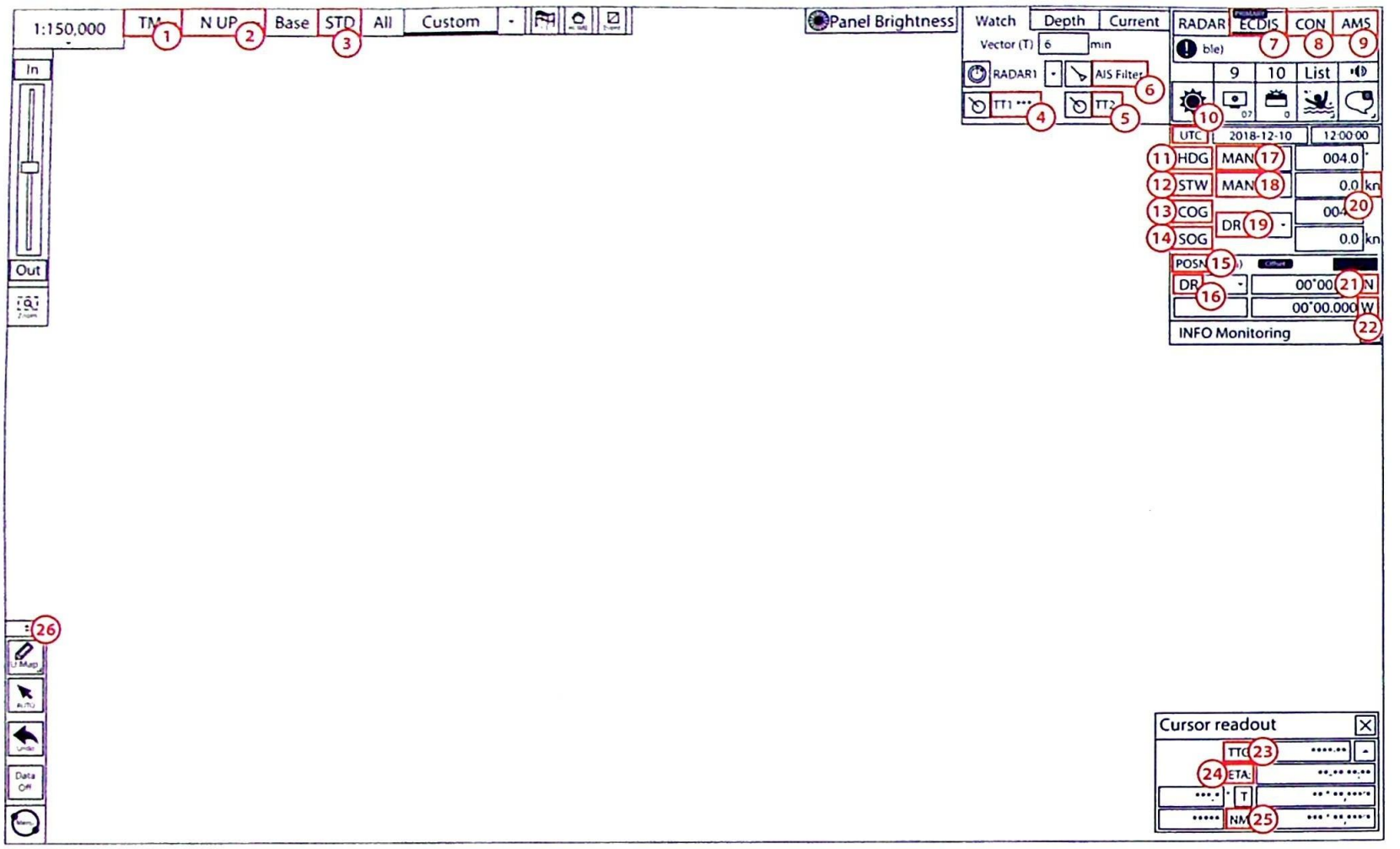
1. Click 'Chart view setting...' from the dropdown.
2. Select 'Chart View'.
3. Adjust text size.
4. Select 'Chart Common'.
5. Select 'Plain' or 'Symbolised'.
6. Select 'Paper Chart' or 'Simplified'.
7. Enable/disable 'Full Light Line'.
8. Enable/disable 'Scale minimum'.
9. Click 'Next'.
10. Enable/disable 'Four Shades'.
11. Enable/disable 'Shallow Pattern'.
12. Enable/disable 'Shallow Water Dangers'.

3.3 Display Configuration



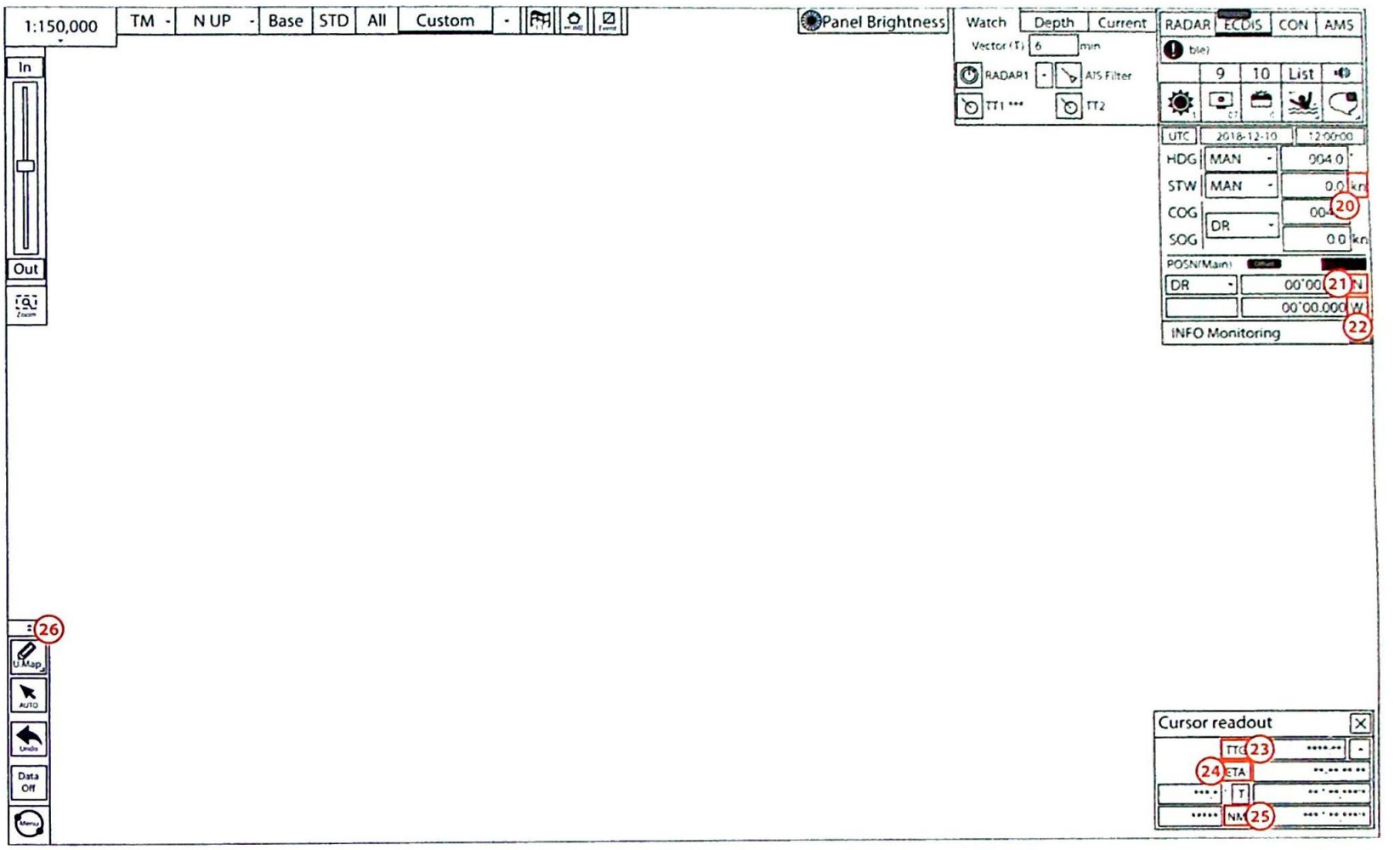
1. Click 'Chart view setting...' from the dropdown.
2. Select 'Chart View'.
3. Click 'Next'.
4. Enable/disable layers by ticking or unticking the tick boxes.
5. Click 'Next'.
6. Enable/disable layers by ticking or unticking the tick boxes.

3.4 Abbreviations Part 1



1. True Motion
2. North Up
3. Standard
4. Tracked Targets
5. Tracked Targets
6. Automatic Information System
7. Electronic Chart Display and Information System
8. Conning
9. Alarm Management System
10. Universal Time Coordinated
11. Heading
12. Speed Through Water
13. Course Over Ground
14. Speed Over Ground
15. Position
16. Dead Reckoning
17. Manual
18. Manual
19. Dead Reckoning

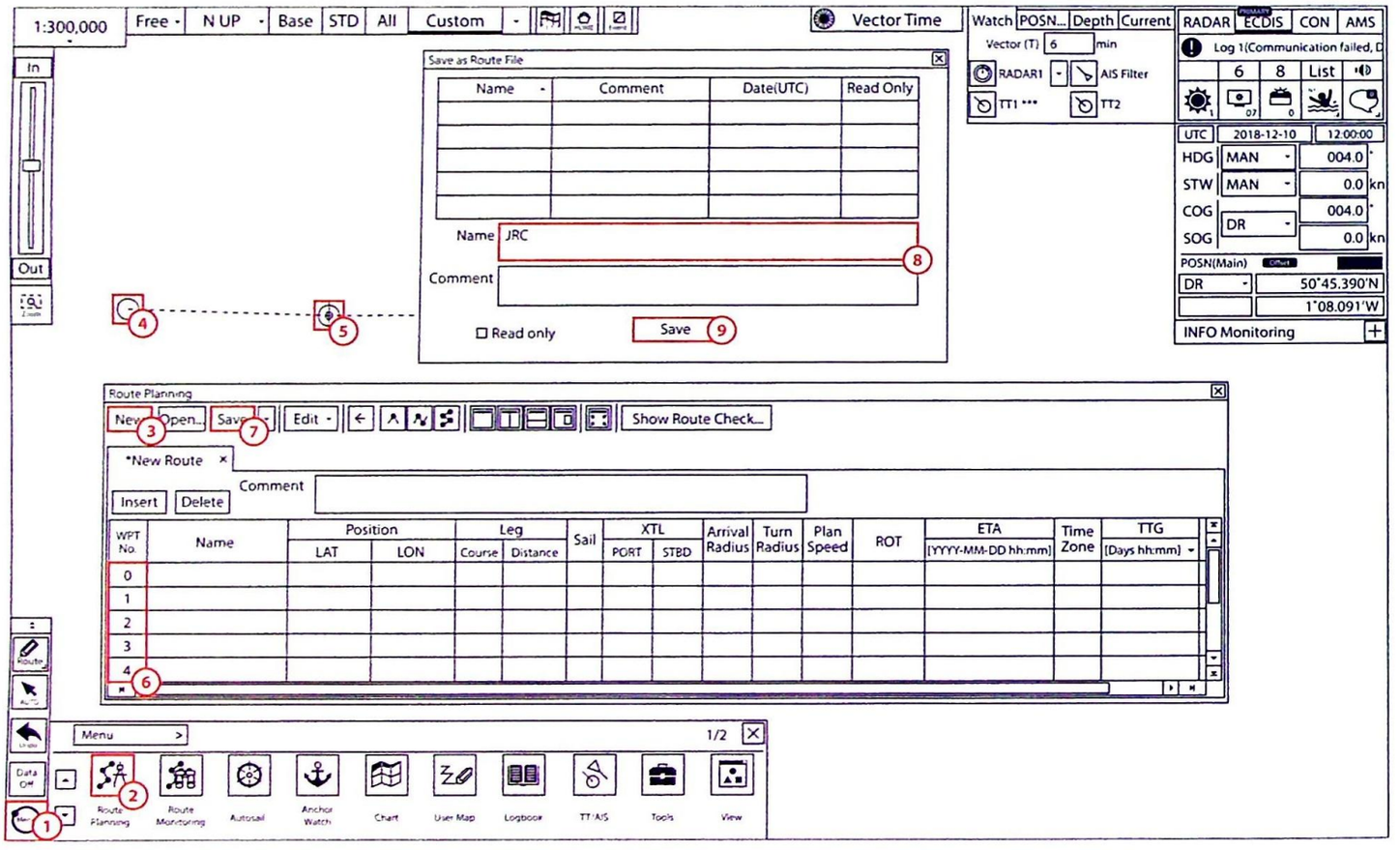
3.4 Abbreviations Part 2



20 Knots
21 North
22 West
23 Time to Go
24 Estimated Time of Arrival
25 Nautical Miles
26 User Map

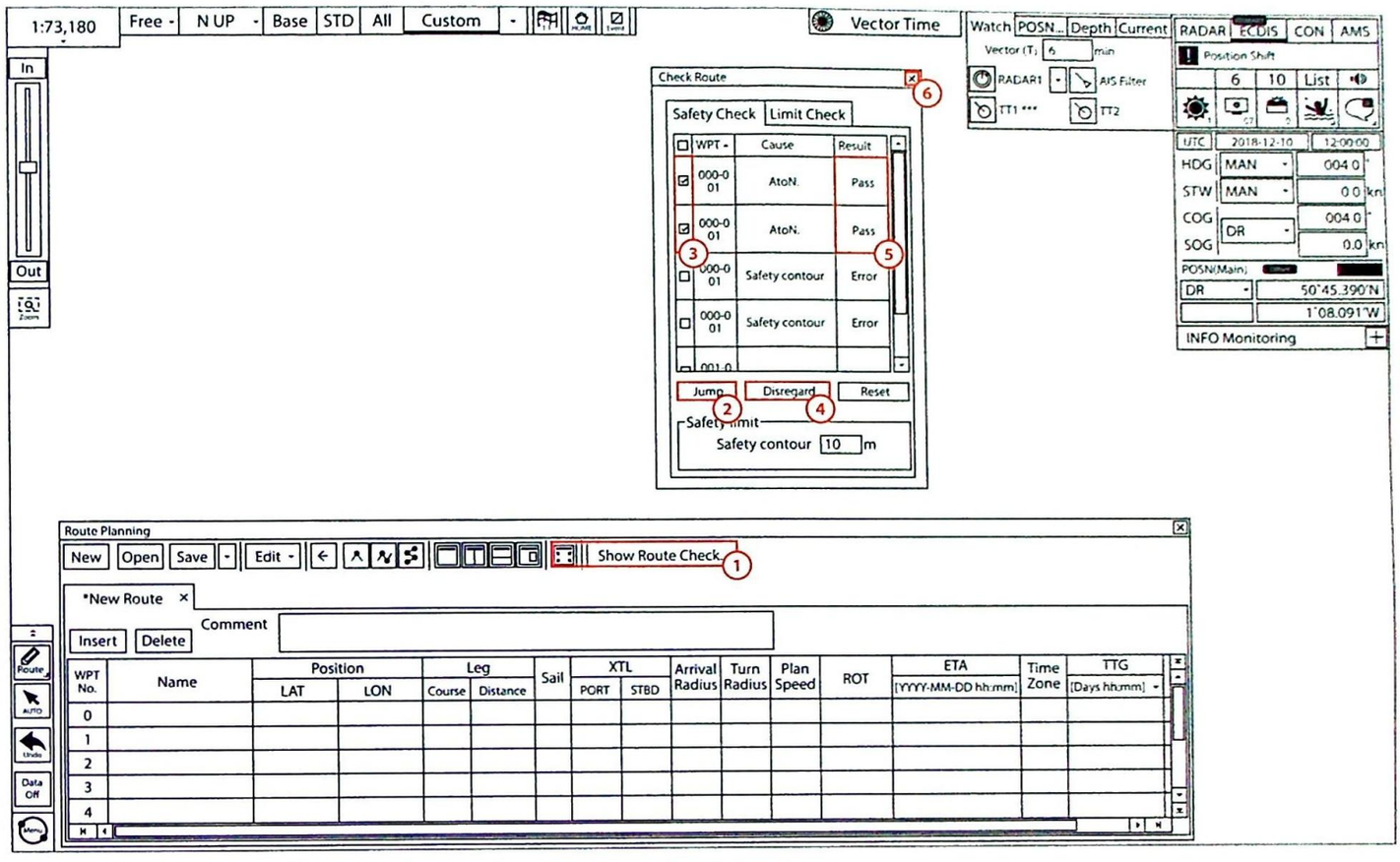
Section 4: Route Planning

4.1 **Creation**



1. Click 'Menu'.
2. Click 'Route Planning'.
3. Click 'New'.
4. Left click on the chart to place your first waypoint.
5. Consecutive left clicks will place more waypoints.
6. Waypoints will appear in the route table.
7. Click 'Save'.
8. Name your route.
9. Click 'Save'.

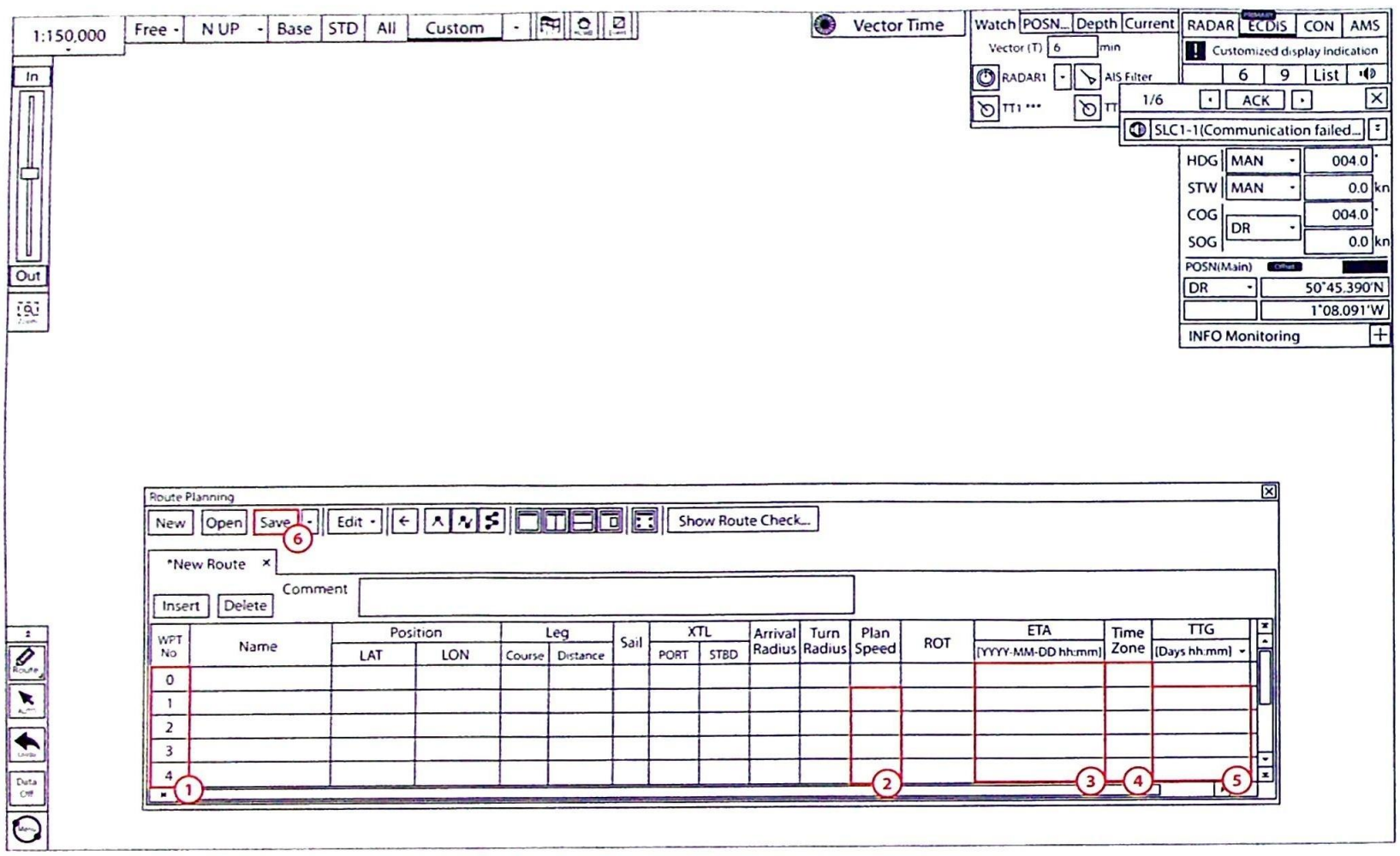
4.2 Route Checking



Note to user: JRC automatically checks the route as soon as waypoints are placed.

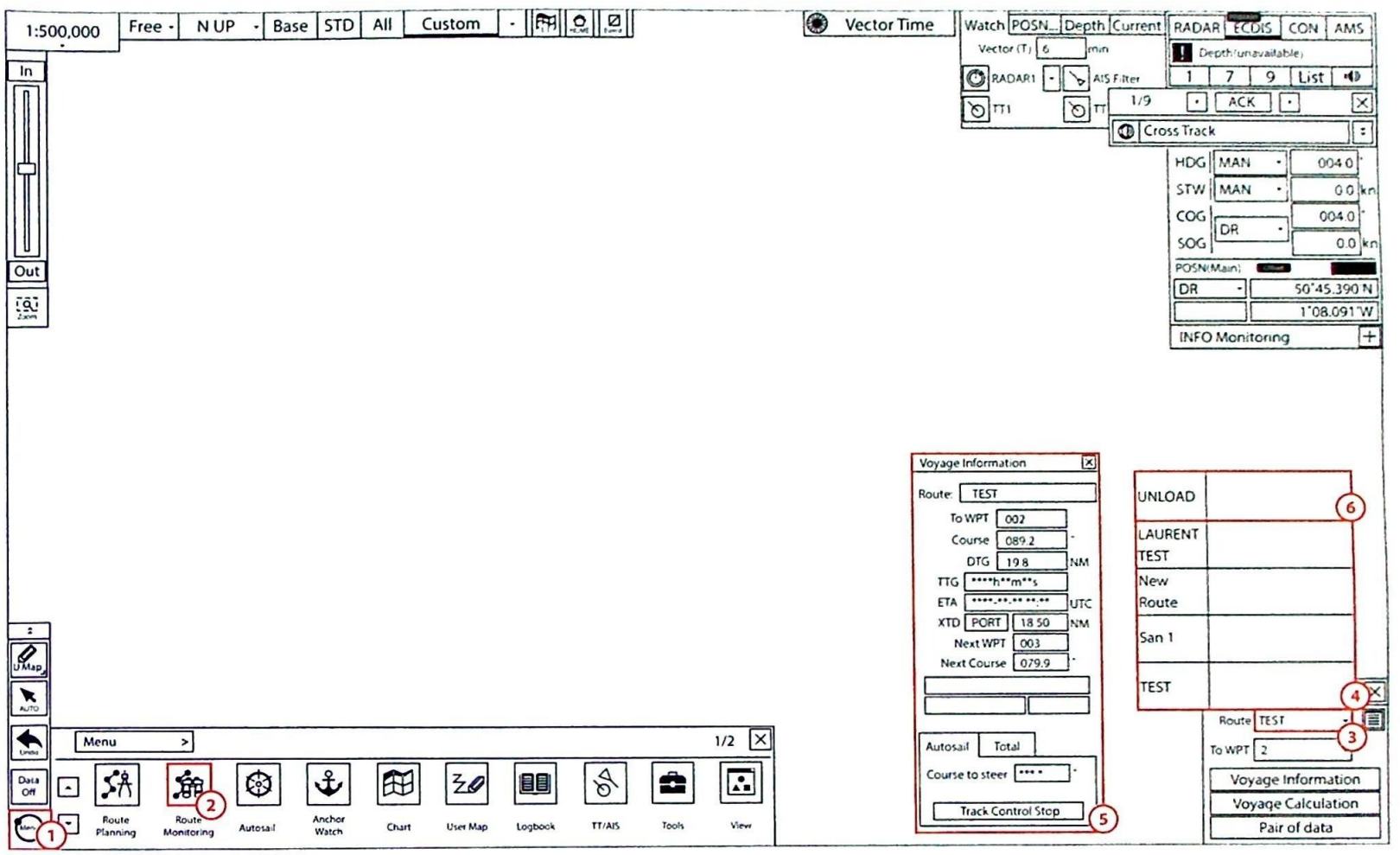
1. Click 'Show Route Check...'
2. Click 'Jump' to go to the selected hazard.
3. Tick the box for hazards that you have checked.
4. Click 'Disregard'.
5. The result will change to 'Pass'.
6. Click the 'X' when finished.

4.3 Optimisation/Schedule



1. Ensure you are editing a route and that you have some waypoints inserted.
2. Adjust speed as required for each leg of the route.
3. Adjust ETA for each leg of the route.
4. Insert time zone accordingly.
5. TTG will automatically change based on the details inserted into the route table.
6. Click 'Save' to ensure your changes have been saved.

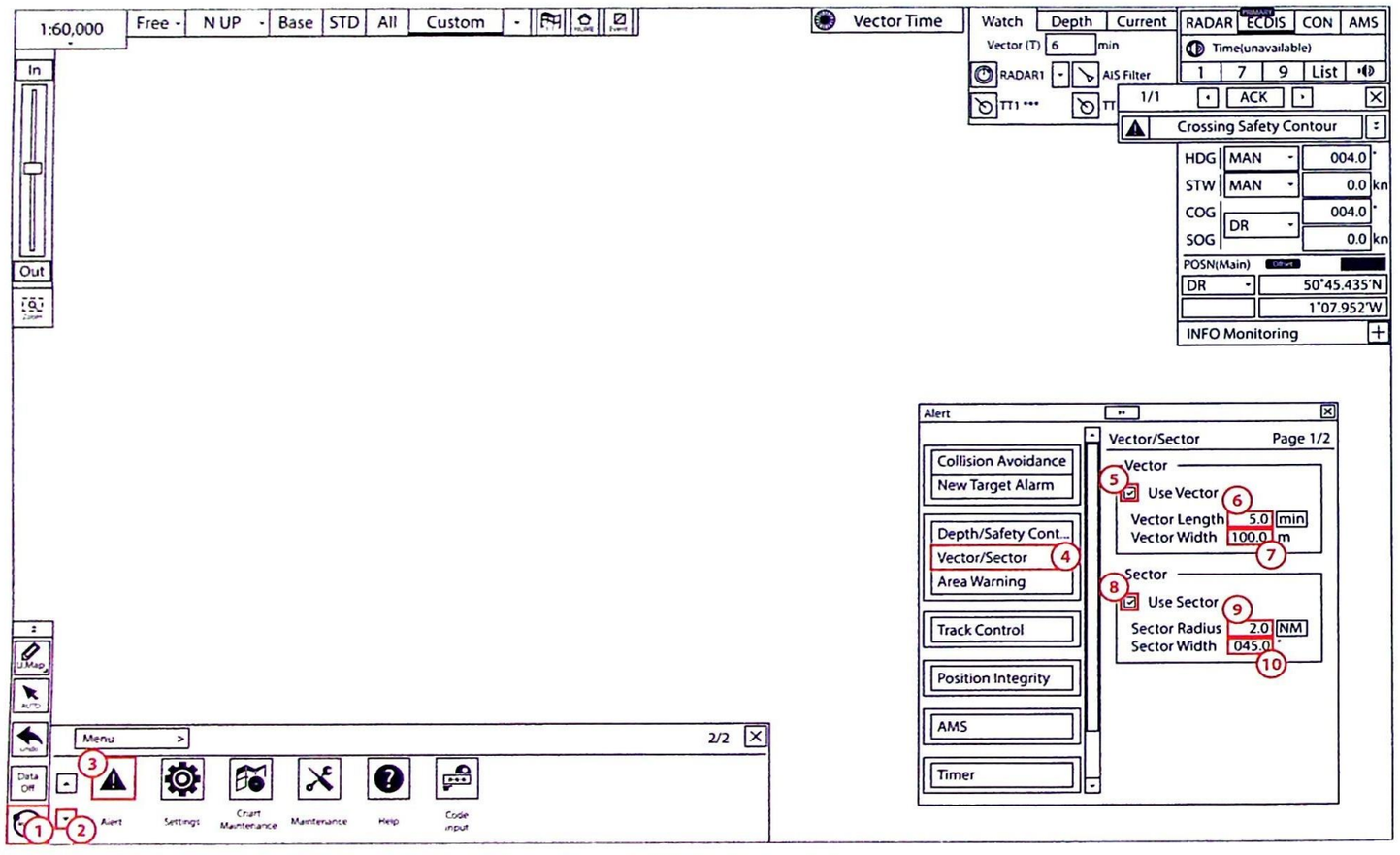
4.4 Selecting Active Route



1. Click 'Menu'.
2. Click 'Route Monitoring'.
3. Click on the 'Route' dropdown menu.
4. Select a route.
5. The 'Voyage Information' table will appear.
6. Click 'UNLOAD' when finished.

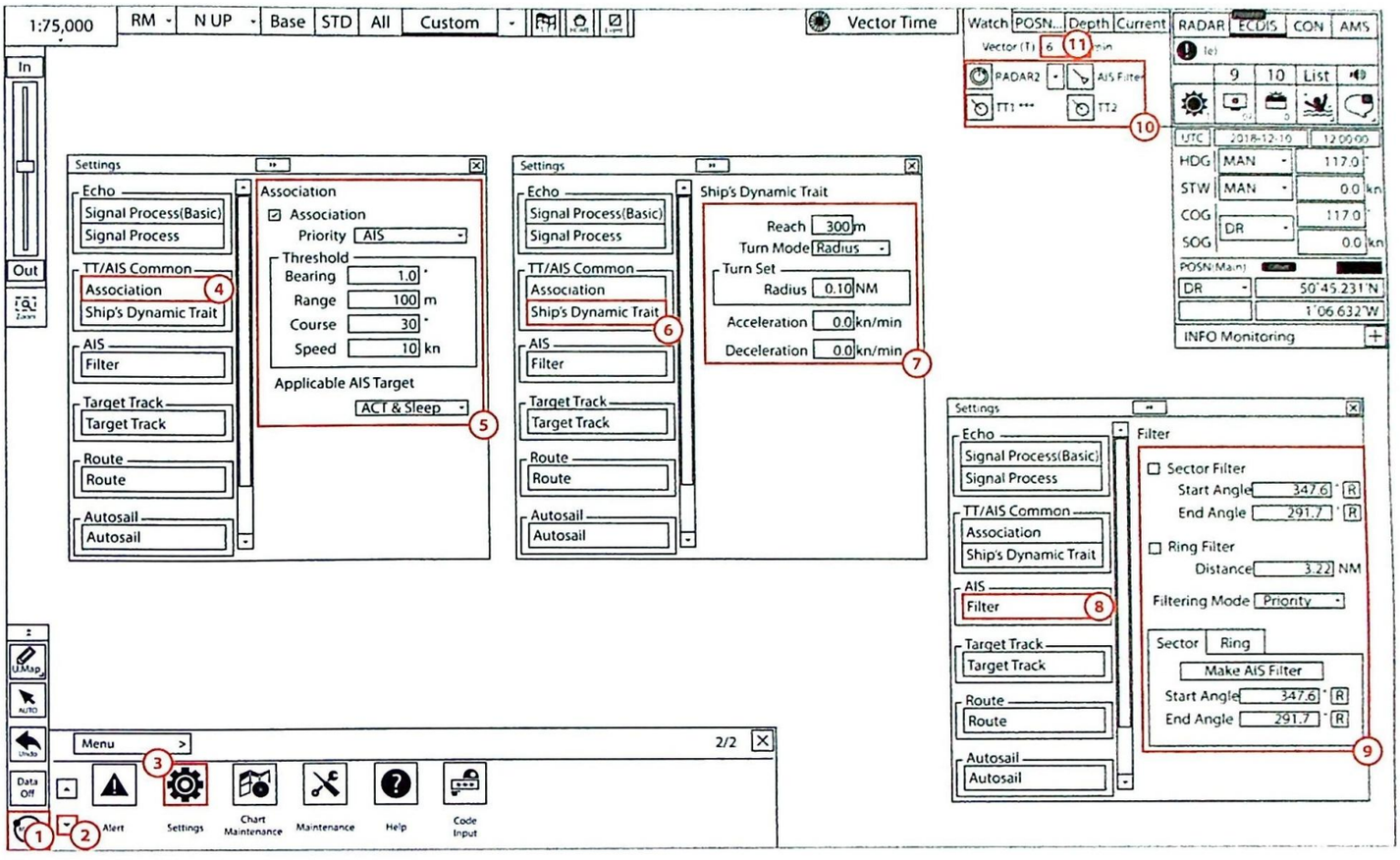
Section 5: Route Monitoring

5.1 **Look-Ahead**



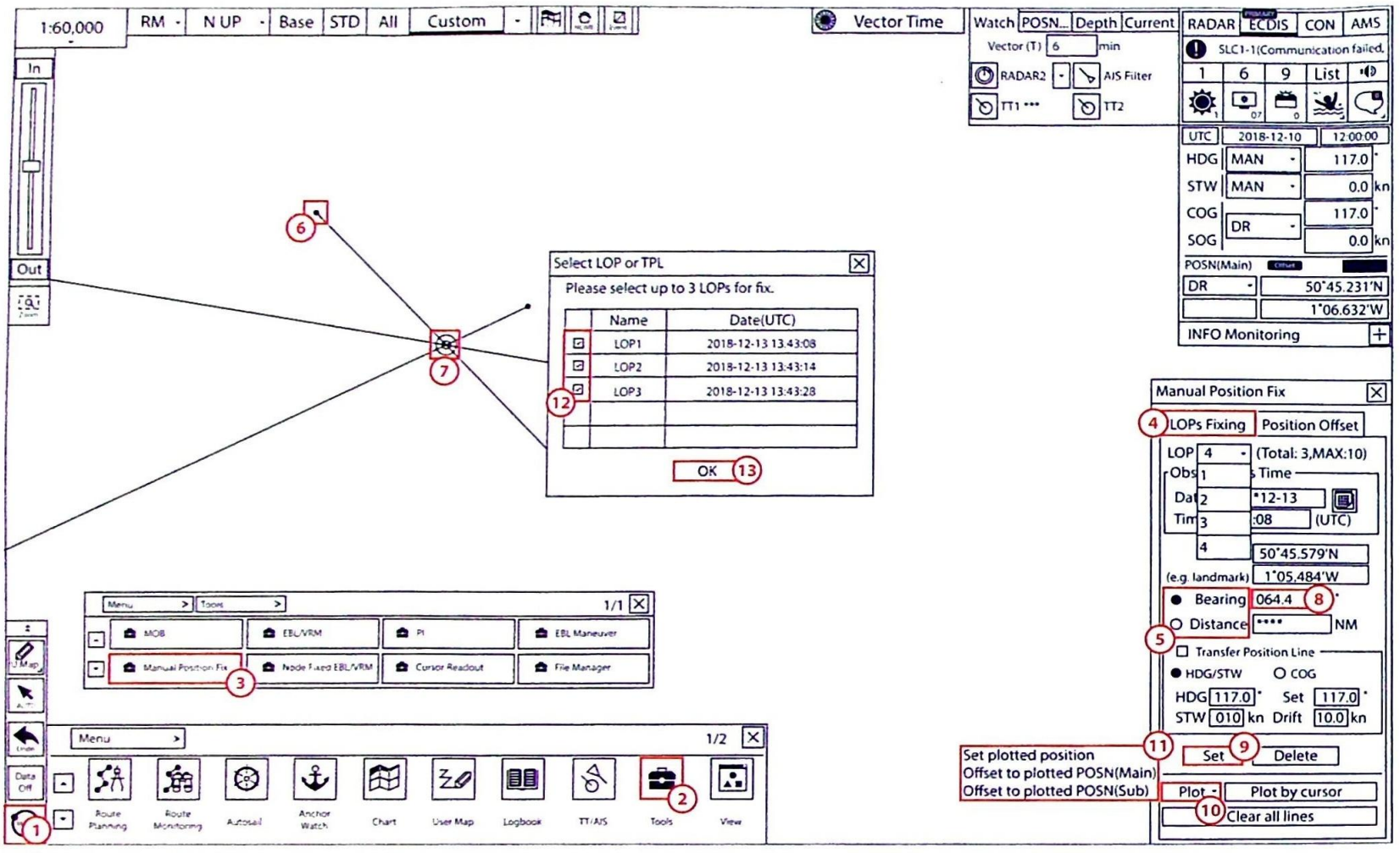
1. Click 'Menu'.
2. Click the down arrow.
3. Click 'Alert'.
4. Select 'Vector/Sector'.
5. Click the first tick box to enable 'Vector'.
6. Insert the vector length.
7. Insert the vector width.
8. Click the second tick box to enable 'Sector'.
9. Insert the sector radius.
10. Insert the sector width.

5.2 TT/AIS/Vectors



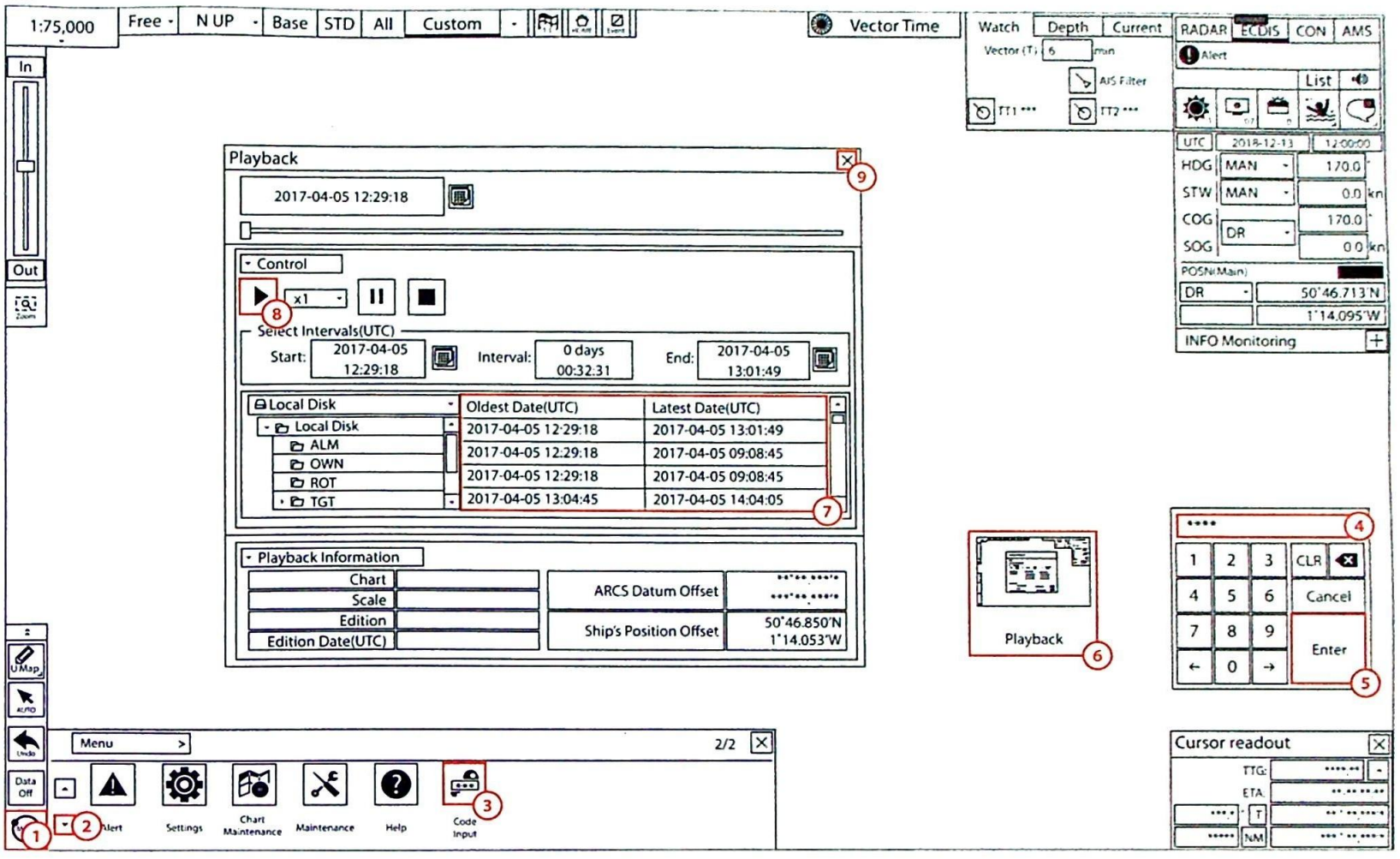
1. Click 'Menu'.
2. Click the down arrow.
3. Click 'Settings'.
4. Select 'Association'.
5. Adjust settings, as required.
6. Select 'Ship's Dynamic Trait'.
7. Adjust settings, as required.
8. Select 'Filter'.
9. Adjust settings, as required.
10. Left click to turn on/off options.
11. Change vector length, as required.

5.3 Position Fixing



1. Click 'Menu'.
2. Click 'Tools'.
3. Click 'Manual Position Fix'.
4. Select 'LOPs Fixing'.
5. Choose between 'Bearing' and 'Distance'.
6. Left click on your first reference point.
7. Left click on your vessel.
8. Insert actual bearing/range.
9. Click 'Set' and repeat steps 6 to 9 at least one more time.
10. Click 'Plot'.
11. Choose the sensor to apply the offset.
12. Select LOPs to be used for the fix.
13. Click 'OK' to accept the fix.

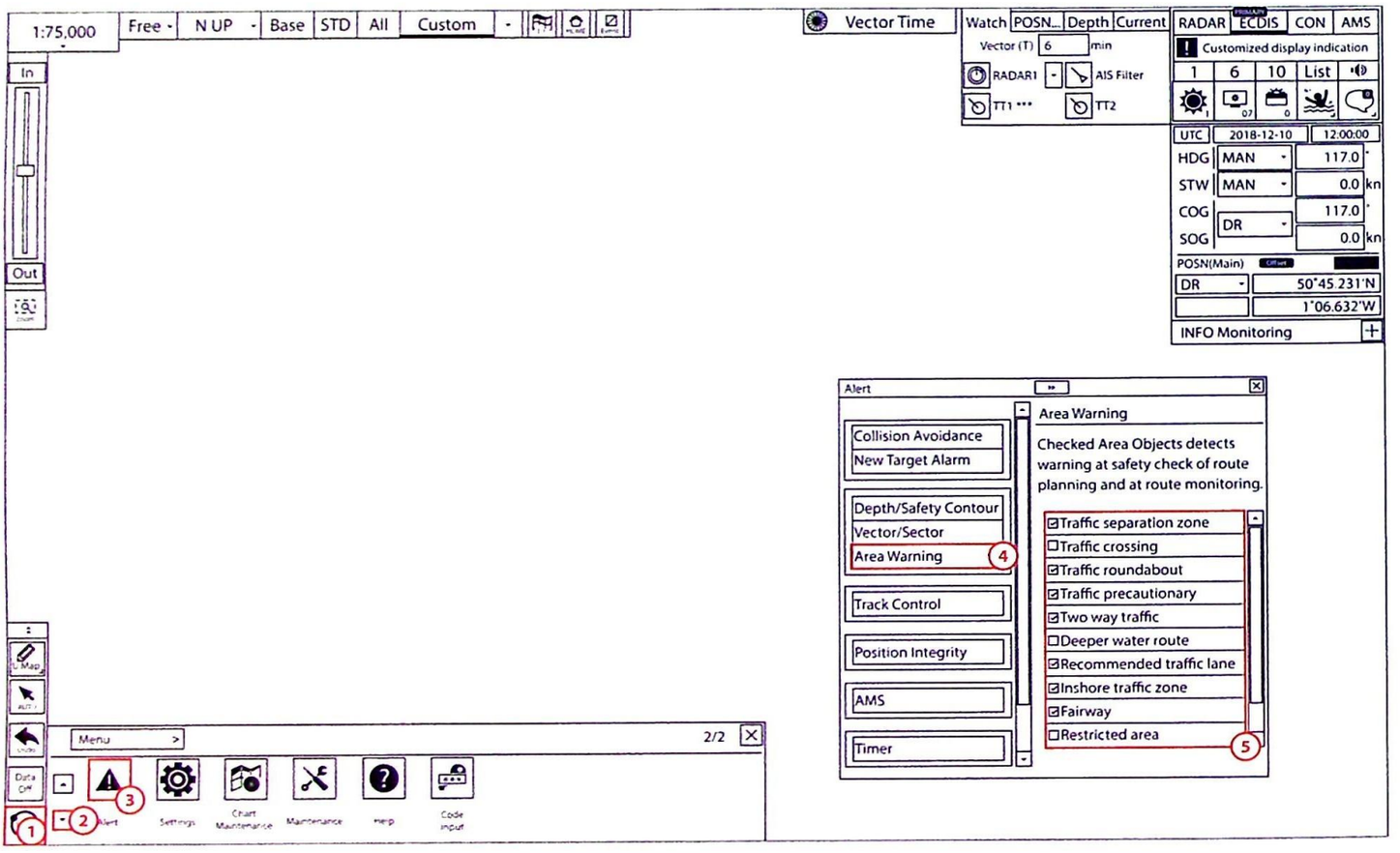
5.4 Playback



1. Click 'Menu'.
2. Click the down arrow.
3. Click 'Code Input'.
4. Enter Code '9999'.
5. Click 'Enter'.
6. ECDIS will now exit. Click the 'Playback' option.
7. Select date.
8. Click 'Play'.
9. Press 'X' to close playback.

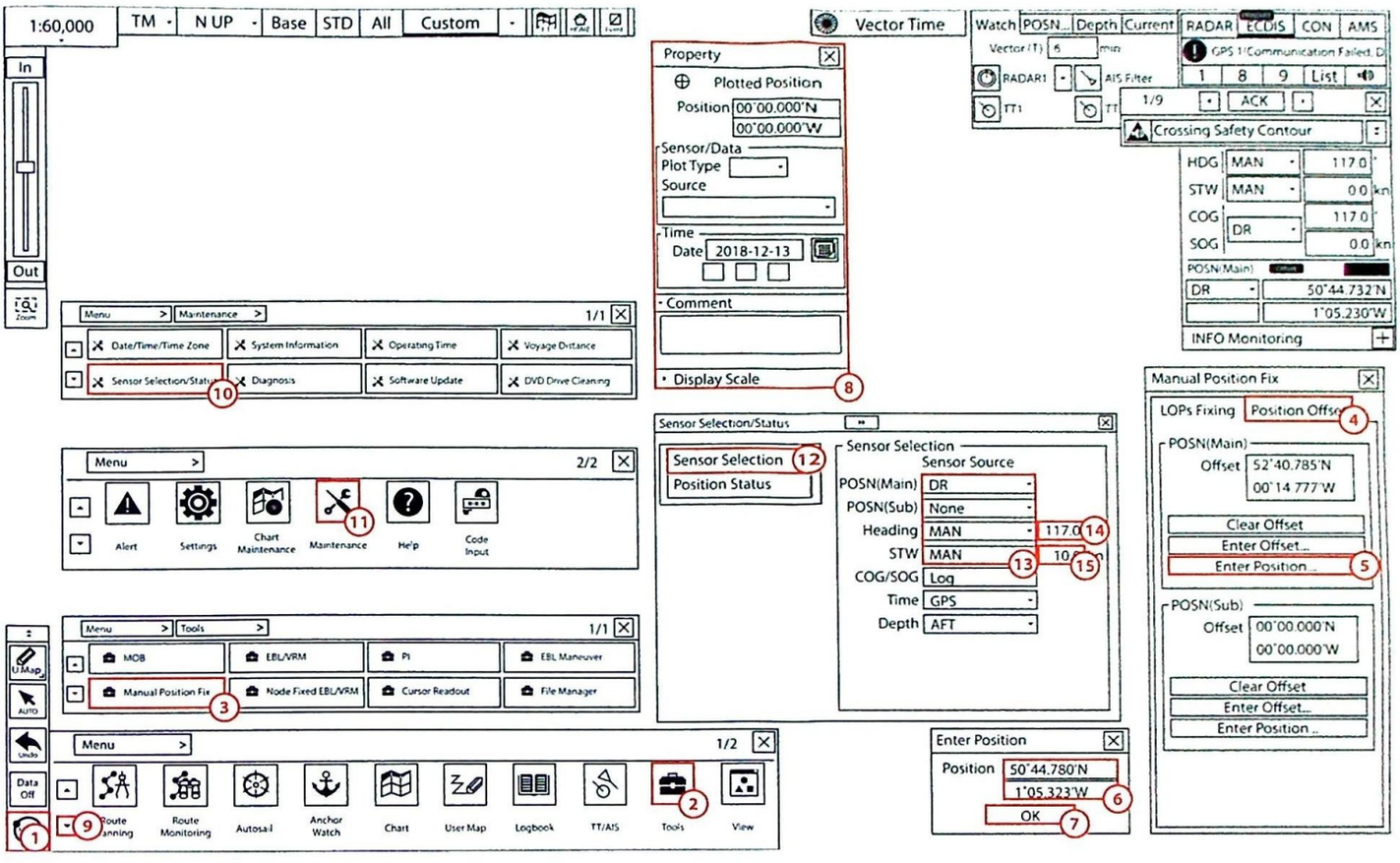
Section 6: System Settings

6.1 Warning/Alarm Configuration



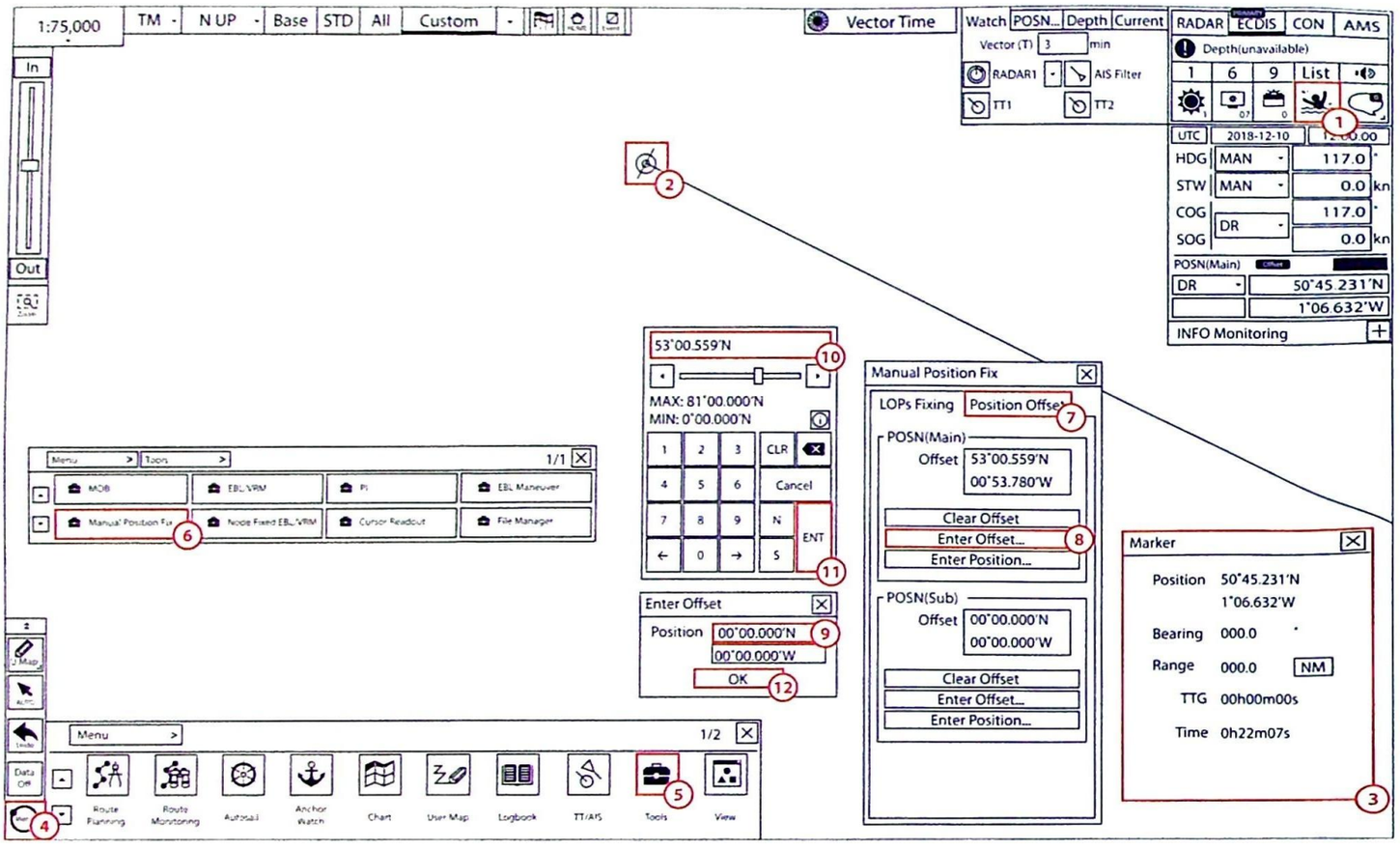
1. Click 'Menu'.
2. Click the down arrow.
3. Click 'Alert'.
4. Select 'Area Warning'.
5. Tick and untick zones to enable/disable them.

6.2 Position/Heading/Speed



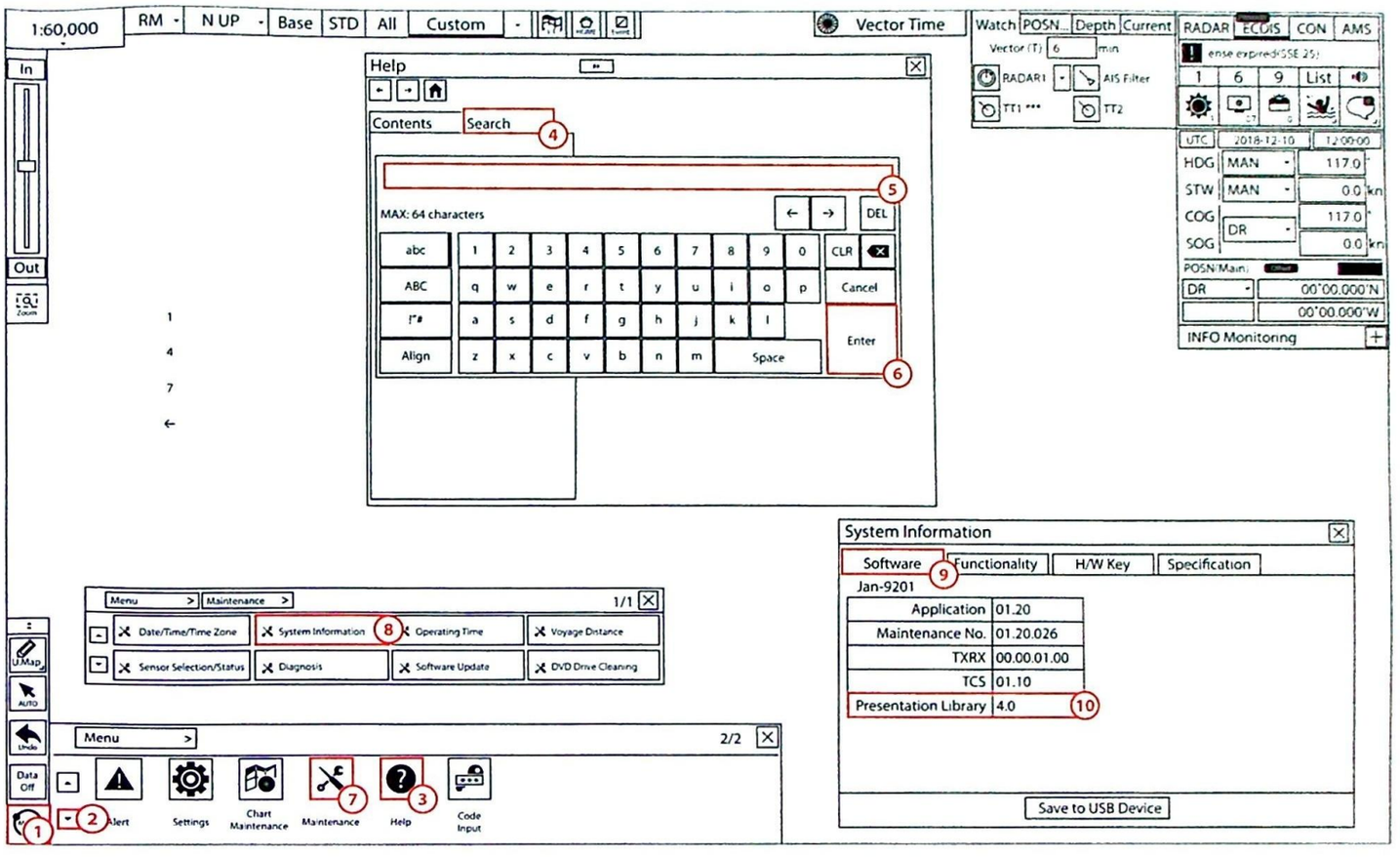
1. Click 'Menu'.
2. Click 'Tools'.
3. Click 'Manual Position Fix'.
4. Select 'Position Offset'.
5. Click 'Enter Position...'
6. Manually enter a position, as required.
7. Click 'OK'.
8. 'Plotted Position' window will open.
9. Click the down arrow.
10. Click 'Sensor Selection/Status'.
11. Click 'Maintenance'.
12. Select 'Sensor Selection'.
13. Select sensor sources, as required.
14. Insert manual heading.
15. Insert manual speed.

6.3 Emergency Menus



1. Click on the MOB button.
2. A marker will be placed on your chart.
3. Marker information window will open.
4. Click 'Menu'.
5. Click 'Tools'.
6. Click 'Manual Position Fix'.
7. Select 'Position Offset'.
8. Click 'Enter Offset...'.
9. Click the position box to type a manual position.
10. Enter manual position.
11. Click 'ENT' (Enter).
12. Click 'OK' to accept the manual position.

6.4 Manual/About



1. Click 'Menu'.
2. Press the down arrow.
3. Click 'Help'.
4. Click 'Search'.
5. Type your search term.
6. Press 'Enter' to search.
7. Click 'Maintenance'.
8. Click 'System Information'.
9. Select 'Software'.
10. Information such as PL version is available here.

8. Kelvin Hughes Manta Digital ZM ECDIS – Familiarisation Checklist

(Page 1 of 2)

1. **Company ECDIS Procedures**

   Review company documentation for ECDIS procedures and complete the below ECDIS Type Specific Familiarisation checklist.

2. **Chart Display**

   Become familiar with the basic chart functionality from the main display.

Main Chart Panel			
	Own Ship		User Maps
	True Motion Settings		Own Ship Settings
	N-UP		Docking Display
	Head-Up		Position Fixing
	Course UP		NAVTEX
	Set Chart		Anchor Watch
	Scale		Nav Tools
	Profile		Route Data
	Time		Mariner Notes/Events
	Nav Data		Stabilised
	Chart Settings		Man Overboard
	Extended Route Data		Video Settings
	Target Data		Display Mode
	Radar Control		Alarms

3. **Navigational Tools**

   Operate all basic navigational functions and vessel setting options contained within the ECDIS for use of navigation.

Nav Tools			
	Cursor		VRM
	PI		VRM 1 (ON/OFF)
	Add PI Line		EBL
			EBL 1 (ON/OFF)

4. **Chart Display Settings**

   Operate all chart display settings, become familiar with object layers, ENC symbology and define the vessel's safe water settings. Identify where all chart updates are managed in the system.

Chart Settings			
	General		Time Validity
	Advanced		Display all time dependent objects (ON/OFF)
	Soundings		Query
	Safety Contour		Chart 1 Symbols
	Scamin Enabled (ON/OFF)		Data Accuracy (ON/OFF)

5. **Route Planning**

   Operate all route planning functions and obtain all relevant schedule information for passage planning and route monitoring purposes.

Route Data		**User Maps**	
	Route		
	General	**Mariner Notes/Events**	
	Alerts		

Kelvin Hughes Manta Digital ZM ECDIS – Familiarisation Checklist
(Page 2 of 2)

6. **Route Monitoring**

Operate the variety of voyage data functions for route monitoring to display and obtain relevant information for navigation and the ship's safety.

Route Data		**General**	
	Display		Auto Load NMEA Route
	Route		Alternative Route
	Channel Limits	**Alerts**	
	WPT Labels		Edit Critical Points
	Leg Annotation		
	Steering Info		
	Pilotage Tools		
	Head and Stern Marks		
	Distance to Run		

7. **Chart Updating**

The operator should know how to update electronic charts and be thoroughly aware of their responsibilities concerning updating. It is a legal requirement that charts are maintained in an up-to-date condition.

StandBy Mode			
	Chart Maintenance		

8. **System Sensors**

Identify where the operator can select or deselect all sensors connected to the ECDIS and verify the vessel's particulars.

Nav Data			
	Select Gyro Sensor		Depth Below Keel
	Select Speed Source		Fix Position
	Select Position Sensor		Check Position
	Change Datum		

9. **System Alerts**

Identify the ECDIS system's category of Alarms and Prompts generated by the operator and by the ECDIS system.

Alarms			
	Acknowledge Alert		
	Expand Alert List		

10. **System Units**

Become familiar with the system's logbook, records, data storage and configuration set up.

Own Ship Settings		**Time**	
	Own Ship		UTC
	Past Tracks		Local
	Look-Ahead (ON/OFF)		Time Source
	Vector Length Predictor Vessel Outlines (ON/OFF)		Time Zone
	Replay Voyage Data		
	Wreck (ON/OFF)		

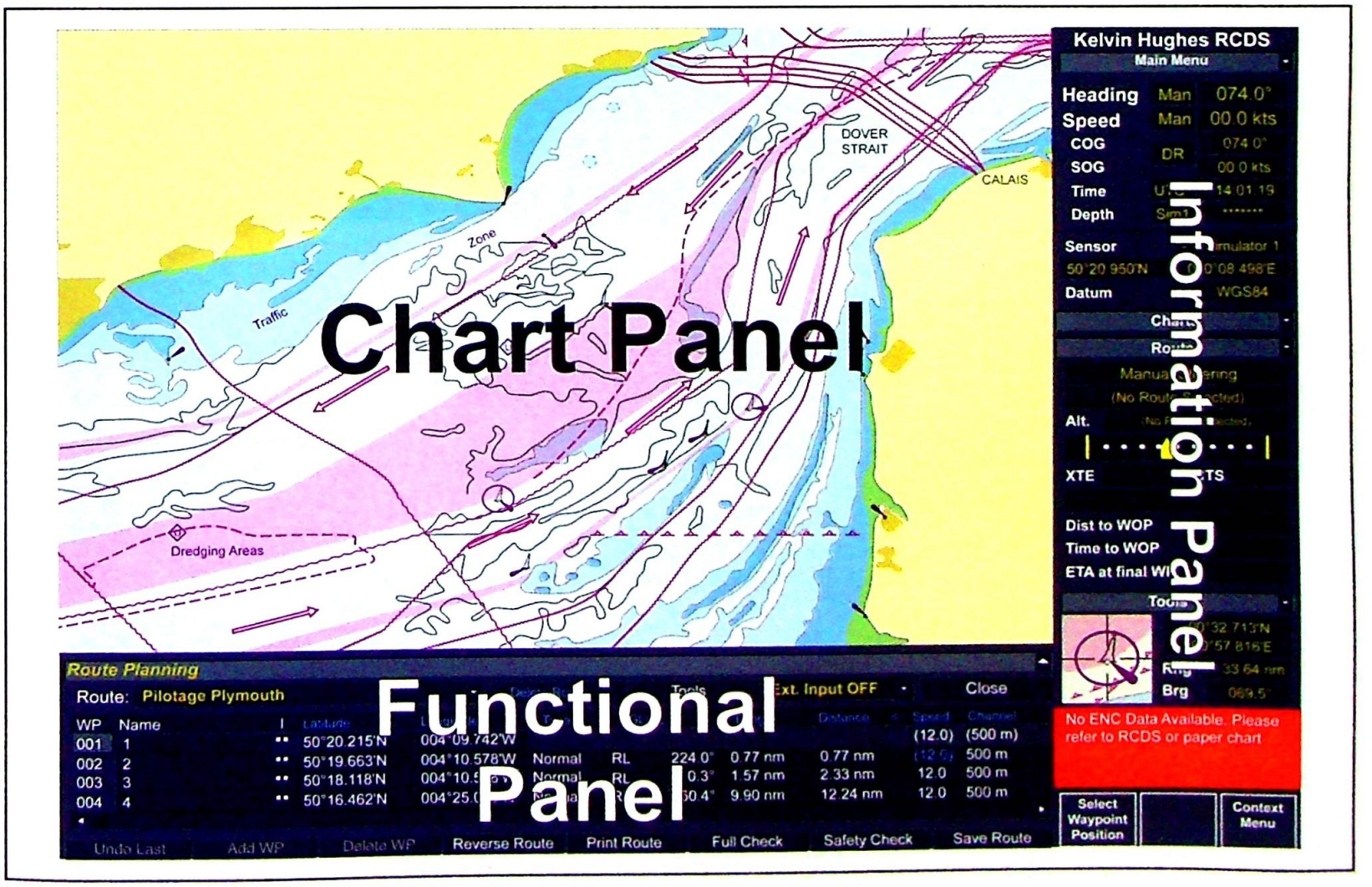
11. **ECDIS Operator's Manual**

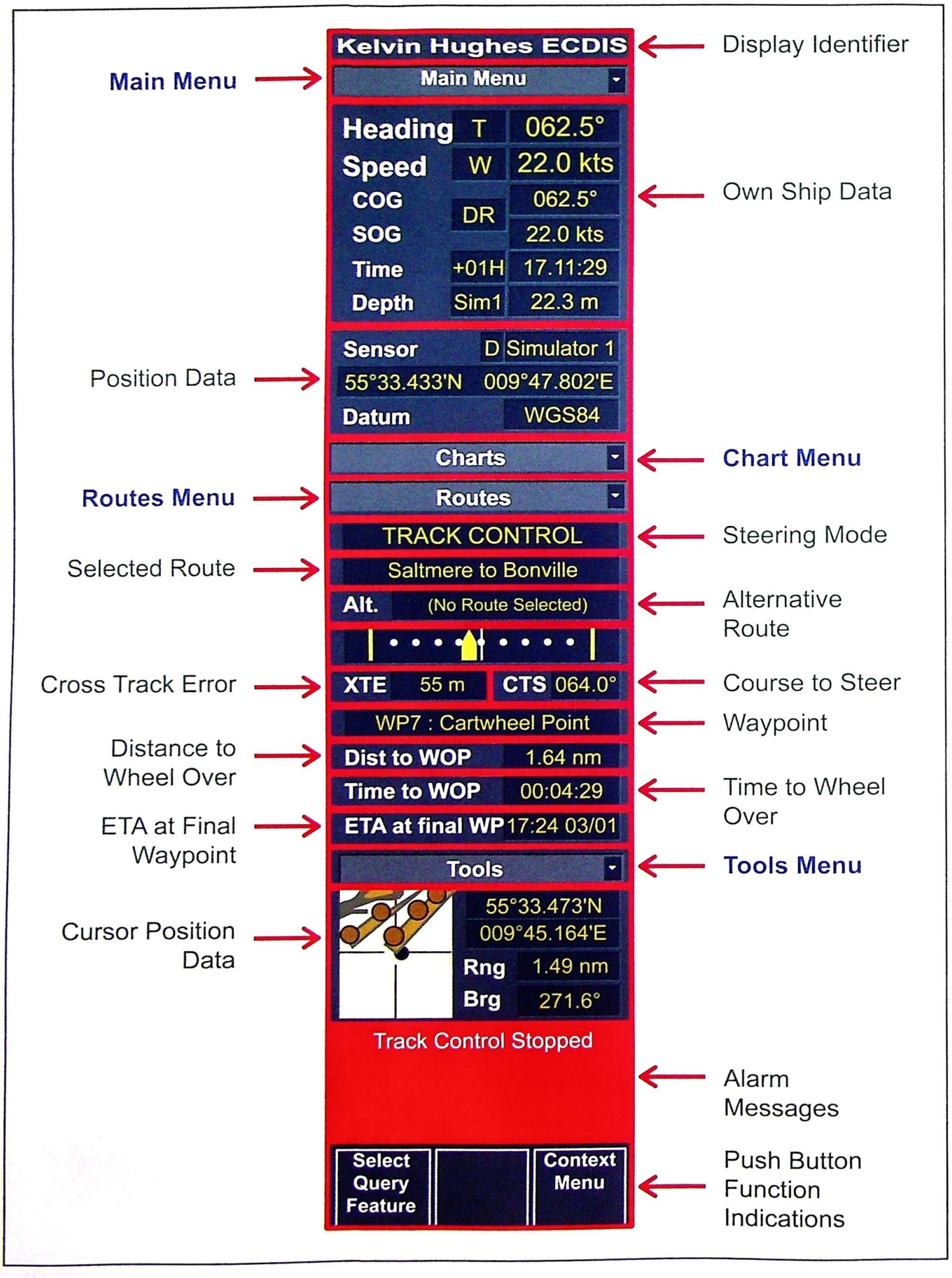
Locate the system's operator's user guide for referencing and help.

Hard copy of Operator's Manual only available			

Kelvin Hughes Manta Digital ZM ECDIS

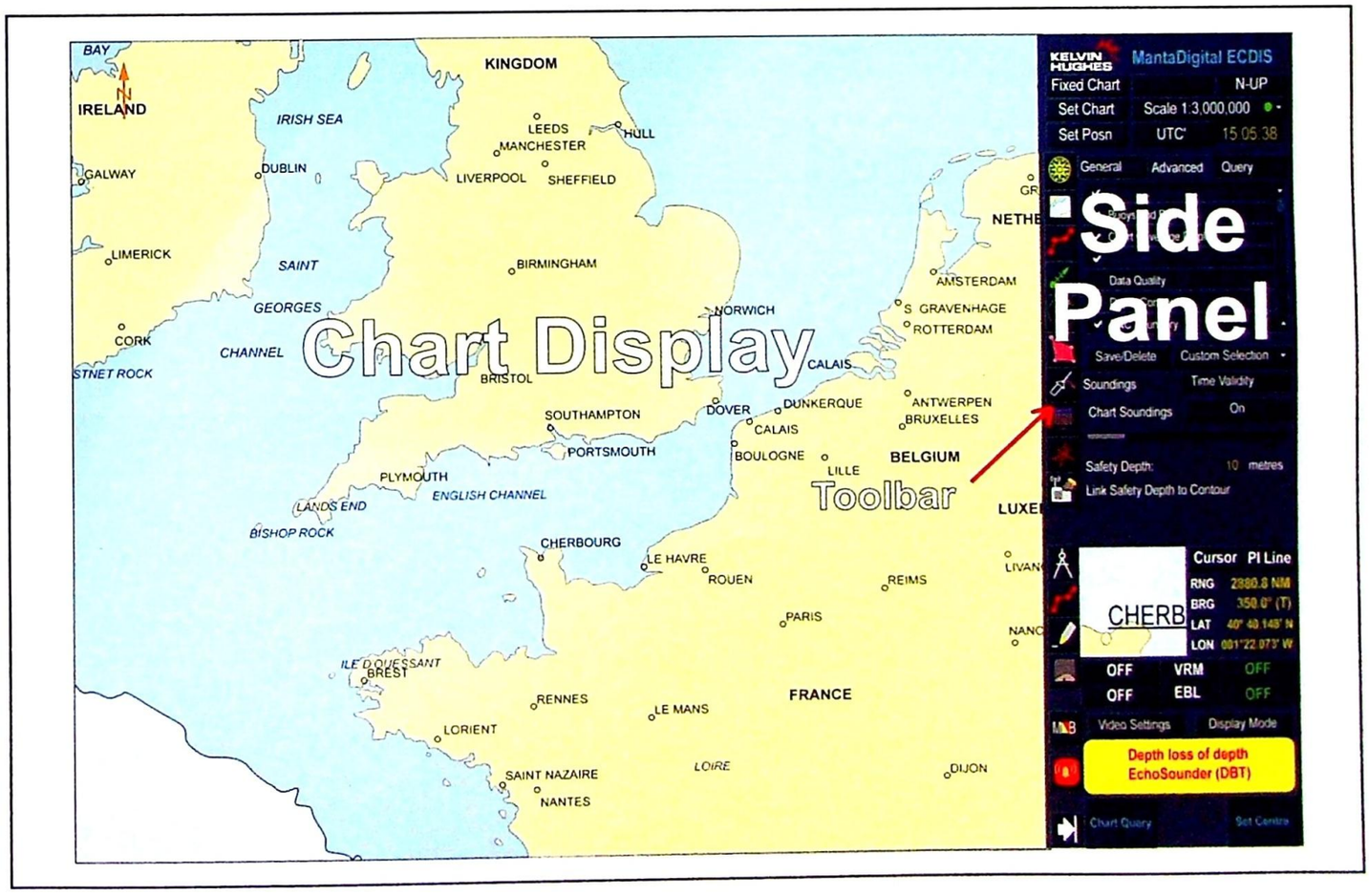
Key Kelvin Hughes Manta Digital ZM ECDIS Menu Functions		
1.	Configuration of Ship's Length, Beam, Maximum Speed and ROT	**Desktop>ECDIS Setup**
2.	View list of installed Charts	**Charts>Install>Vector or ARCS**
3.	View the latest update number installed	**Left click on the Chart Display>Cell Information**
4.	Change Chart Settings	**Charts>Vector Chart Settings**
5.	View information on charted objects and view additional text	**Left click on the Chart Display>Features**
6.	Set the Safety Depth, Safety Contour, Shallow and Deep Contour	**Main Menu>Safety Settings...>Depth**
7.	Input a User Map Object	**Tools>Map Editing...**
8.	Input a Manual Update	**Charts>Update>Manual ENC**
9.	Turn the Predictor on	**Tools>User Preferences...>Vessel Prediction**
10.	Configure the Guardzone (Anti-grounding Cone)	**Main Menu>Safety Settings...>Guardzone** **Context Menu>Overlays>Guardzone**
11.	Configure Ship's Track	**Main Menu>Track Settings...**
12.	Configure Velocity Vectors	**Main Menu>Safety Settings>Settings**
13.	View past Alarms and Warnings	**Information Panel>Alarms**
14.	Input a Visual or Radar Fix	**Tools>Position Fixing...**
15.	Turn on Overlays (Route, Predictor, Guardzone, Primary Track, etc.)	**Context Menu>Overlays**




Kelvin Hughes ECDIS
Display Identifier
Main Menu
Main Menu
Heading T 062.5°
Speed W 22.0 kts
COG DR 062.5°
SOG 22.0 kts
Time +01H 17.11:29
Depth Sim1 22.3 m
Own Ship Data
Position Data
Sensor D Simulator 1
55°33.433'N 009°47.802'E
Datum WGS84
Charts
Chart Menu
Routes Menu
Routes
TRACK CONTROL
Steering Mode
Selected Route
Saltmere to Bonville
Alt. (No Route Selected)
Alternative Route
Cross Track Error
XTE 55 m
CTS 064.0°
Course to Steer
WP7 : Cartwheel Point
Waypoint
Distance to Wheel Over
Dist to WOP 1.64 nm
Time to WOP 00:04:29
Time to Wheel Over
ETA at Final Waypoint
ETA at final WP 17:24 03/01
Tools
Tools Menu
Cursor Position Data
55°33.473'N
009°45.164'E
Rng 1.49 nm
Brg 271.6°
Track Control Stopped
Alarm Messages
Select Query Feature
Context Menu
Push Button Function Indications

Kelvin Hughes New Manta Digital ZM ECDIS

Key Kelvin Hughes New Manta Digital ZM ECDIS Menu Functions		
1.	Configuration of Ship's Length, Beam, Maximum Speed and ROT	**Standby Screen>Own Ship Tab**
2.	View list of installed Charts	**Chart Maintenance>Chart View or Dataview Tab>(Filters)**
3.	View the latest update number installed	**Chart Maintenance>Check Chart Update Status**
4.	Change Chart Settings	**ECDIS>Chart Settings Icon>Advanced Tab**
5.	View information on charted objects and view additional text	**ECDIS>Chart Settings Icon>Query Tab (left click)**
6.	Set the Safety Depth, Safety Contour, Shallow and Deep Contour	**ECDIS>Chart Settings Icon>General + Advanced Tabs**
7.	Input a User Map Object	**ECDIS>User Map Icon>Edit Selected Map>Enter Object**
8.	Input a Manual Update	**Chart Maintenance>View Updates>Insert New Feature**
9.	Turn the Predictor on	**ECDIS>Own Ship Icon>Own Ship Tab**
10.	Configure the Look-ahead (Anti-grounding Cone)	**ECDIS>Own Ship Icon>Look-ahead Tab**
11.	Configure Ship's Track	**ECDIS>Own Ship Icon>Past Track Tab**
12.	Configure Velocity Vectors	**ECDIS>Own Ship Icon>Own Ship Tab**
13.	View past Alarms and Warnings	**ECDIS>Alarm (right click)**
14.	Input a Visual or Radar Fix	**ECDIS>Position Fixing Icon>LOP Tab>Fix Tab**
15.	Turn on Radar Image Overlay	**ECDIS>Radar Control Icon>Radar On**



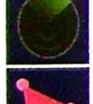
Motion and Orientation
Scale
Time and Date
Best Scale or Fixed Scale Chart
General/Advanced and Query Pages
Cursor Information
VRM/EBL
Video Settings and Display Mode
Alarm List
On-screen Cursor Buttons

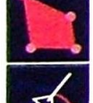

Nav Data

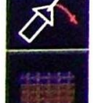

Chart Settings


Extended Route Data


Target Data


Radar Control


User Maps

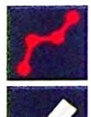

Own Ship Settings

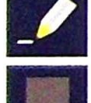

Docking Display


Position Fixing


NAVTEX


Nav Tools


Route Data


Mariner's Notes/Events

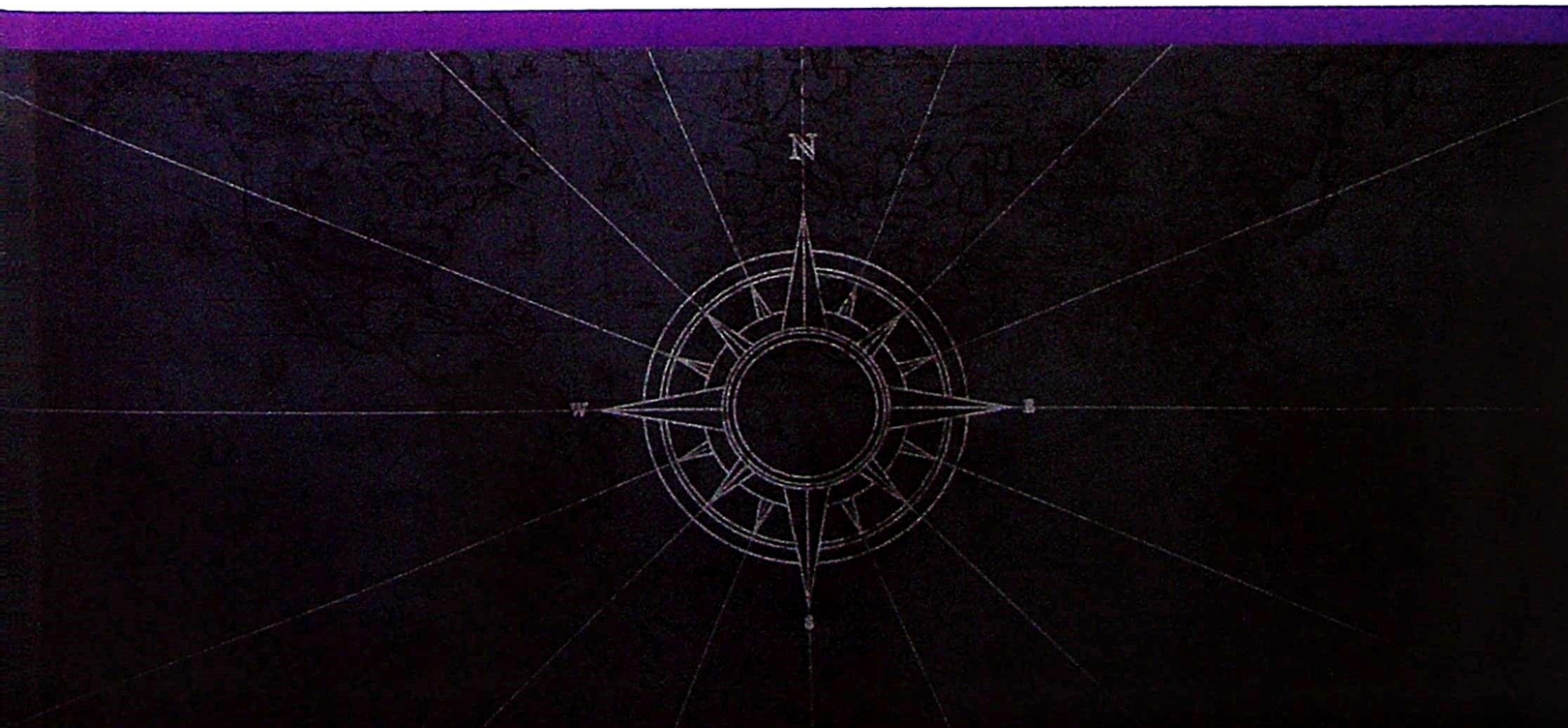

CCTV Control

Man Overboard


Alarms

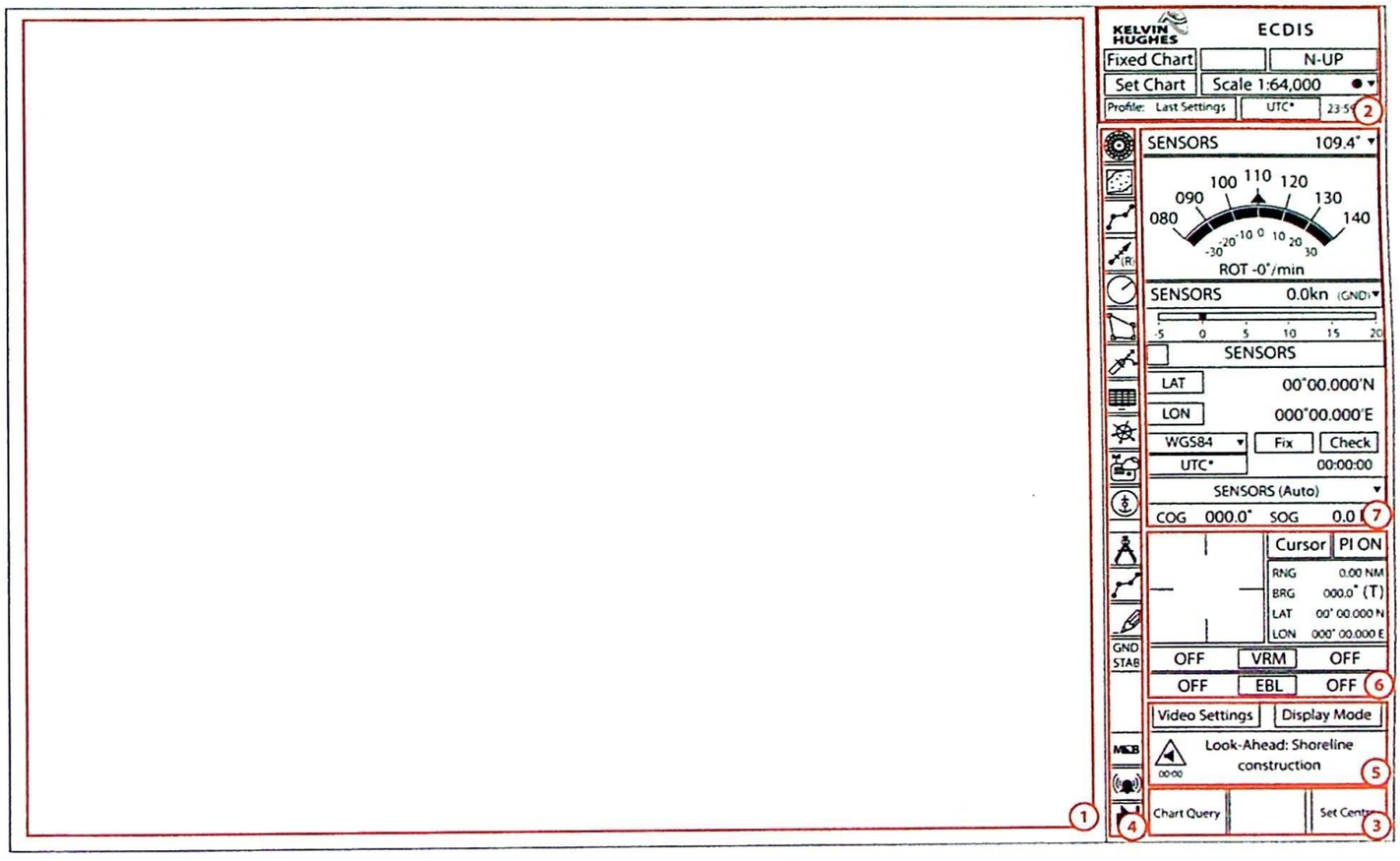

Show/Hide Side Panel

Kelvin Hughes
Manta Digital ZM ECDIS



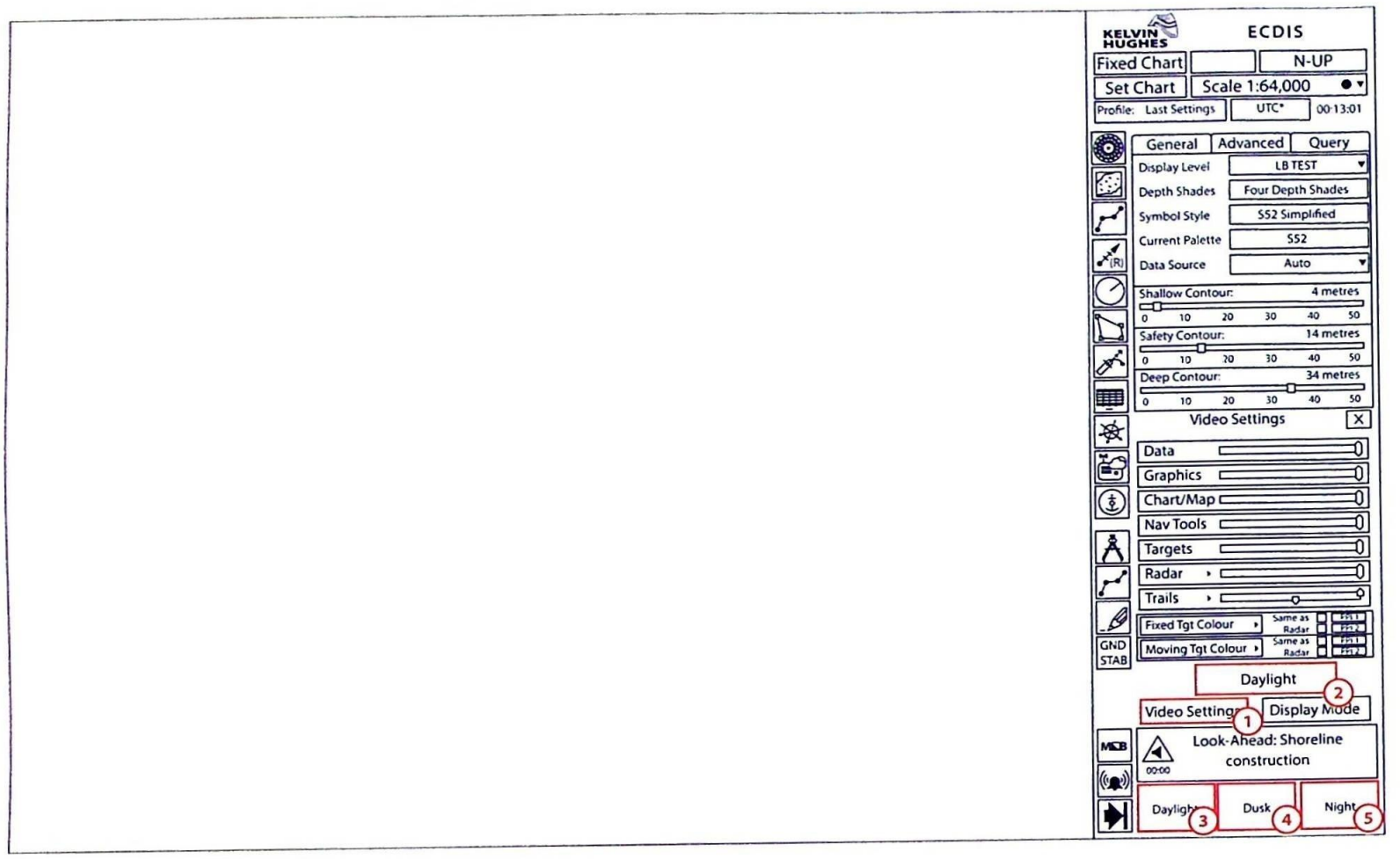
Section 1: Main Display

1.1 **Screen Layout**



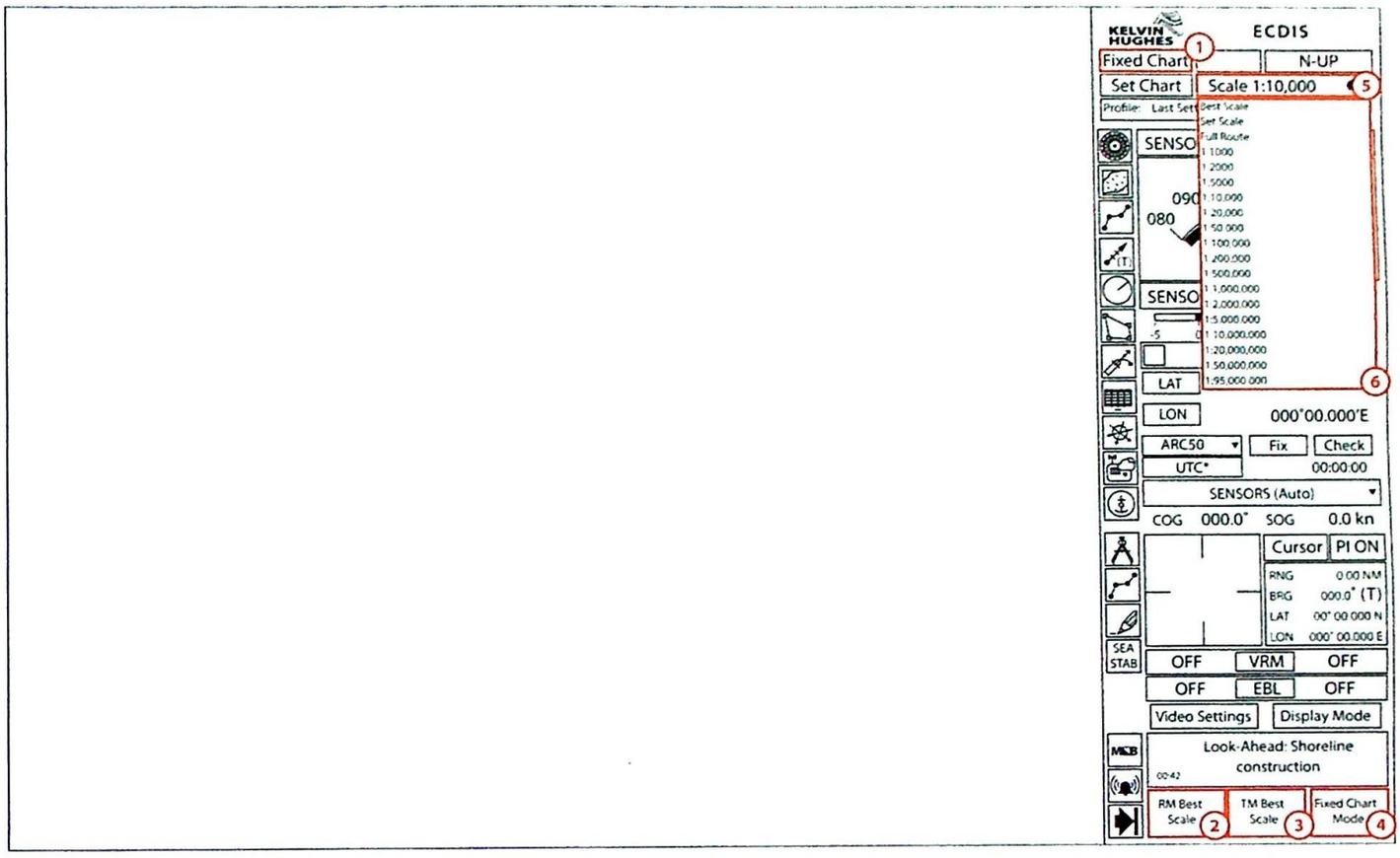
1. Chart display panel
2. Chart display settings
3. Cursor cue
4. Chart panel toolbar
5. Alarms/warnings box
6. Lower control panel
7. Upper control panel

1.2 Colour Palette



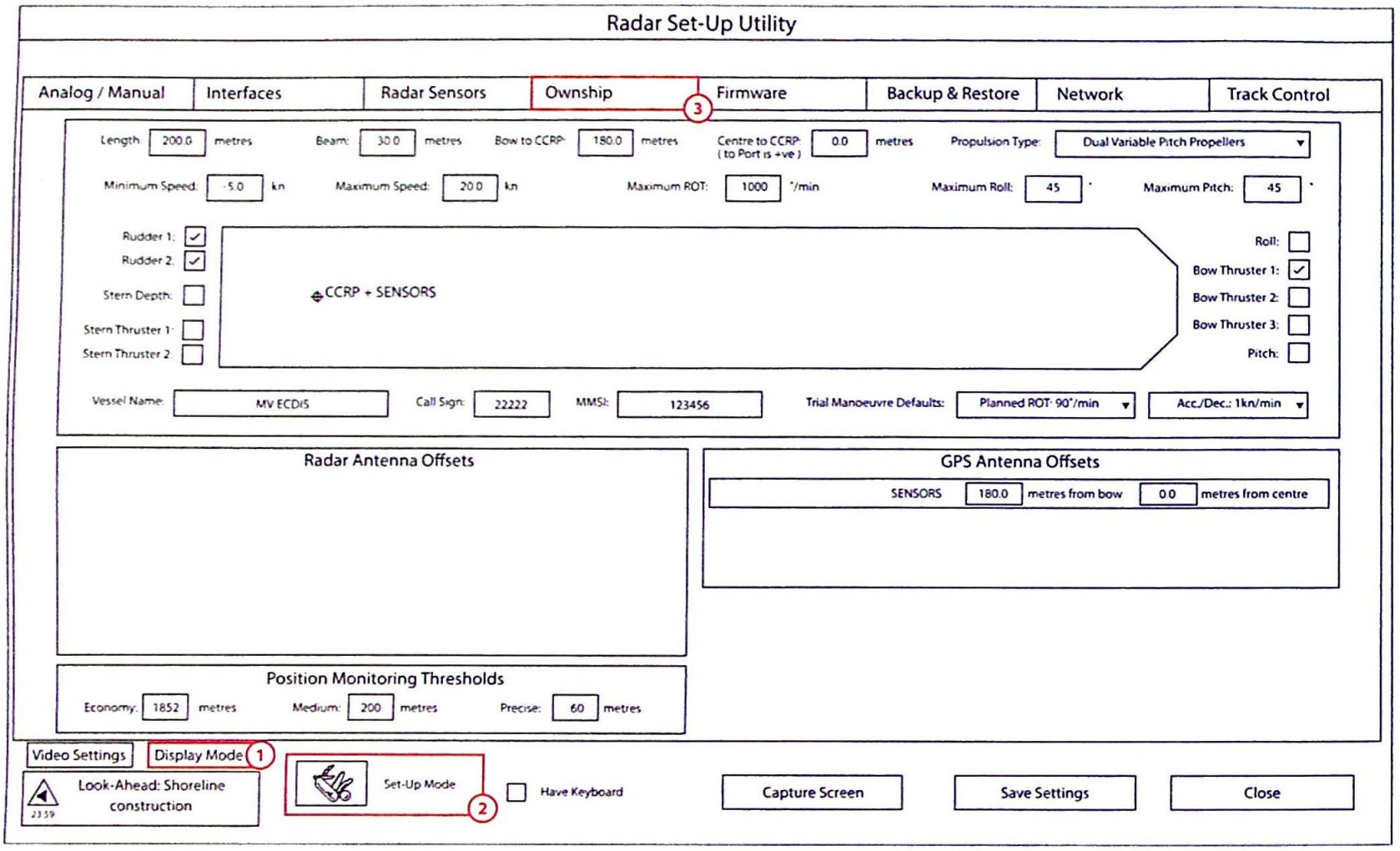
1. Click 'Video Settings'.
2. Hover over the palette selection button.
3. Left click to select the 'Daylight' colour palette.
4. Middle click to select the 'Dusk' colour palette.
5. Right click to select the 'Night' colour palette.

1.3 Range/Scale/Motion



1. Hover over the 'Fixed Chart' button.
2. Left click to select 'RM Best Scale'.
3. Middle click to select 'TM Best Scale'.
4. Right click to select 'Fixed Chart Mode'.
5. Left click on the chart scale dropdown.
6. Manually select a scale from the list of scales.

1.4 Setting CCRP

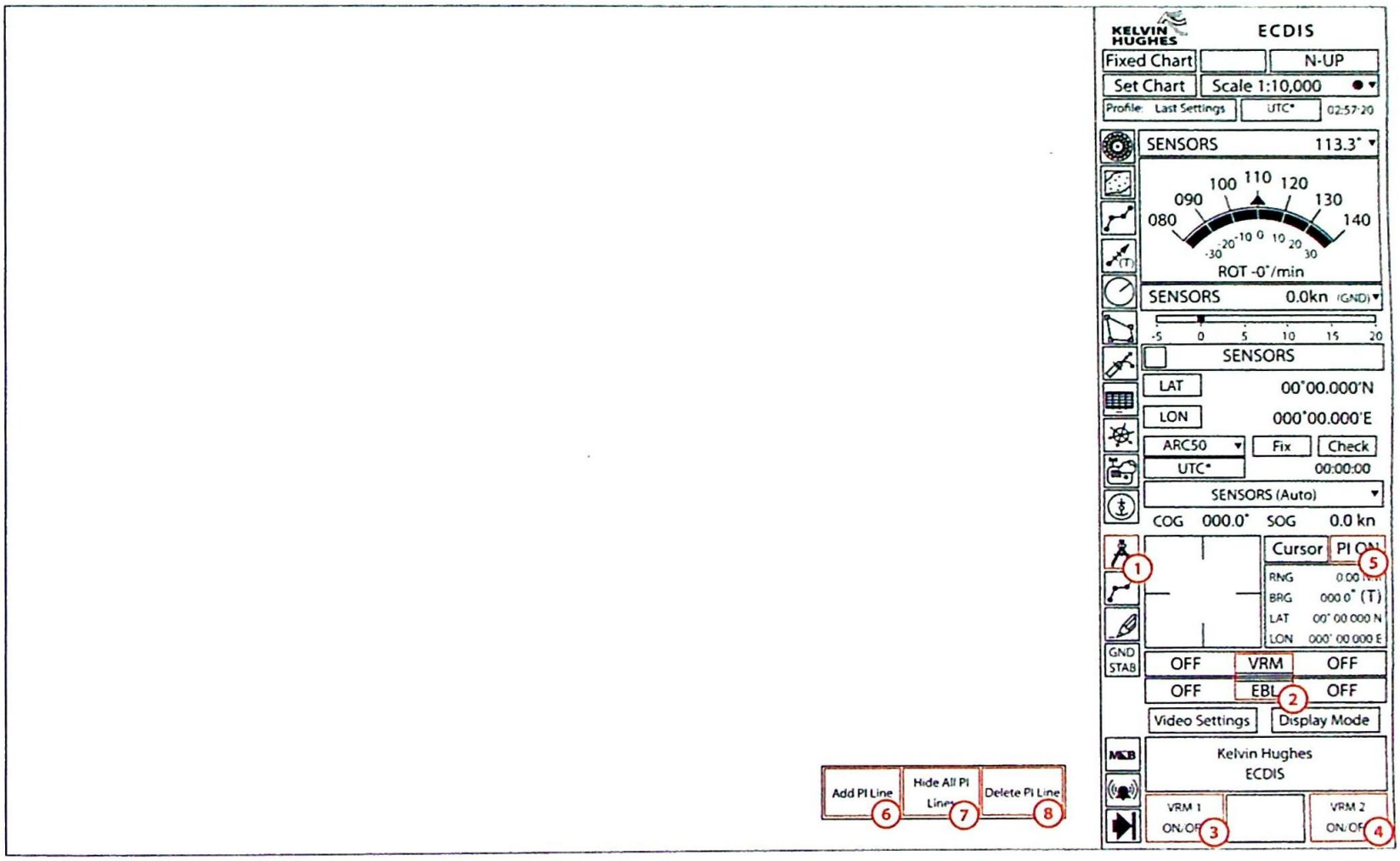


Note to user: To find CCRP settings, you must exit 'ECDIS Mode' and enter 'Set-Up Mode'.

1. Click 'Display Mode' – this button can be found just above your alarms while in ECDIS mode.
2. From the mode selection page, click 'Set-Up Mode'.
3. Click 'Ownship' to open CCRP settings.

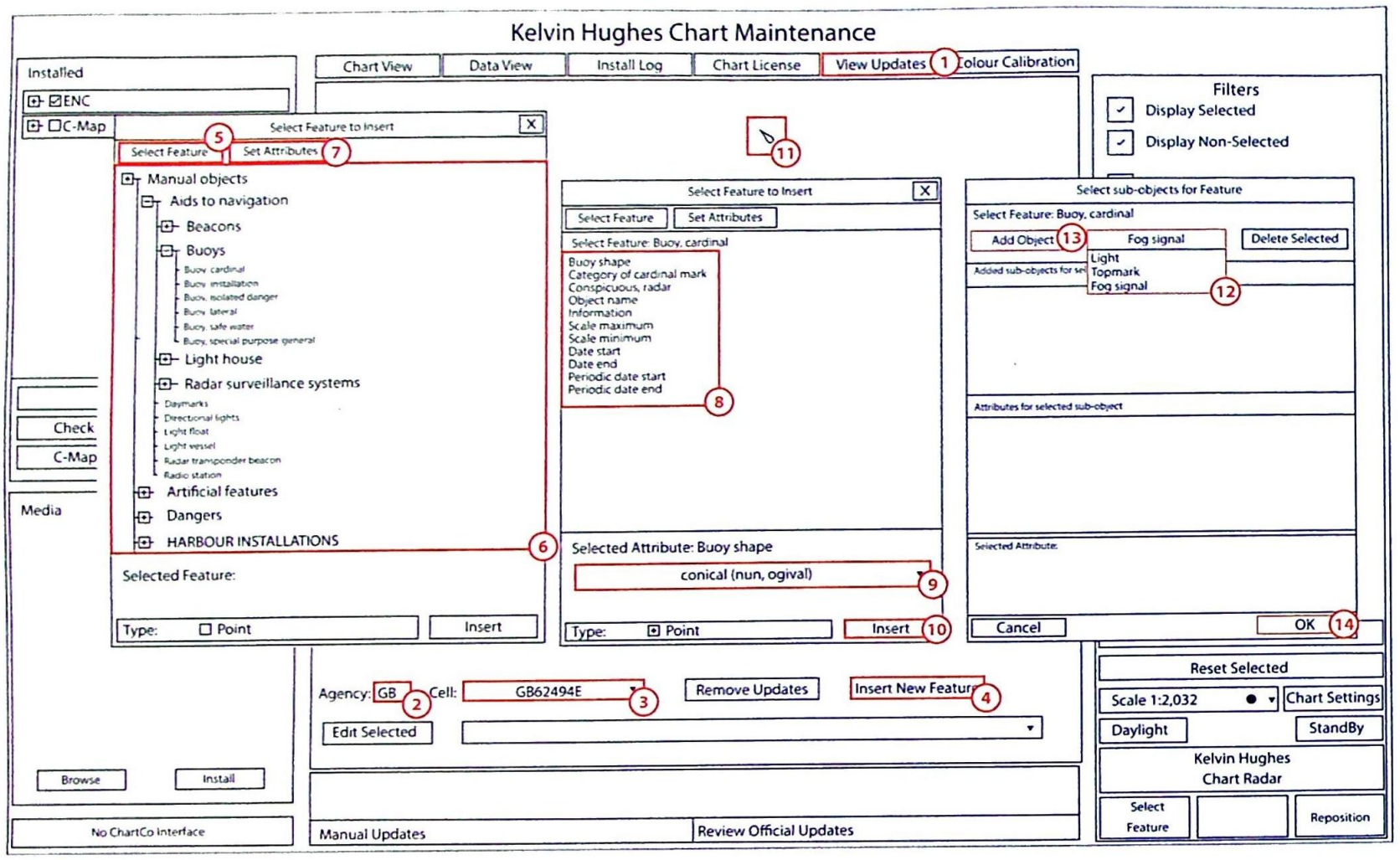
Section 2: Navigation Tools

2.1 **EBL/VRM/PI**



1. Click this button.
2. Hover over 'VRM' or 'EBL'.
3. Left click to turn ON/OFF VRM 1/EBL 1.
4. Right click to turn ON/OFF VRM 2/EBL 2.
5. Hover over 'PI ON'.
6. Left click to 'Add PI Line' (max 4).
7. Middle click to 'Hide All PI Lines'.
8. Right click to 'Delete PI Line'.

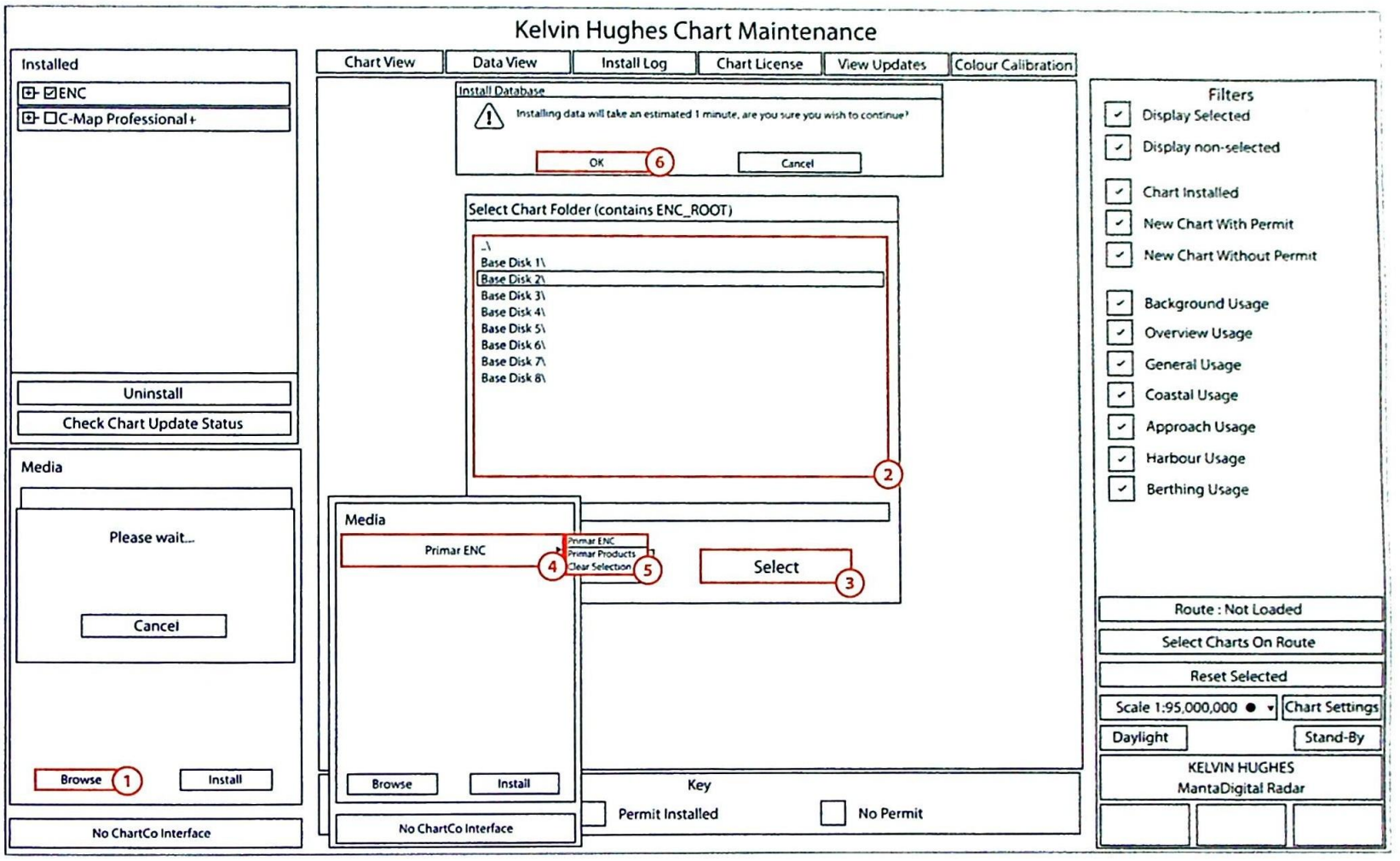
2.2 Manual Corrections



Note to user: To add manual updates, you are required to exit your ECDIS and move to the 'StandBy' screen. You should then enter 'Chart Maintenance' mode.

1. Click 'View Updates'.
2. Select the required agency.
3. Select the required cell.
4. Click 'Insert New Feature'.
5. Ensure 'Select Feature' is selected.
6. Select an object from the list available.
7. Ensure 'Set Attributes' is selected.
8. Left click to select an attribute to edit.
9. Use the dropdown to change the attribute value.
10. Click 'Insert'.
11. Left click on the chart in the position to place your object.
12. Select a sub-object from the dropdown.
13. Click 'Add Object' to include it in your manual update.
14. Click 'OK' to finish.

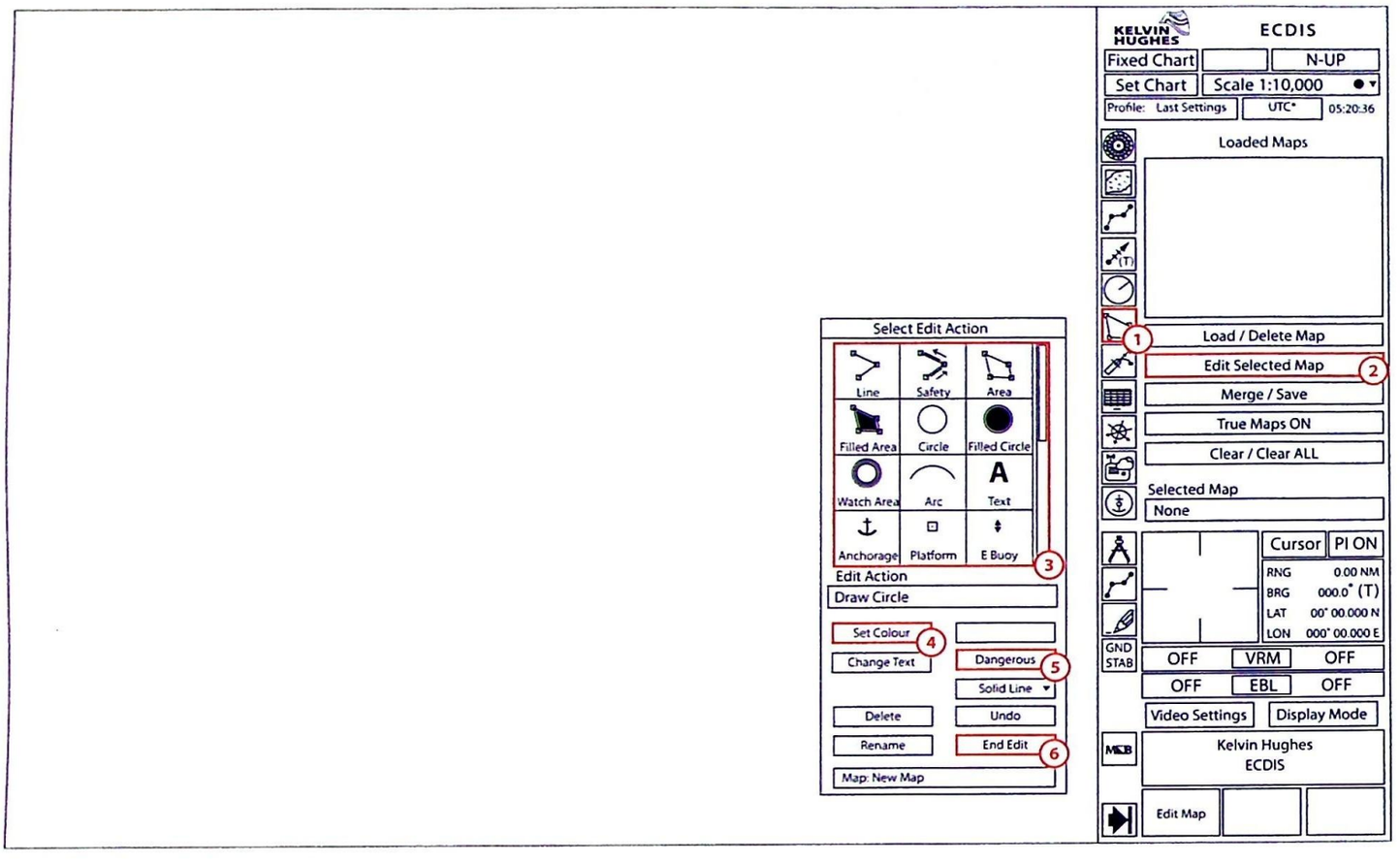
2.3 Chart Updates



Note to user: To update charts, you are required to exit your ECDIS and move to the 'StandBy' screen. You should then enter 'Chart Maintenance' mode.

1. Click 'Browse'.
2. Select the folder containing your charts.
3. Click 'Select'.
4. Click to select the type of charts to install.
5. Select chart type.
6. Click 'OK'.

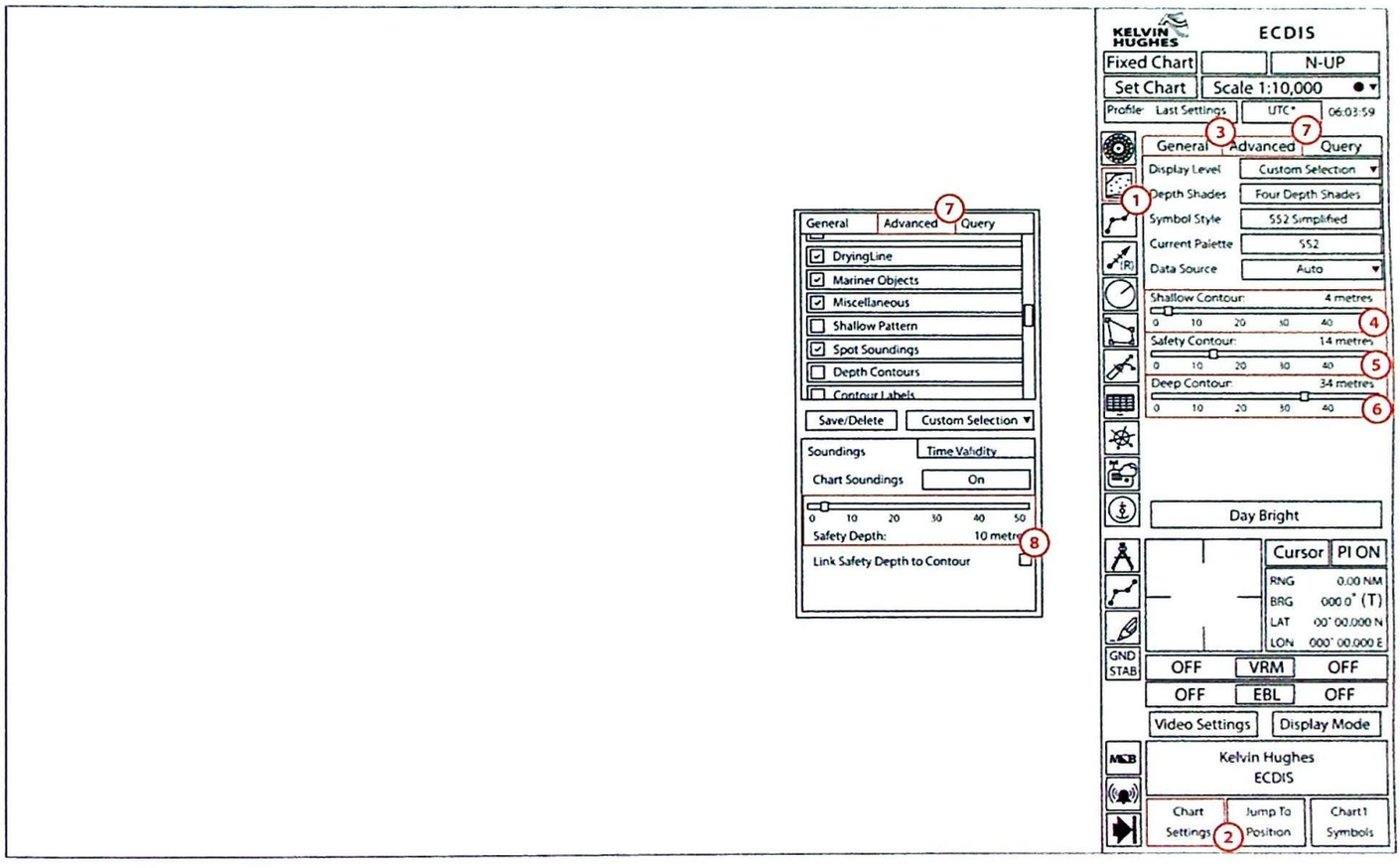
2.4 No Go Areas/User Charts



1. Click the maps button.
2. Click 'Edit Selected Map'.
3. Select an object from the list.
4. Set the object colour.
5. Set the danger ON/OFF.
6. Click 'End Edit'.

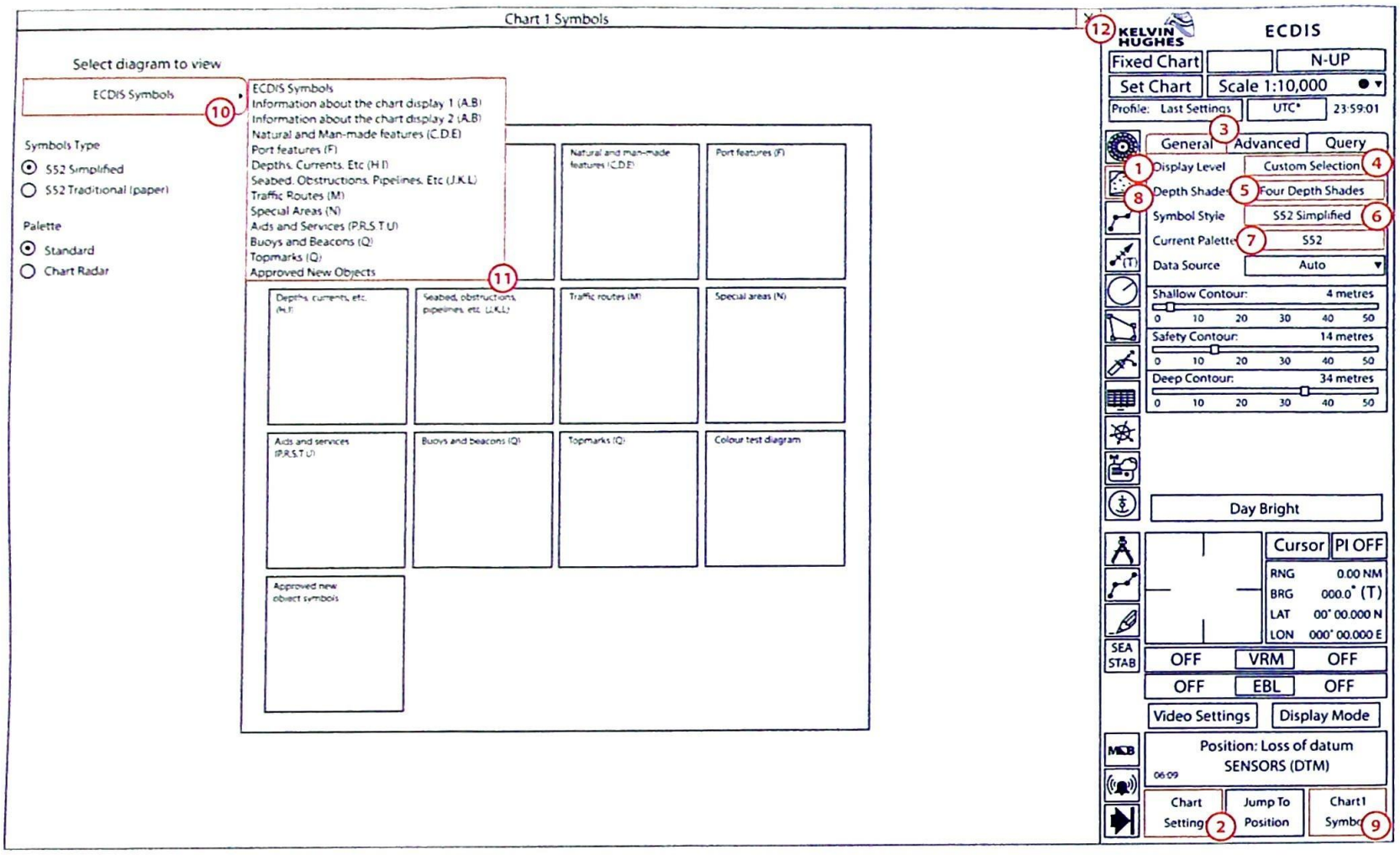
Section 3: Chart Display Settings

3.1 **Safety Depth/Contour**



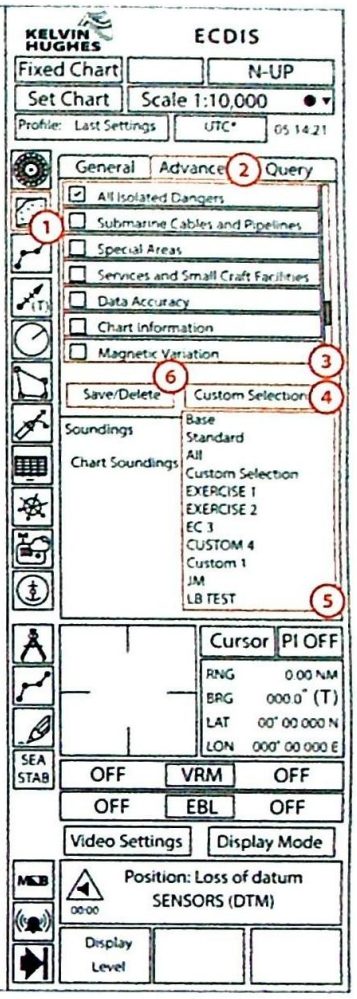
1. Hover over the chart settings button.
2. Left click to open 'Chart Settings'.
3. Ensure 'General' is selected.
4. Adjust 'Shallow Contour', as required.
5. Adjust 'Safety Contour', as required.
6. Adjust 'Deep Contour', as required.
7. Select 'Advanced'.
8. Adjust 'Safety Depth', as required.

3.2 Display Preference/Chart 1



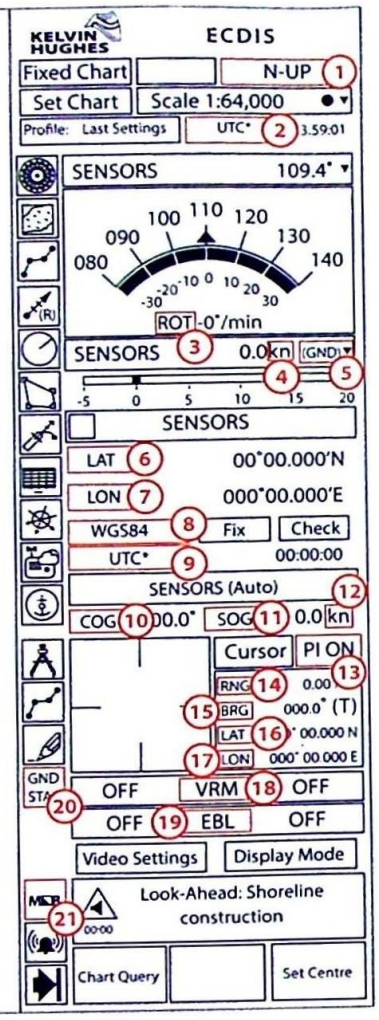
1. Hover over the chart settings button.
2. Left click to open 'Chart Settings'.
3. Ensure 'General' is selected.
4. Change 'Display Level', as required.
5. Change 'Depth Shades', as required.
6. Change 'Symbol Style', as required.
7. Change 'Current Palette', as required.
8. Hover over the chart settings button again.
9. Right click to open 'Chart1 Symbols'.
10. Click 'ECDIS Symbols' to open the index.
11. Select an area from the list to show more.
12. Click the 'X' to close 'Chart 1'.

3.3 Display Configuration



1. Left click on the chart settings button.
2. Ensure 'Advanced' is selected.
3. Turn ON/OFF layers from the list, as required.
4. Click 'Custom Selection' to show the dropdown.
5. Select a custom set-up from the list.
6. Click 'Save/Delete' to save current settings.

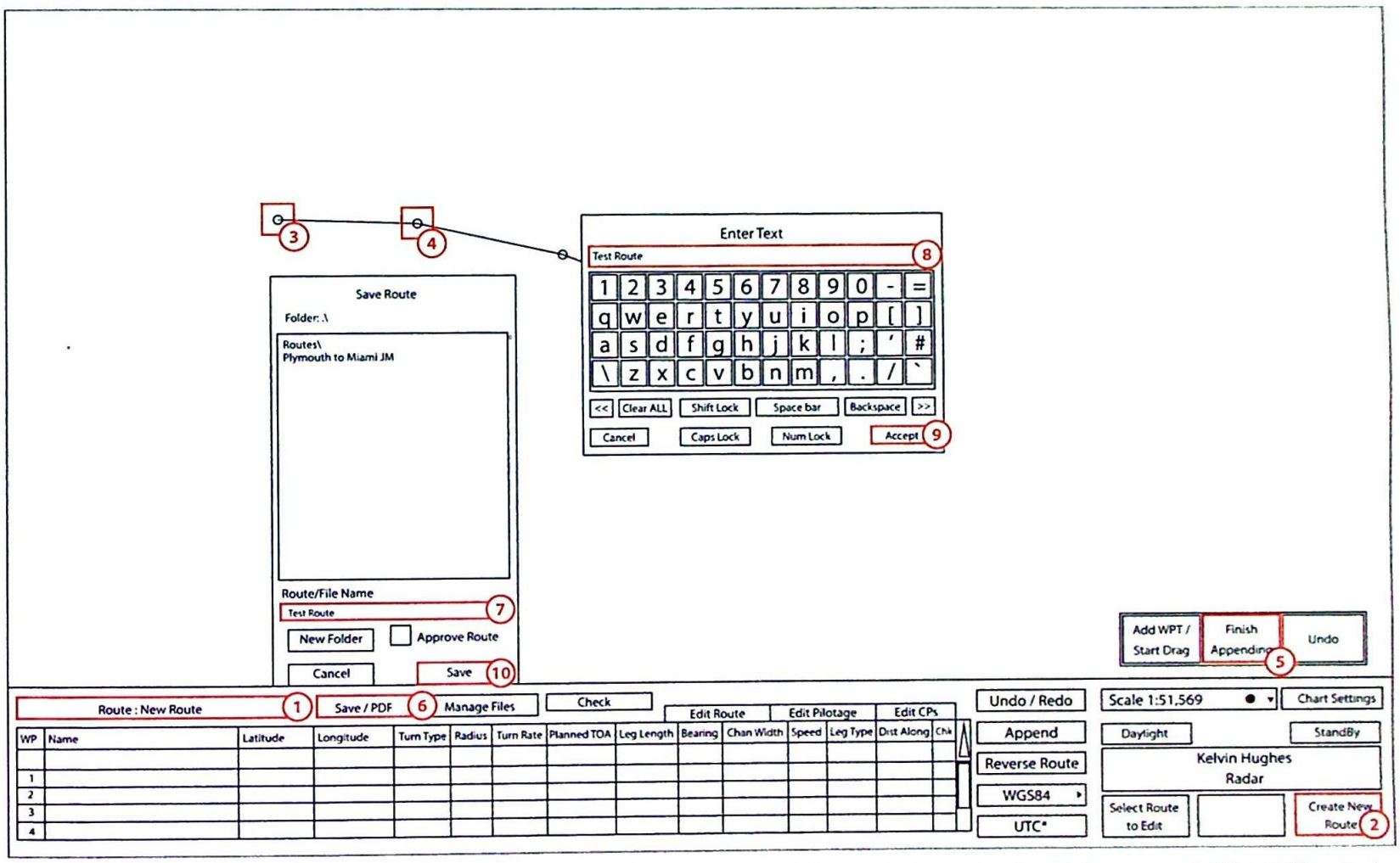
3.4 Abbreviations



1. North Up
2. Universal Time Coordinated
3. Rate of Turn
4. Knots
5. Ground
6. Latitude
7. Longitude
8. World Geodetic System 1984
9. Universal Time Coordinated
10. Course Over Ground
11. Speed Over Ground
12. Knots
13. Parallel Index
14. Range
15. Bearing
16. Latitude
17. Longitude
18. Variable Range Marker
19. Electronic Bearing Line
20. Ground Stabilised
21. Man Over Board

Section 4: Route Planning

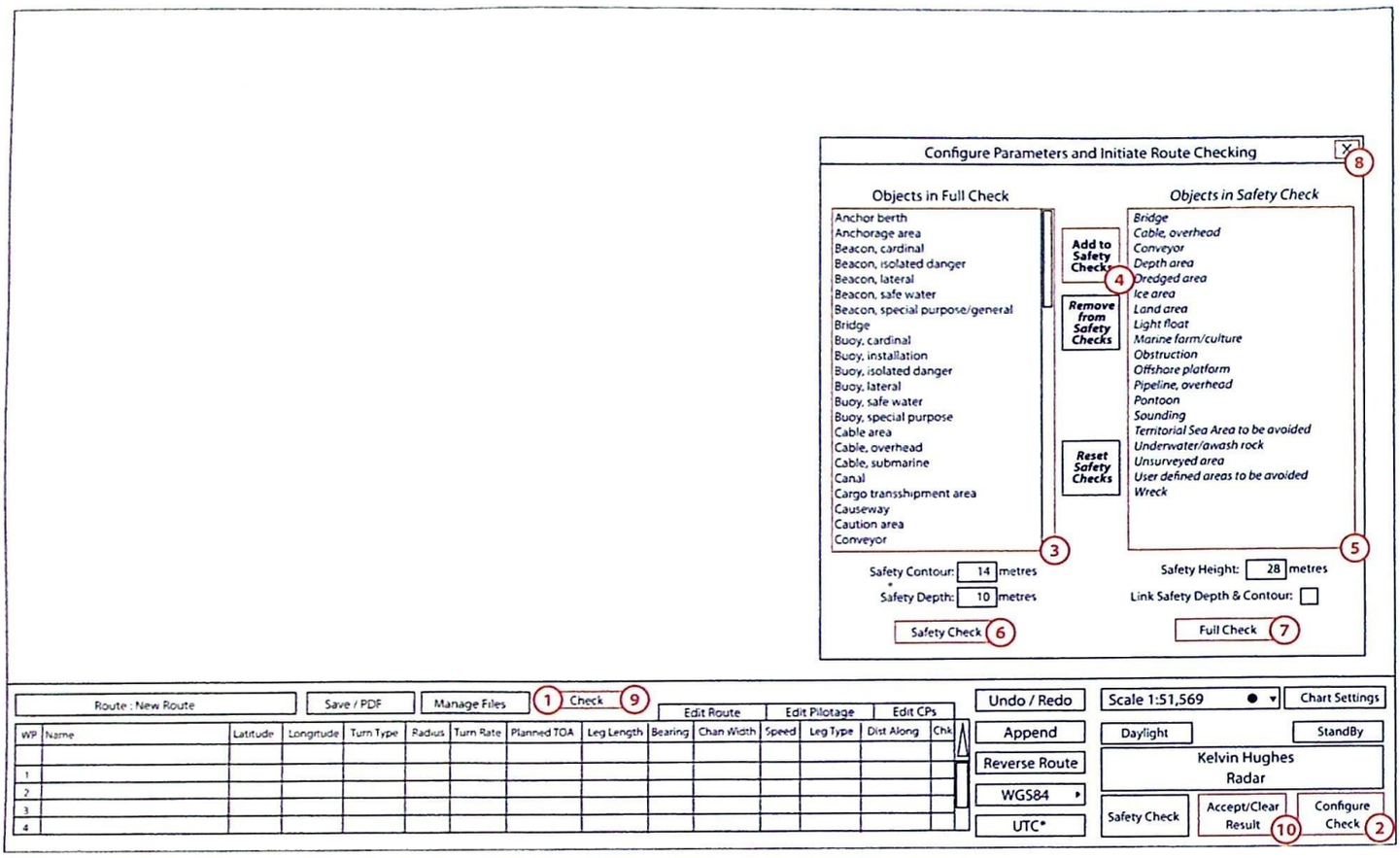
4.1 **Creation**



Note to user: To create a route, you are required to exit your ECDIS and move to the 'StandBy' screen. You should then enter the 'Route Planning' mode.

1. Hover over 'Route: New Route'.
2. Right click to 'Create New Route'.
3. Left click on the chart to place your first waypoint.
4. Consecutive left clicks will place more waypoints.
5. Middle click 'Finish Appending' when you have finished adding waypoints.
6. Click 'Save/PDF'.
7. Click the text box.
8. Name your route.
9. Click 'Accept' to save the name.
10. Click 'Save' to finish.

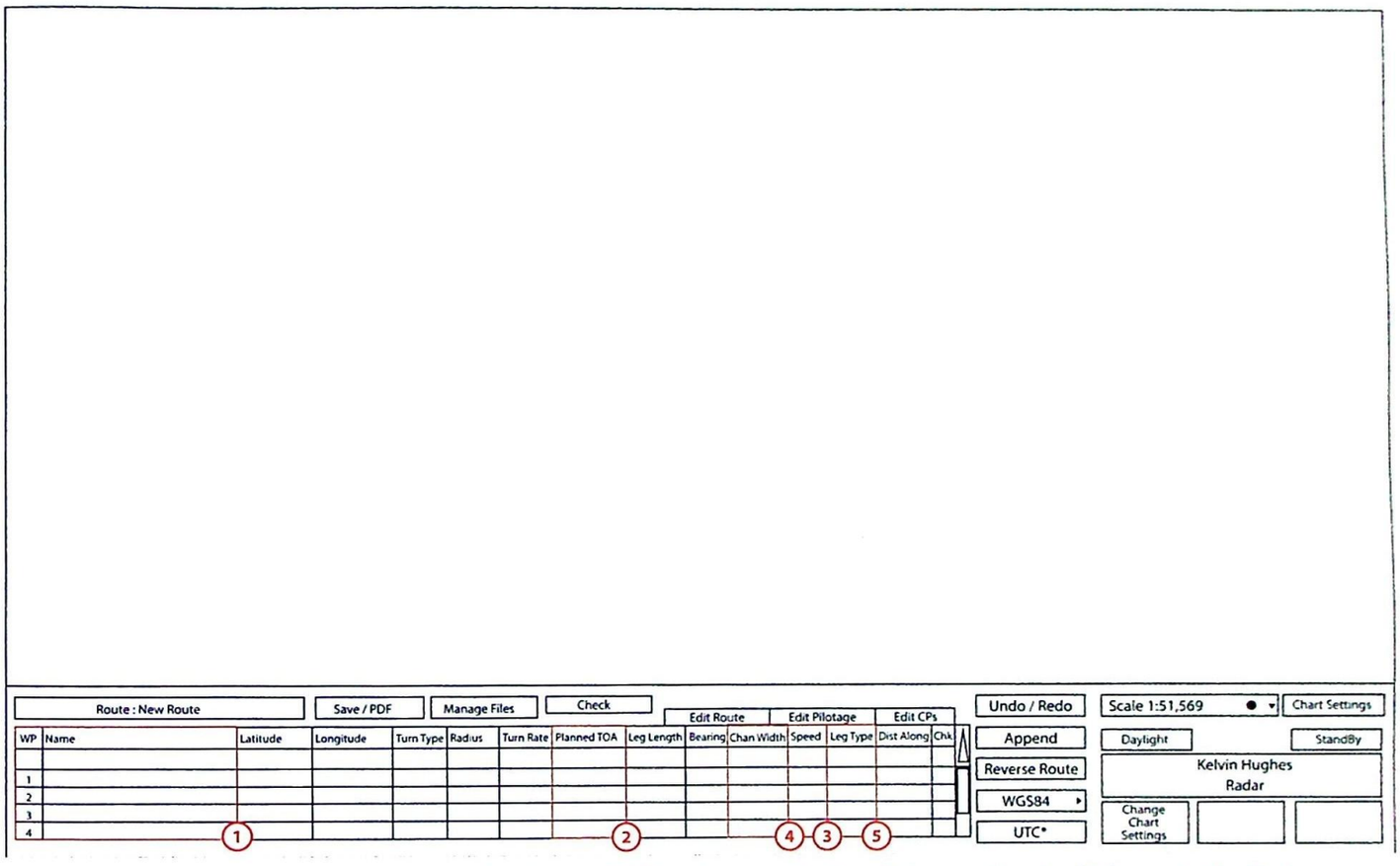
4.2 Route Checking



Note to user: To check a route, you are required to exit your ECDIS and move to the 'StandBy' screen. You should then enter the 'Route Planning' mode.

1. Ensure you have a route loaded and hover over 'Check'.
2. Right click to 'Configure Check'.
3. Left click on individual check objects to highlight them.
4. Click 'Add to Safety Checks' when you have selected your required objects.
5. Added objects will appear in the 'Objects in Safety Check' list.
6. Click 'Safety Check' to check the object in the 'Safety Check' list.
7. Click 'Full Check' to check all the objects in the 'Full Check' list.
8. Check 'Enable changes' to be able to add to the User Chart.
9. Hover over the 'Check' button again.
10. Middle click to accept the 'Safety Check'.

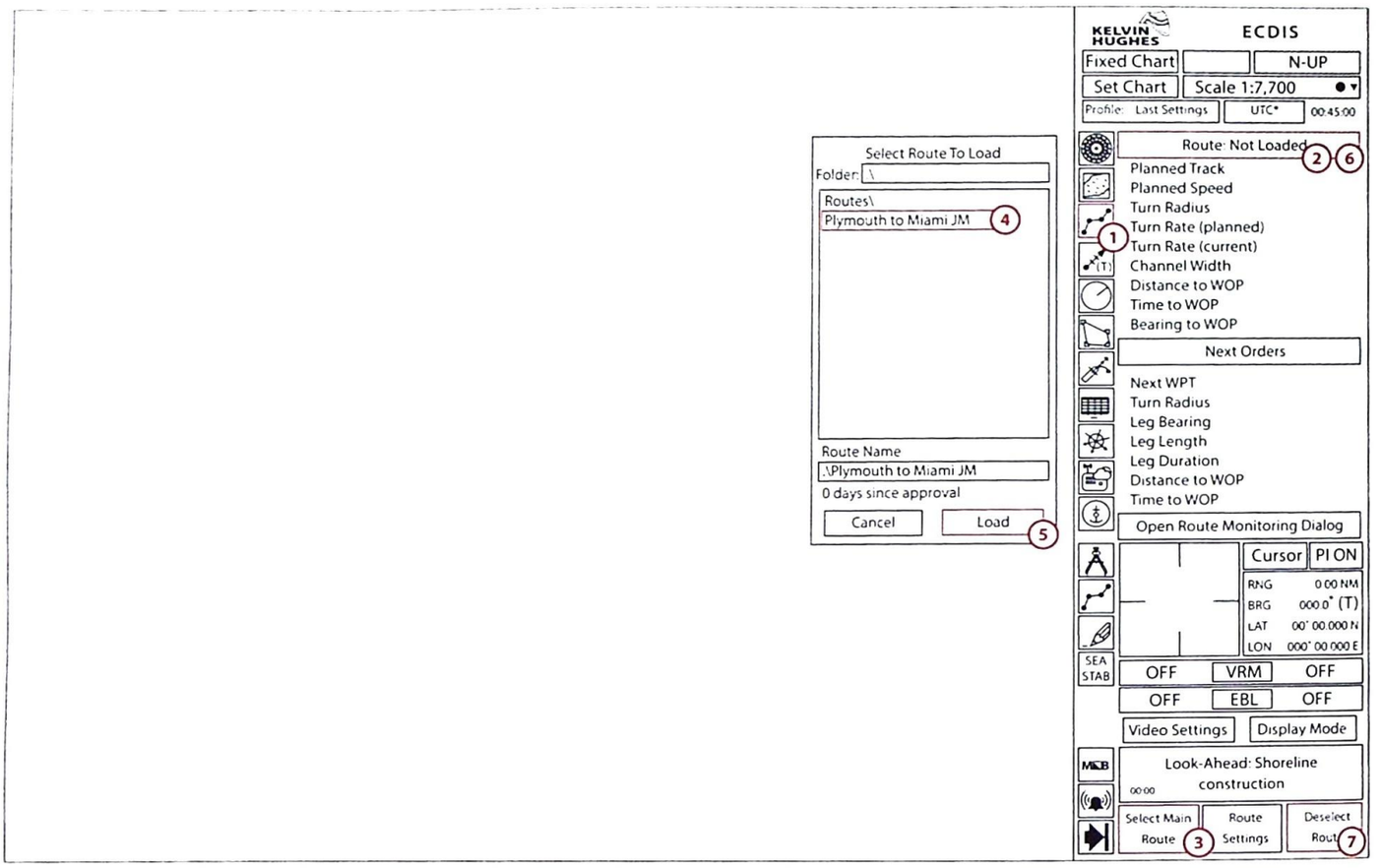
4.3 Optimisation/Schedule



Note to user: To optimise a route, you are required to exit your ECDIS and move to the 'StandBy' screen. You should then enter the 'Route Planning' mode.

1. Ensure you have a route loaded with some waypoints.
2. Optimise your route by configuring the ETA for each leg, as required.
3. Alternatively, you can optimise your route by configuring the speed of each leg, which will automatically calculate the ETA for each leg.
4. Ensure your channel width (XTD) is set up adequately for each leg.
5. Select rhumb line or Great Circle as required for each leg.

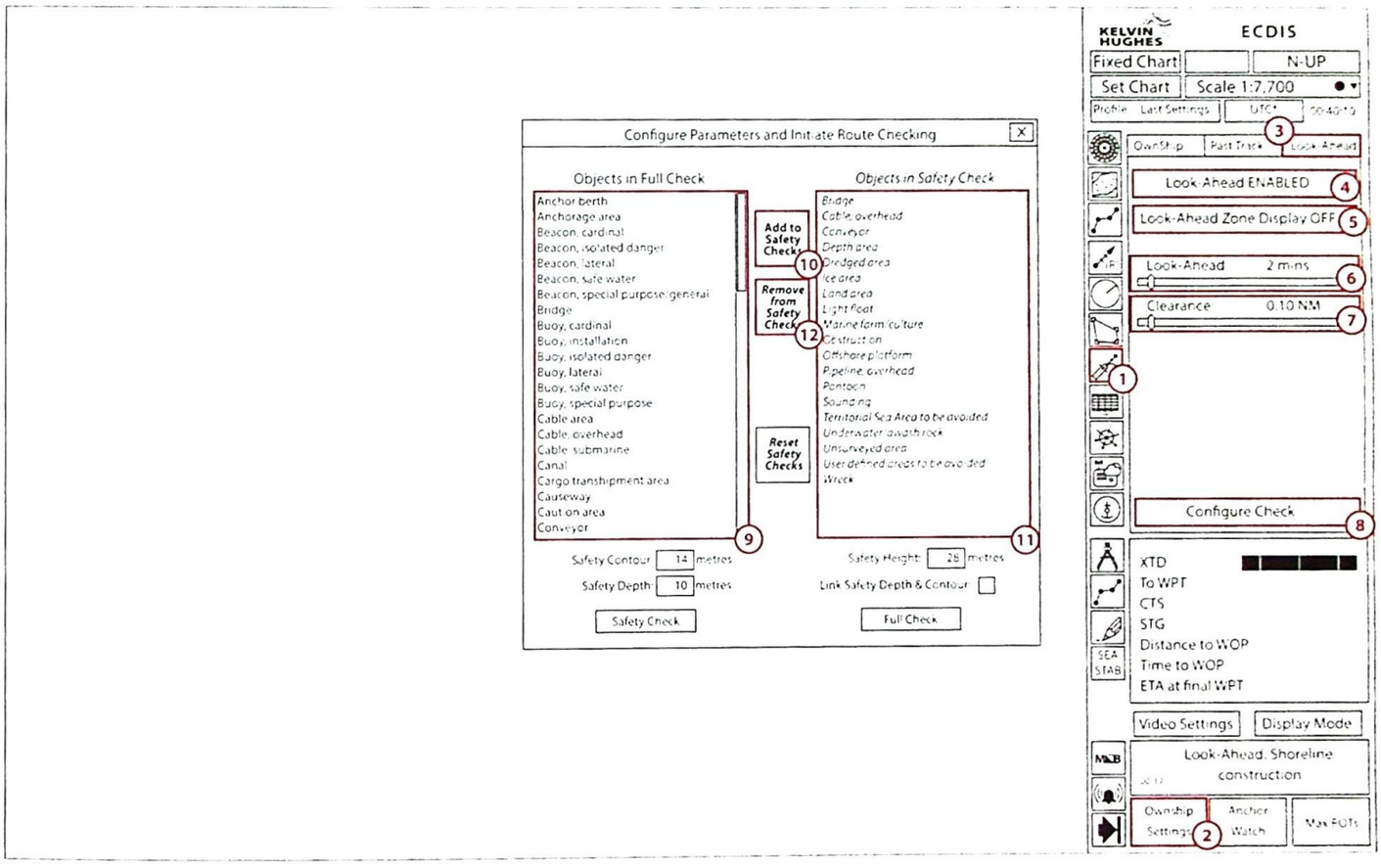
4.4 Selecting Active Route



1. Click the routes button.
2. Hover over the 'Route: Not Loaded' button.
3. Left click to 'Select Main Route'.
4. Select your route from the list.
5. Click 'Load'.
6. Hover over the 'Route: Not Loaded' button again.
7. Right click to deselect your route.

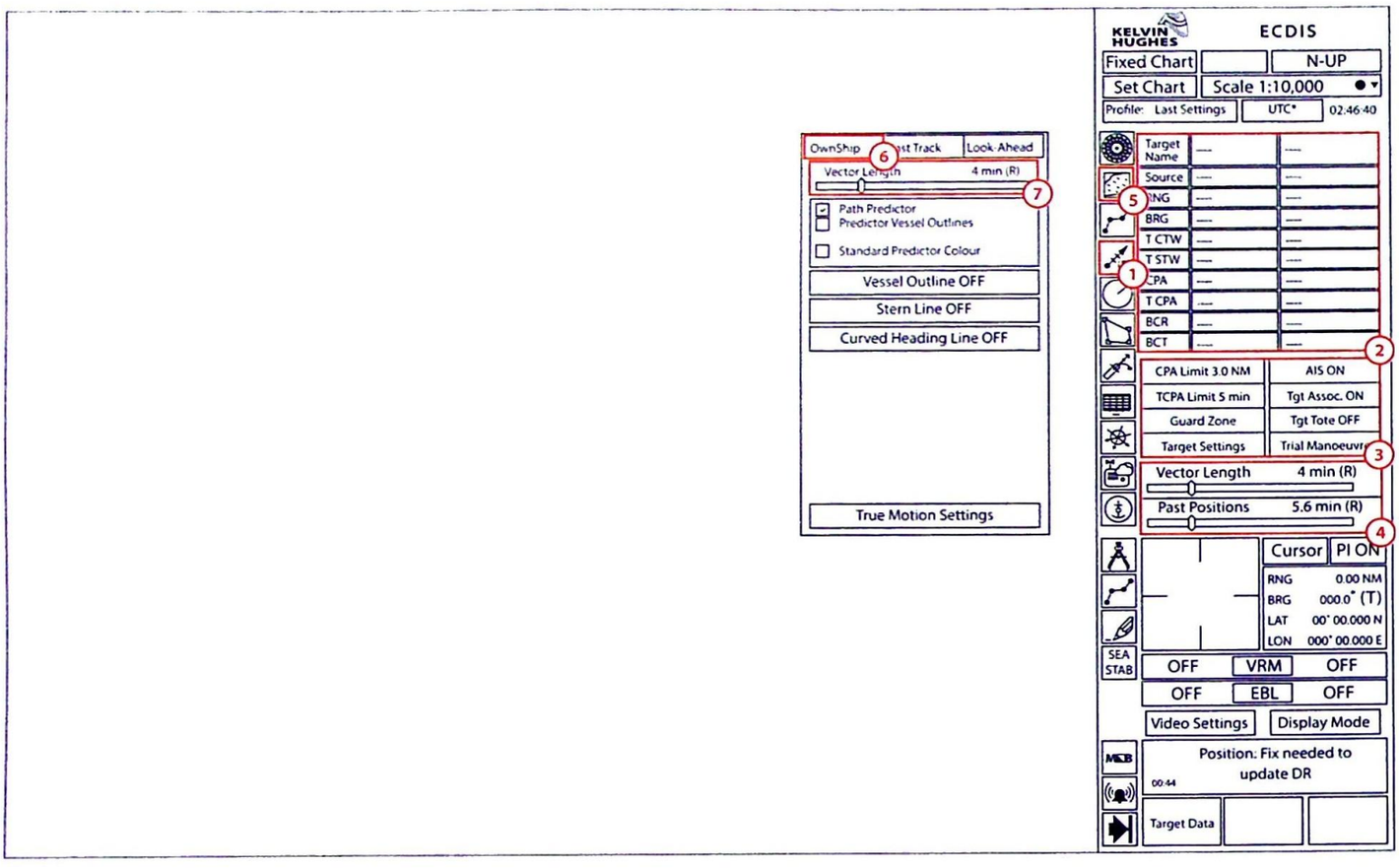
Section 5: Route Monitoring

5.1 **Look-Ahead**



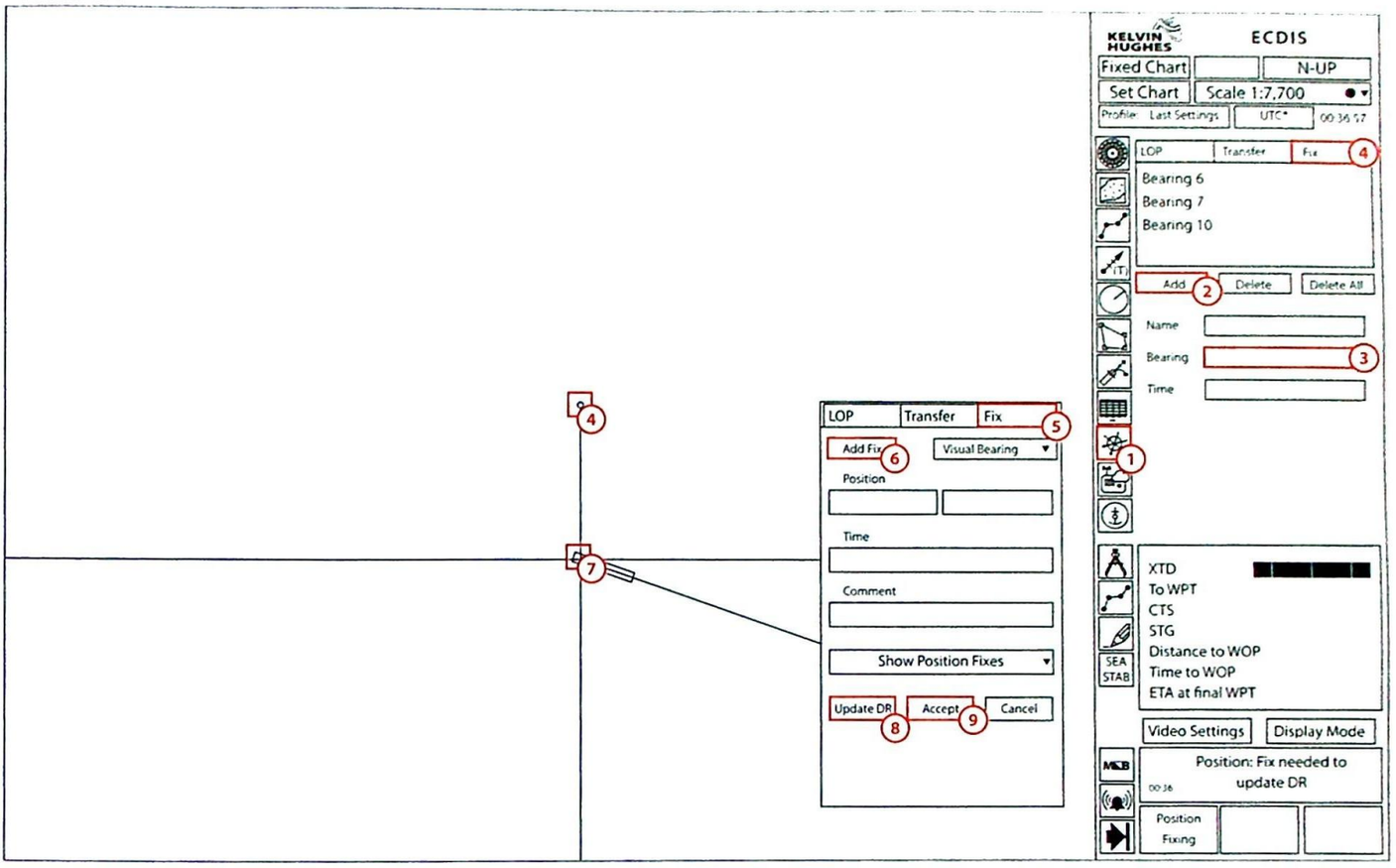
1. Hover over the 'Ownship' button.
2. Left click to open 'Ownship Settings'.
3. Select the 'Look-Ahead' tab.
4. Ensure 'Look-Ahead' is enabled.
5. Enable/disable the 'Look-Ahead Zone'.
6. Set 'Look-Ahead' distance.
7. Set clearance for around your vessel.
8. Click 'Configure Check'.
9. Highlight objects in the list by left clicking on them.
10. Click 'Add to Safety Checks' to add the selected objects to your check.
11. Added objects will appear in the 'Safety Check' list.
12. Click 'Remove from Safety Checks' to remove selected objects from the 'Safety Check' list.

5.2 TT/AIS/Vectors



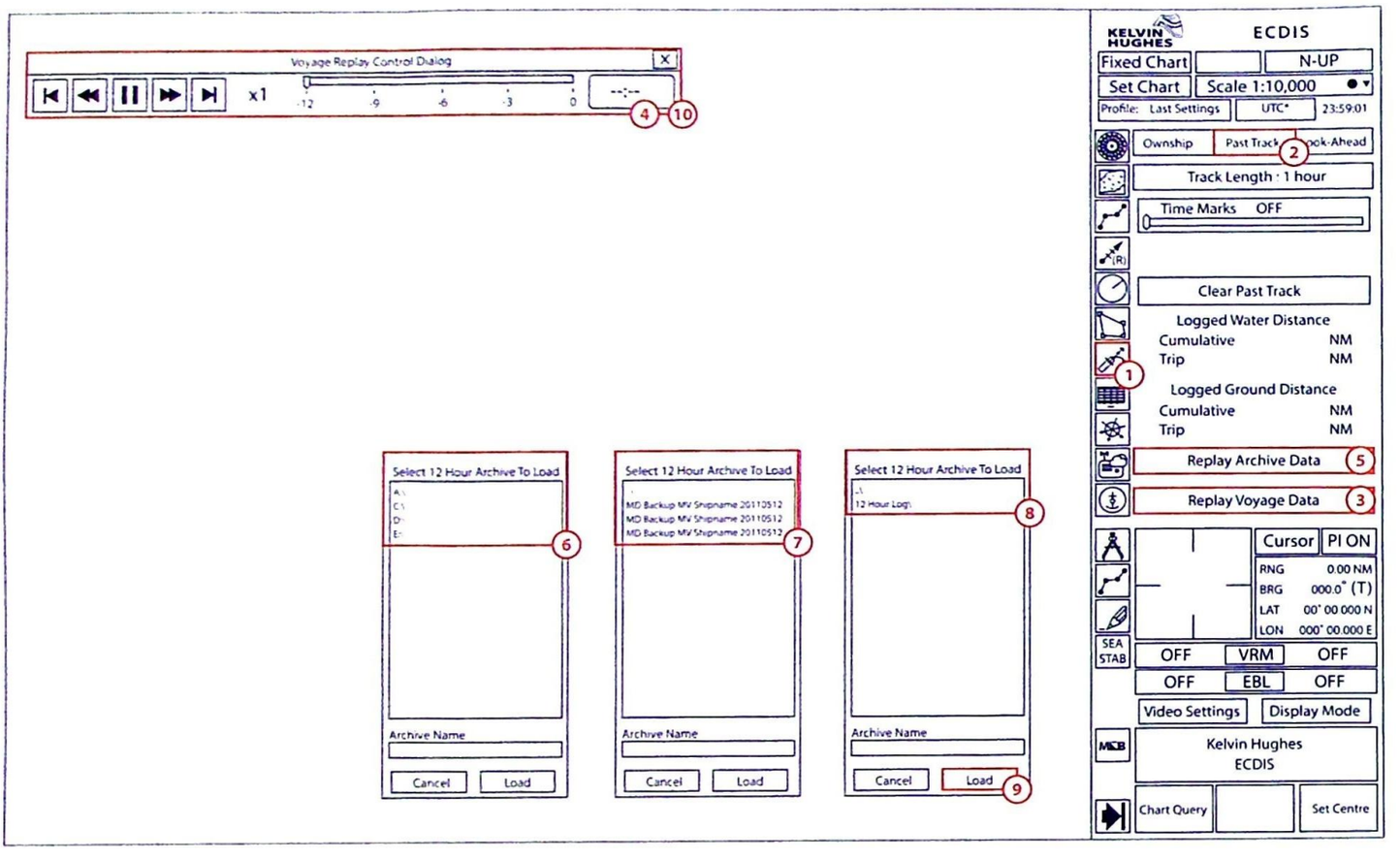
1. Left click on the targets button.
2. Information list of selected targets.
3. TT/AIS target settings.
4. Vector adjustment settings to be adjusted, as required.
5. Left click on the chart set-up button.
6. Select the 'OwnShip' tab.
7. Adjust the 'OwnShip' vector length, as required.

5.3 Position Fixing



1. Click the fixing button.
2. Click 'Add'.
3. Type in the actual bearing of your reference object.
4. Left click on your reference object on the chart.
   a. Repeat steps 2 to 4 as many times as required.
5. Click 'Fix'.
6. Click 'Add Fix'.
7. Left click to place your fix in the estimated position.
8. Click 'Update DR' to update the DR position.
9. Click 'Accept' to log the fix position.

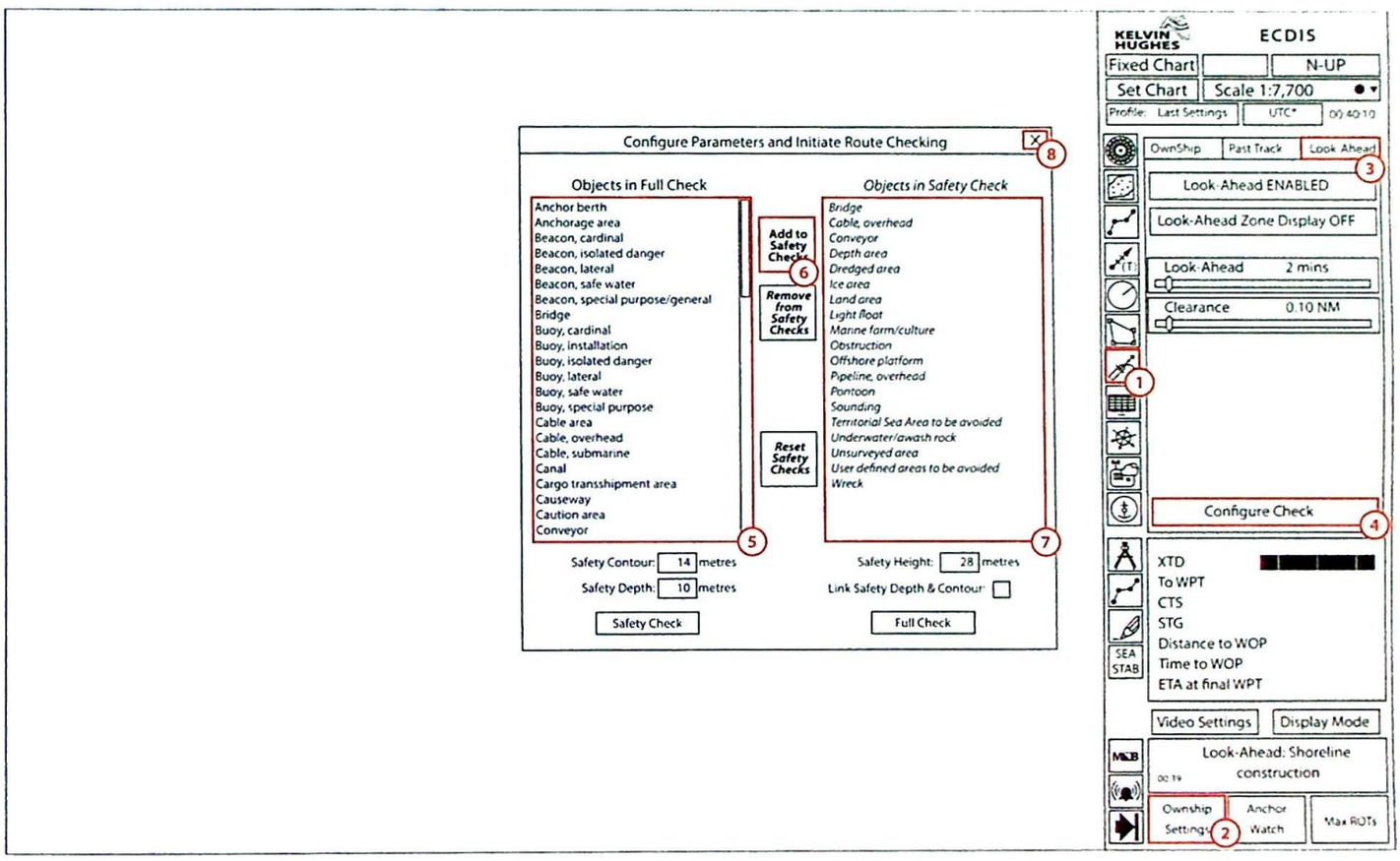
5.4 Playback



1. Click the 'Ownship' button.
2. Select the 'Past Track' tab.
3. Click 'Replay Voyage Data' to replay the last 12 hours of your voyage.
4. Use the 'Voyage Replay Control Dialog' to control the replay.
5. Click 'Replay Archive Data' to manually select a past 12 hour period.
6. Select the drive to which your data is saved.
7. Select the time period of your replay.
8. Select your replay file.
9. Click 'Load'.
10. Use the 'Voyage Data Control Dialog' to control the replay.

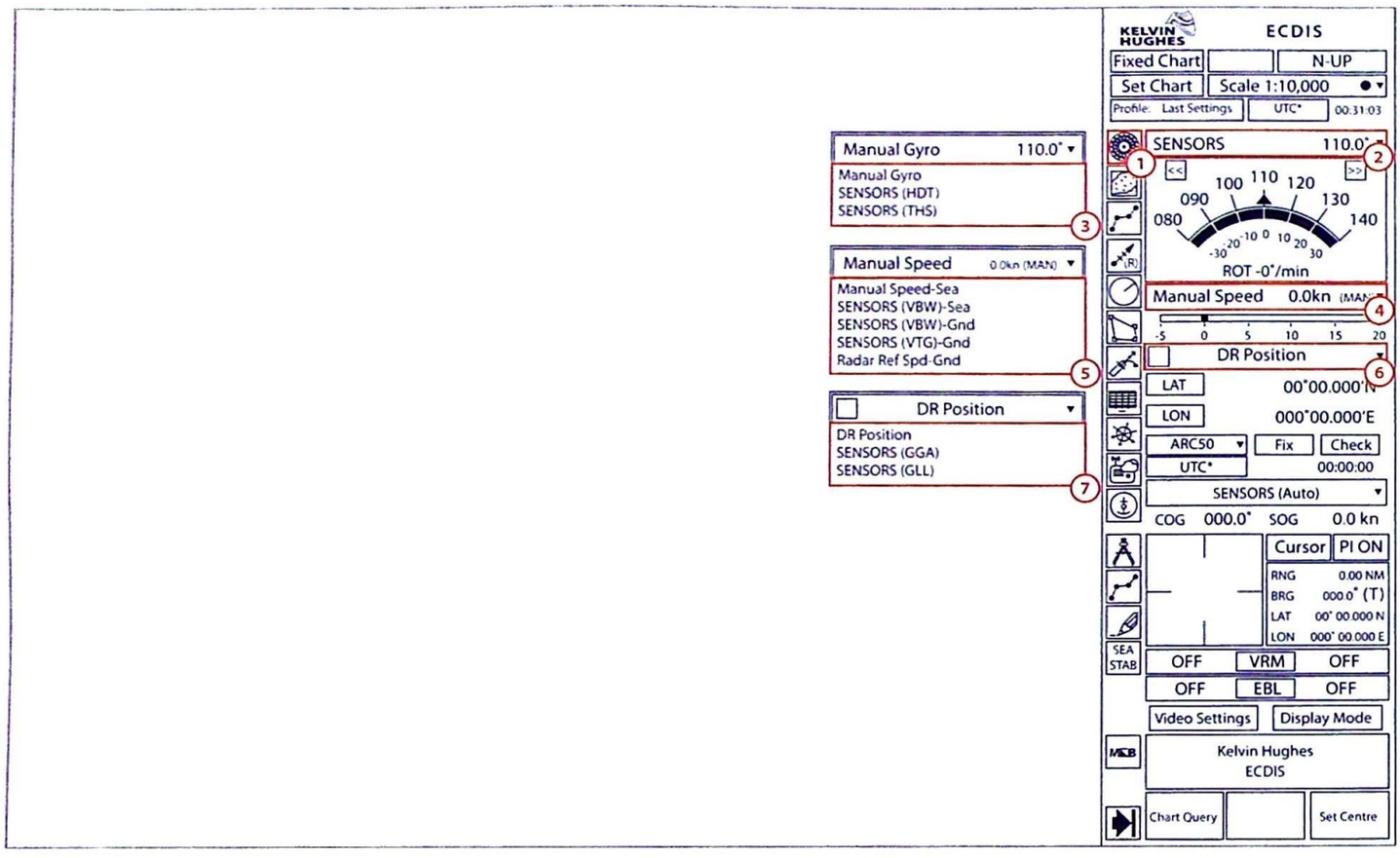
Section 6: System Settings

6.1 **Warning/Alarm Configuration**



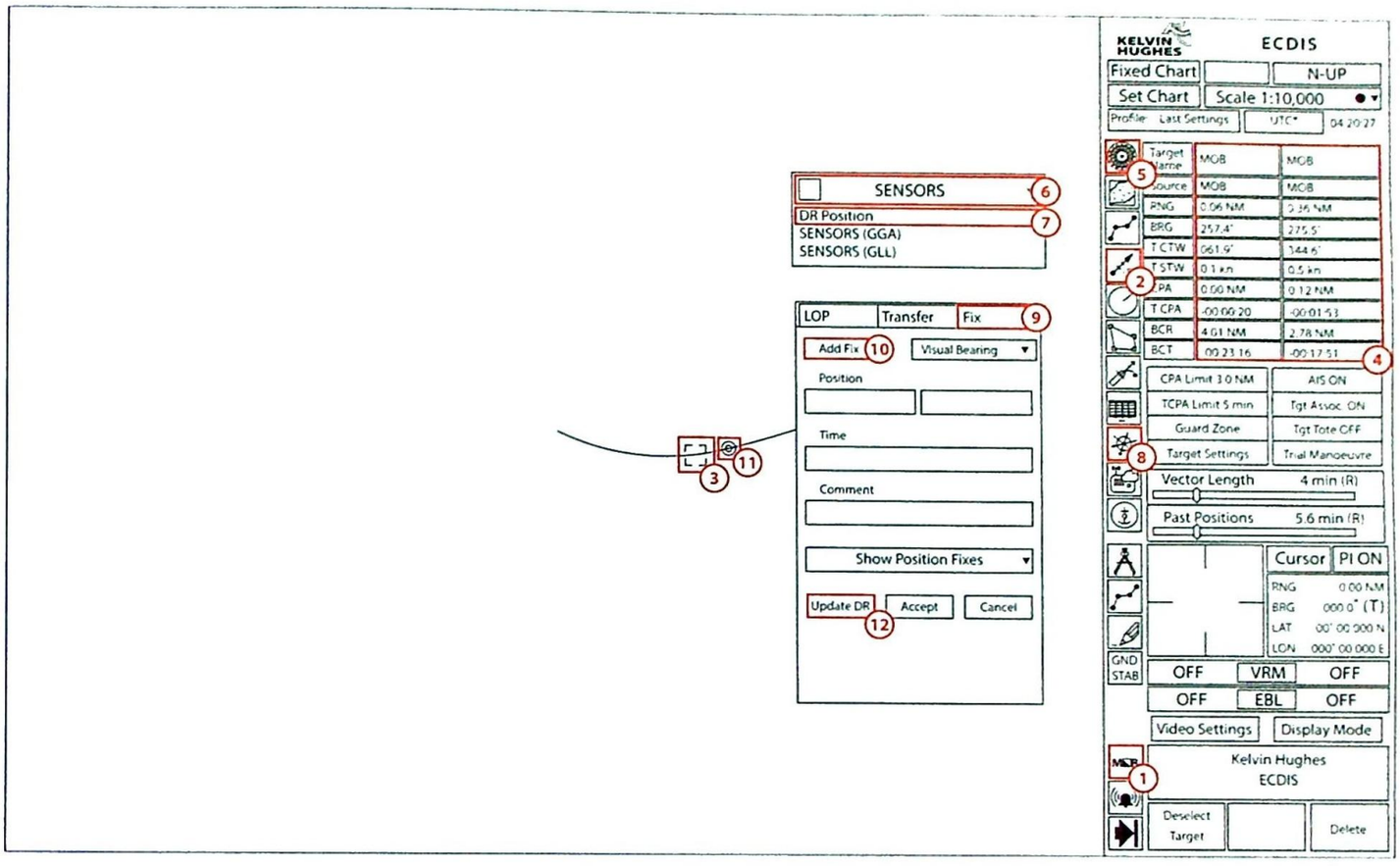
1. Hover over the 'Ownship' button.
2. Left click to open 'Ownship Settings'.
3. Select the 'Look-Ahead' tab.
4. Click 'Configure Check'.
5. Left click objects in the 'Full Check' list to highlight them.
6. Click 'Add to Safety Checks'.
7. Highlighted objects will now be displayed in the 'Safety Check' list.
8. Press 'X' to finish configurating.

6.2 Position/Heading/Speed



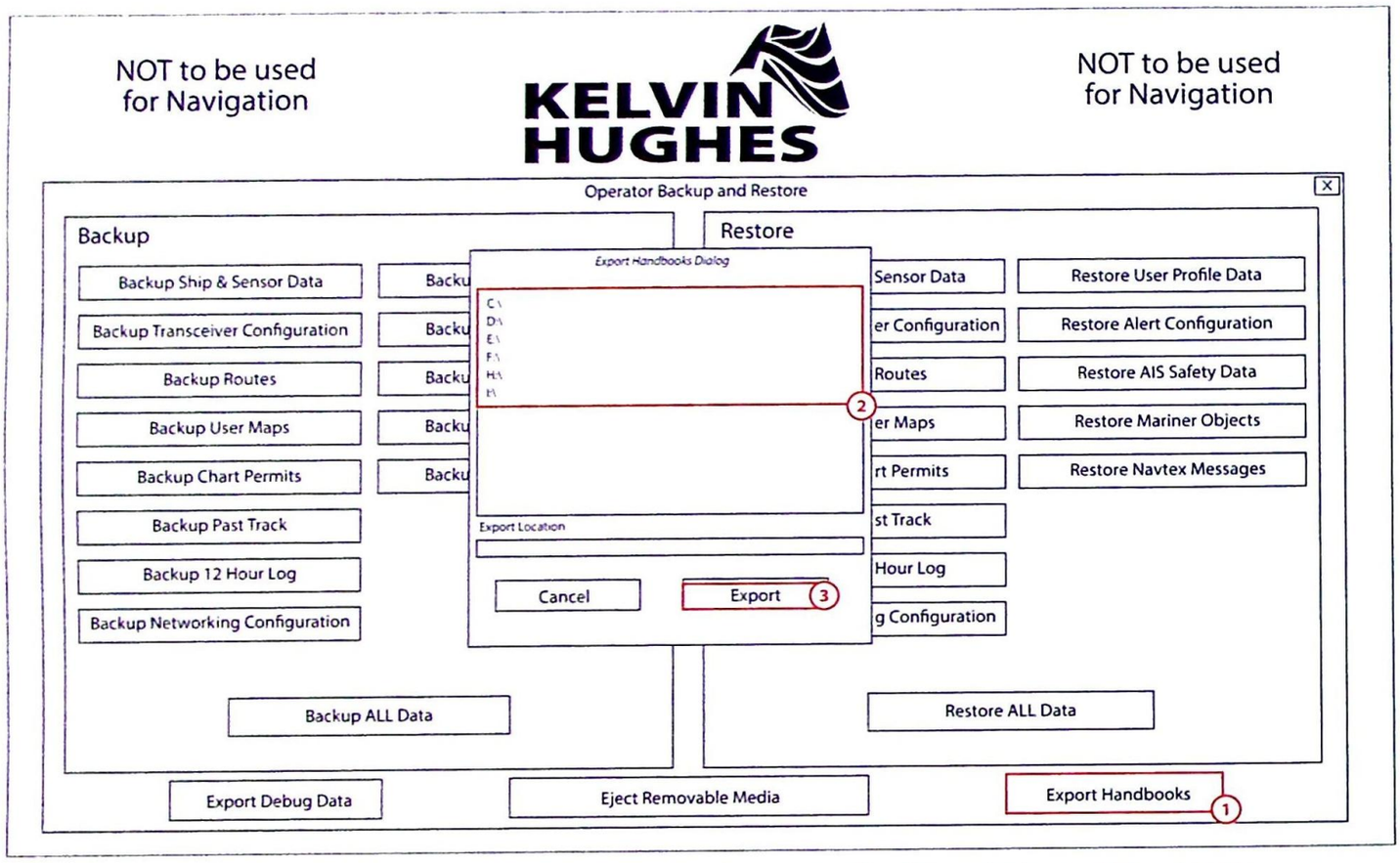
1. Left click on the 'Navigation' button.
2. Click the 'Manual Gyro' dropdown.
3. Select input from the list available.
4. Click the 'Manual Speed' dropdown.
5. Select input from the list available.
6. Click the 'DR Position' dropdown.
7. Select input from the list available.

6.3 Emergency Menus



1. Left click 'MOB' to drop an MOB position.
2. Left click on the targets button.
3. Left click on the MOB marker on your chart.
4. MOB information will be displayed as a target.
5. Left click on the sensors button.
6. Click the position dropdown.
7. Select 'DR Position'.
8. Left click on the manual fixing button.
9. Select the 'Fix' tab.
10. Click 'Add Fix'.
11. Left click on the chart in the position of the fix.
12. Click 'Update DR' to confirm the position.

6.4 Manual



Note to user: To view the user manual, you are required to exit your ECDIS and move to the 'StandBy' screen. You should then enter the 'Backup/Restore' mode.

1. Click 'Export Handbooks'.
2. Select the file location.
3. Click 'Export' to export the manual to the chosen file location.

9. Kongsberg – Familiarisation Checklist (Page 1 of 2)

1. **Company ECDIS Procedures**

   Review company documentation for ECDIS procedures and complete the below ECDIS Type Specific Familiarisation checklist.

2. **Chart Display**

   Become familiar with the basic chart functionality from the main display.

Main Chart Panel			
	Range Panel		Menu Area
	Top Bar		

3. **Navigational Tools**

   Operate all basic navigational functions and vessel setting options contained within the ECDIS for use of navigation.

Tools			
	Marker Position		Distance Measure
	Marker Range and Bearing		Trip Meter
	EBL/VRM		Stopwatch
	EBL/VRM (Advanced)		Time/Distance/Speed Calculator
	Curved EBL		Target Interception
	Parallel Index Lines		Find Place Name
	Position Line		On-Screen Keyboard
	Position Fix	**Targets**	
	Datum conversion		AIS
	Marker Position in Other Datum		

4. **Chart Display Settings**

   Operate all chart display settings, become familiar with object layers, ENC symbology and define the vessel's safe water settings. Identify where all chart updates are managed in the system.

Charts		**Menu Area**	
	Charts Types		Themes
	Legend		Options
	Safety Depth Settings		Non-Chart
	Manage Charts		AIO
	Manage Notes		Object Information
	Options		Browse Position and Date
	Databases		Spot Soundings (ON/OFF)
	Safety Contour		Accuracy (ON/OFF)
	Show coverage of licensed charts		Scale min (ON/OFF)
			Vessels/Targets (ON/OFF)
			Past Track (ON/OFF)
			Admiralty Information Overlay (ON/OFF)

5. **Route Planning**

   Operate all route planning functions and obtain all relevant schedule information for passage planning and route monitoring purposes.

Route			
	Manage Route		Auto Pilot Mode
	List Waypoints		Auto Pilot Panel
	Validate Route		Compute ETA
	Backup/Restore Routes		Speed Pilot
	Set Route Parameters		Search and Rescue
	Monitor Route		Groundings

Kongsberg – Familiarisation Checklist (Page 2 of 2)

6. **Route Monitoring**

Operate the variety of voyage data functions for route monitoring to display and obtain relevant information for navigation and the ship's safety.

Monitoring			
	Anti Grounding		Logging
	Manoeuvre		
	Enable all area alerts (ON/OFF)		

7. **Chart Updating**

The operator should know how to update electronic charts and be thoroughly aware of their responsibilities concerning updating. It is a legal requirement that charts are maintained in an up-to-date condition.

Manage Charts			
	General		List
	Install		Settings
	Updates		

8. **System Sensors**

Identify where the operator can select or deselect all sensors connected to the ECDIS and verify the vessel's particulars.

Sensors			
	Position		Wind
	Speed		Depth
	Heading		

9. **System Alerts**

Identify the ECDIS system's category of Alarms and Prompts generated by the operator and by the ECDIS system.

Alarms		**Monitoring**	
	Alarm Setup		Anti Grounding
	Area – Visual and Audible/Visual and Beep/Visual		
Top Bar			
	Alert Area		
	Caution area (ON/OFF)		

10. **System Units**

Become familiar with the system's logbook, records, data storage and configuration set up.

System			
	Date and Time		LAN Communication
	Parameter Settings		Serial Communication
	Preset Parameters		Sensor Configuration
	Print Screen		Auto Pilot Configuration
	Printer		Integration Configuration
	Password		Route Export Configuration
	Maintenance	**Own Ship**	
	Shutdown		Data
	About K-ECDIS		Position Offset
	Alarm Setup		Ship Parameters

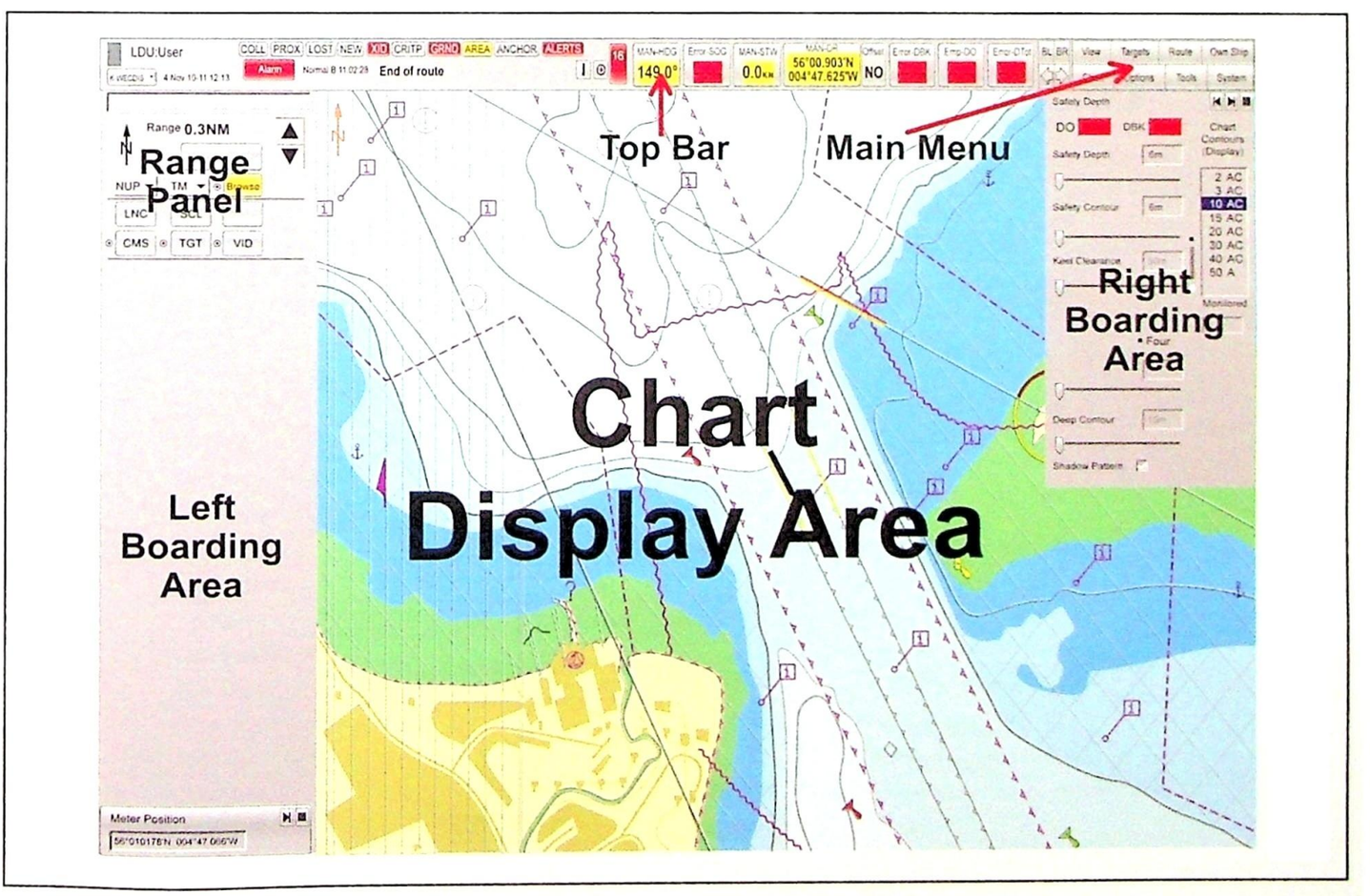
11. **ECDIS Operator's Manual**

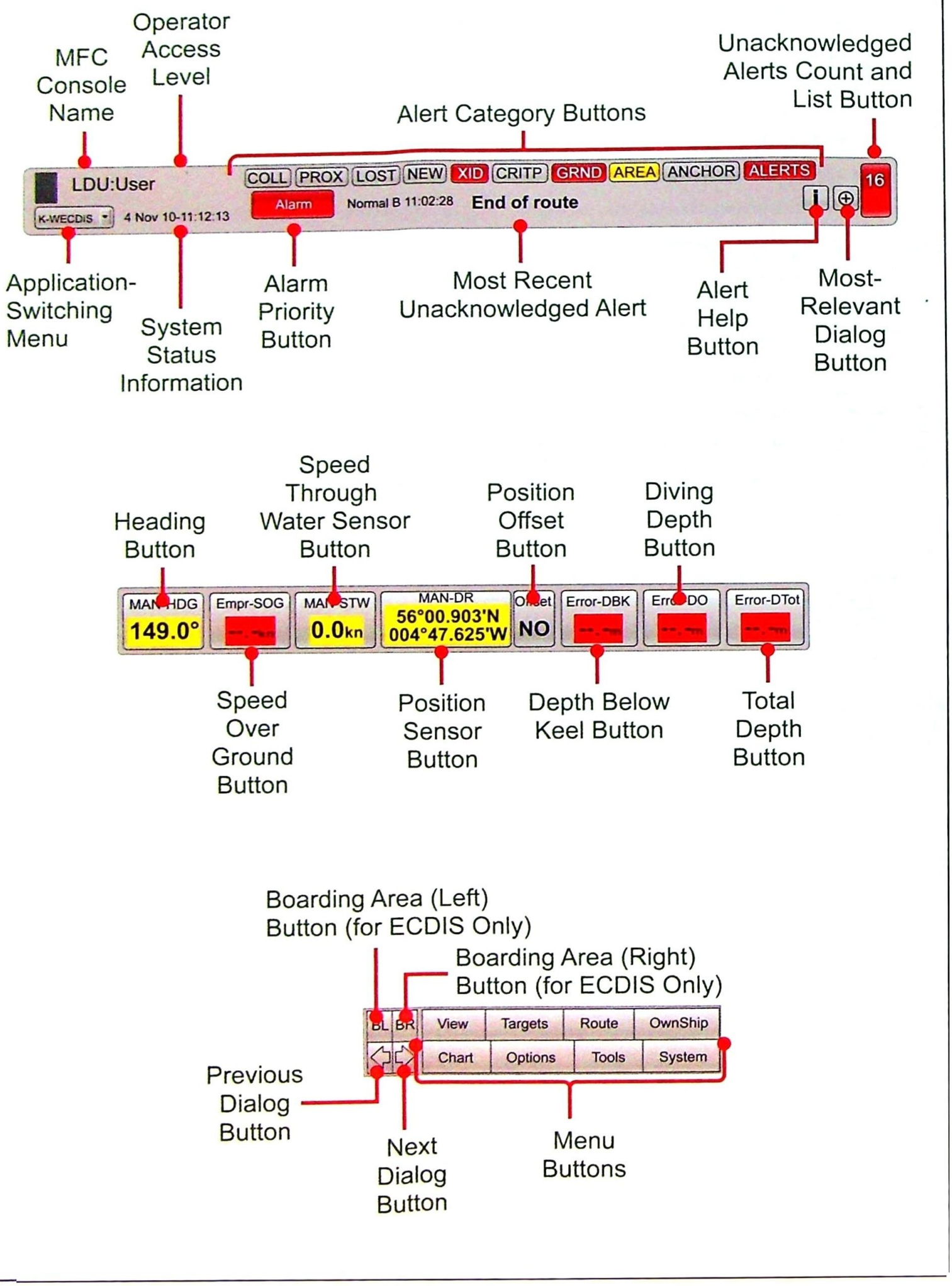
Locate the system's operator's user guide for referencing and help.

Hard copy of Operator's Manual only available			

Kongsberg

Key Kongsberg ECDIS Menu Functions		
1.	Confirmation of Ship's Length, Beam, Maximum Draught and ROT	Own Ship>Ship Parameters
2.	View list of installed Charts	Chart>Manage Charts>Settings>Coverage
3.	View the latest update number installed	Chart>Legend
4.	View information on charted objects and view additional text	View>Object Information
5.	Set the Safety Depth and Safety Contour	Chart>Safety Depth Setting
6.	Set the Shallow and Deep Contour	Chart>Safety Depth Setting
7.	Input Chart Notes	Chart>Manage Notes
8.	Turn the ship outline on	System>Parameter Settings>Display
9.	Configure the Anti-grounding Cone	Own Ship>Anti-grounding
10.	Configure Velocity Vectors	System>Parameter Settings>Display
11.	Configure Ship's Track	System>Parameter Settings>Track
12.	Manually change WPT information of an Active Route	Route>Monitor Route
13.	View past Alarms and Warnings	Alarms Panel
14.	Input a Visual or Radar Fix	Tools>Position Line Tools>Position Fix




MFC Console Name
Operator Access Level
Alert Category Buttons
Unacknowledged Alerts Count and List Button
LDU:User
K-WECDIS
4 Nov 10-11:12:13
COLL
PROX
LOST
NEW
XID
CRITP
GRND
AREA
ANCHOR
ALERTS
16
Alarm
Normal B 11:02:28
End of route
Application-Switching Menu
System Status Information
Alarm Priority Button
Most Recent Unacknowledged Alert
Alert Help Button
Most-Relevant Dialog Button
Heading Button
Speed Through Water Sensor Button
Position Offset Button
Diving Depth Button
MAN-HDG
149.0°
Empr-SOG
MAN-STW
0.0kn
MAN-DR
56°00.903'N
004°47.625'W
Offset
NO
Error-DBK
Error-DO
Error-DTot
Speed Over Ground Button
Position Sensor Button
Depth Below Keel Button
Total Depth Button
Boarding Area (Left) Button (for ECDIS Only)
Boarding Area (Right) Button (for ECDIS Only)
BL
BR
View
Targets
Route
OwnShip
Chart
Options
Tools
System
Previous Dialog Button
Next Dialog Button
Menu Buttons

10. OSI ECPINS/ECPINS Warship/ECPINS Submarine – Familiarisation Checklist (Page 1 of 3)

1. **Company ECDIS Procedures**

   Review company documentation for ECDIS procedures and complete the below ECDIS Type Specific Familiarisation checklist.

2. **Chart Display**

   Become familiar with the basic chart functionality from the main display.

Main Menu		**Chart Display Menu**	
	Screen Layout		Features
	Colour Scheme		+ Zoom In
	Chart Selection		– Zoom Out
	Chart Corrections		Chart Display Range
	Radar Maps		Chart Display Scale
	Navigation Tools		Chart Mode
	Contacts		Chart Orientation
	Routes		Chart Projection
	Markers		
	Setup		

3. **Navigational Tools**

   Operate all basic navigational functions and vessel setting options contained within the ECDIS for use of navigation.

Nav Tools			
	EBL/VRM 1		Calculator
	EBL/VRM 2		Locate
	EBL/VRM 3		Fixing
	Hazard 1		Set and Drift
	Hazard 2		Force Protection
	Query Chart Features		Zone Alarms
	Display Chart Info at Location		Tides and Currents
	Clearing Lines		Logbook
	Ghost Ship		

4. **Chart Display Settings**

   Operate all chart display settings, become familiar with object layers, ENC symbology and define the vessel's safe water settings. Identify where all chart updates are managed in the system.

Features		**Chart Corrections**	
	Overlays		Manual Corrections
	Viewing Groups		Quick Corrections
	Text Groups		Copy Chart Corrections to Disk
	IHO Scale Filter (ON/OFF)		
	Accuracy (ON/OFF)		
	Admiralty Data Assessment Layer (ON/OFF)		
Chart Selection			Copy Chart Corrections from Disk
	Load Charts		Print Chart Corrections Report
	Chart 1		Update Charts
	Change Chart Order		Review Chart Updates
	Remove Charts	**Setup**	
	Auto Chart Loading Setup		Display Setup
	Auto Chart Loading		Filter Object by Scale (ON/OFF)
	Chart Install		Show Shallow Water Pattern (ON/OFF)
	Licences		
	View S-63 permits...		
	Display Chart Information Panel		
	Display Chart Notes		

OSI ECPINS/ECPINS Warship/ECPINS Submarine – Familiarisation Checklist (Page 2 of 3)

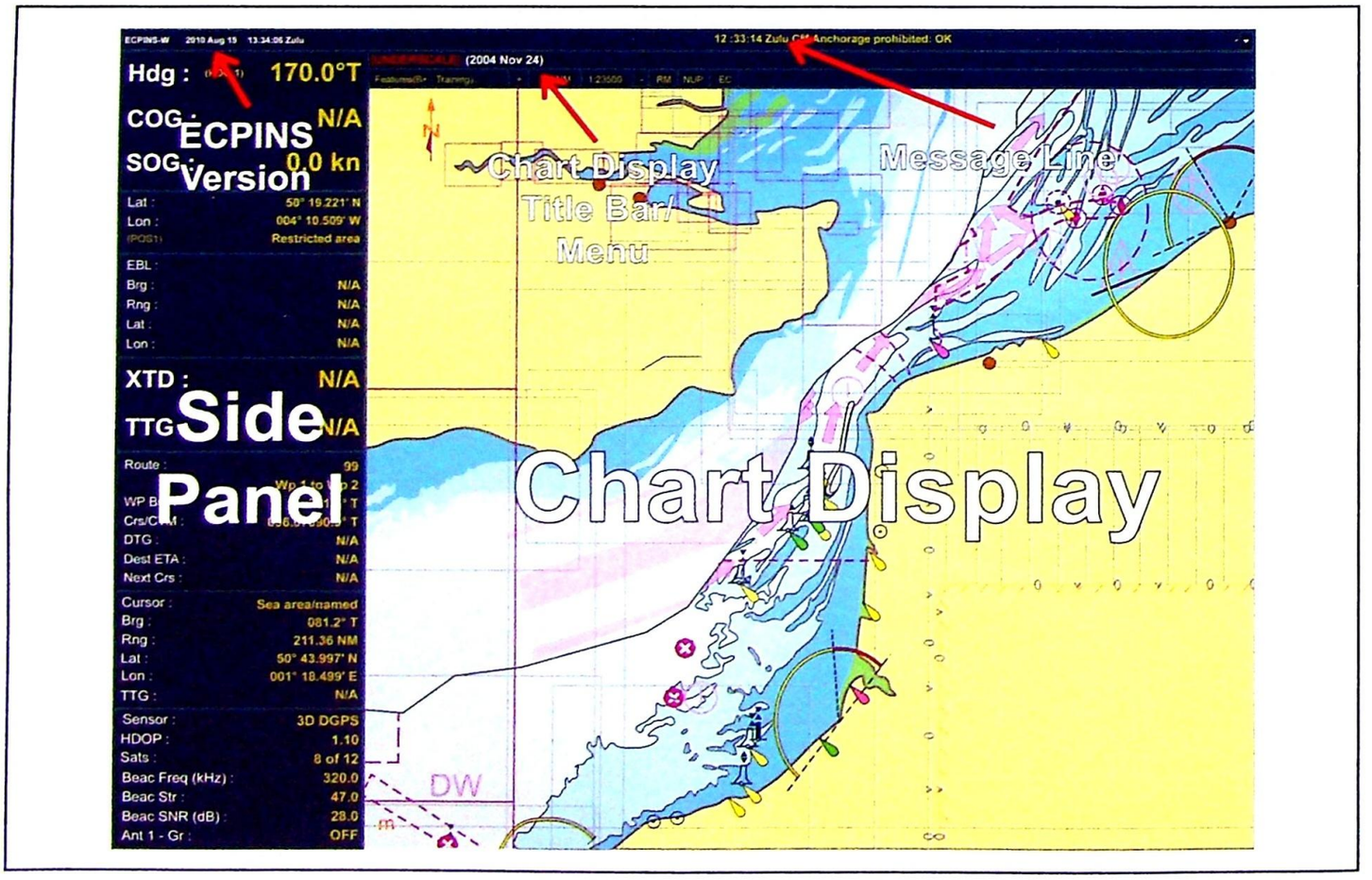
		Display General T and P Notice to Mariners		
		Enter Manual Datum Shift for Chart		
		Print Chart Summary Report		
		Brightness Check		
5.	**Route Planning** Operate all route planning functions and obtain all relevant schedule information for passage planning and route monitoring purposes.			
	Routes			
		Select Route to Display		Set Route Direction
		Remove Route		Route Calculator
		Select Active Route		SAR Patterns
		Create Route		Lock/Unlock Route
		Edit Route		Save or Delete Route
		Subdivide Leg...		
		Scan Route	**Markers**	
		Display Route Monitor		Markers
		Action Points	**Setup**	
		Add Arrival Alert		Route Display Options
		ETA/TTG Speed		XTD Corridor (ON/OFF)
		Print Route Report		Wheel Over Lines (ON/OFF)
6.	**Route Monitoring** Operate the variety of voyage data functions for route monitoring to display and obtain relevant information for navigation and the ship's safety.			
	Chart Display Menu		**Main Menu**	
		Features		Screen Layout
		+ Zoom In		Colour Scheme
		– Zoom Out		Navigation Tools
		Chart Display Range		Contacts
		Chart Display Scale		
		Chart Mode		
		Chart Orientation		
		Chart Projection		
7.	**Chart Updating** The operator should know how to update electronic charts and be thoroughly aware of their responsibilities concerning updating. It is a legal requirement that charts are maintained in an up-to-date condition.			
	Chart Selection			
		Chart Install		Licenses
		Install Charts		ARCS/AusRNC
		Uninstall charts		S57
				C-map

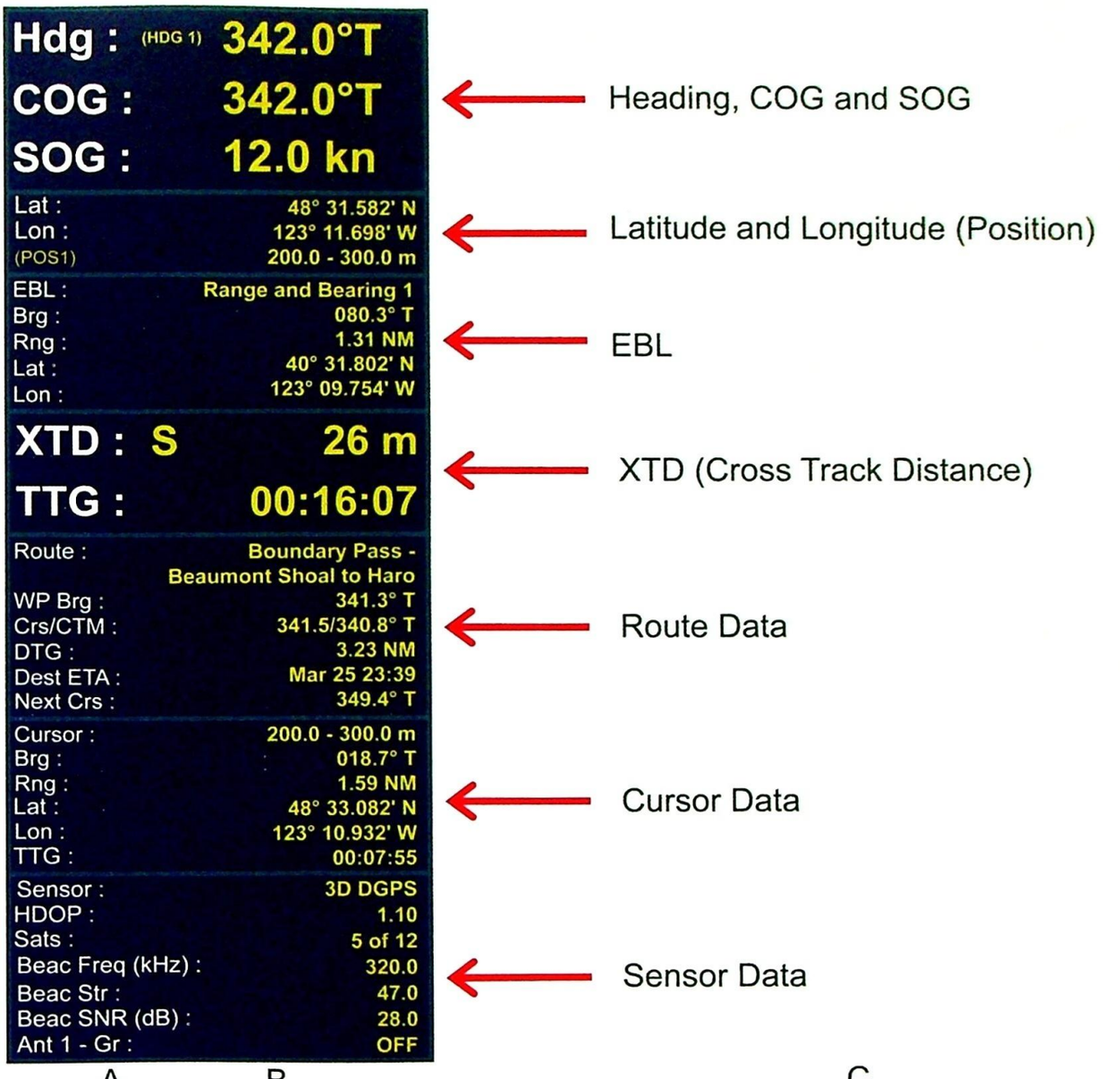
OSI ECPINS/ECPINS Warship/ECPINS Submarine – Familiarisation Checklist (Page 3 of 3)

8.	**System Sensors**			
	Identify where the operator can select or deselect all sensors connected to the ECDIS and verify the vessel's particulars.			
	Sensor Setup			
		Select Primary Position Source		DGPS Beacon
		Select Secondary Position Source		AIS Setup
		Display Position Source		Select ARPA Screen Index
		Select Sensor Source	**Contacts**	
		Enable Sensor Sources		Contacts
		Position Discrepancy Monitor		AIS Filtering
		Heading Discrepancy Monitor		ARPA Filtering
		Set Devise Errors		Target Limits
		Set Gyro Error		Set CPA/TCPA Alarm Limits
		Set Depth Transducer Offset		Contact Association
		Wind Vector		AIS Messaging
		Set Anemometer Offset		AIS Manual Activation
9.	**System Alerts**			
	Identify the ECDIS system's category of Alarms and Prompts generated by the operator and by the ECDIS system.			
	Screen Layout		**Navigation Tools**	
		Alerts		Zone Alarms
	Display Setup			
		Vessel Setup		Set Anti-grounding
		Set Safety Depth...		
10.	**System Units**			
	Become familiar with the system's logbook, records, data storage and configuration set up.			
	Setup/Display Setup			
		Sound		Set True Motion Paging
		Set Resource Monitoring		Export ARPA Map To Disk
		Alert Set-Test		Vessel Setup
		System Self-Test		Position Adjustment
		Display System Settings		Voyage Data Recording
		System Setup Summary		Screen Captures
		Display Shortcuts		Voyage Plans
		Select System Units		Software Licences
		Select Time Zone		Security
11.	**ECDIS Operator's Manual**			
	Locate the system's operator's user guide for referencing and help.			
	Setup			
		Help		About

OSI ECPINS/ECPINS Warship/ECPINS Submarine

Key OSI ECPINS/ECPINS Warship/ECPINS Submarine ECDIS Menu Functions		
1.	View list of installed Charts	**Main Menu>Chart Selection>Load Chart**
2.	View the latest update number installed	**Main Menu>Chart Selection>Display Chart Information Panel**
3.	Change Chart Settings	**Chart Display Title Bar/Manu>Feature Settings**
4.	View information on charted objects and view additional text	**Main Menu>Navigation Tools>Query Chart Features...**
5.	Set the Safety Depth, Safety Contour, Shallow and Deep Contour	**Main Menu>Setup>Vessel Setup>Set Safety Depth**
6.	Input an Event Marker	**Main Menu>Markers>Create Marker...**
7.	Input a Manual Update	**Main Menu>Chart Corrections>Manual Corrections**
8.	Turn the Ghost Ship on	**Main Menu>Navigation Tools>Ghost Ship**
9.	Configure the Guard Frame (Anti-grounding Cone)	**Main Menu>Setup>Vessel Setup>Set Anti-grounding**
10.	Configure Ship's Track	**Main Menu>Setup>Display Setup>Vessel Track**
11.	Configure Velocity Vectors	**Main Menu>Setup>Display Setup>Velocity Vectors...**
12.	View past Alarms and Warnings	**Click Message Line**
13.	Input a Visual or Radar Fix	**Main Menu>Navigation Tools>Fixing>Create Operator Fix**
14.	Turn on Radar Image Overlay	**Main Menu>Setup>Radar>Radar Image**
15.	Take a Screenshot	**Main Menu>Setup>Screen Captures>Create Screen Capture**

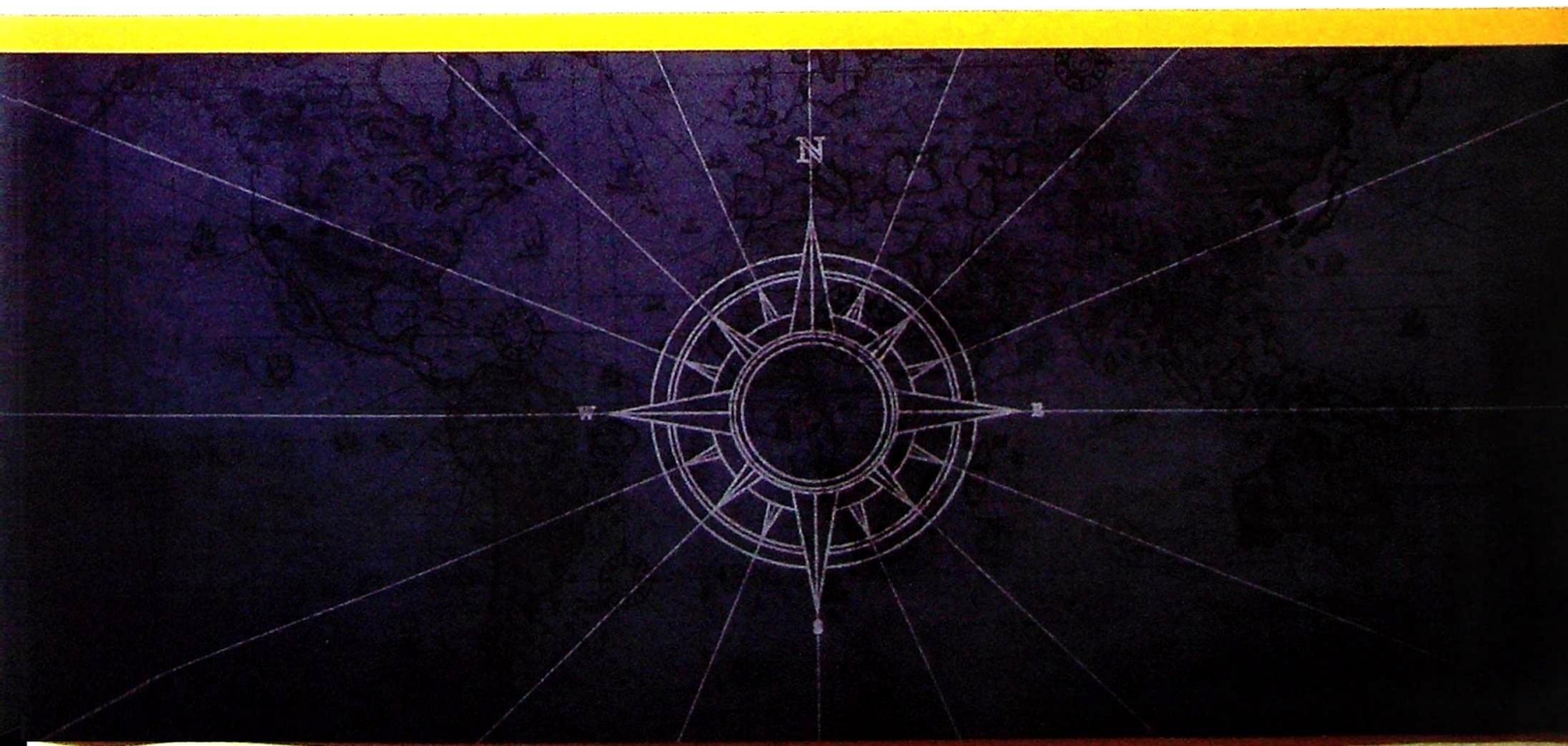




A – Warnings, Status Messages and Current Tasks
B – Chart Production Date or Date of Most Recent Update
C – Displayed Chart Title
D – Features
E – Zoom In
F – Chart Display Range
G – Chart Display Scale
H – Zoom Out
I – Centring Mode
J – Chart Orientation
K – Chart Projection

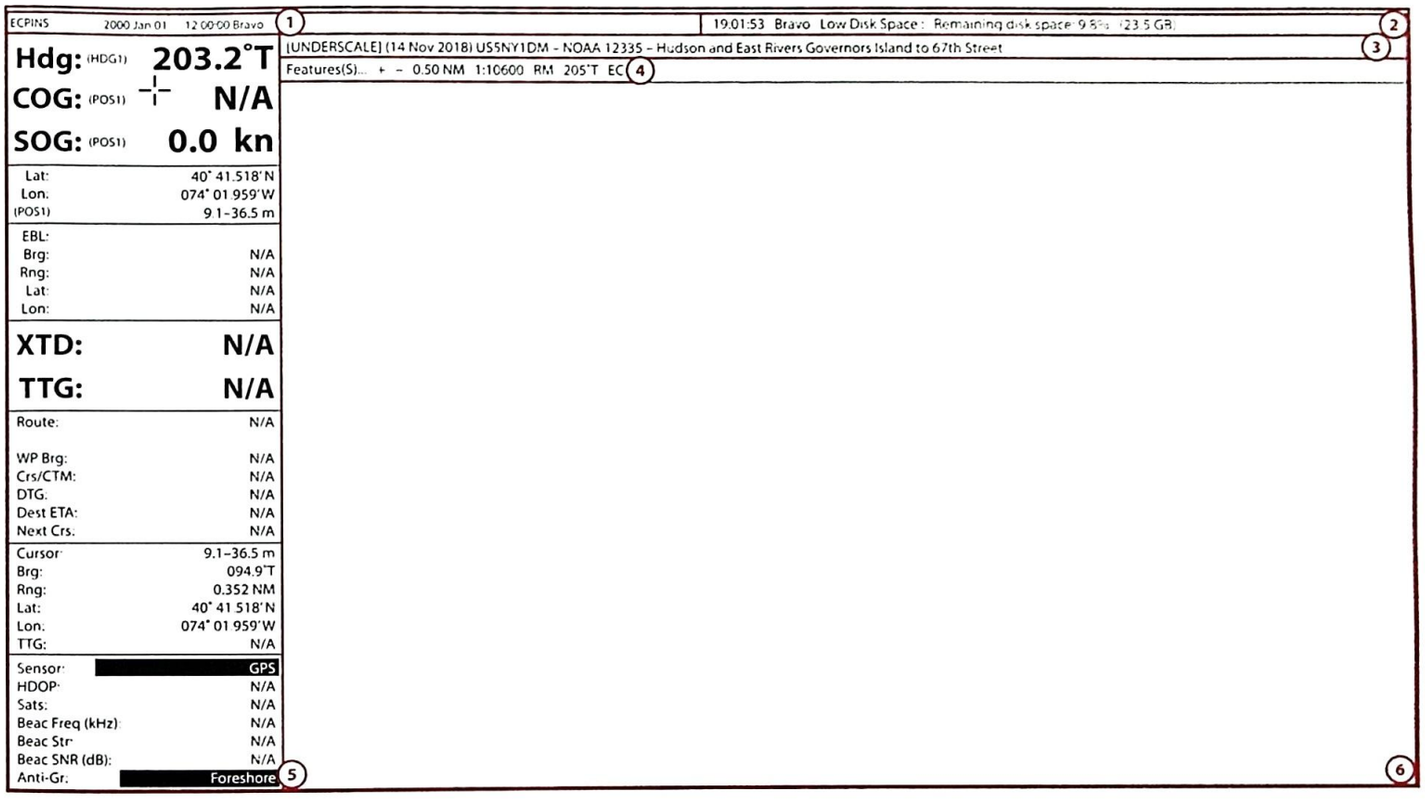
OSI

ECPINS/ECPINS Warship/ECPINS Submarine



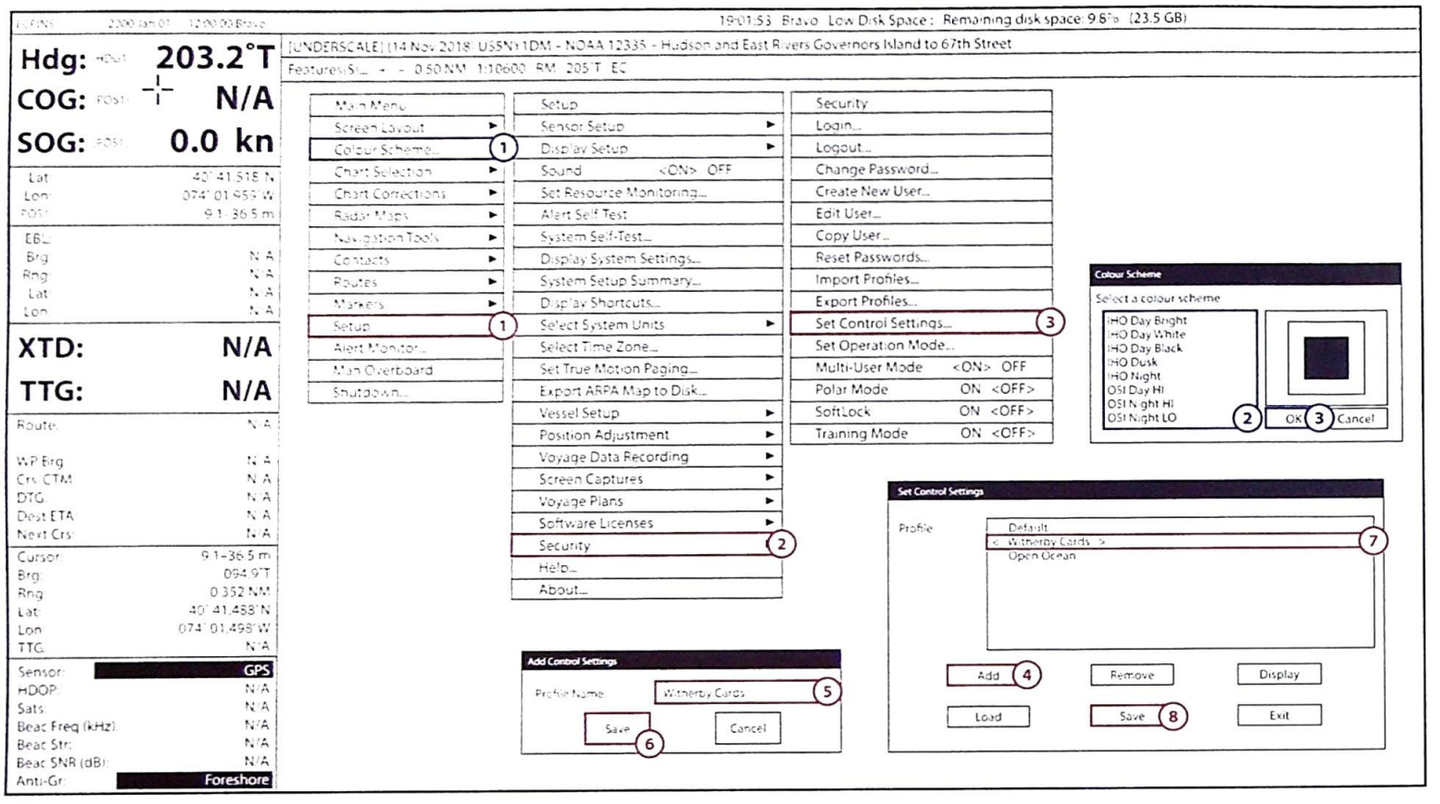
Section 1: Main Display

1.1 Screen Layout



1. ECPINS version and date/time
2. Message line
3. Chart display title bar
4. Chart display menu
5. Navigation text boxes
6. Chart display

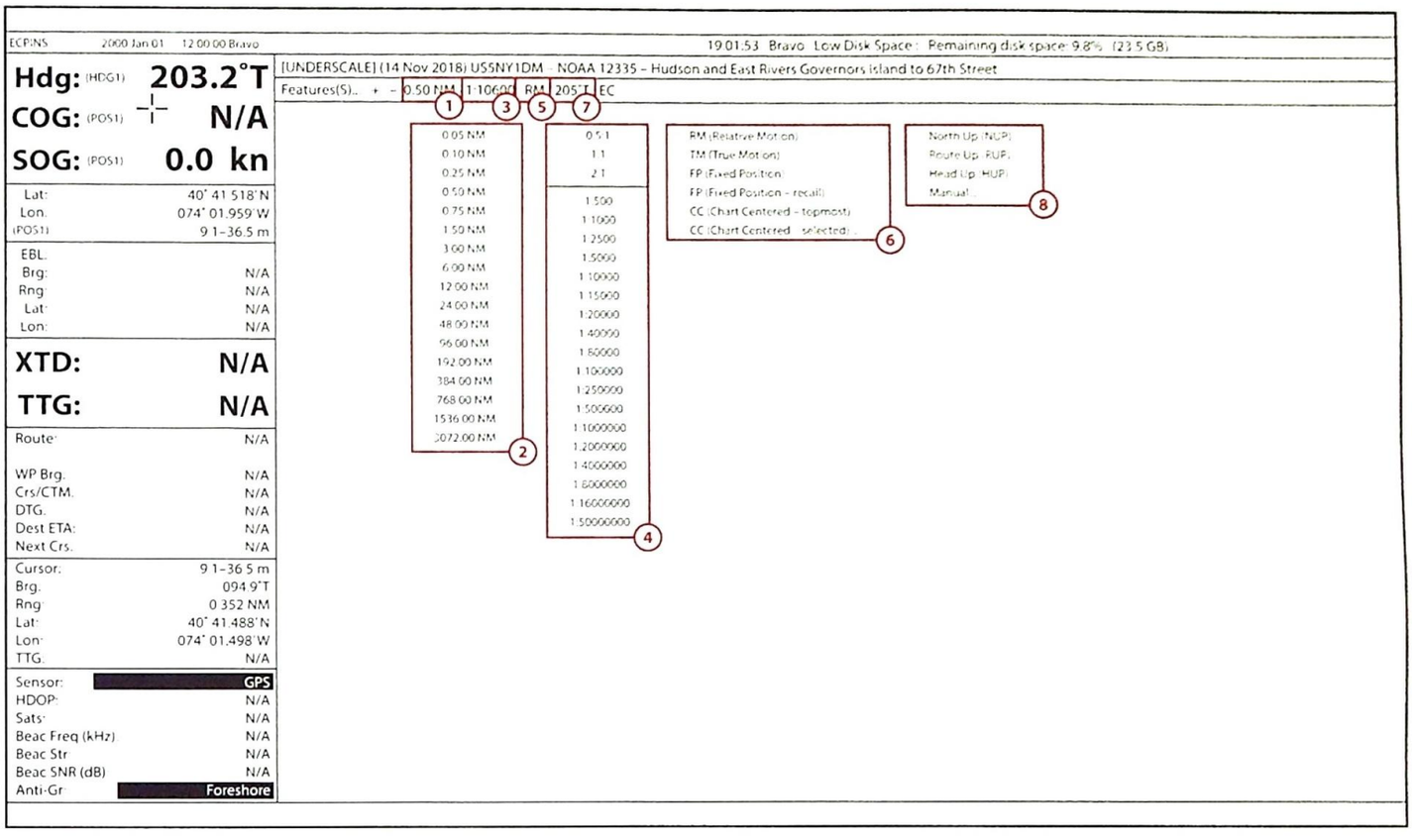
1.2 Colour Palette/Profiles



1. Show main menu and select 'Setup'.
2. Select 'Security'.
3. Open 'Set Control Settings...'
4. Click 'Add'.
5. Enter a 'Profile Name'.
6. Click 'Save'.
7. Double click on your profile to select it.
   a. Note: '<', '>' will be displayed on selected profile.
8. Click 'Save' to update current settings to selected profile.

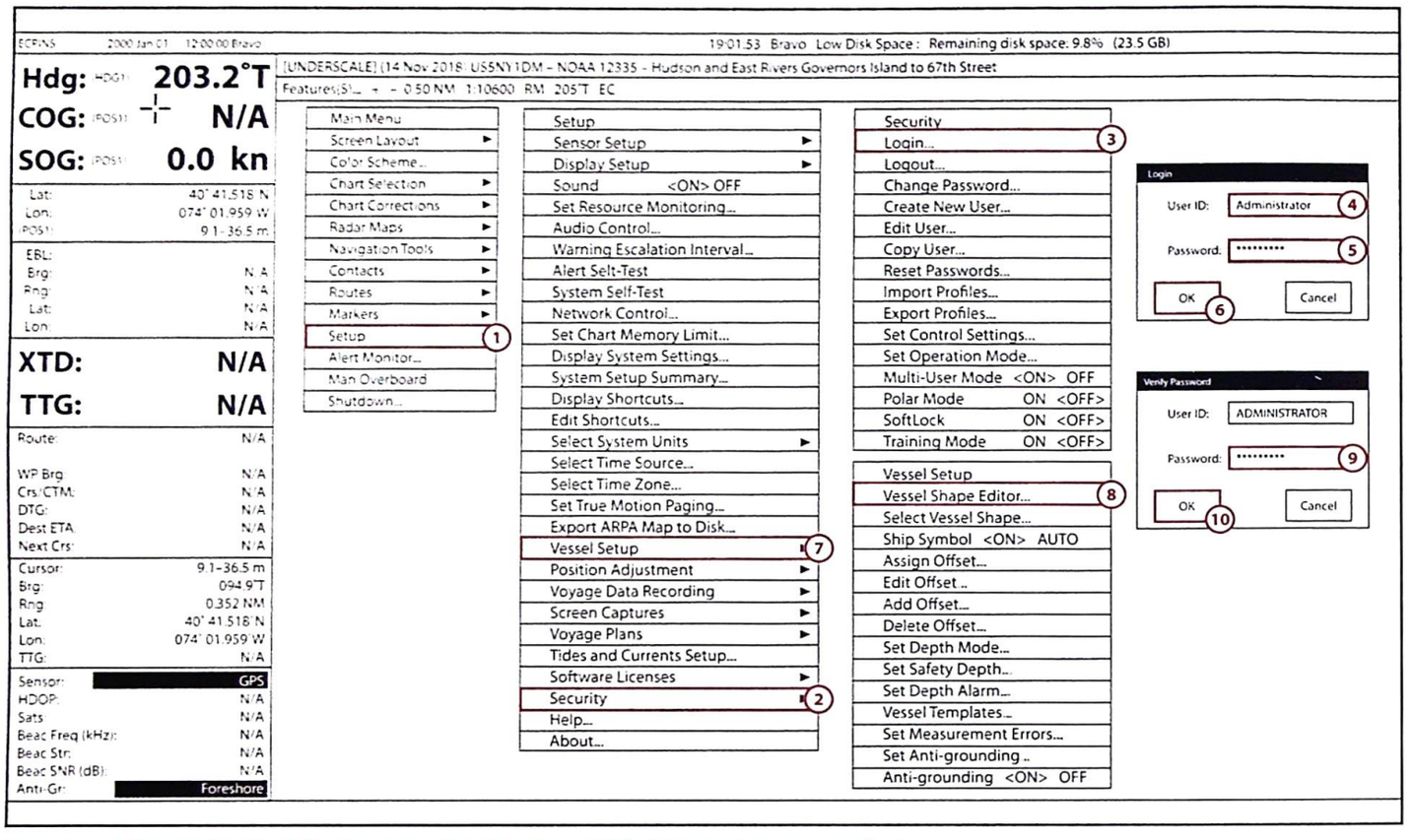
1. Show main menu and select 'Colour Scheme...'.
2. Select a colour scheme from the list.
3. Click 'OK' to apply the colour scheme.

1.3 Range/Scale/Motion



1. Click on range.
2. Range dropdown list is shown.
3. Click on scale.
4. Scale dropdown list is shown.
5. Click on motion.
6. Motion dropdown list is shown.
7. Click on orientation.
8. Orientation dropdown list is shown.

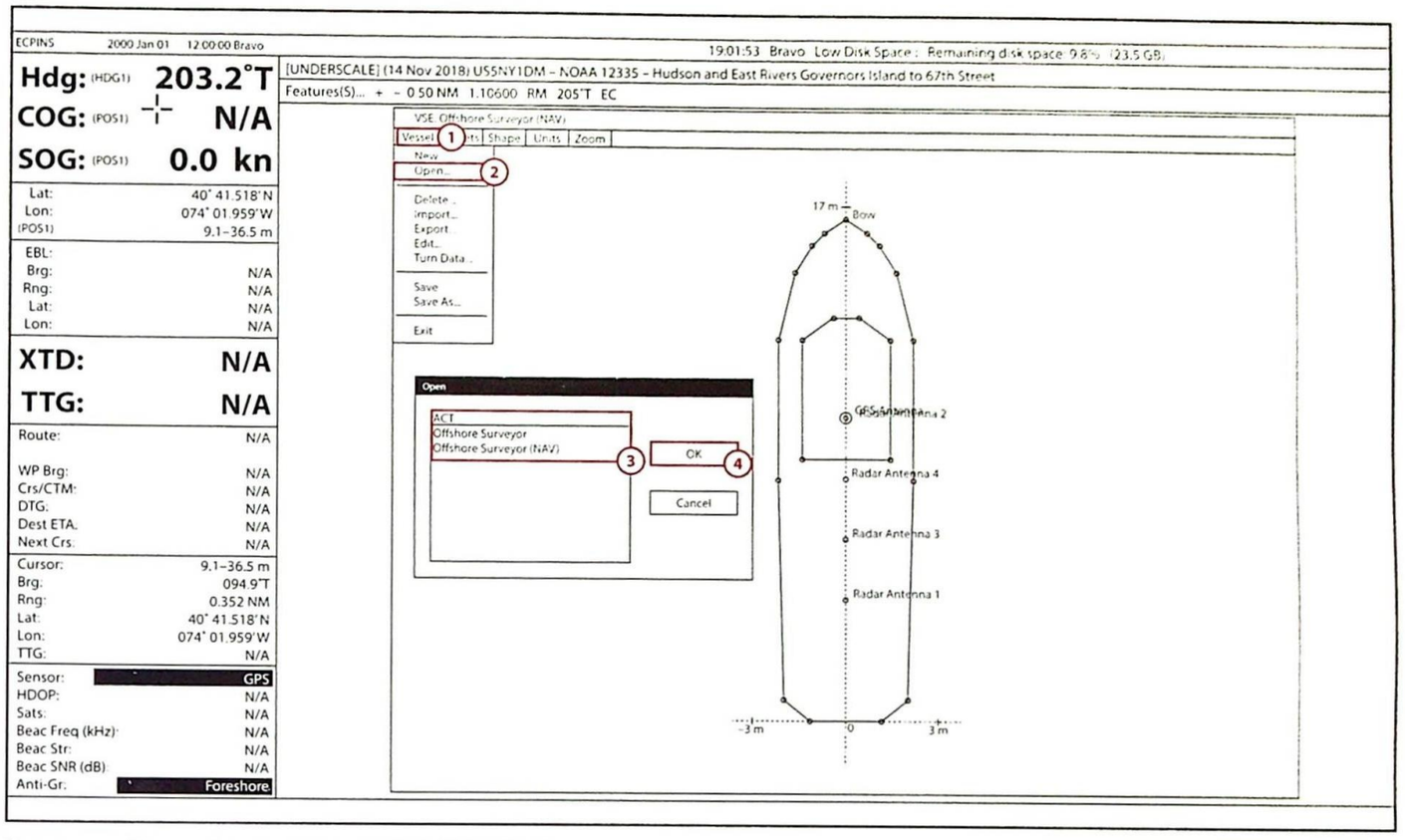
1.4 Setting CCRP Part 1



Note to user: To complete the following steps, 'Setup' mode and Administrator login are required.

1. Show main menu and select 'Setup'.
2. Select 'Security'.
3. Select 'Login...'
4. Enter 'User ID' for Administrator.
5. Enter password for Administrator.
6. Click 'OK'.
7. Select 'Vessel Setup'.
8. Open 'Vessel Shape Editor'.
9. Verify Administrator password.
10. Click 'OK'.

1.4 Setting CCRP Part 2

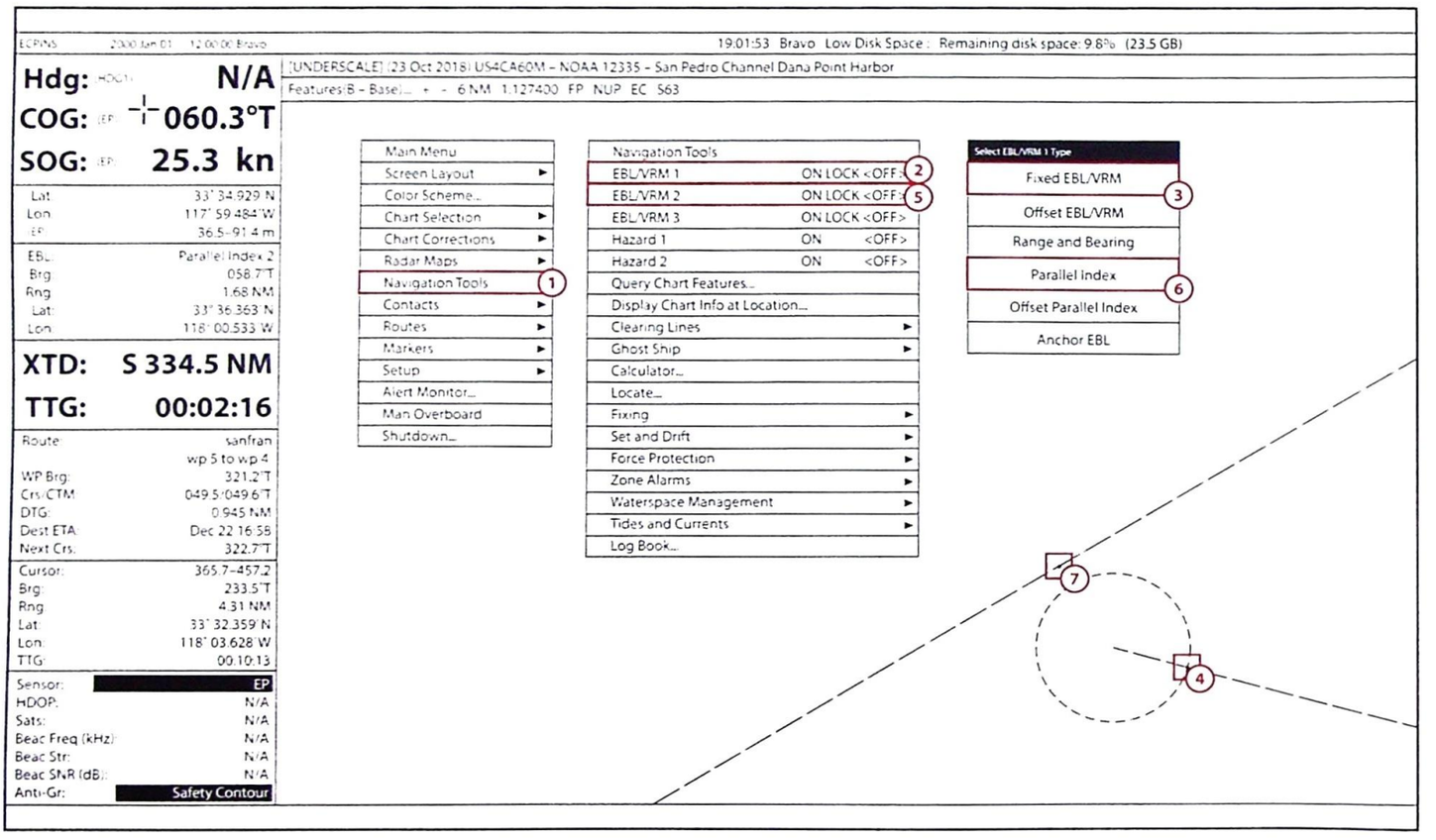


Note to user: To complete the following steps, 'Setup' mode and Administrator login are required.

1. Click 'Vessel'.
2. Select 'Open...'
3. Select your vessel from the list.
4. Click 'OK' to review CCRP offsets.

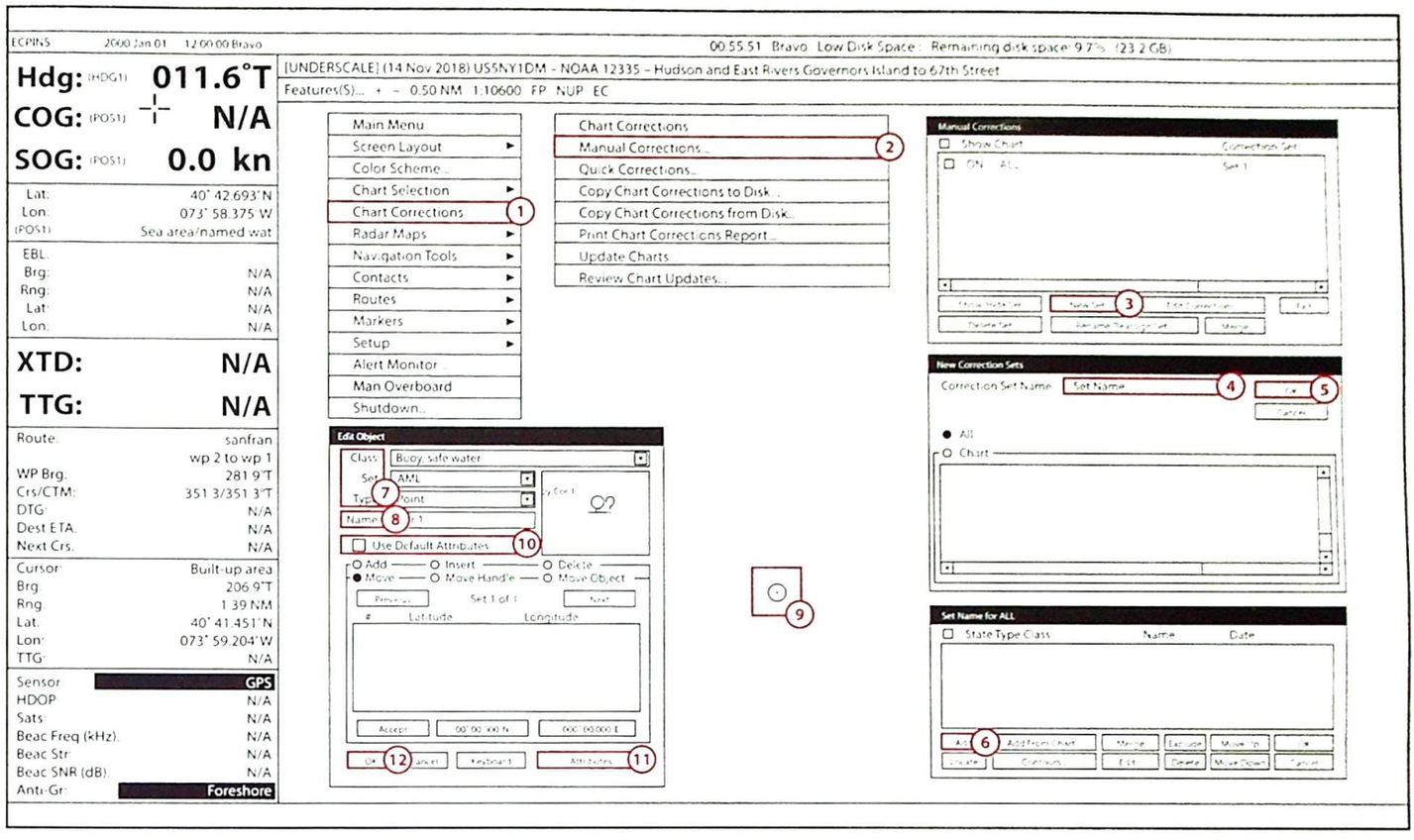
Section 2: Navigation Tools

2.1 EBL/VRM/PI



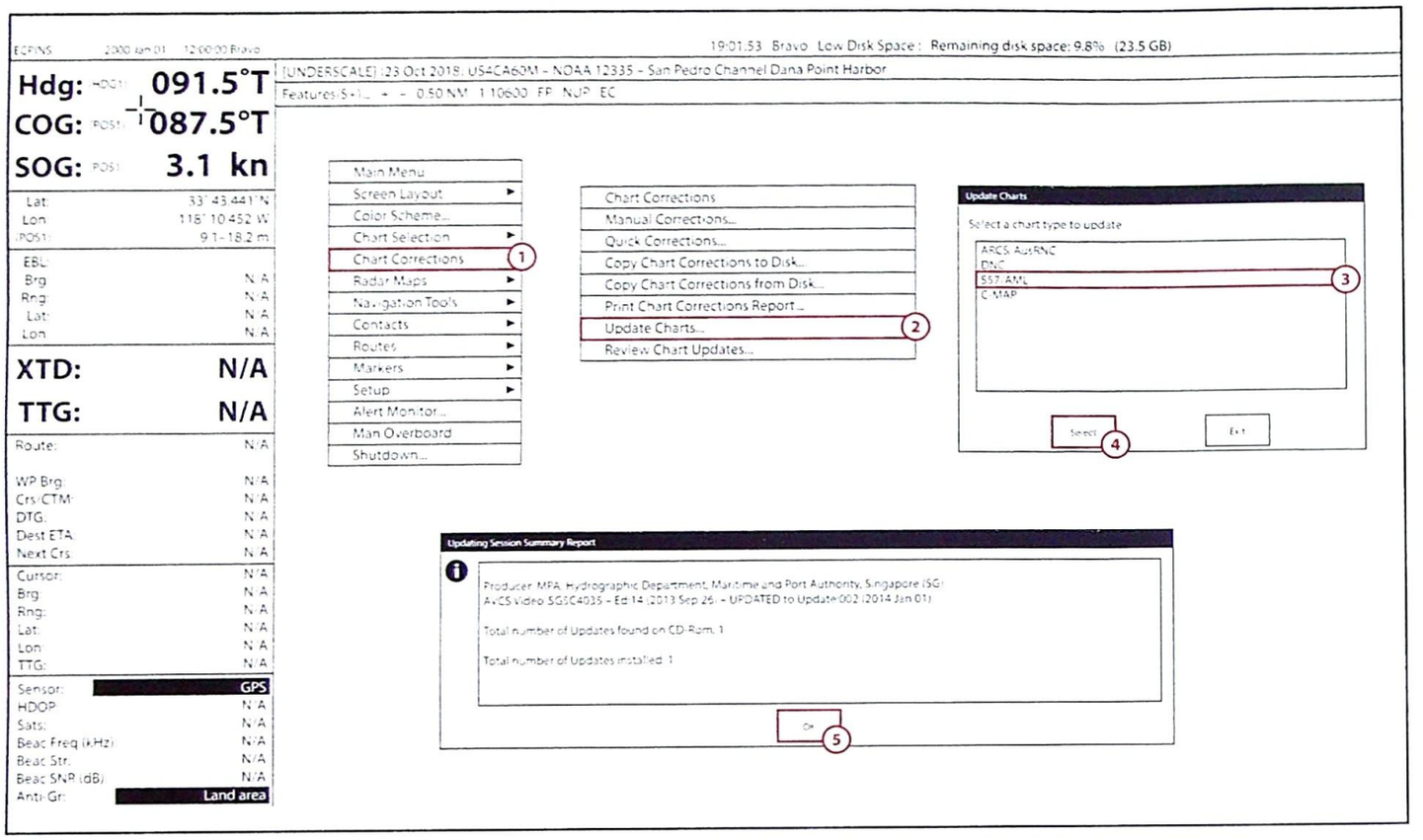
1. Middle click on the chart and select 'Navigation Tools'.
2. Left click on 'EBL/VRM 1'.
3. Select 'Fixed EBL/VRM'.
4. Left click on the location you would like to place the EBL/VRM.
5. Left click on 'EBL/VRM 2'.
6. Select 'Parallel Index'.
7. Left click to select the range; left click to select bearing; right click to finish.

2.2 Manual Corrections



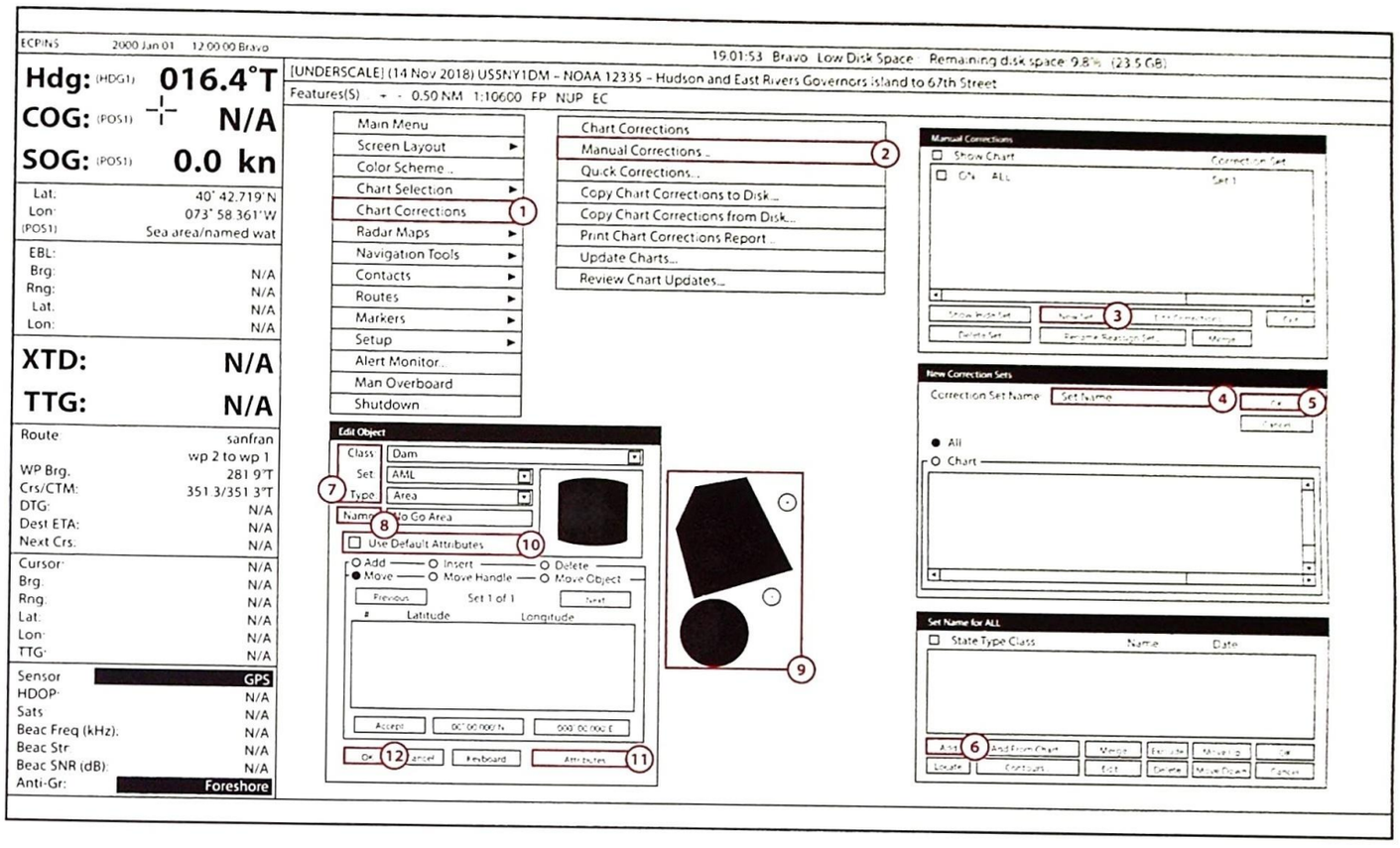
1. Middle click on the chart and select 'Chart Corrections'.
2. Open 'Manual Corrections...'
3. Click 'New Set...'
4. Enter a 'Set Name'.
5. Click 'OK'.
6. Click 'Add'.
7. Configure 'Class', 'Set' and 'Type'.
8. Enter your object name.
9. Left click to place your object on the chart.
10. Use 'Default Attributes' for your object.
11. Alternatively, configure your own attributes.
12. Click 'OK' to finish.

2.3 Chart Updates



1. Middle click and select 'Chart Corrections'.
2. Click 'Update Charts...'
3. Select 'S57/AML'.
4. Click 'Select'.
5. Click 'OK' once 'Updating Session Summary Report' appears.

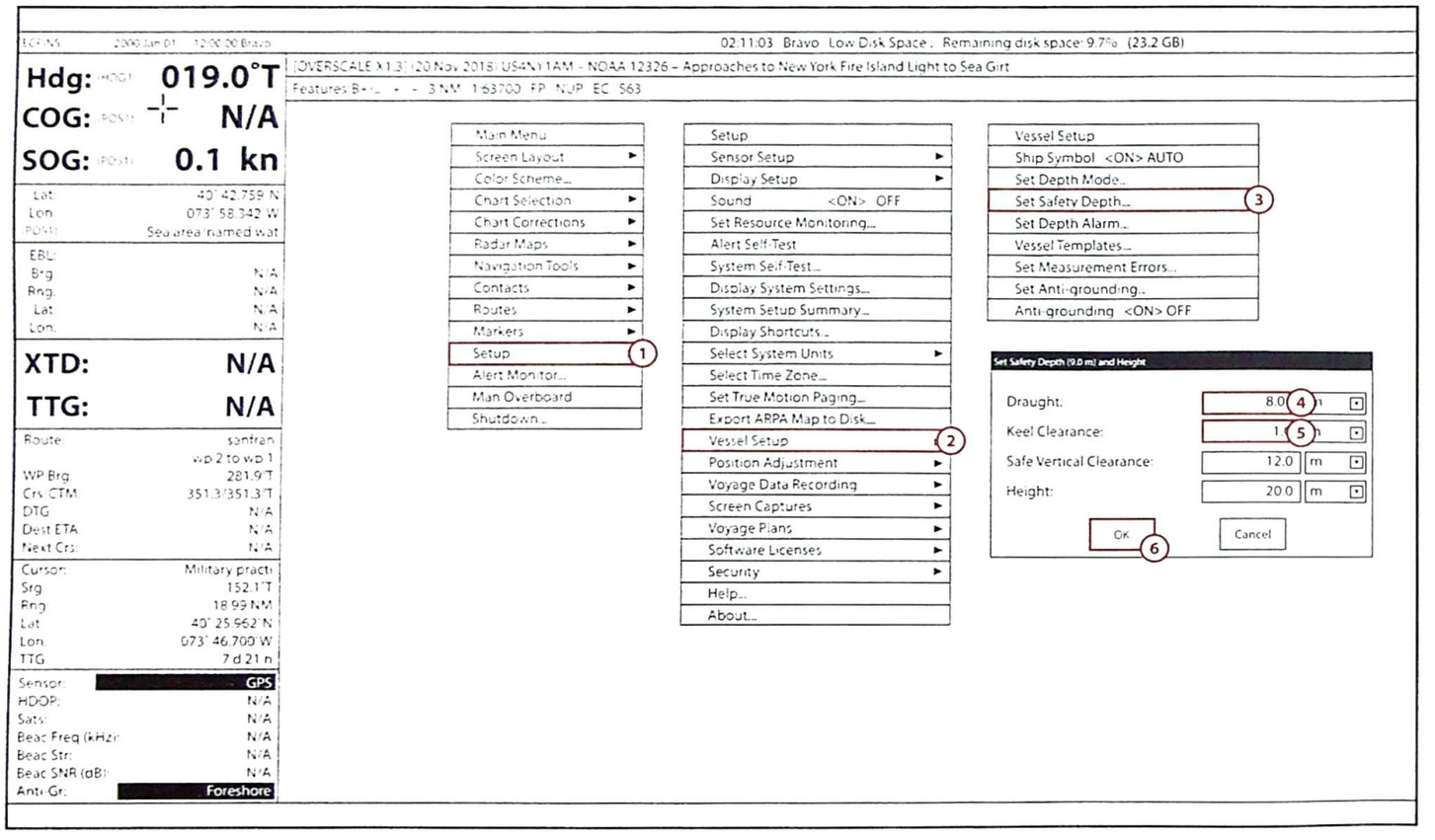
2.4 No Go Areas/User Charts



1. Middle click on the chart and select 'Chart Corrections'.
2. Open 'Manual Corrections...'
3. Click 'New Set...'
4. Enter a 'Set Name'.
5. Click 'OK'.
6. Click 'Add...'
7. Configure 'Class', 'Set' and 'Type'.
8. Enter your object name.
9. Left click to place your areas/circles on the chart.
10. Use 'Default Attributes' for your object.
11. Alternatively, configure your own 'Attributes'.
12. Click 'OK' to finish.

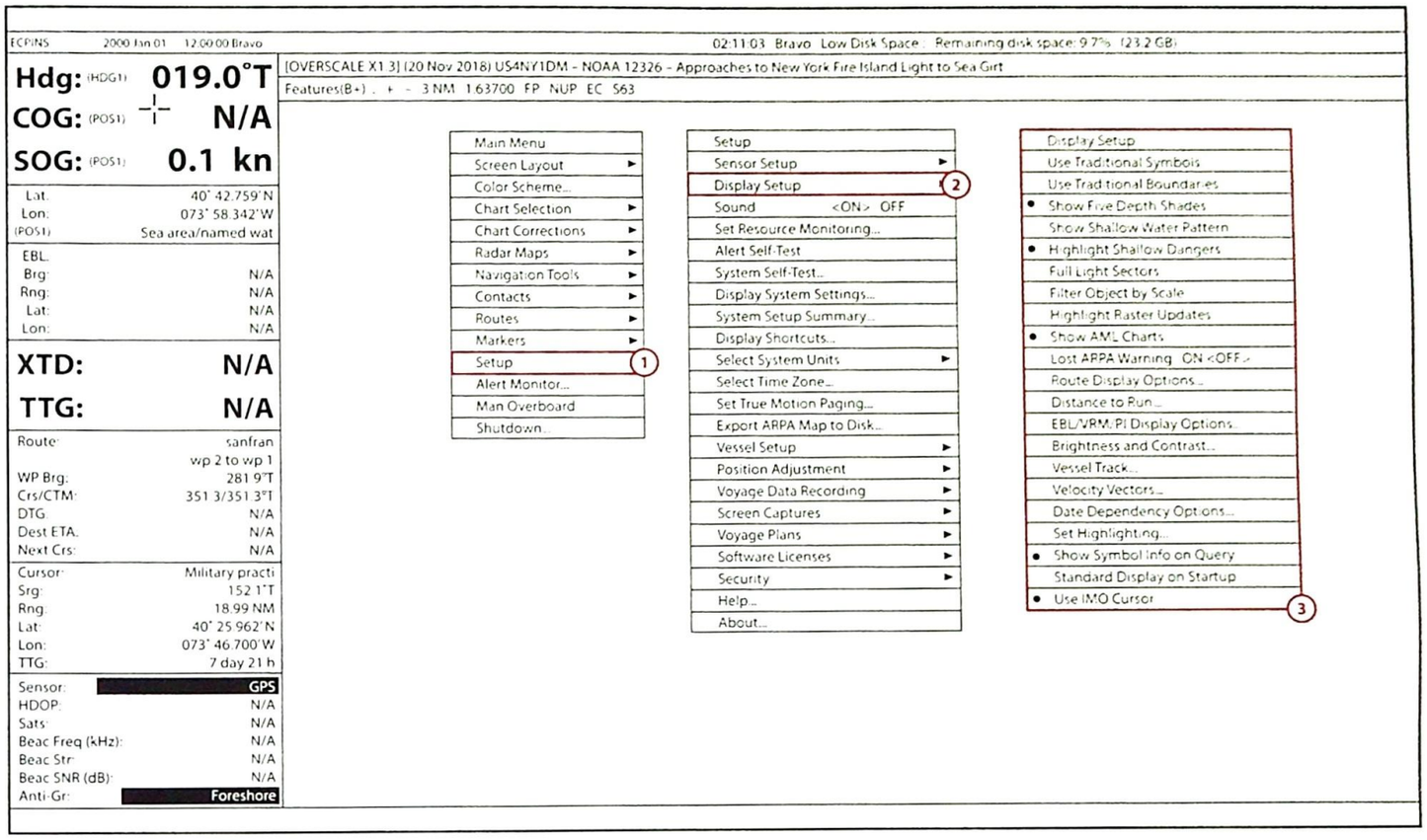
Section 3: Chart Display Settings

3.1 Safety Depth/Contour



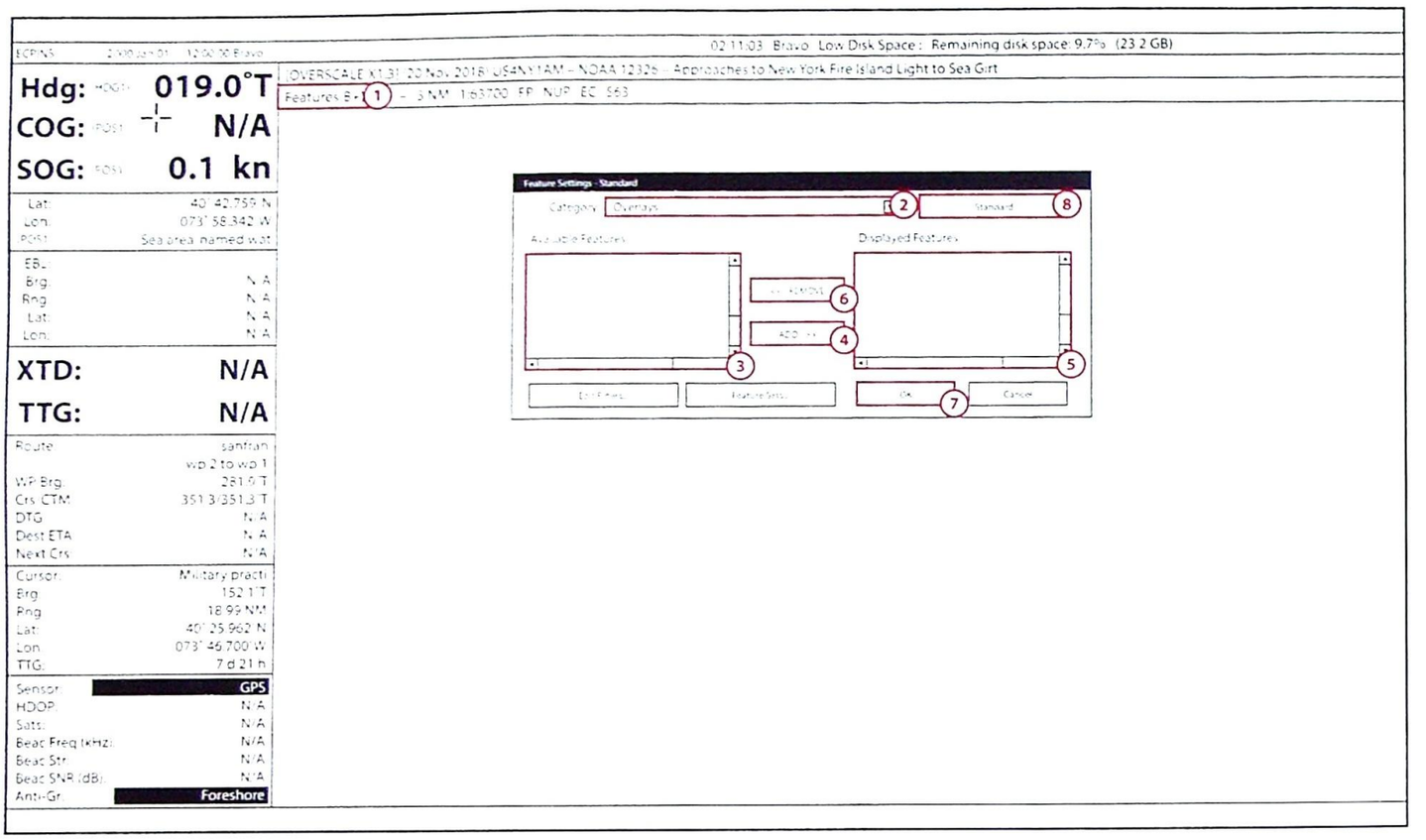
1. Middle click on the chart and select 'Setup'.
2. Click 'Vessel Setup'.
3. Open 'Set Safety Depth...'
4. Set your vessel 'Draught'.
5. Set your vessel 'Keel Clearance'.
6. Click 'OK'.

3.2 Display Preference Options



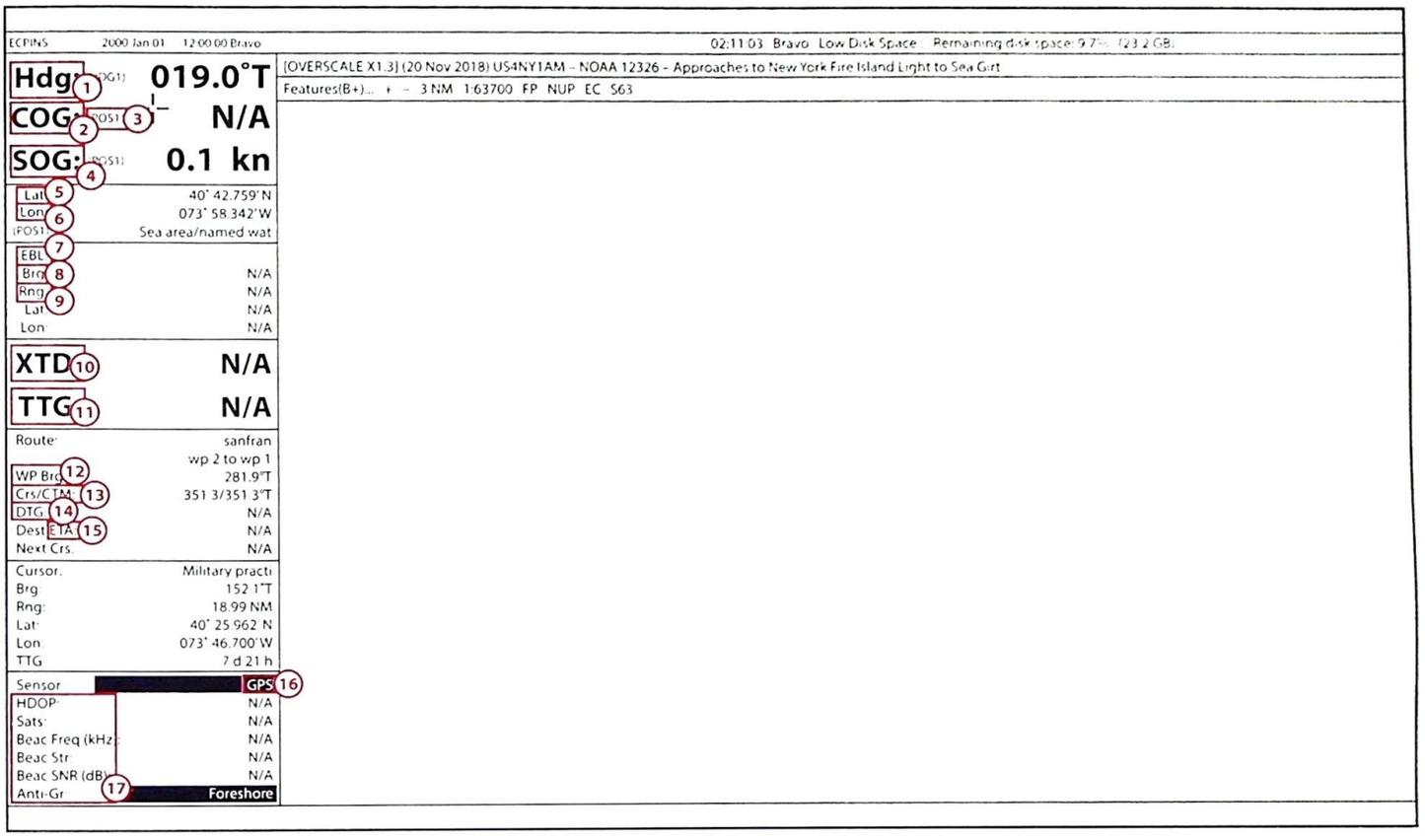
1. Middle click on the chart and select 'Setup'.
2. Click 'Display Setup'.
3. Configure settings in the 'Display Setup' menu to customise your display preference.

3.3 Display Configuration



1. Click 'Features'.
2. Select your 'Overlays' category.
3. Select a layer from 'Available Features' by left clicking on it.
4. Click 'ADD' to activate the layer.
5. Select a layer from 'Displayed Features' by left clicking on it.
6. Click 'REMOVE' to deactivate the layer.
7. Click 'OK' to save settings.
8. Reset to 'Standard' settings.

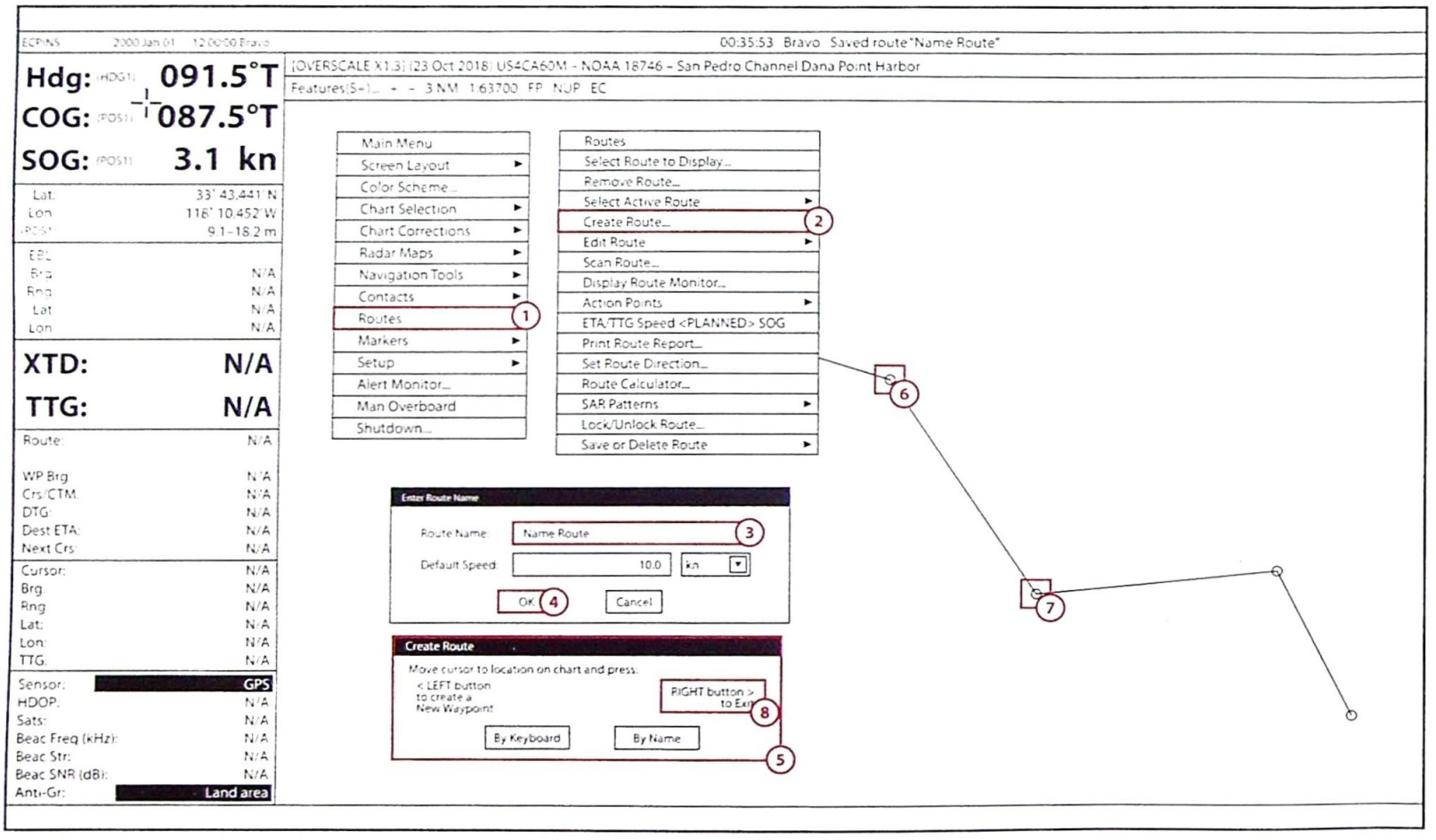
3.4 Abbreviations



1. Heading
2. Course Over Ground
3. Position
4. Speed Over Ground
5. Latitude
6. Longitude
7. Electronic Bearing Line
8. Bearing
9. Range
10. Cross Track Distance
11. Time to Go
12. Waypoint Bearing
13. Course/Course to Maintain
14. Distance to Go
15. Estimated Time of Arrival
16. Global Positioning System
17. Horizontal Dilution of Precision

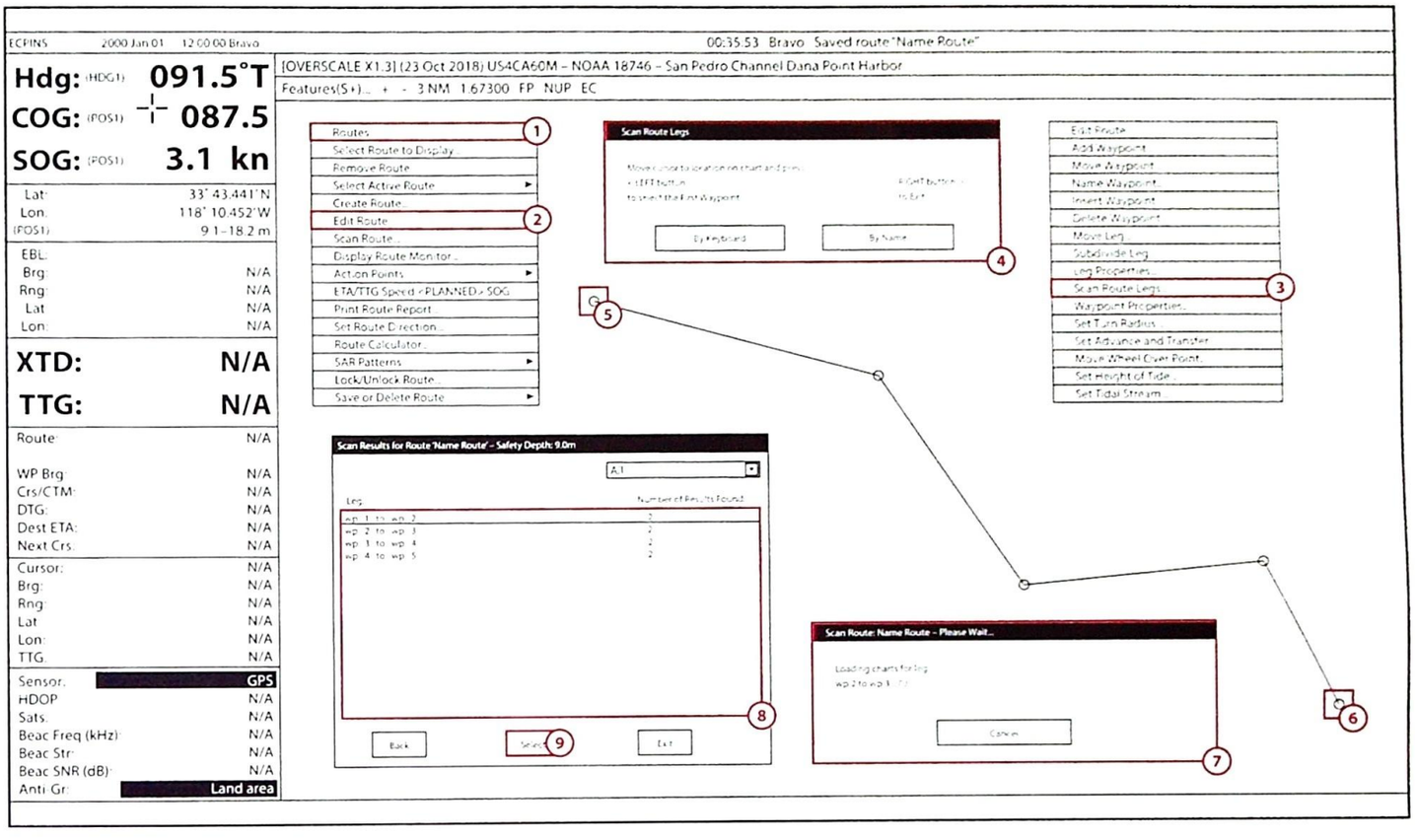
Section 4: Route Planning

4.1 Creation



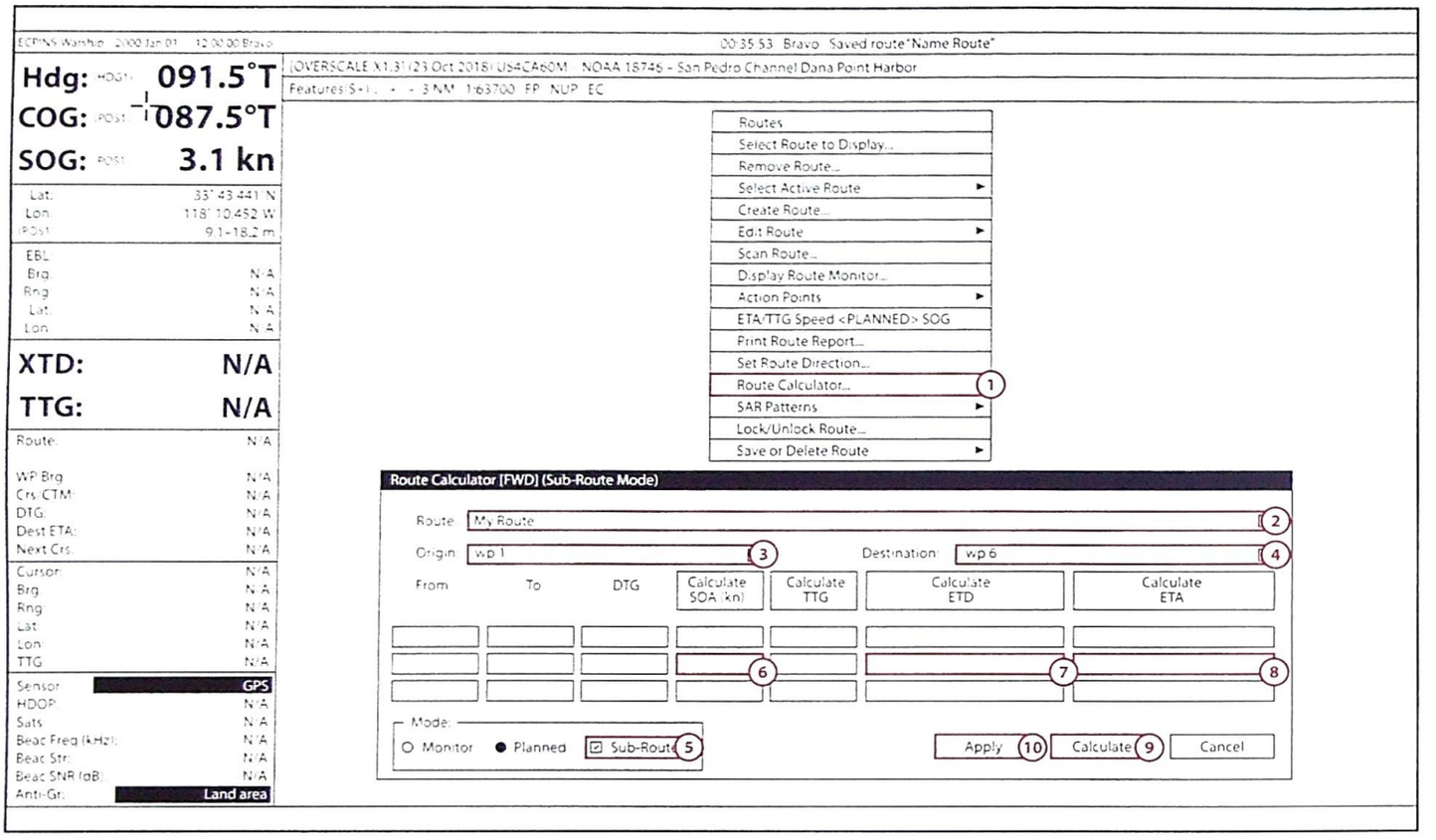
1. Middle click and select 'Routes' from the main menu.
2. Click 'Create Route...'
3. Enter a name for your route.
4. Click 'OK'.
5. The 'Create Route' window will open.
6. Left click on the chart to place your first waypoint.
7. Consecutive left clicks will place more waypoints.
8. Right click anywhere on the screen to finish placing waypoints.

4.2 Route Checking



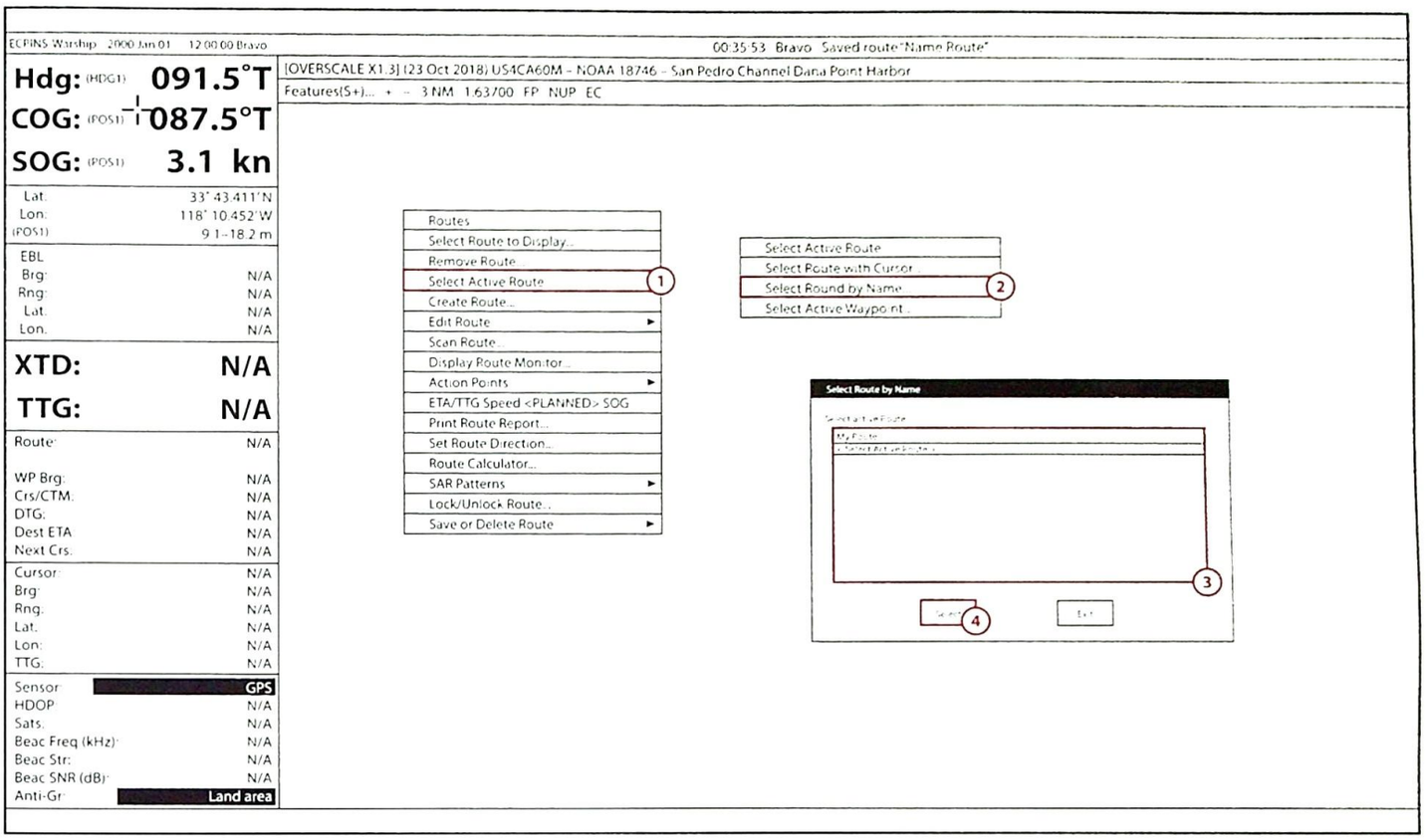
1. Ensure you are in the 'Routes' menu.
2. Click 'Edit Route'.
3. Click 'Scan Route Legs...'
4. The 'Scan Route Legs' window will open.
5. Left click on the first waypoint.
6. Left click on the last waypoint.
7. Route will begin checking.
8. Select a leg from the 'Scanned Route' list.
9. Click 'Select' to review the list.

4.3 Optimisation/Schedule



1. Select 'Route Calculator...'
2. Select your route from the dropdown list.
3. Set the first waypoint you want to configure from.
4. Set the last waypoint you want to configure to.
5. Click 'Sub-Route'.
6. Enter a speed.
7. Enter an ETD.
8. Enter an ETA.
9. Click 'Calculate'.
10. Click 'Apply'.

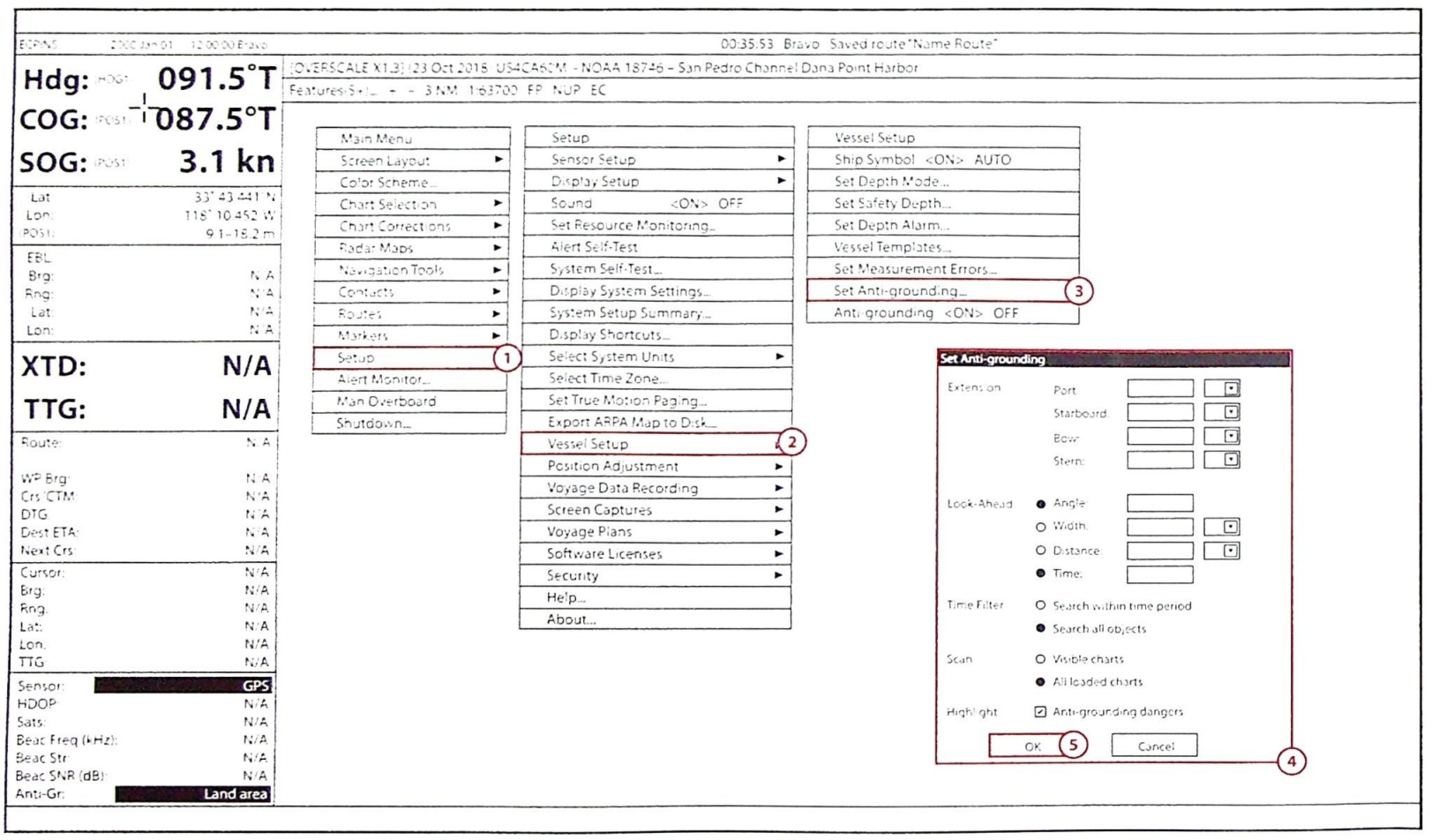
4.4 Selecting Active Route



1. From the 'Routes' menu, click 'Select Active Route'.
2. Click 'Select Route by Name...'
3. Select your route from the list available.
4. Click 'Select' to activate your route.

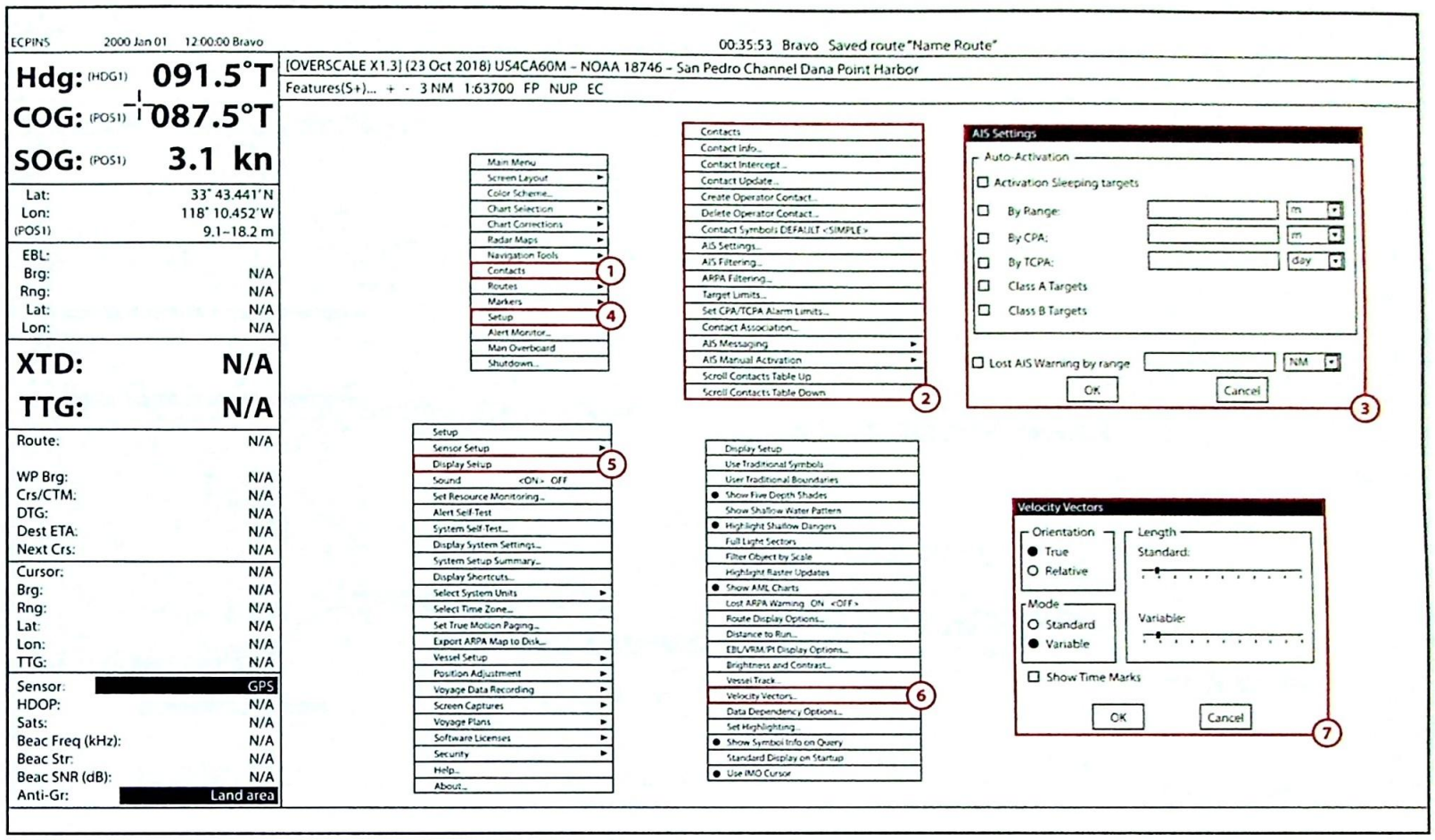
Section 5: Route Monitoring

5.1 **Look-Ahead**



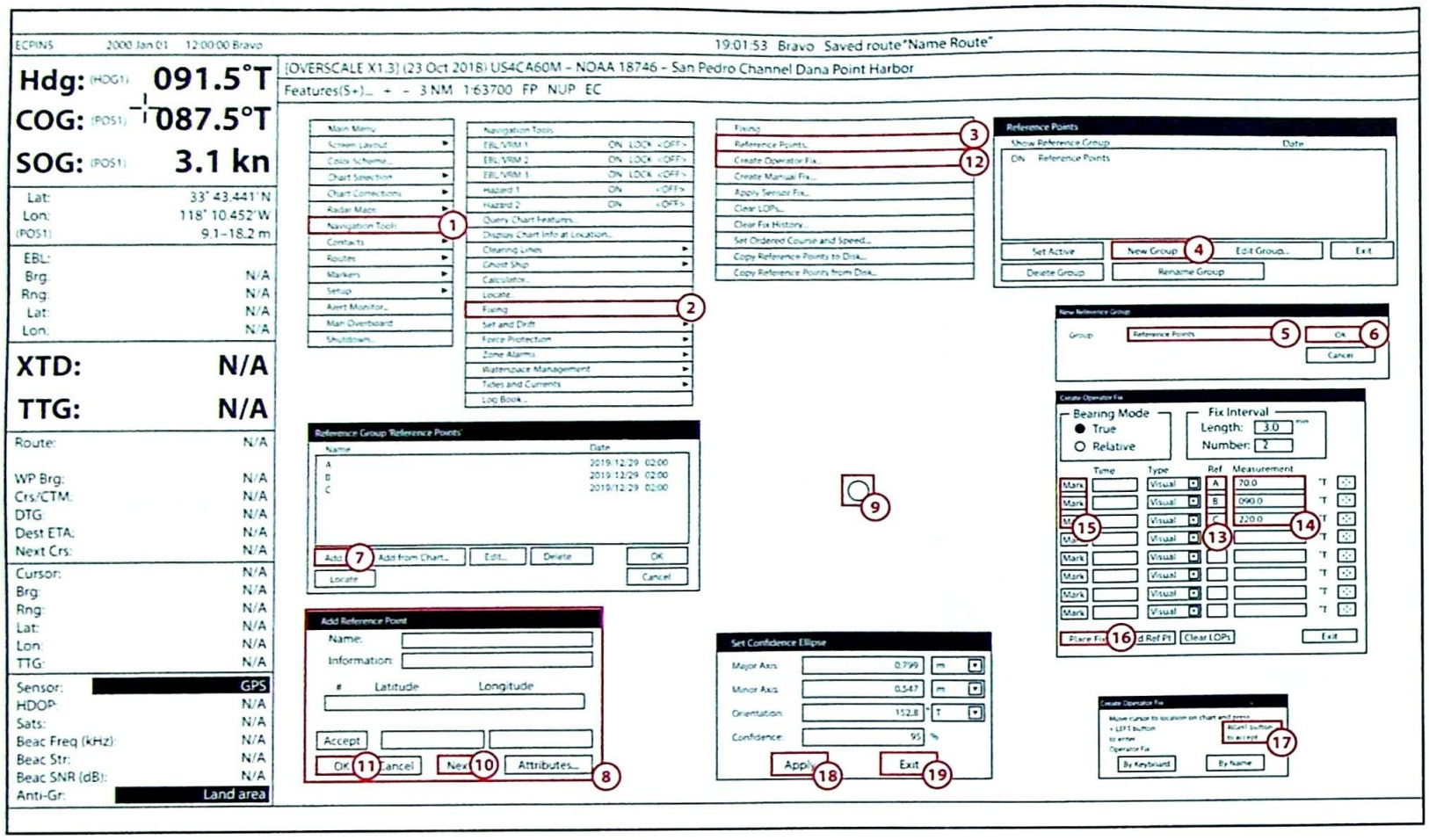
1. Middle click on the chart and select 'Setup'.
2. Click 'Vessel Setup'.
3. Click 'Set Anti-grounding...'
4. Configure anti-grounding settings, as required.
5. When finished, click 'OK' to save changes.

5.2 TT/AIS/Vectors



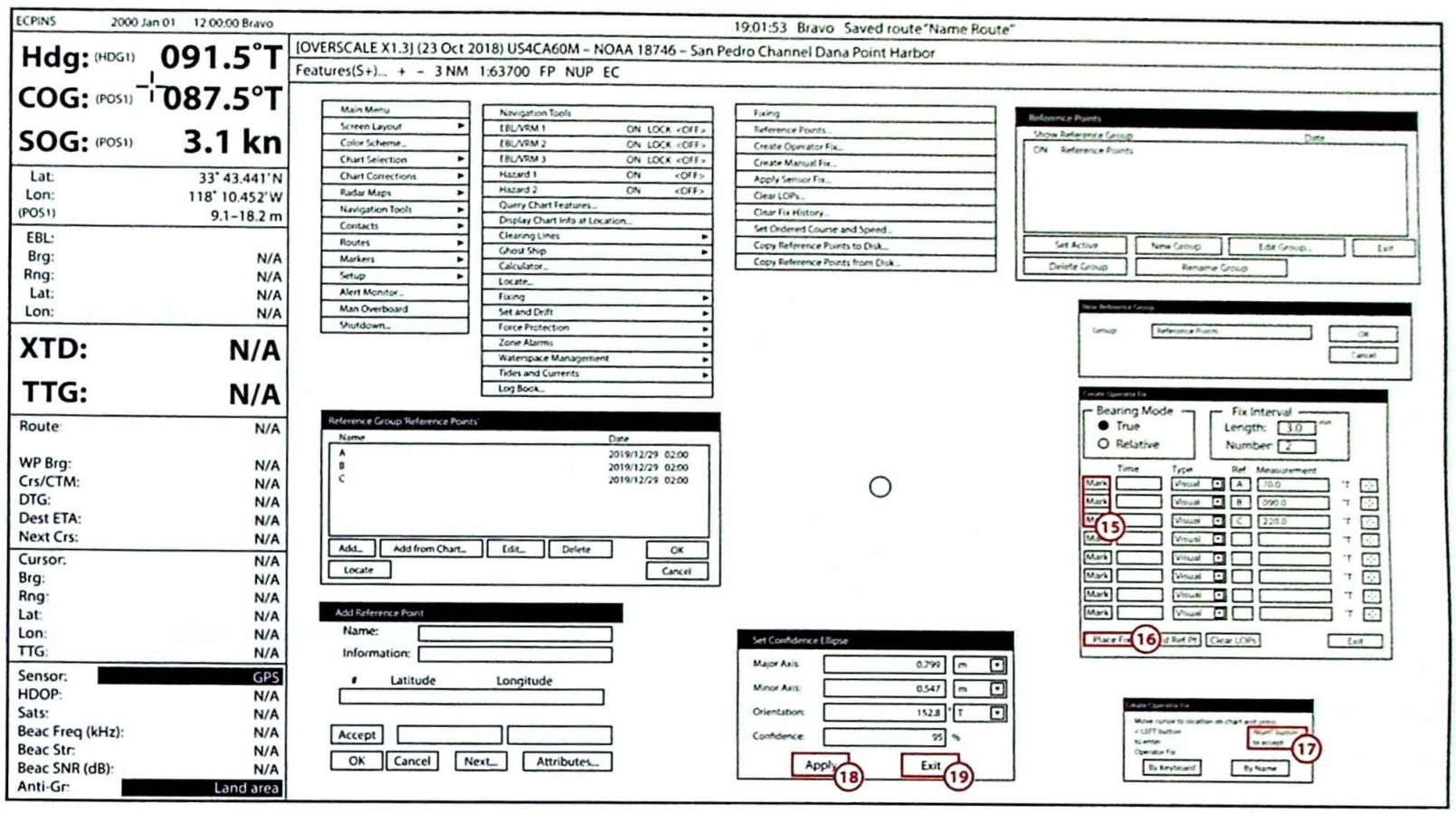
1. Middle click on the chart and select 'Contacts'.
2. Many AIS/TT settings are available here.
3. Example of 'AIS Settings' menu.
4. Click 'Setup'.
5. Click 'Display Setup'.
6. Open 'Velocity Vectors...' menu.
7. Configure vectors, as required.

5.3 Position Fixing Part 1



1. Middle click and select 'Navigation Tools'.
2. Select 'Fixing'.
3. Click 'Reference Points...'
4. Click 'New Group'.
5. Enter a name for your group.
6. Click 'OK'.
7. Click 'Add...'
8. 'Add Reference Point' window will be open.
9. Left click to place your reference point.
10. Click 'Next' and then repeat step 9 to place another reference point.
11. Immediately after placing your last reference point, instead of clicking 'Next', click 'OK' and accept any further menus.
12. Click 'Create Operator Fix...'
13. Enter the reference letter for each reference.
14. Enter the bearing for each reference.

5.3 Position Fixing Part 2



15 After entering each bearing, click 'Mark'.

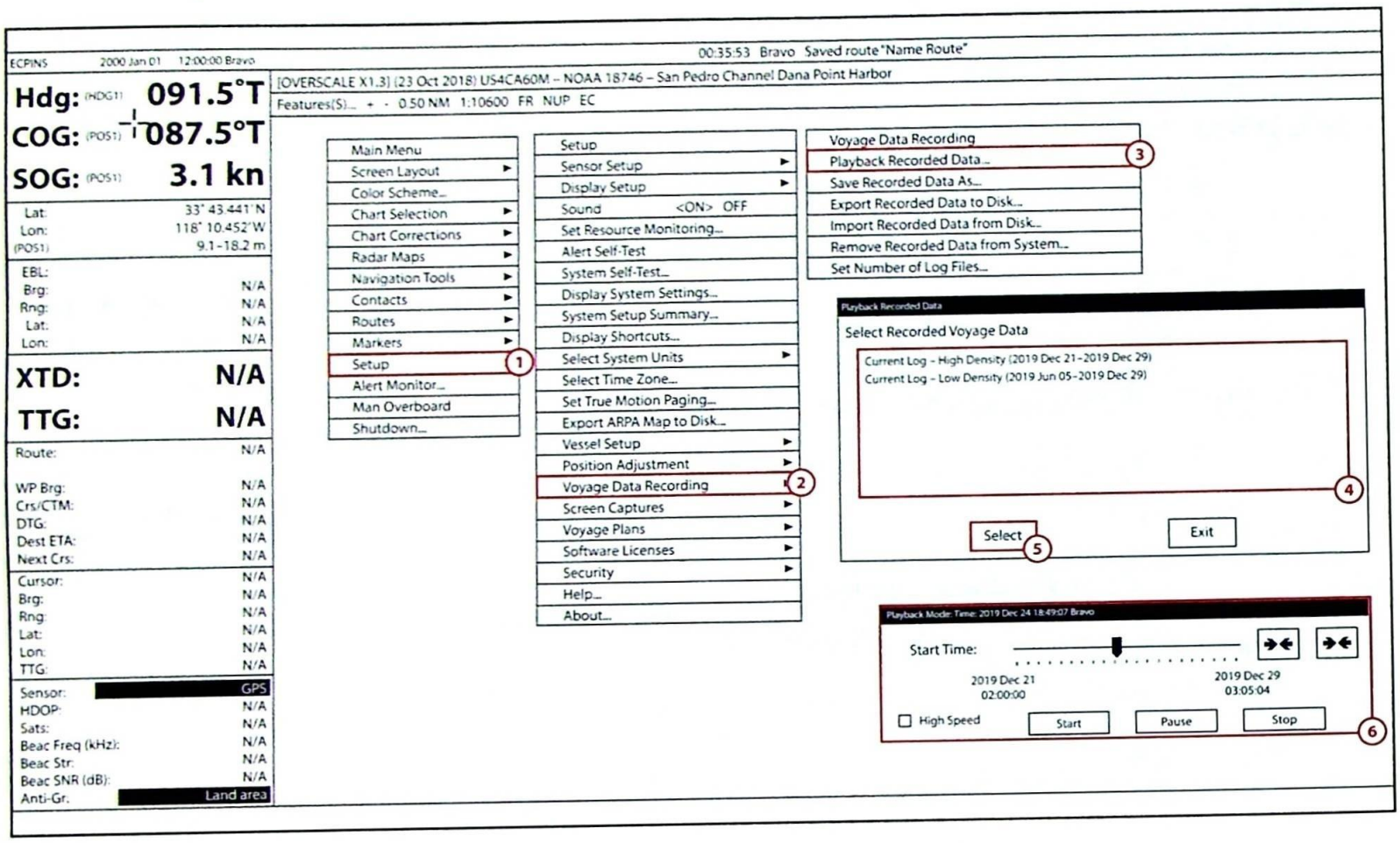
16 Click 'Place Fix'.

17 Right click to accept the fix.

18 Click 'Apply'.

19 Click 'Exit'.

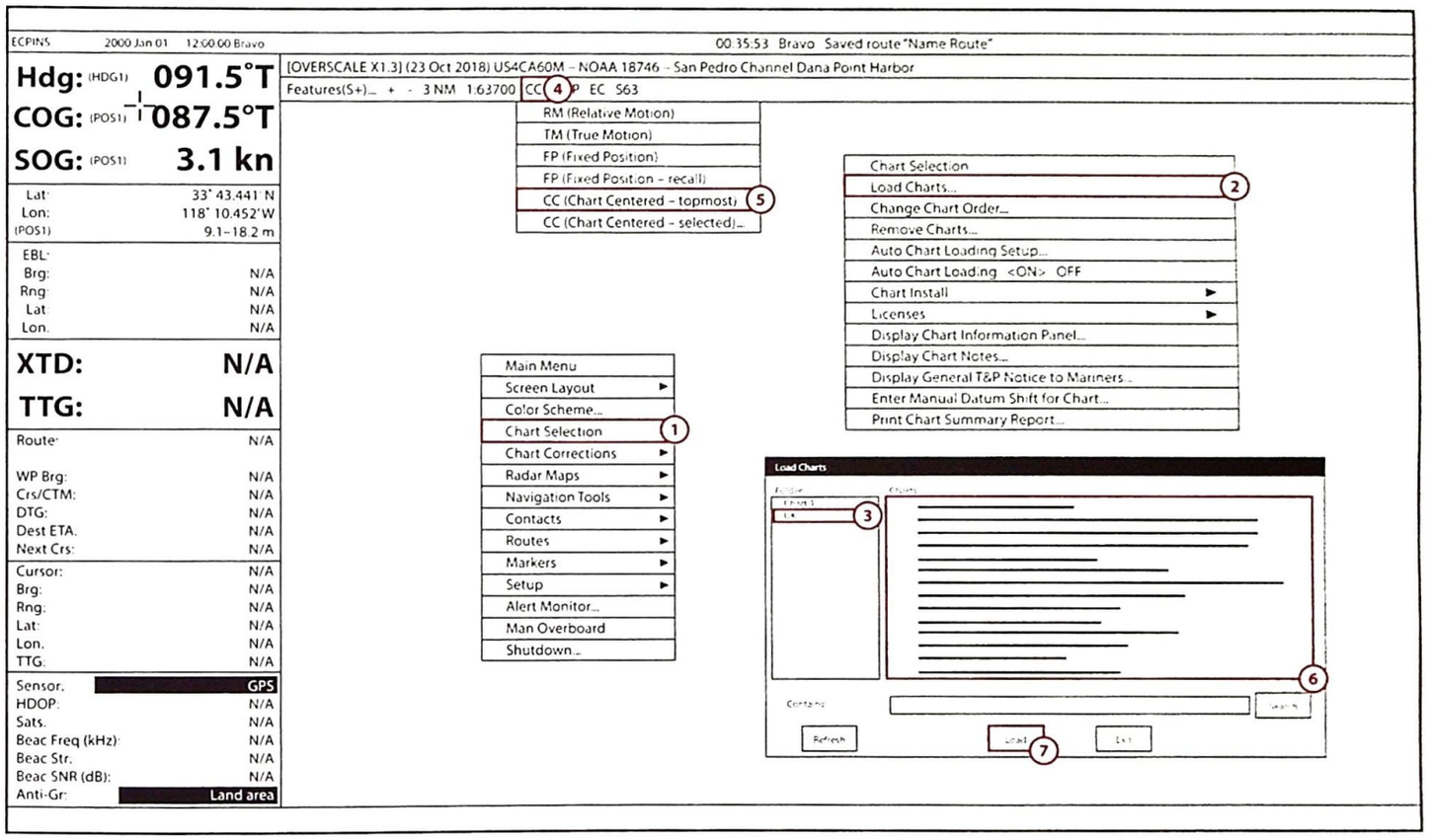
5.4 Playback



1. Middle click and select 'Setup'.
2. Select 'Voyage Data Recording'.
3. Select 'Playback Recorded Data...'
4. Select 'Voyage Data' from the list.
5. Click 'Select'.
6. Use the 'Playback' tool to monitor your playback.

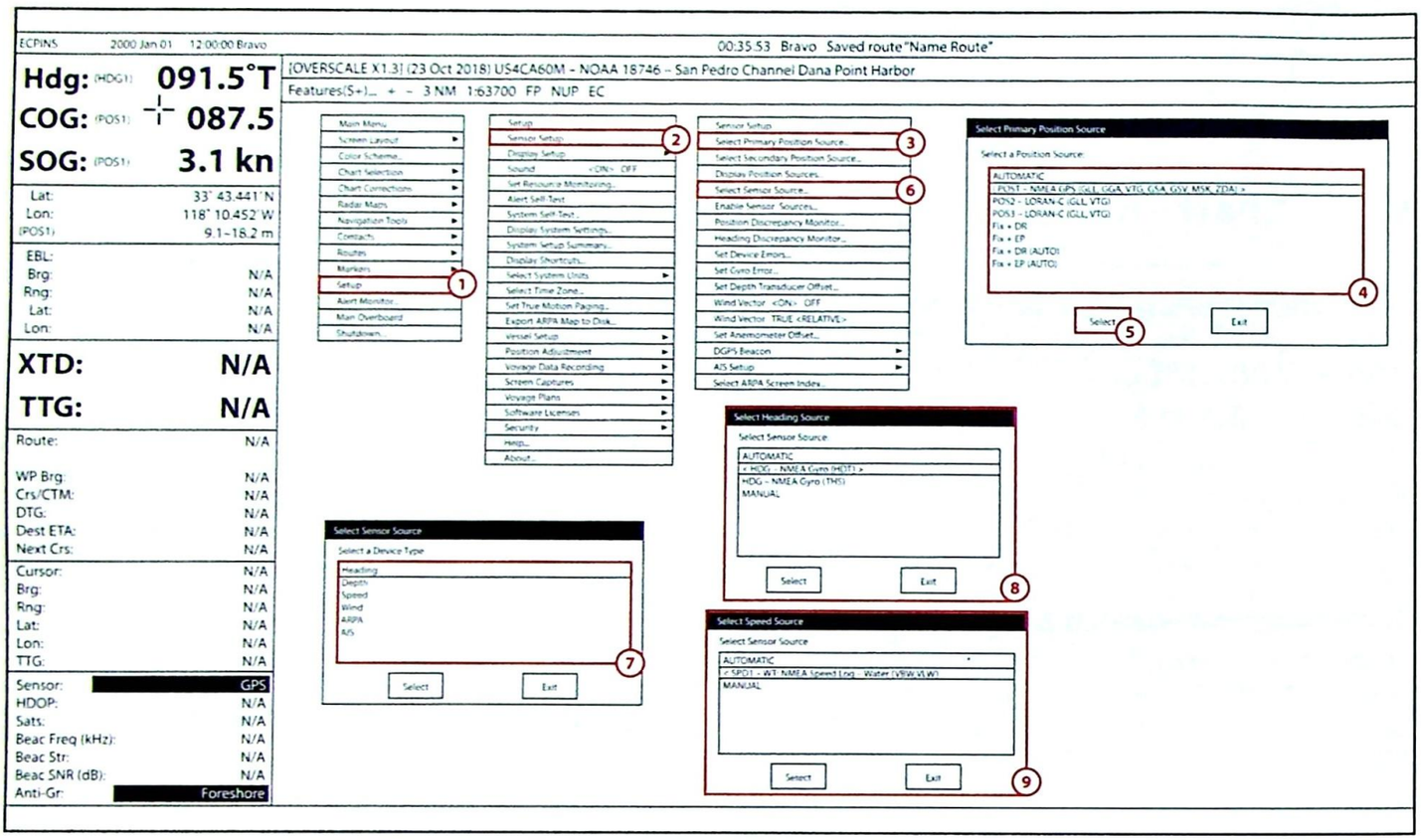
Section 6: System Settings

6.1 **Chart 1/Chart Query**



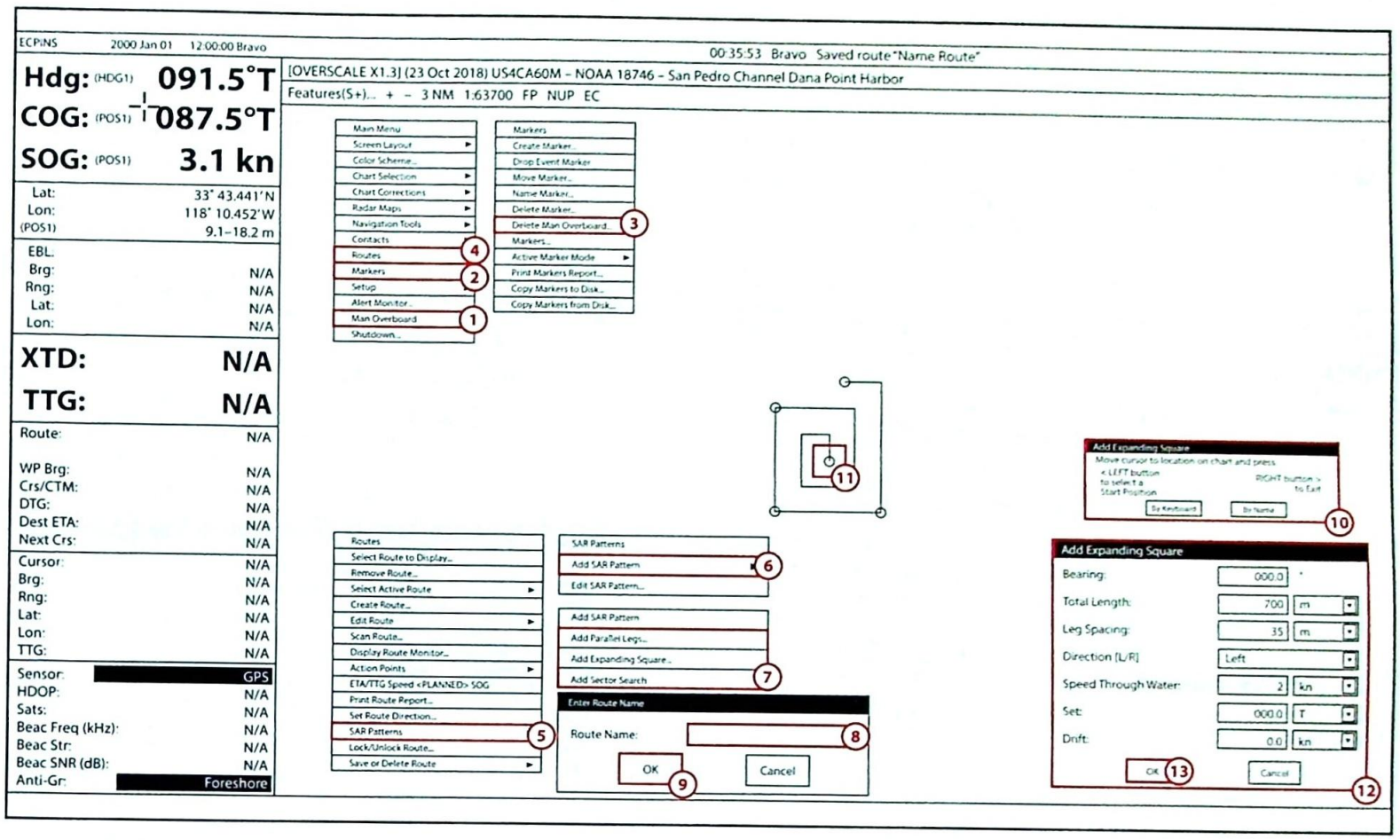
1. Middle click and select 'Chart Selection'.
2. Click 'Load Charts...'
3. Deselect all charts except for 'Chart 1'.
4. Click the motion dropdown.
5. Select 'CC (Chart Centered – topmost)'.
6. Select a section of 'Chart 1' from the list.
7. Click 'Load' to show the information.

6.2 Position/Heading/Speed



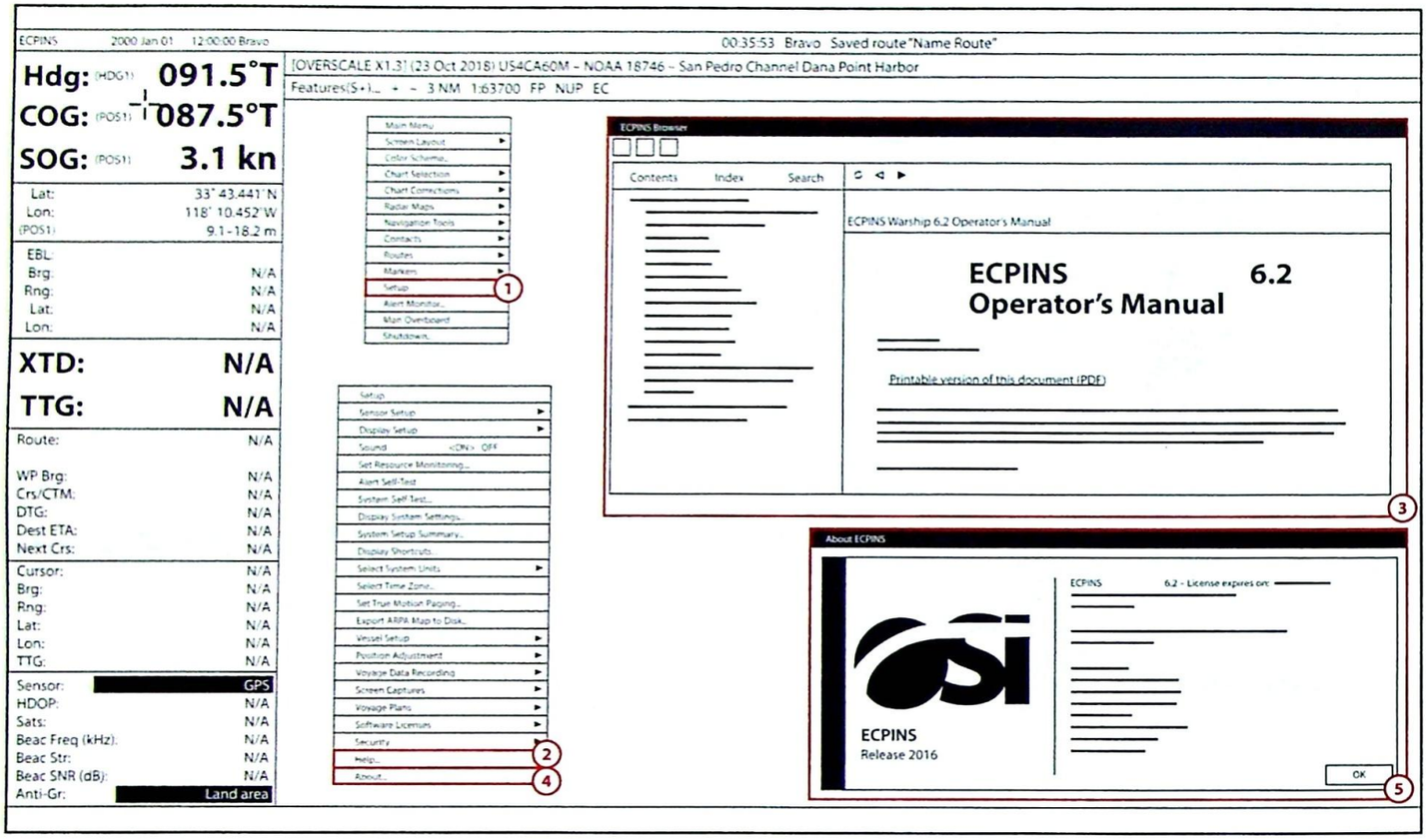
1. Middle click and select 'Setup'.
2. Select 'Sensor Setup'.
3. Click 'Select Primary Position Source...'
4. Select your input method from the list.
5. Click 'Select' to save.
6. Click 'Select Sensor Source...'
7. Select a sensor from the list.
8. Example 'Heading Source' selection menu.
9. Example 'Speed Source' selection menu.

6.3 Emergency Menus



1. Middle click and select 'Man Overboard' to place a marker in your ship's location.
2. Click 'Markers'.
3. Click 'Delete Man Overboard...' to remove the marker.
4. Click 'Routes'.
5. Click 'SAR Patterns'.
6. Click 'Add SAR Pattern'.
7. Select a pattern from the list.
8. Enter a name for your SAR route.
9. Click 'OK'.
10. You will be prompted to left click on the start position.
11. Left click on your required start position.
12. Configure SAR Pattern settings.
13. Click 'OK' to finish.

6.4 Manual/About



1. Middle click and select 'Setup'.
2. Click 'Help...'
3. The system manual is displayed.
4. Click 'About...'
5. The system 'About' page is displayed.

11. PC MARITIME NAVMASTER – Familiarisation Checklist (Page 1 of 2)

1. **Company ECDIS Procedures**

   Review company documentation for ECDIS procedures and complete the below ECDIS Type Specific Familiarisation checklist.

2. **Chart Display**

   Become familiar with the basic chart functionality from the main display.

Menu Bar		**Toolbars**	

3. **Navigational Tools**

   Operate all basic navigational functions and vessel setting options contained within the ECDIS for use of navigation.

Tools		**Toolbars**	
	Mariner Overlays		Mariner Tools
			Add VRM
			Add event marker

4. **Chart Display Settings**

   Operate all chart display settings, become familiar with object layers, ENC symbology and define the vessel's safe water settings. Identify where all chart updates are managed in the system.

Toolbars			
	Standard Toolbar		Scale selector
	Chart Toolbar		Range Selector
	Vector Chart Toolbar		Range and Bearing Tool
	Hide Quality of Data Symbol (ON/OFF)		Display Soundings (ON/OFF)

5. **Route Planning**

   Operate all route planning functions and obtain all relevant schedule information for passage planning and route monitoring purposes.

Route			
	Edit		Calculate
	New		Copy
	Selection		Reverse
	Waypoint		Delete
	Plan		Options
	Arrival circles (ON/OFF)		
	Turning circles (ON/OFF)		

6. **Route Monitoring**

   Operate the variety of voyage data functions for route monitoring to display and obtain relevant information for navigation and the ship's safety.

Monitoring		**Toolbars**	
	Waypoint Detection		Display Toolbar
	Great Circle		Voyage Toolbar
Vessel			AIS Toolbar
	Overlays		ARPA Toolbar
	Track		Radar Overlay Toolbar
	Warnings		Mariner Tools
	Speed and Direction Vector (Applied to all targets) (ON/OFF)		Vector Chart Toolbar
	Past track (ON/OFF)		
	Mariner Overlay (ON/OFF)		

7. **Chart Updating**

   The operator should know how to update electronic charts and be thoroughly aware of their responsibilities concerning updating. It is a legal requirement that charts are maintained in an up-to-date condition.

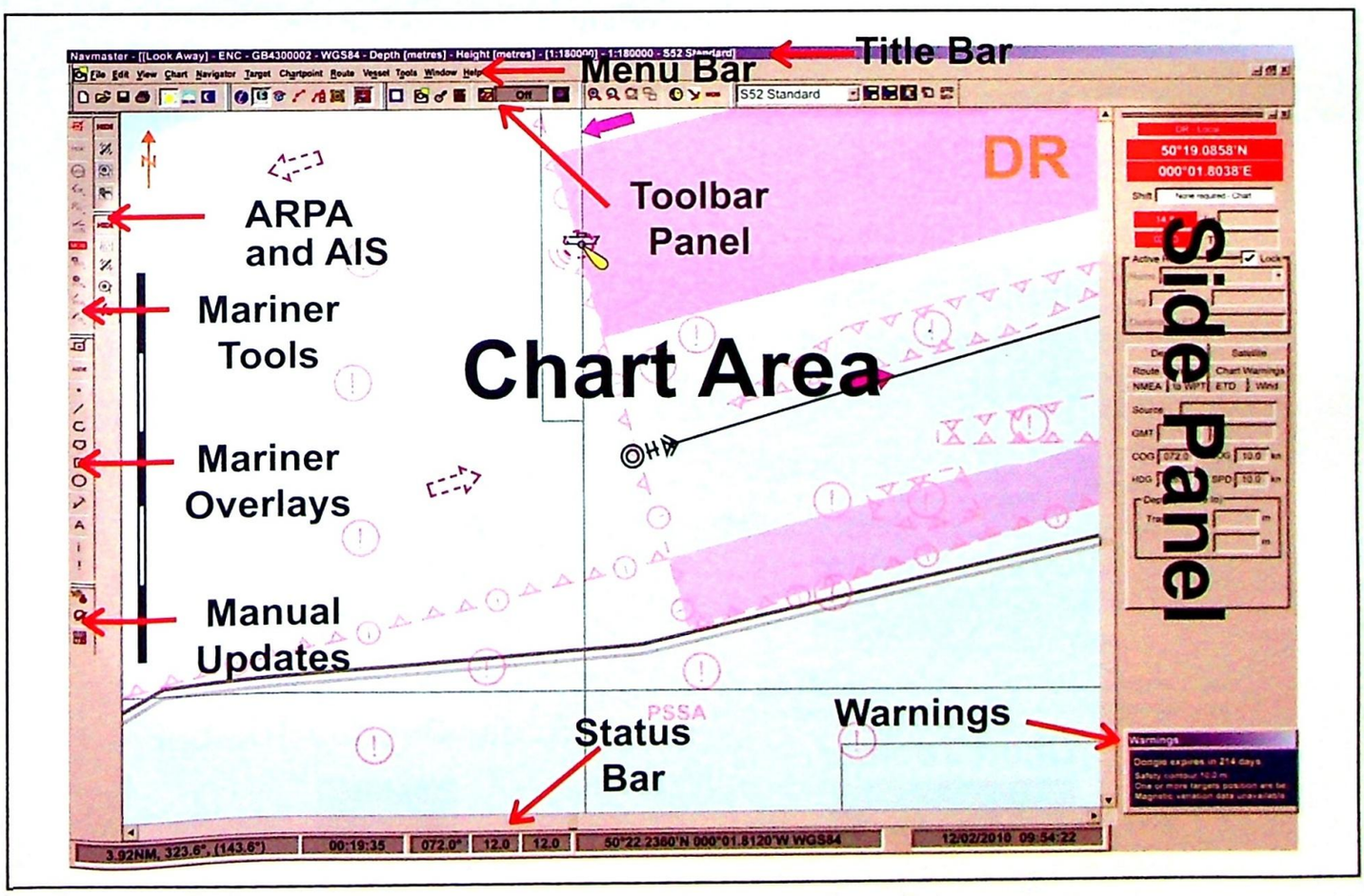
	Manual Updates Toolbar		Chartpoint

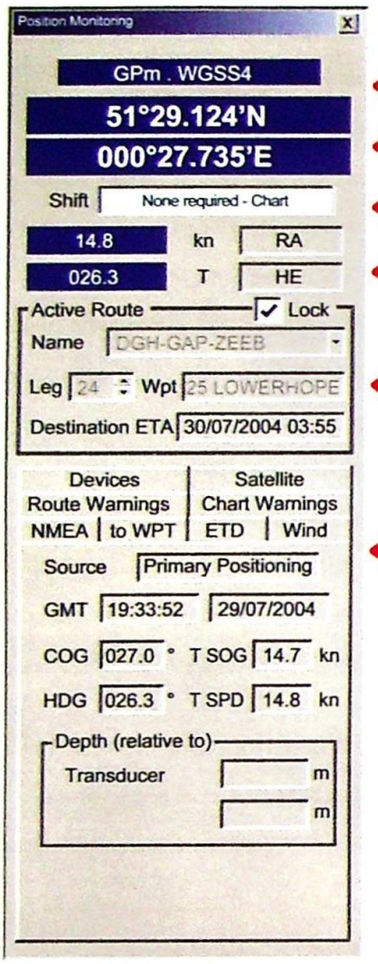
PC MARITIME NAVMASTER – Familiarisation Checklist (Page 2 of 2)

8.	**System Sensors** Identify where the operator can select or deselect all sensors connected to the ECDIS and verify the vessel's particulars.			
	Navigator			
		Position Source...		Dynamic (ON/OFF)
		NMEA		Course
		AIS		Speed
		Dead Reckoning		Set
		Vessel Position		Drift
9.	**System Alerts** Identify the ECDIS system's category of Alarms and Prompts generated by the operator and by the ECDIS system.			
	Warnings			
		Position Monitoring Alarms		Prohibited Area/Special Condition Alarms
		Guard Zone Size		Mariner Overlay (ON/OFF)
		Distance (NM)		
10.	**System Units** Become familiar with the system's logbook, records, data storage and configuration set up.			
	Tools		**Window**	
		Voyage Data Recording		
	Vessel			
		Overlays		
		Track		
11.	**ECDIS Operator's Manual** Locate the system's operator's user guide for referencing and help.			
	Help			
		Navmaster Help		Display ECDIS Chart 1
		User Guide		System Information
		List of Abbreviations		

PC MARITIME NAVMASTER

Key PC MARITIME NAVMASTER ECDIS Menu Functions		
1.	Configuration of Ship's Parameters (Length, Breadth, etc.)	**Setup Mode>Vessel Menu>Setup>General Tab**
2.	View Installed Charts (Official)	**Chart Menu>Management>ENC or ARCS>Charts**
3.	View the latest update number installed	**Chart Menu>Management>ENC or ARCS>Chart Updates**
4.	View ARCS Chart Updates	**Chart>Options>ARCS>Limit Lines>Chart Updates**
5.	View information on charted objects and view additional text	**Display Toolbar>Chart Information Icon>Left click on chart**
6.	Configure Chart Go to Parameters	**Vector Chart Toolbar>Presentation Parameters Icon**
7.	Set the Safety Depth, Safety Contour, Shallow and Deep Contour	**Vector Chart Toolbar>Safety Contours Icon**
8.	Input a User Chart Object	**Mariner Overlays Toolbar>Select appropriate object**
9.	Input a Manual Update	**Manual Updates Toolbar>Add Manual Update**
10.	Turn the ship outline on	**Options>Vessel Options>Overlays>Vessel Shape>Automatic**
11.	Configure the Check Safety Zone (Anti-grounding Cone)	**Options>Vessel Options>Warnings>Display Guard Zones**
12.	Configure Velocity Vectors	**Options>Vessel Options>Overlays>Speed and Direction Vector**
13.	Manually change the active WPT	**Position Monitoring>to Wpt (route must be unlocked)**
14.	View to past Alarms and Warnings	**View>System Messages>Select relevant category**
15.	Input a Visual or Radar Fix	**Mariner Tools>Lines Of Position or Manual Position Fix**





Primary Position Source

Primary Position

Applied Datum Shift

Course and Speed

Active Route Information

Position Monitoring Panel:

Devices
Satellite
Route Warnings
Chart Warnings
NMEA
to WPT
ETD
Wind

Standard Toolbar

New Open Save Print Day Dusk Night

Vector Chart Toolbar

Range selector

Display mode | Standard display | Safety | Presentation parameters contours | Scale selector

Display Toolbar

Chart information

Side panel on/off

Position monitoring

Full screen

Chartpoint

Route

Route management

Target tracking

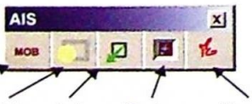
ARPA Toolbar

Hide targets | Ack alarm | Go to target | Toggle radar cursor

Voyage Toolbar

New log | Position monitoring | Track on/off | View log | Look-ahead on/off | Look-ahead distance | Go to vessel

AIS Toolbar



Hide targets | Quick view | Ack alarm | Go to target | Voyage data upload

Chart Toolbar

Zoom in

MOB

Zoom out

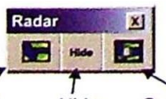
Full chart (ARCS)

Default scale

World

R&B

Radar Overlay Toolbar



On/off | Hide overlay | Options

12. Raytheon Anschütz ECDIS NX – Familiarisation Checklist (Page 1 of 2)

1.	**Company ECDIS Procedures** Review company documentation for ECDIS procedures and complete the below ECDIS Type Specific Familiarisation checklist.			
2.	**Chart Display** Become familiar with the basic chart functionality from the main display.			
	Shortcut Bar			
		Radar Overlay		STM
		Orientation Mode		TGT
		Scale		EBL/VRM
		SHIP CENT		PICK
		Display Type		DEF DISP
		PLAN/SAIL		Notification
3.	**Navigational Tools** Operate all basic navigational functions and vessel setting options contained within the ECDIS for use of navigation.			
	Menu Selection			
		DISP		CHART
		SHIP		DISP
		USER		TOOLS
		COL DIM		OVERLAYS
		VECTOR LENGTH (1 to 30 minutes)		DISPLAY DATE
		LOAD PROFILE		GOTO POSITION
		Night Colours		DRAW OBJECTS
4.	**Chart Display Settings** Operate all chart display settings, become familiar with object layers, ENC symbology and define the vessel's safe water settings. Identify where all chart updates are managed in the system.			
	Shortcut Bar			
		Display Type – Settings Mode		OPTIONS
		CONTOURS & DEPTH		SPOT SOUNDINGS (ON/OFF)
		SAFETY CONTOUR		SCAMIN OFF (ON/OFF)
				ACCURACY (ON/OFF)
5.	**Route Planning** Operate all route planning functions and obtain all relevant schedule information for passage planning and route monitoring purposes.			
	Menu Selection			
		ROUTE		SAVE AS
		MGR		CHECK
		CATEGORIES		RESULTS
		ROUTE		ACTIVE
		EDIT		WAYPOINTS
		SELECTED ROUTE		SELECTED WPT
		CREATE LOAD UNLOAD		DISP
		EDIT		ROUTE/DISPLAY

Raytheon Anschütz ECDIS NX – Familiarisation Checklist (Page 2 of 2)

6. **Route Monitoring**

Operate the variety of voyage data functions for route monitoring to display and obtain relevant information for navigation and the ship's safety.

Menu Selection			
	TFT MENU		INS
	TARGET		TOOLS
	FULL LIST		CAL
	TFT LIST		DISTANCE CALCULATION
	TINDR LIST		LINE OF POSITION
	OPTN		USB
	FUNC		EVL VRM
	LOG WATCH		

7. **Chart Updating**

The operator should know how to update electronic charts and be thoroughly aware of their responsibilities concerning updating. It is a legal requirement that charts are maintained in an up-to-date condition.

Menu Selection			
	CHART		MGR

8. **System Sensors**

Identify where the operator can select or deselect all sensors connected to the ECDIS and verify the vessel's particulars.

Task Switcher			
	HD CONNING		Sensor

9. **System Alerts**

Identify the ECDIS system's category of Alarms and Prompts generated by the operator and by the ECDIS system.

Alert Area		Permanent Indication Area	
	Alert		
	MOD		
	Mute		
	ACK		

10. **System Units**

Become familiar with the system's logbook, records, data storage and configuration set up.

Menu Selection			
	FUNC		24H LOG
	LOG WATCH		ADD LOG ENTRY
	ANCHOR WATCH		

11. **ECDIS Operator's Manual**

Locate the system's operator's user guide for referencing and help.

Menu Bar			
	Help		

13. Raytheon Anschütz SYNAPSIS ECDIS – Familiarisation Checklist
(Page 1 of 2)

1. **Company ECDIS Procedures**
Review company documentation for ECDIS procedures and complete the below ECDIS Type Specific Familiarisation checklist.

2. **Chart Display**
Become familiar with the basic chart functionality from the main display.

Tool Bar

	Previous		Toggle ARCS/ENC
	Next		Select Chart
	Free Zoom		Select Info panel
	Zoom In		MOB
	Zoom Out		Default Display
	Center On Ship		Standard Display
	Free EBL		Target Menu
	Fixed EBL		Radar Overlay
	Mark At Ship		Weather Overlay
	Manual 24 hour Log Entries		Customization
	NavTex Dialog		

3. **Navigational Tools**
Operate all basic navigational functions and vessel setting options contained within the ECDIS for use of navigation.

Nav Tools

	Free EBL/VRM		Cursor Information...
	Fixed EBL/VRM		Position Fix
	Show EBL/VRM Labels		Line Of Position...
	Rhumb/Great Circle Line		Tidal Prediction...
	Datum Transformation...		Magnetic Variation...

4. **Chart Display Settings**
Operate all chart display settings, become familiar with object layers, ENC symbology and define the vessel's safe water settings. Identify where all chart updates are managed in the system.

ENC Options

	Presentation Library		Other Display
	Chart1		User defined Display
	Mariners Objects...		Chart Options...
	Add Object		Chart Scale
	Manual Updates...		Display Date (Auto)...
	Show Manual Updates (ON/OFF)		Chart Indications...
	Legend...		Databases
	Base Display		SCAMIN OFF (ON/OFF
	Standard Display		ACCURACY (ON/OFF)

5. **Route Planning**
Operate all route planning functions and obtain all relevant schedule information for passage planning and route monitoring purposes.

Routes

	Edit Primary Route...		Clear Route...
	Create new Secondary Route...		Send Route to Radar
	Create SAR Pattern Route...		Send Primary Route to GPS1
	Automatic Route Planning/Port Information...		Route Monitoring...
	Route Manager...		Track Control...
	Toggle Routes		ETA Calculation...
	Save Route...		Distance-To-Run/Planned Position...
	Show Route...		Pre-Departure Checklist...
	List Route...		Alerts...
	Review Route Check Results...		Check Route...

Raytheon Anschütz SYNAPSIS ECDIS – Familiarisation Checklist (Page 2 of 2)

6. **Route Monitoring**

Operate the variety of voyage data functions for route monitoring to display and obtain relevant information for navigation and the ship's safety.

Display			
	Zoom In		Info Panel...
	Zoom Out	**Ship**	
	Default Scale		Position Offset...
	Largest Scale		Own Ship Vector and Look-Ahead...
	Scale and Center...		Mark at Ship
	View Area....		Anchor Watch...
	Ship Auto Center...		Guard Zones
	Ship True Scale Outline		Acquisition/Exclusion Zones
	Bright Sun Colors		Man Overboard
	Day Colors – White		Overboard All-Clear
	Day Colors – Black		Vector Length (minutes)
	Dust Colors		Look-Ahead Searchlight (ON/OFF)
	Night Colors		

7. **Chart Updating**

The operator should know how to update electronic charts and be thoroughly aware of their responsibilities concerning updating. It is a legal requirement that charts are maintained in an up-to-date condition.

Chart			
	Goto ARCS/ENC Chart		License
	Info/Select...		User Permit
	ENC + CM93/3 Chart Catalog		Installation
	ENC Update Status Report		Updates
			Update Review

8. **System Sensors**

Identify where the operator can select or deselect all sensors connected to the ECDIS and verify the vessel's particulars.

Integration			
	Nav Device Selection		d. HEADING
	CCRS SELECTION MODE		e. SPEED THROUGH WATER
	a. AUTO		f. SPEED OVER GROUND
	b. MAN		g. DEPTH
	c. POSITION		

9. **System Alerts**

Identify the ECDIS system's category of Alarms and Prompts generated by the operator and by the ECDIS system.

Ship			
	Own Ship Vector and Look-Ahead...		Acquisition/Exclusion Zones
	Anchor Watch...		Man Overboard
	Guard Zones		
	Look-Ahead width (m)		
	Vector Length (minutes)		

10. **System Units**

Become familiar with the system's logbook, records, data storage and configuration set up.

Logs			
	Current 24 Hour Log...		Manual 24 Hour Log Entry...
	Manage 24 Hour Log...		Voyage Recording...

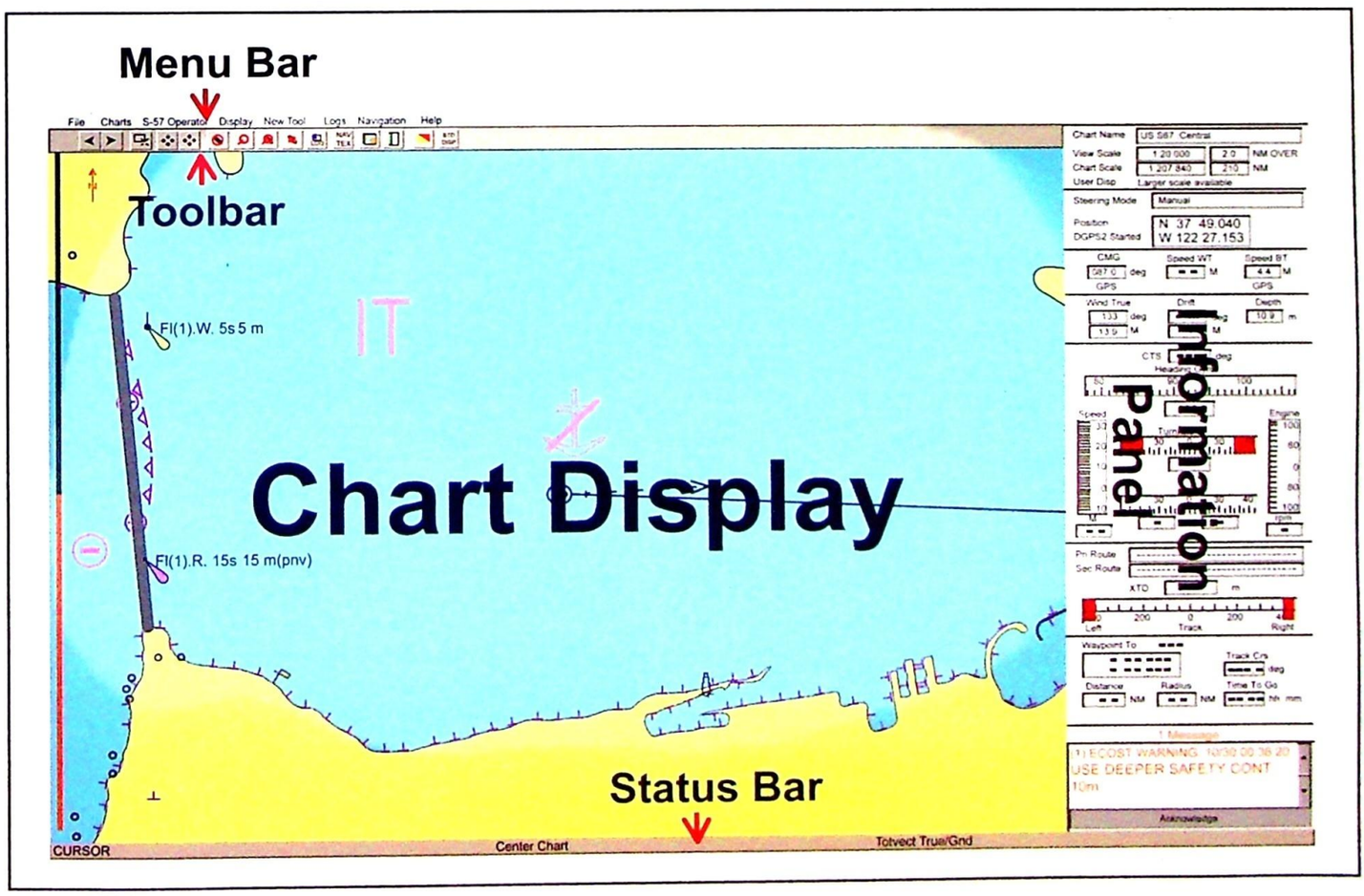
11. **ECDIS Operator's Manual**

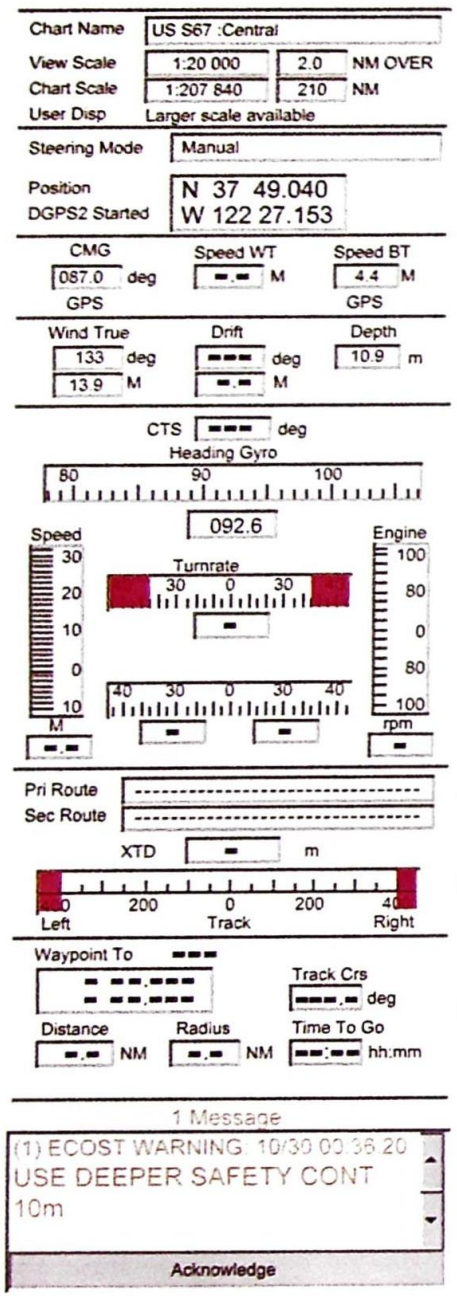
Locate the system's operator's user guide for referencing and help.

Help			
	Help Index...		
	System Information...		
	About...		

Raytheon Anschütz SYNAPSIS ECDIS

Key Raytheon Anschütz SYNAPSIS ECDIS Menu Functions		
1.	View list of installed Charts	**Chart>S57 + CM93/3 chart Chart Catalogue...**
2.	View the latest update number installed	**S-57 Options>Legend...**
3.	Change Chart Settings	**S-57 Options>Overlays>Options**
4.	View information on charted objects and view additional text	**Mouse cursor on an object and click on the Query button**
5.	Set the Safety Depth, Safety Contour, Shallow and Deep Contour	**S-57 Options>Overlays>Options**
6.	Input a Mariner Object	**S-57 Options>Add/Delete Mariners Objects...**
7.	Input a Manual Update	**S-57 Options>Manual Updates...**
8.	Turn Free EBL/VRM on	**Nav Tools>Free EBL/VRM**
9.	Configure the Searchlight (Anti-grounding)	**Ship>Own Ship Vector**
10.	Configure Ship's Track	**Logs>Voyage Recording...**
11.	Configure Velocity Vectors	**Ship>Own Ship Vector**
12.	View Logbook	**Logs>Current 24 Hour Log...**
13.	Input a Visual or Radar Fix	**Nav Tools>Line Of Position...**
14.	Configure Guard Zone	**Ship>Guard Zone...**
15.	Turn on Radar Image Overlay	**Toolbar>Radar Overlay**





← Chart Name, View Scale, Chart Scale, Overlays

← Steering Mode, Position

← CMG, Speed WT, Speed BT

← Weather Wind, Drift, Depth

← Course to Steer

← Heading Gyro, Engine RPM, Turn Rate

← Pri Route, Sec Route

← Cross-track Error

← Waypoint To, Track Crs, Distance, Radius, Time To Go

← Waypoint To, Track Crs, Distance, Radius, Time To Go

– Previous/Next

– Free Zoom

– Zoom In/Out

– Centre On Ship

– Free EBL

– Fixed EBL

– Mark At Ship

– Manual 24 Hour Log Entries

– NAVTEX Dialog

– Toggle ARCS/S57

– Select Chart

– Select Info Panel

– MOB

– Standard Display

– Radar Overlay

– ARPA Overlay

– AIS Overlay

– Tender Tracking

14. SAM Chartpilot 1100 – Familiarisation Checklist (Page 1 of 2)

1.	**Company ECDIS Procedures** Review company documentation for ECDIS procedures and complete the below ECDIS Type Specific Familiarisation checklist.			
2.	**Chart Display** Become familiar with the basic chart functionality from the main display.			
	Basic Menu Line			
		EBL1		Std Disp
		Range/Scale Field		Brightness
		Set Centre		Tree
		VRM		Navigation Data Line
3.	**Navigational Tools** Operate all basic navigational functions and vessel setting options contained within the ECDIS for use of navigation.			
	Radar/AIS		**Chart**	
		Targets		Rings
		Trial Manoeuvre		Predictor
		AIS		Anchor Watch
		ARPA Targets from (ON/OFF)		UKC
		AIS Targets (ON/OFF)		EBL 1/2 VRM 1/2
				Position Fixes
				Line of Positions
4.	**Chart Display Settings** Operate all chart display settings, become familiar with object layers, ENC symbology and define the vessel's safe water settings. Identify where all chart updates are managed in the system.			
	Chart			
		Chart Settings		Visibility Options
		Type		Raster Chart Options
		Category		Chart Visible (ON/OFF)
		Depth Contour		Accuracy Symbols
		Ignore Scale Minimum (ON/OFF)		
5.	**Route Planning** Operate all route planning functions and obtain all relevant schedule information for passage planning and route monitoring purposes.			
	Tracks			
		Load		Delete
		Set system Track		Waypoint File
		Cancel system Track	**Pilot**	
		Time Schedule		TRACKPILOT
		Select To-WPT	**Peripheral Devices**	
		Clear		Printer
		Edit		Digitizer
				Activate Schedule...

SAM Chartpilot 1100 – Familiarisation Checklist (Page 2 of 2)

6. **Route Monitoring**

Operate the variety of voyage data functions for route monitoring to display and obtain relevant information for navigation and the ship's safety.

Chart		**Position Fixes**	
	Presentation		Position Fixes
	Coordinate System		Drop Position Fix
	Display Mode		Time Remark
	Display Settings		Show in Chart
	Bearing Scale (ON/OFF)		Delete
	Grid	**Line of Position**	
	Range Rings		LOP1
	Vector Length (min) (ON/OFF)		LOP2
	Own Ship		LOP3
	Past Position (min) (ON/OFF)		

7. **Chart Updating**

The operator should know how to update electronic charts and be thoroughly aware of their responsibilities concerning updating. It is a legal requirement that charts are maintained in an up-to-date condition.

Chart			
	Edit Manual ENC Updates		Events
	Edit User Chart Objects		

8. **System/Local Sensors**

Identify where the operator can select or deselect all sensors connected to the ECDIS and verify the vessel's particulars.

Sensor Settings			
	System Sensors		2nd Position Sensor
	Set Gyro		Speed Sensor
	Position Sensor		Date/Time

9. **System Alerts**

Identify the ECDIS system's category of Alarms and Prompts generated by the operator and by the ECDIS system.

Alarms Settings			
	Chart Alarms		TCPA
	Buzzer On (ON/OFF)		Auto AIS Target Acq (ON/OFF)
	Track Alarms		Depth Alarm (ON/OFF)
	CPA		Anchor Watch Area (ON/OFF)
	Ahead Sector Width		

10. **System Units**

Become familiar with the system's logbook, records, data storage and configuration set up.

Utilities			
	Backup/Restore		Version...
	Text Pages	**EXIT**	
	Docking		
	Keel Clearance	**POWER DOWN**	
	Pilot Card		
	Calculator	**CANCEL**	
	Voyage Recording		
	System Maintenance		

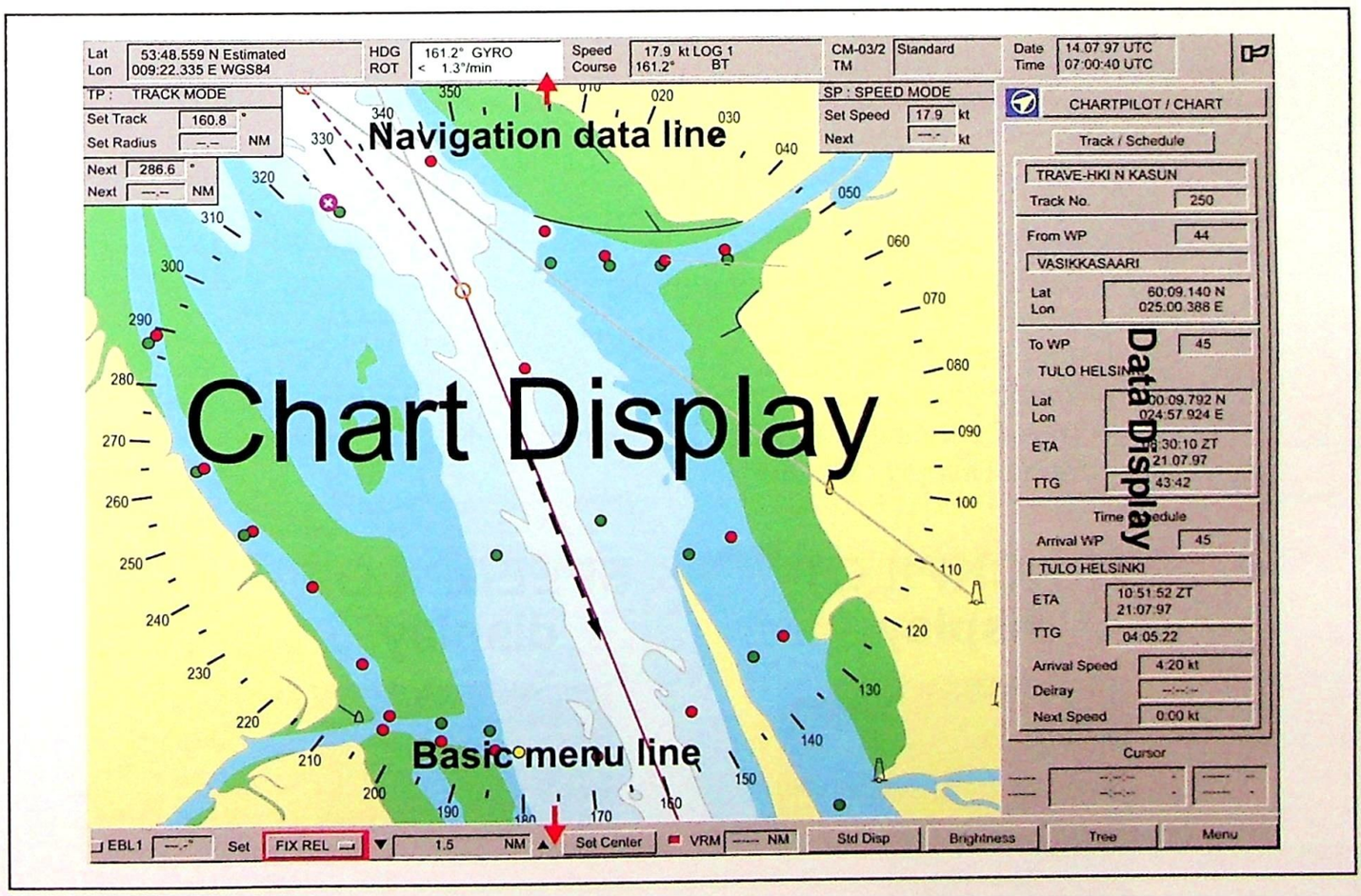
11. **ECDIS Operator's Manual**

Locate the system's operator's user guide for referencing and help.

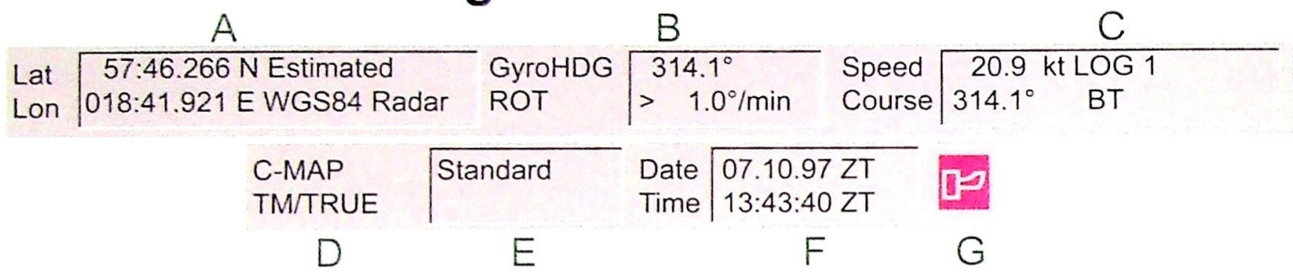
Status Bar			
	Manual		

SAM Chartpilot 1100

Key SAM Chartpilot 1100 ECDIS Menu Functions		
1.	View list of installed Charts	**Menu>Chart>Utilities>Chart Maintenance**
2.	View the latest update number installed	**Position Cursor in chart area>INFO>Legend**
3.	Change Chart Settings	**Menu>Chart>Visibility Groups**
4.	View information on charted objects and view additional text	**Position Cursor in chart area>INFO>Chart Contents**
5.	Set the Safety Depth, Safety Contour, Shallow and Deep Contour	**Menu>Chart>Depth Contour**
6.	Input a Mariner Object	**Menu>Chart>Mariner Objects**
7.	Input a Manual Update	**Menu>Chart>ENC>Edit Manual ENC Updates**
8.	Turn EBL/VRM on	**Basic Menu Line>Select EBL1**
9.	Configure the Ahead Sector (Anti-grounding)	**Menu>Alarm Settings>Chart Alarms**
10.	Configure Ship's Track	**Menu>Conning>Docking**
11.	Configure Velocity Vectors	**Menu>Chart>Presentation**
12.	View Logbook	**Menu>Chart>Utilities>Voyage Recording**
13.	Input a Visual or Radar Fix	**Menu>Chart>Lines of Position**
14.	Configure Radar Image	**Menu>Info>Radar Image**
15.	View Alarm List	**Navigation Data Line>Horn symbol**

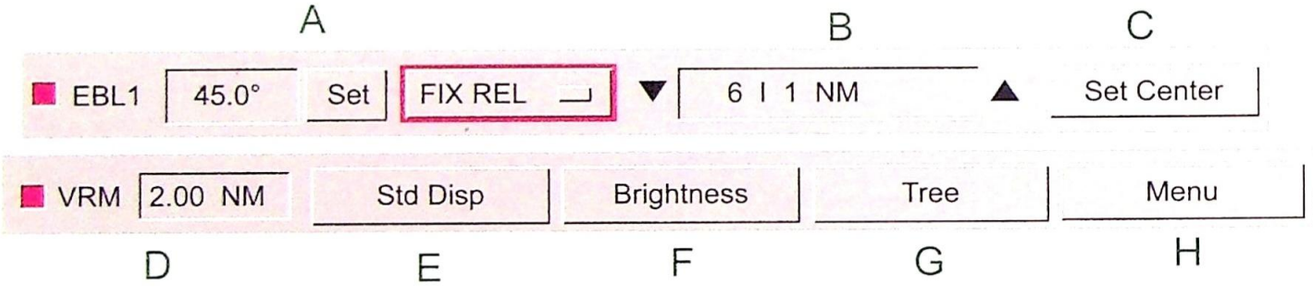


Navigation data line



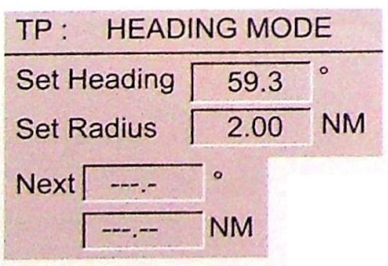
A – Own Position
B – Compass Course, Rate of Turn
C – SMG and COG
D – Selected Chart Type/Display Mode/Display of the Vectors
E – Status Field
F – Zone Time, Time Zone
G – Alarm List ON/OFF

Basic menu line

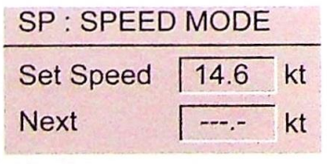


A – EBL1 Options
B – Scale Selection
C – Specifying the Centre of the Chart
D – VRM1 Options
E – IMO Standard Display
F – Brightness Control
G – Tree Overview of the Top Two Menu Levels
H – Menu Display ON/OFF

TRACKPILOT display



SPEEDPILOT display



15. SIMRAD Maris ECDIS 900 – Familiarisation Checklist (Page 1 of 2)

1. **Company ECDIS Procedures**

   Review company documentation for ECDIS procedures and complete the below ECDIS Type Specific Familiarisation checklist.

2. **Chart Display**

   Become familiar with the basic chart functionality from the main display.

Toolbar panel			
	Man over board		Standard Display
	Event		Select Area
	Zoom in		Auto centering
	Zoom out		Centre on Ship

3. **Navigational Tools**

   Operate all basic navigational functions and vessel setting options contained within the ECDIS for use of navigation.

Tools			

4. **Chart Display Settings**

   Operate all chart display settings, become familiar with object layers, ENC symbology and define the vessel's safe water settings. Identify where all chart updates are managed in the system.

Chart settings			
	ENC settings		Special Effects
	Supplementary Layers		Properties
	Chart Depths		Full light length (ON/OFF)
	Highlight date dependent		Safety contour
	Admiralty Information Overlay		Disable SCAMIN impact (ON/OFF)

5. **Route Planning**

   Operate all route planning functions and obtain all relevant schedule information for passage planning and route monitoring purposes.

Route			
	Ship Profiles		Route Plan
	New route		Load/Unload objects
	SAR		Expanding square

6. **Route Monitoring**

   Operate the variety of voyage data functions for route monitoring to display and obtain relevant information for navigation and the ship's safety.

	Ship properties		Show ports – Left click
	Show/Hide Tide stations and ocean current – Left click		Port list – Right click
	Tide stations – Right click		Options
	Weather handling		Draught (m)

7. **Chart Updating**

   The operator should know how to update electronic charts and be thoroughly aware of their responsibilities concerning updating. It is a legal requirement that charts are maintained in an up-to-date condition.

Chart handling			
	ENC		Set Test Mode
	RNC		ENC Status Report
	Security		Close
	Install		Cancel
	Update		Chart 1
	History of updates		

8. **System Sensors**

   Identify where the operator can select or deselect all sensors connected to the ECDIS and verify the vessel's particulars.

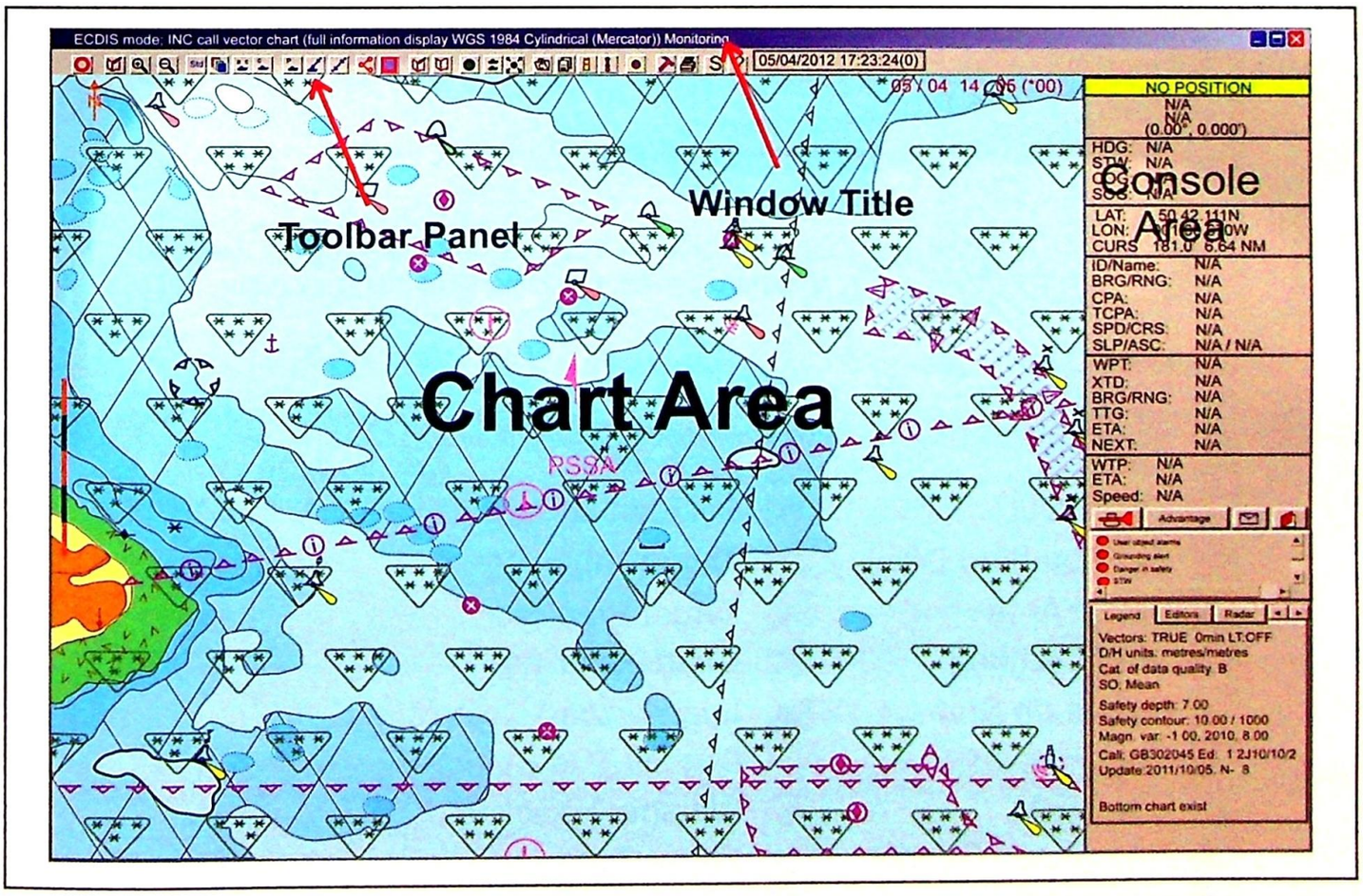
Sensor Selection/Status		**Position Status**	
	Date/Time Settings		
	Time zone		

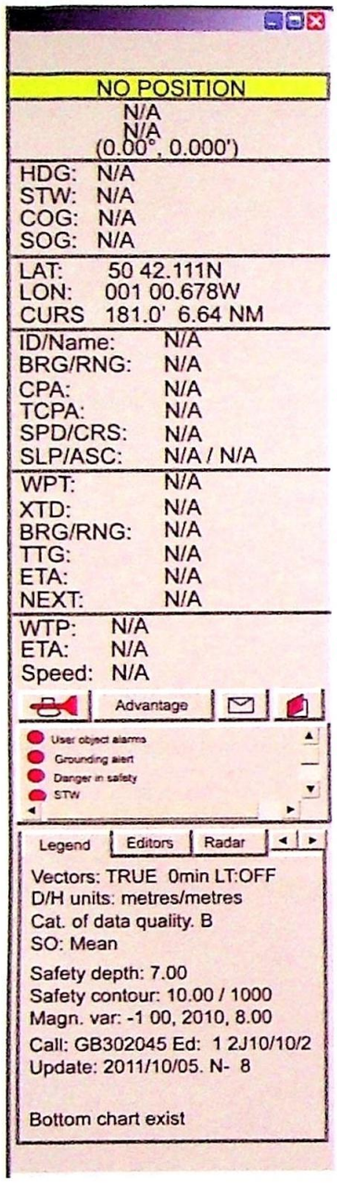
SIMRAD Maris ECDIS 900 – Familiarisation Checklist (Page 2 of 2)

9.	**System Alerts** Identify the ECDIS system's category of Alarms and Prompts generated by the operator and by the ECDIS system.			
	Alerts			
		Guard Zone		Route alarms
		Target alarms		Position monitoring threshold
		Check safety zone and anchorage zone (ON/OFF)		TCS course change style
		Display and highlight dangers		
10.	**System Units** Become familiar with the system's logbook, records, data storage and configuration set up.			
	Main			
		Backup		Logbook
		New logbook record		
11.	**ECDIS Operator's Manual** Locate the system's operator's user guide for referencing and help.			
	Toolbar panel			
		Help		

SIMRAD Maris ECDIS 900

Key SIMRAD Maris ECDIS 900 ECDIS Menu Functions		
1.	Selection of additional side panels	**Toolbar>Options>Console>Console Configuration>Custom**
2.	Configuration of Ship's Parameters (Length, Breadth, Draught, etc.)	**Ship Properties>General**
3.	View Installed Charts (all formats)	**Chart Handling>ENC, C-Map or ARCS**
4.	View the latest update number installed	**Chart Handling or Chart Properties**
5.	View ENC Chart Updates	**Chart Handling>Display Updates**
6.	View information on charted objects and view additional text	**Context Menu>Chart Priorities**
7.	Set the Safety Depth, Safety Contour, Shallow and Deep Contour	**Context Menu>Chart Settings>Technical>Depths**
8.	Input a User Chart Object	**Object Editor>Navigation Editor or User Data Editor**
9.	Input a Manual Update	**Context Menu>Manual Update**
10.	Turn the ship outline on	**Ship Properties>Display>Scaled Icon**
11.	Configure the Check Safety Zone (Anti-grounding Cone)	**Ship Properties>Guard Zone>Check Safety Zone**
12.	Configure Velocity Vectors	**Ship Properties>Alarms>Display**
13.	Manually change the active WPT	**Right click on a WPT and select 'Activate'**
14.	View past Alarms and Warnings	**In the Logbook (Logbook icon) but only if recording is ON**
15.	Input a Visual or Radar Fix	**Object Editor>Navigation Editor>LOP**





GPS Indicator

Position Offset

HDG, STW, COG, SOG

Cursor Position

Target Panel

Active Waypoint Information

Waypoint ETA Information

Alarm Display

Legend Panel

The Console Area can be customised by the user and therefore panels may differ from that shown above.

- Man Overboard
- Event
- Zoom In
- Zoom Out
- Set Standard Display
- Select Area
- Auto Centring
- Centre on Ship
- Ship Properties
- EBL/VRM
- Range and Bearing
- New Route
- Route Plan
- Logbook Entry
- Logbook
- Set Manual Target
- Target Table
- Target Prediction
- Chart Handling
- Load/Unload Objects
- Display Tide Stations
- Weather Handling
- Show Ports
- Options
- Print
- Sensor Monitor
- Version

16. Sperry VisionMaster FT – Familiarisation Checklist (Page 1 of 2)

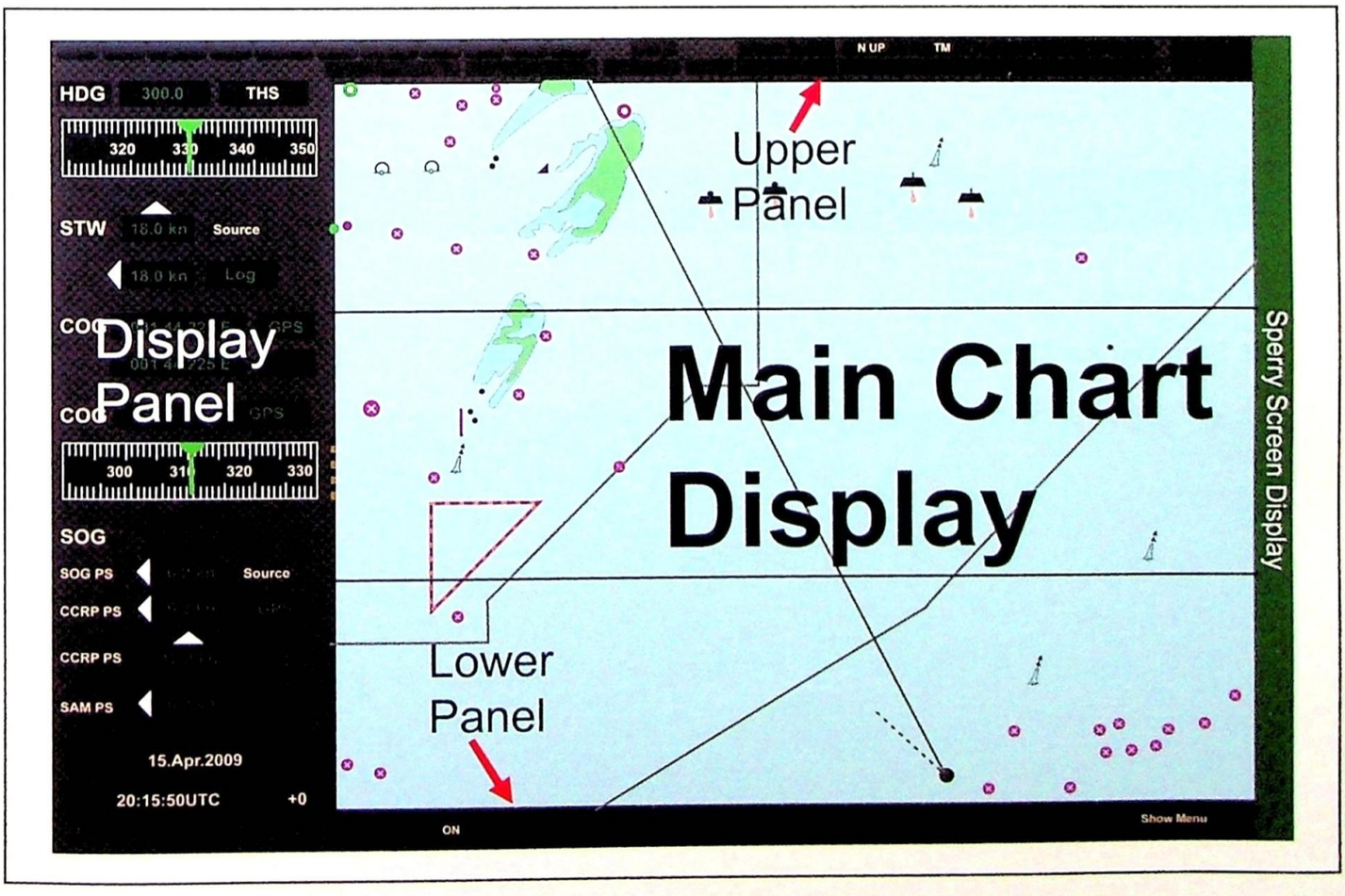
1.	**Company ECDIS Procedures** Review company documentation for ECDIS procedures and complete the below ECDIS Type Specific Familiarisation checklist.			
2.	**Chart Display** Become familiar with the basic chart functionality from the main display.			
	Main Chart Panel			
		Upper tool bar – shortcut menu options		Show Menu – Main Menu
		Lower tool bar – shortcut menu options		Context Menu – Right click
3.	**Navigational Tools** Operate all basic navigational functions and vessel setting options contained within the ECDIS for use of navigation.			
	Nav Tools			
		Parallel Index Lines		Distance Line
		Clearing Lines		Display Settings
		Lines of Position		Ownship Vector (ON/OFF)
		Ownship History		Anchoring
		Display Events (ON/OFF)		Anchoring Feature (ON/OFF)
		Parallel Cursor		Man Overboard
		Trial Manoeuvre (ON/OFF)		
4.	**Chart Display Settings** Operate all chart display settings, become familiar with object layers, ENC symbology and define the vessel's safe water settings. Identify where all chart updates are managed in the system.			
	Charts			
		Charts Tools		Chart Databases
		Show Summary		Allow Automatic Database Selection (ON/OFF)
		Export S-63 User Permit		Chart Legend
		Chart Settings		Manual Chart Updates
		Spot soundings (ON/OFF)		Chart Query
		Scale min (ON/OFF)		Chart Dangers
		Chart Projections		Navigational Hazards (ON/OFF)
		Accuracy (ON/OFF)		Chart 1
		Chart Depths/heights		Chart Symbols
		Safety Contour		Brightness Check
5.	**Route Planning** Operate all route planning functions and obtain all relevant schedule information for passage planning and route monitoring purposes.			
	Routes			
		Monitor Route		Temp Route
		ETA Calculator		Search and Rescue
		Route ETA		Route Status
		Required Speed		Route Import/Export
		Speed Planning		Route Display Settings
		Edit Route		Show Wheel over labels (ON/OFF)
6.	**Route Monitoring** Operate the variety of voyage data functions for route monitoring to display and obtain relevant information for navigation and the ship's safety.			
	Routes			
		Monitor Route		Temp Route
		ETA Calculator		Search and Rescue
		Route ETA		Rout Status
		Required Speed		Route Display Settings
		Speed Planning		Show Critical Points (ON/OFF)

Sperry VisionMaster FT – Familiarisation Checklist (Page 2 of 2)

7.	**Chart Updating** The operator should know how to update electronic charts and be thoroughly aware of their responsibilities concerning updating. It is a legal requirement that charts are maintained in an up-to-date condition.			
	Charts			
	Chart Tools		Chart Installation	
	Chart Match		Permissions/User Permits	
	Chart Updates Summary		Chart Index	
8.	**System Sensors** Identify where the operator can select or deselect all sensors connected to the ECDIS and verify the vessel's particulars.			
	Sensors			
	Heading		Depth Below Keel	
	STW		Set and Drift	
	COG		Rate of Turn	
	SOG		Date and Time	
	Position		Wind	
	Offset Applied (ON/OFF)			
9.	**System Alerts** Identify the ECDIS system's category of Alarms and Prompts generated by the operator and by the ECDIS system.			
	Alarms			
	Alarms		Look Ahead	
	Prompts		Mute Settings	
	Chart Dangers			
	Show Safety Region (ON/OFF)			
10.	**System Units** Become familiar with the system's logbook, records, data storage and configuration set up.			
	System			
	User Profiles		Commissioning	
	Options		Time Management	
	Diagnostics		Shutdown	
11.	**ECDIS Operator's Manual** Locate the system's operator's user guide for referencing and help.			
	Help			
	Help			

Sperry VisionMaster FT

Key Sperry VisionMaster FT ECDIS Menu Functions		
1.	View Ship's Length, Beam, Maximum Speed and ROT	Show Menu>System>Commissioning>Characteristics
2.	View list of installed Charts	Show Menu>Charts>Chart Tools>Show Index
3.	View the latest update number installed	Show Menu>Charts>Chart Legend>Updates
4.	Change Chart Settings	Upper Toolbar>Presentation Mode
5.	View information on charted objects and view additional text	Context Menu>Query Chart
6.	Set the Safety Depth, Safety Height, Shallow and Deep Contour	Show Menu>Charts>Chart Depths/Heights
7.	Show/Hide Manual Update Layers	Show Menu>Charts>Manual Chart Update>Layers
8.	Input a Manual Update	Show Menu>Charts>Manual Chart Update>Edit
9.	Turn the Predictor on	Show Menu>Nav Tools>Display Settings
10.	Configure the Look-Ahead	Show Menu>Charts>Chart Dangers
11.	Configure Ship's Track	Show Menu>Nav Tools>Own Ship History
12.	Configure Velocity Vectors	Show Menu>Nav Tools>Display Settings
13.	View System Logs	Show Menu>System>Diagnostics>Data Log>View Data Log
14.	Input a Visual or Radar Fix	Show Menu>Nav Tools>Line of Position
15.	Input of Temporary Route	Show Menu>Route>Temp Route



Sperry Screen Display

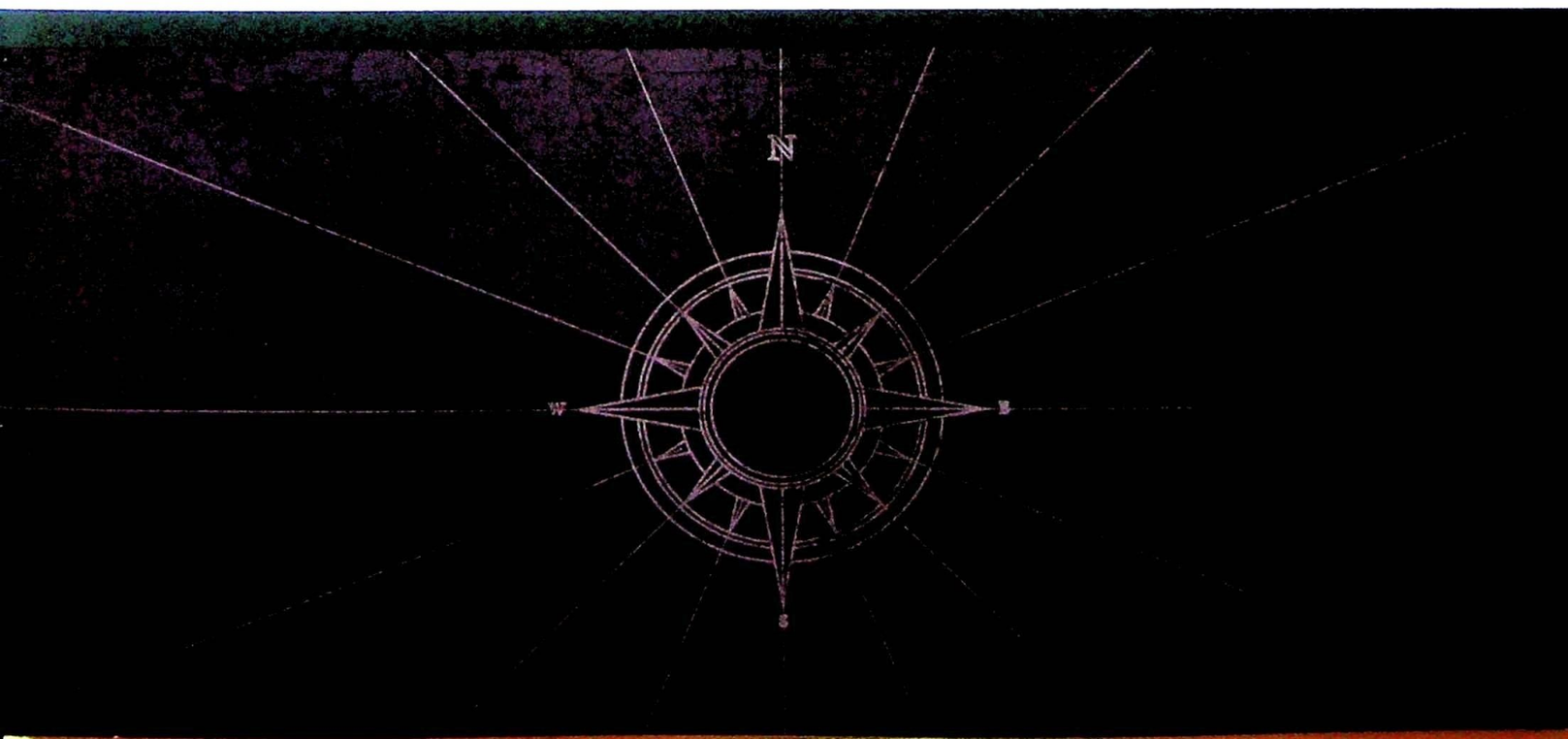
Upper Toolbar

1: Sensoring Books
2: AIS Messages
3: Target Display Menu
4: AIS Display Menu
5: True Relative Vector
6: Length of Displayed Vectors
7: ENS
8: Select/Edit Route
9: North Up/Course Up
10: True Motion Indicator
11: Change Range/Scale
12: Warnings
13: Operator Indications
14: Turn Buzzer ON/OFF
15: Dangers
16: Man Overboard
17: Change Watch Mode

Lower Toolbar

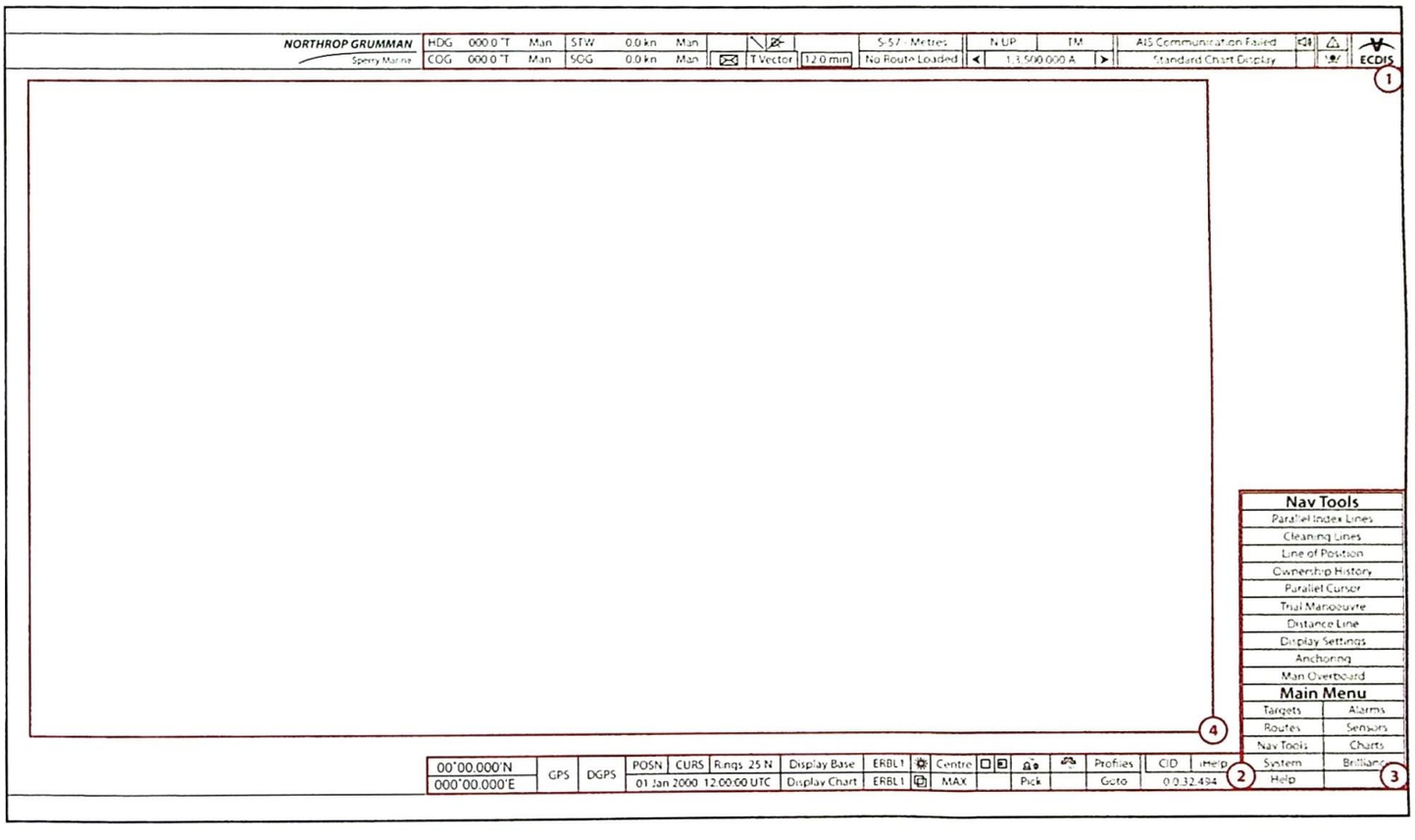
1: Current Ship Position
2: Selected Position Sensor
3: Dead Reckoning
4: Position Status Menu
5: Cursor Status Menu
6: Time Management Menu
7: Basic Display
8: Range Rings ON/OFF
9: ERBL Display
10: Brilliance Menu
11: Hide Menu
12: Maximum Chart View
13: Centre Own Ship
14: Show Single Chart
15: Secondary Display Button
16: Standard Chart Display
17: Chart Query Display
18: Apply/Edit User Profiles
19: Goto Menu
20: Conning Information Pages
21: Version Number
22: Help Menu
23: Show Menu

Sperry VisionMaster FT



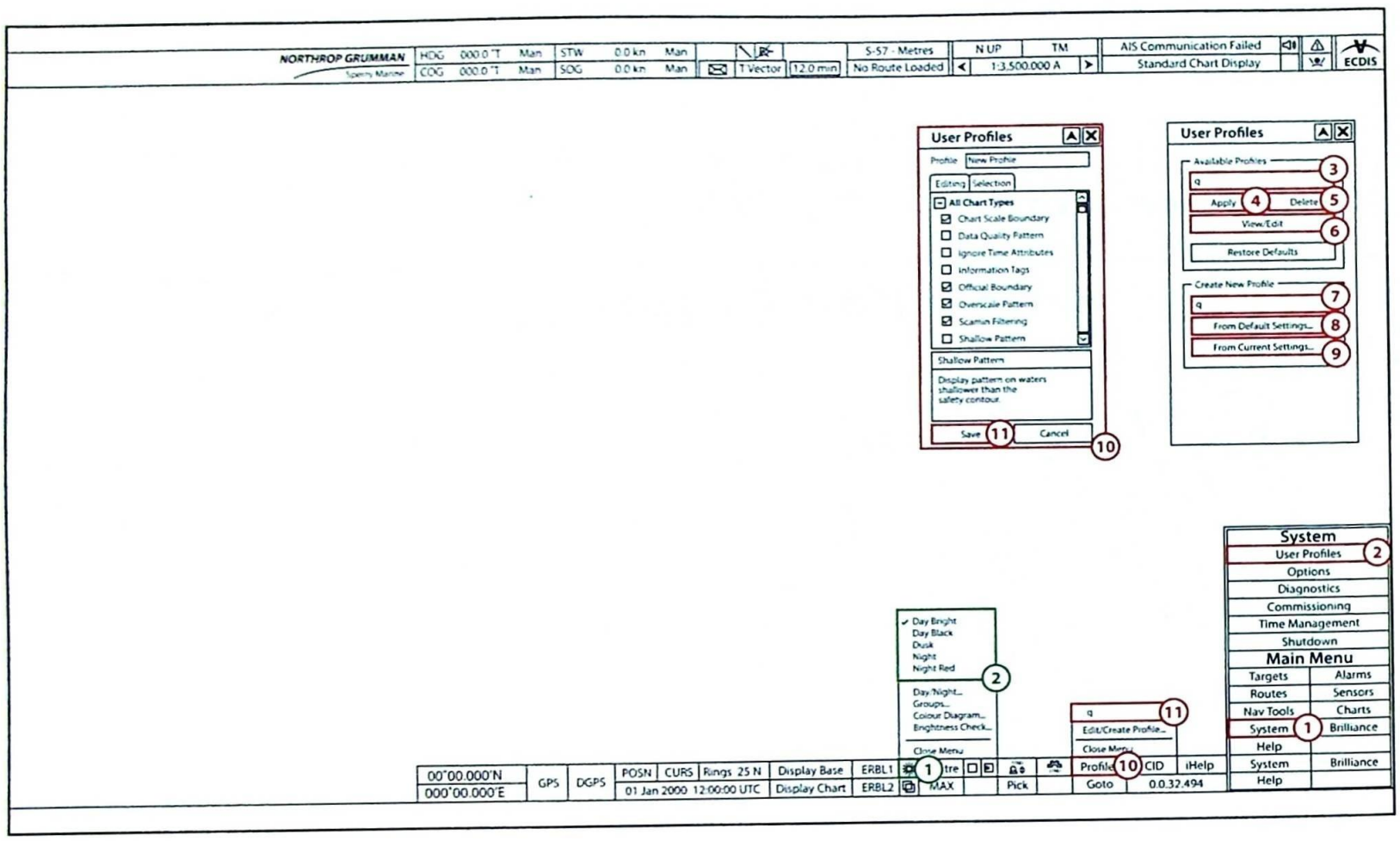
Section 1: Main Display

1.1 **Screen Layout**



1. Upper toolbar
2. Lower toolbar
3. Main menu
4. Main chart panel

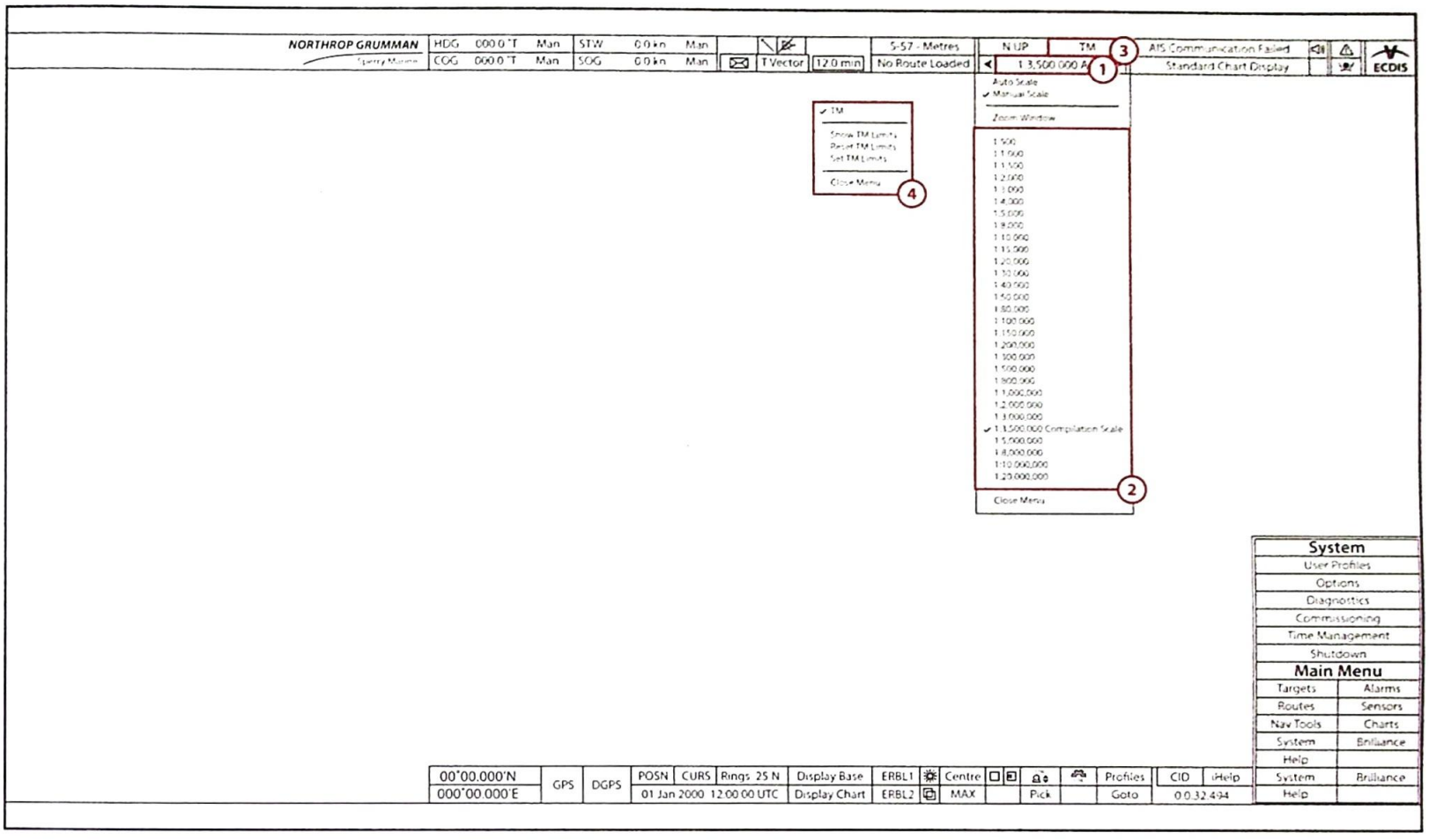
1.2 Colour Palette/Profiles



1. Select 'System' from the main menu.
2. Click 'User Profiles'.
3. Select a user profile from the dropdown menu.
4. Click 'Apply' to select/enable the profile.
5. Click 'Delete' to delete the profile.
6. Click 'View/Edit' to edit selected profile.
7. Enter a name to create a new user profile.
8. Select 'From Default Settings'.
9. Alternatively, select 'From Current Settings'.
10. 'User Profiles' editing window is displayed.
11. Click 'Save' to create your new profile.

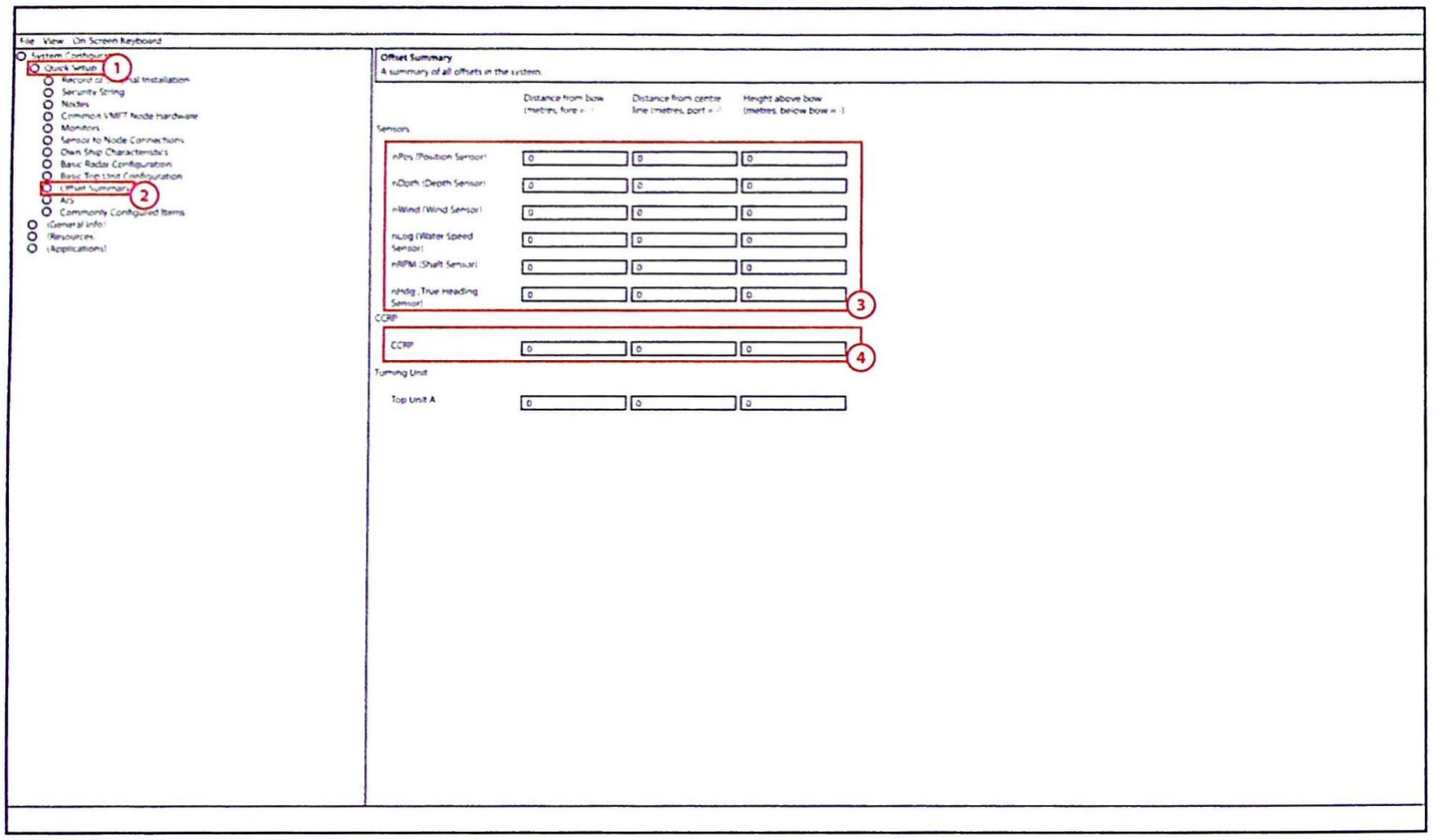
1. Click the symbol that looks like a sun.
2. Select a colour palette from the options available.

1.3 Range/Scale/Motion



1. Left or right click on the scale button.
2. Select a scale from the dropdown list.
3. Right click on the 'TM' button.
4. Select an option from the list to edit TM settings.

1.4 Setting CCRP

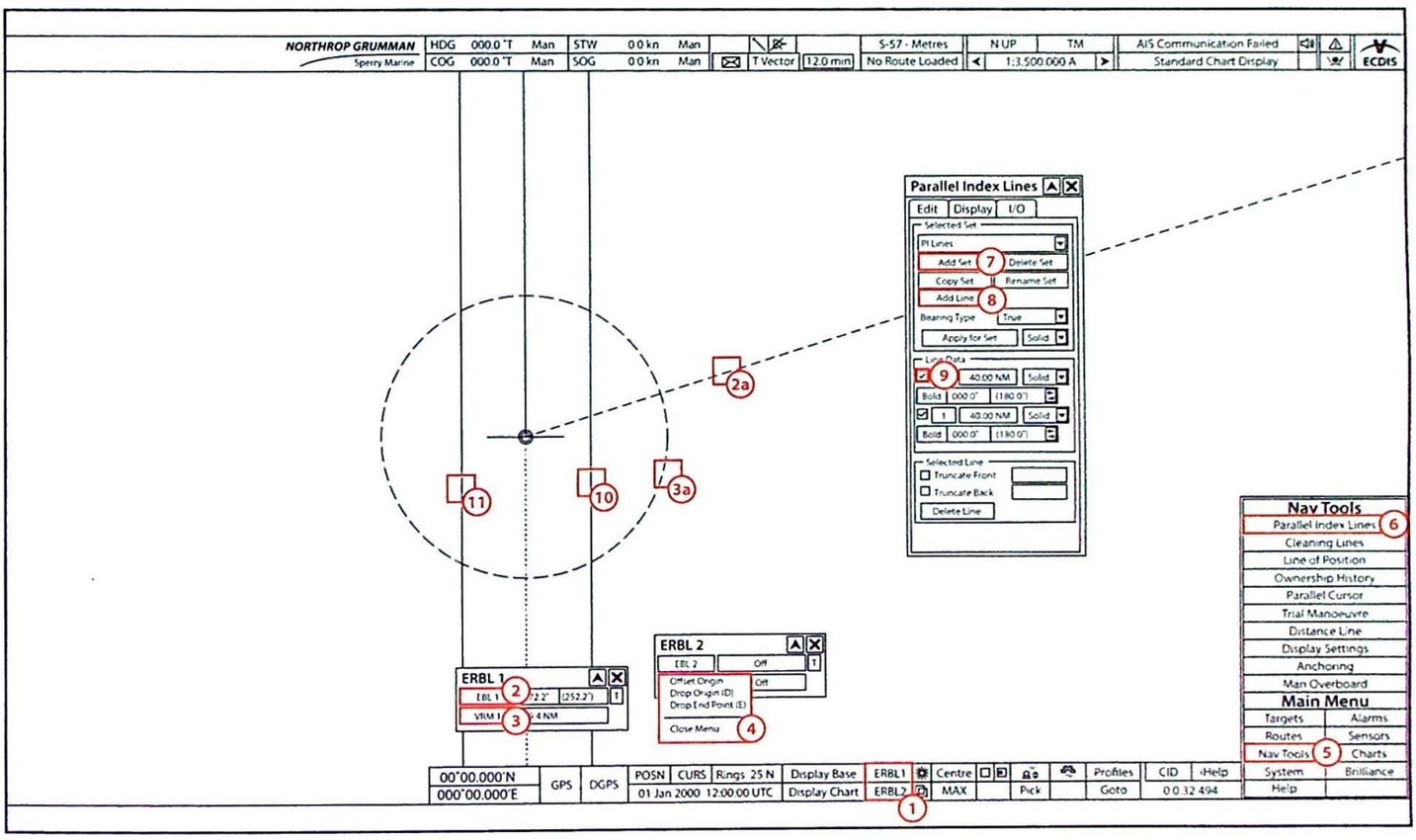


Note to user: Viewing CCRP settings requires access to the system configurator.

1. Ensure the system configurator has been opened and click 'Quick Setup'.
2. Click 'Offset Summary'.
3. Configure sensor offsets.
4. Configure CCRP setting.

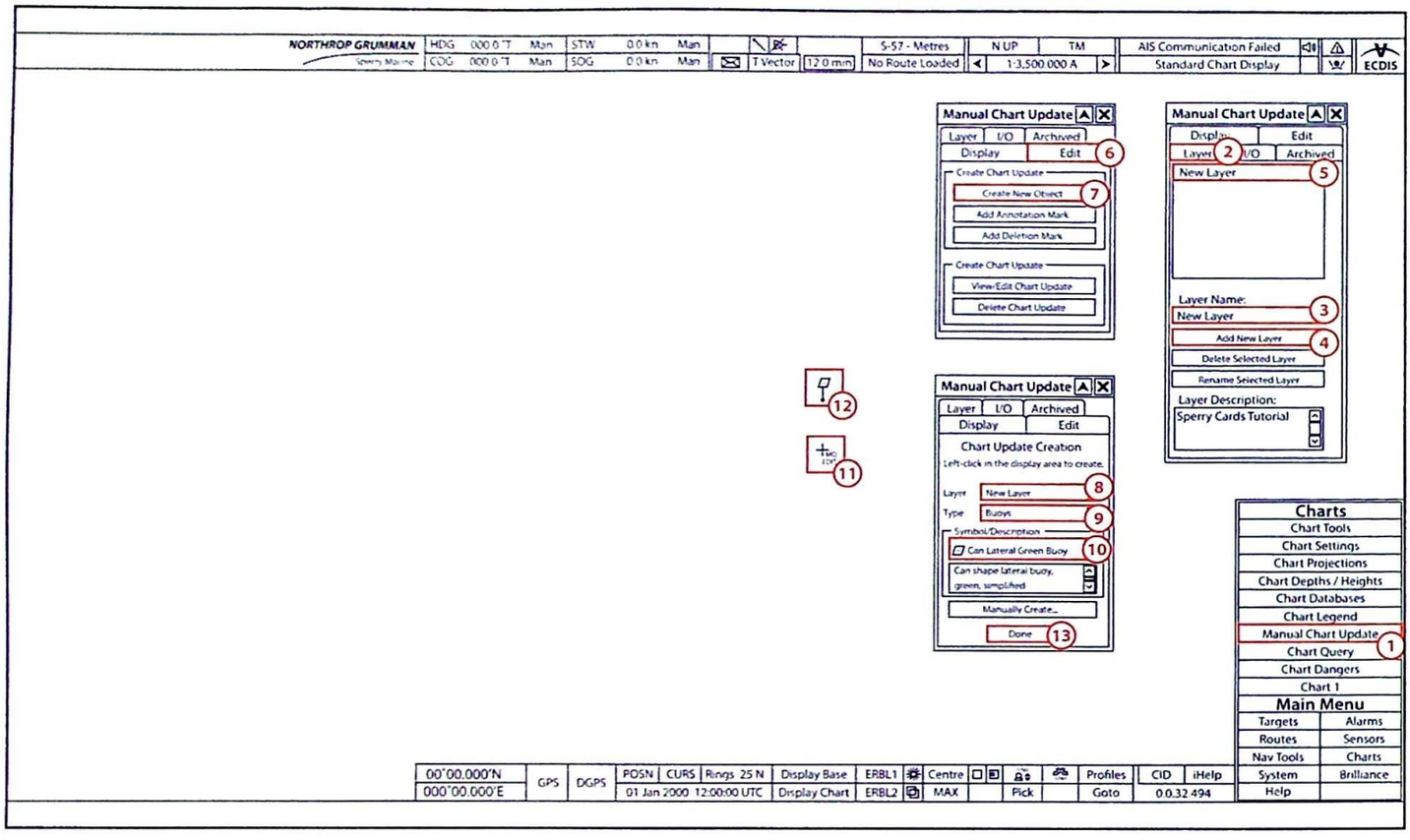
Section 2: Navigation Tools

2.1 **EBL/VRM/PI**



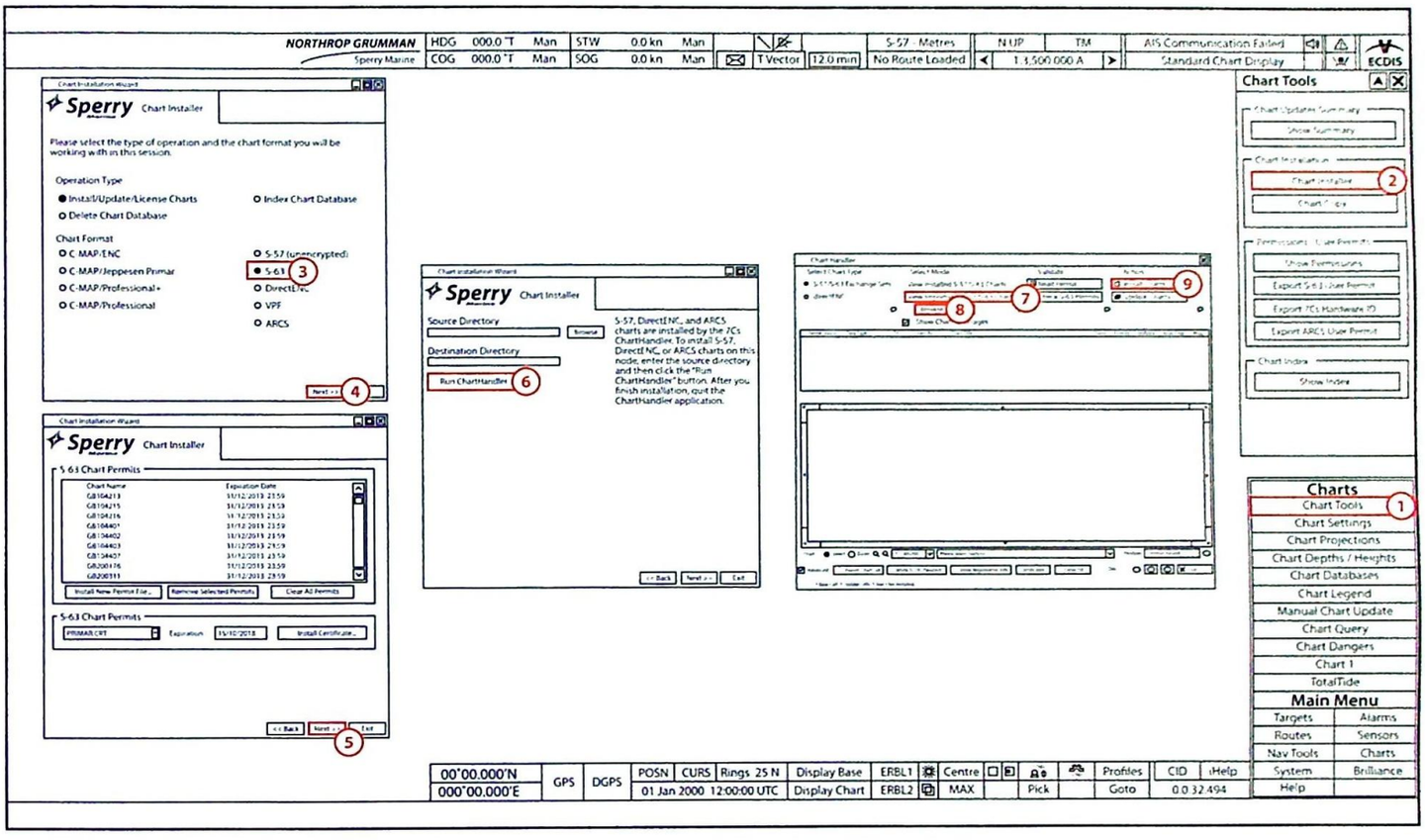
1. Left click to open the 'ERBL1' or 'ERBL2' menu.
2. Click on 'EBL1' to enable the electronic bearing line.
   a. Example of EBL line.
3. Click on 'VRM1' to enable the variable range marker.
   a. Example of VRM marker.
4. Right click on EBL or VRM buttons to offset.
5. Click on 'Nav Tools'.
6. Click on 'Parallel Index Lines'.
7. Click 'Add Set', then enter a name.
8. Click 'Add Line'. (Up to 15 PI lines can be created.)
9. Ensure the lines are shown by clicking the tick box.
10. Example PI line 1.
11. Example PI line 2.

2.2 Manual Chart Update



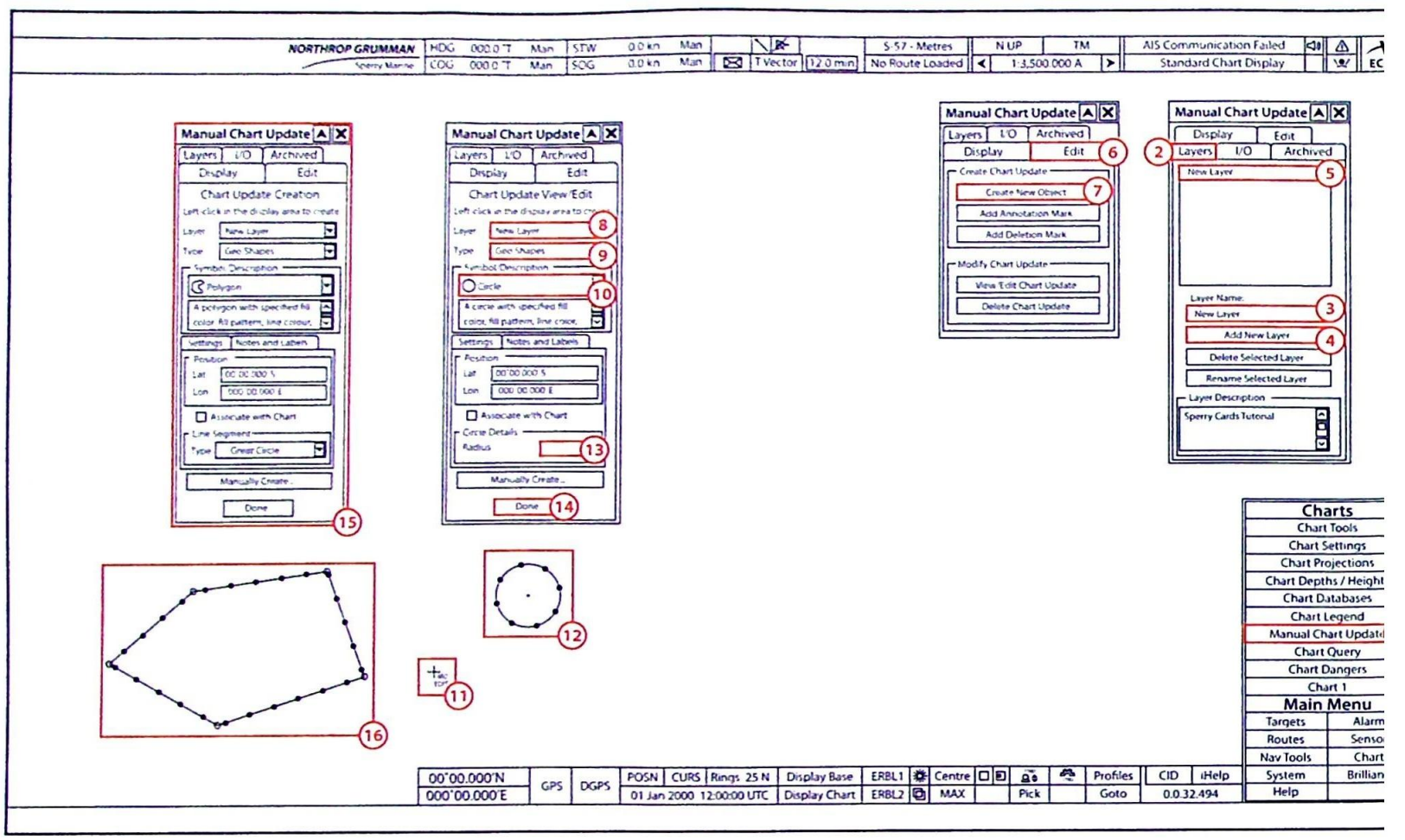
1. Open 'Manual Chart Update' from the main menu.
2. Select the 'Layers' tab.
3. Insert a layer name.
4. Click 'Add New Layer'.
5. 'New Layer' is shown in the list above.
6. Select the 'Edit' tab.
7. Click 'Create New Object'.
8. Select your 'New Layer' from the dropdown list.
9. Select object type.
10. Select 'Symbol/Description'.
11. 'MO EDIT' cursor will be displayed.
12. Left click to place your object.
13. Click 'Done' to finish.

2.3 Chart Updates



1. Open 'Chart Tools'.
2. Click on 'Chart Installer'.
3. Select 'S-63'.
4. Click 'Next >>'.
5. Click 'Next >>' again.
6. Click 'Run ChartHandler'.
7. Select 'View Importable S-57/S-63 Charts'.
8. Open 'Browse' and select your installation media.
9. Click 'Install Charts'.

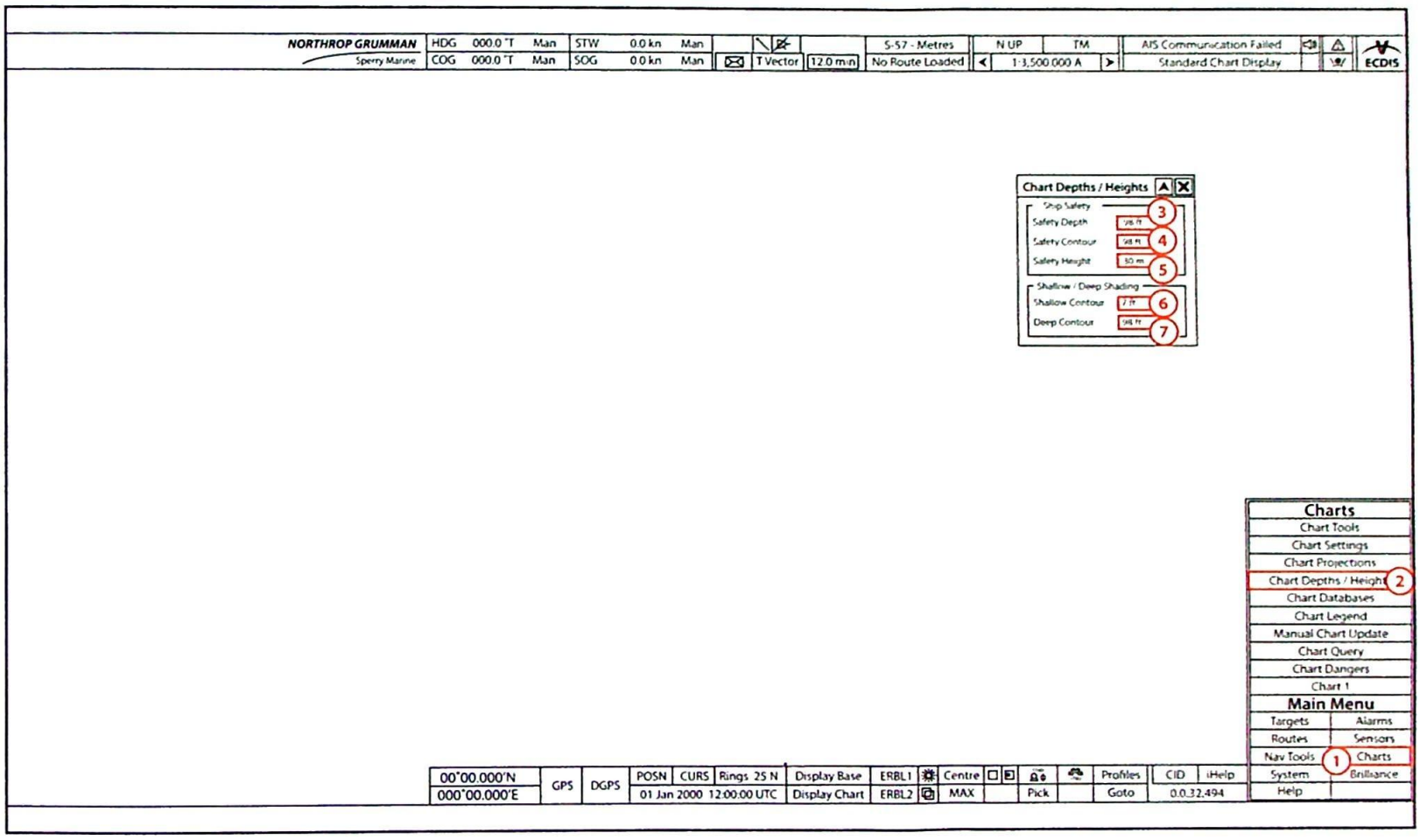
2.4 No Go Areas/User Charts



1. Open 'Manual Chart Update' from the main menu.
2. Select the 'Layers' tab.
3. Insert a 'Layer Name'.
4. Click 'Add New Layer'.
5. 'New Layer' is displayed in the list above.
6. Select 'Edit' tab.
7. Click 'Create New Object'.
8. Select your 'New Layer' from the dropdown list.
9. Select object type.
10. Select the circle within 'Symbol/Description'.
11. 'MO EDIT' cursor will be displayed.
12. Left click to place your object.
13. Adjust the radius to change size.
14. Click 'Done' to finish.
15. Example 'Polygon' menu.
16. Example 'Polygon' object.

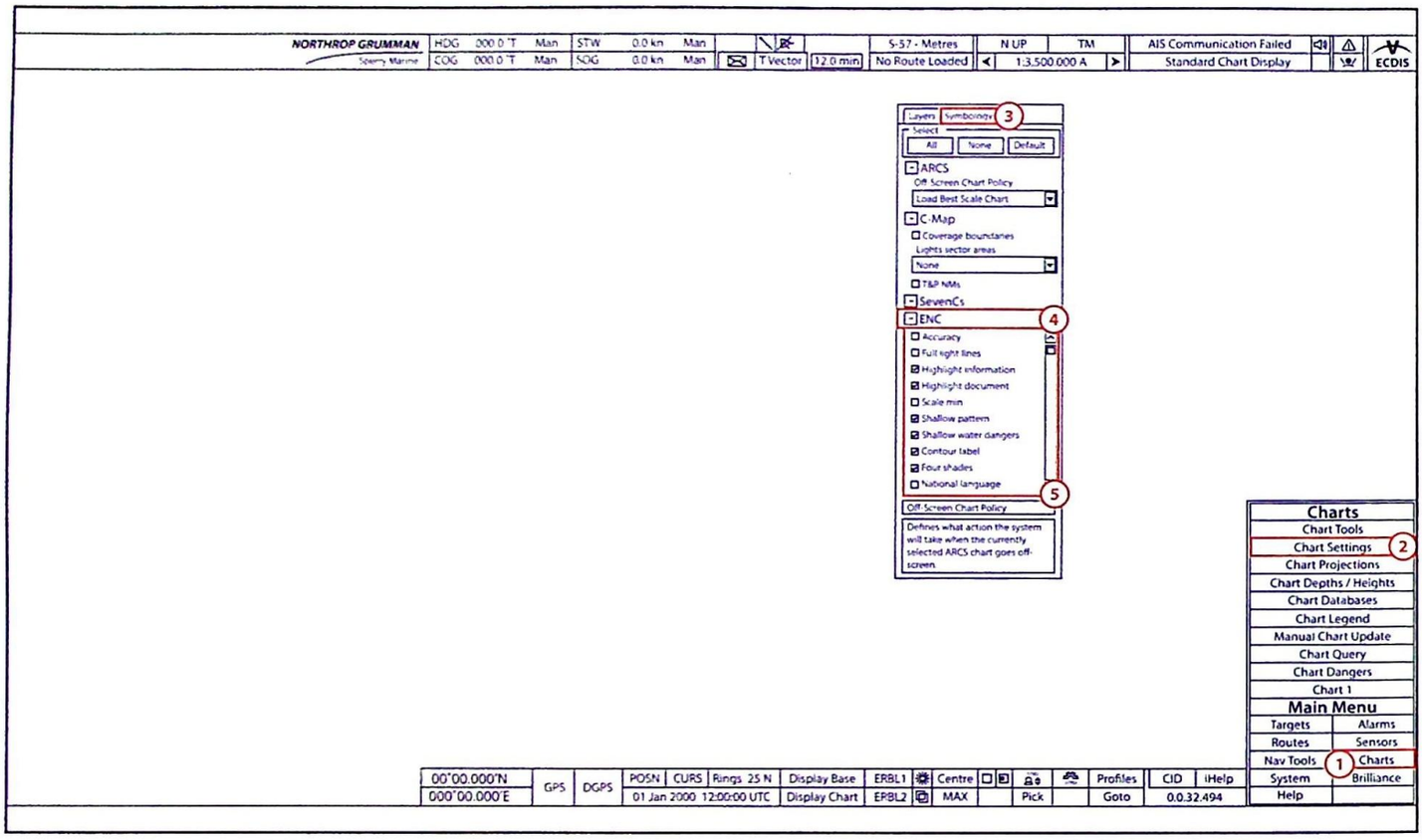
Section 3: Chart Display Settings

3.1 **Safety Depth/Contour**



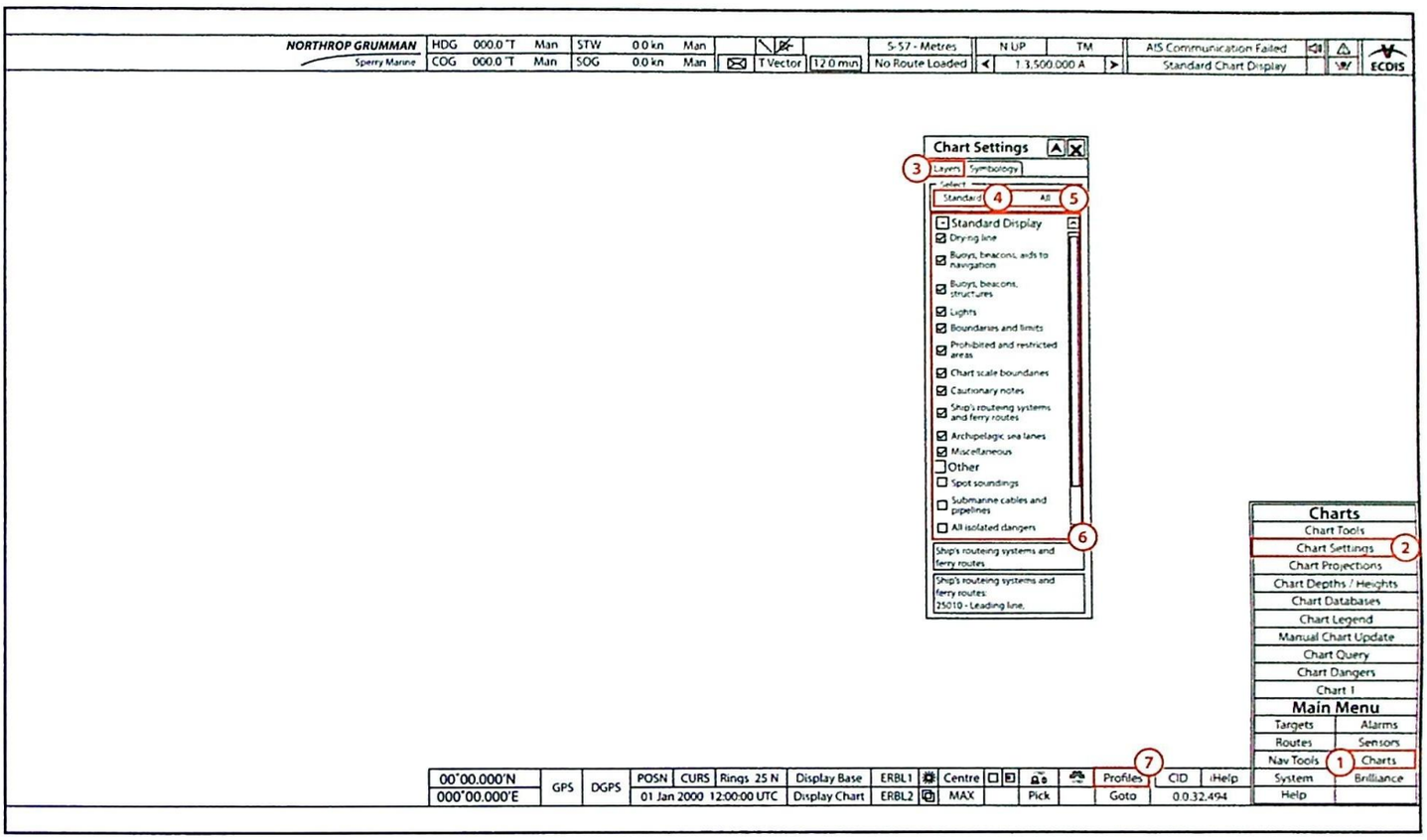
1. Click 'Charts'.
2. Open the 'Chart Depths/Heights' menu.
3. Adjust 'Safety Depth'.
4. Adjust 'Safety Contour'.
5. Adjust 'Safety Height'.
6. Adjust 'Shallow Contour'.
7. Adjust 'Deep Contour'.

3.2 Display Preference Options



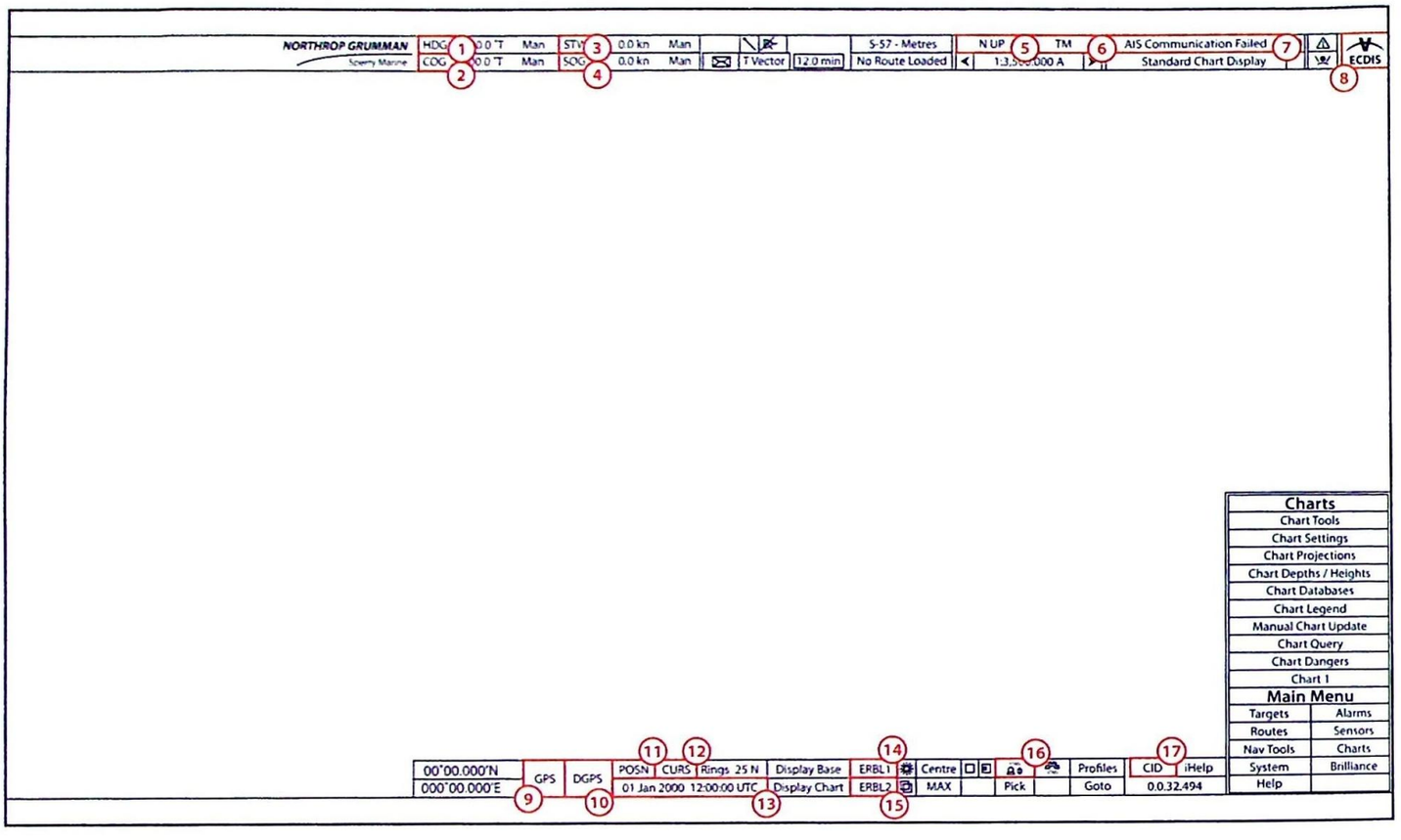
1. Click 'Charts'.
2. Open 'Chart Settings'.
3. Select 'Symbology' tab.
4. Expand the 'ENC' option by pressing the '+' symbol.
5. Select or deselect options, as required.

3.3 Display Configuration



1. Click 'Charts'.
2. Open 'Chart Settings'.
3. Select 'Layers' tab.
4. Quick select 'IMO Standard' layers.
5. Quick select 'IMO All' layers.
6. Customise the display, as required.
7. Save 'Profiles' (see Section 1.2).

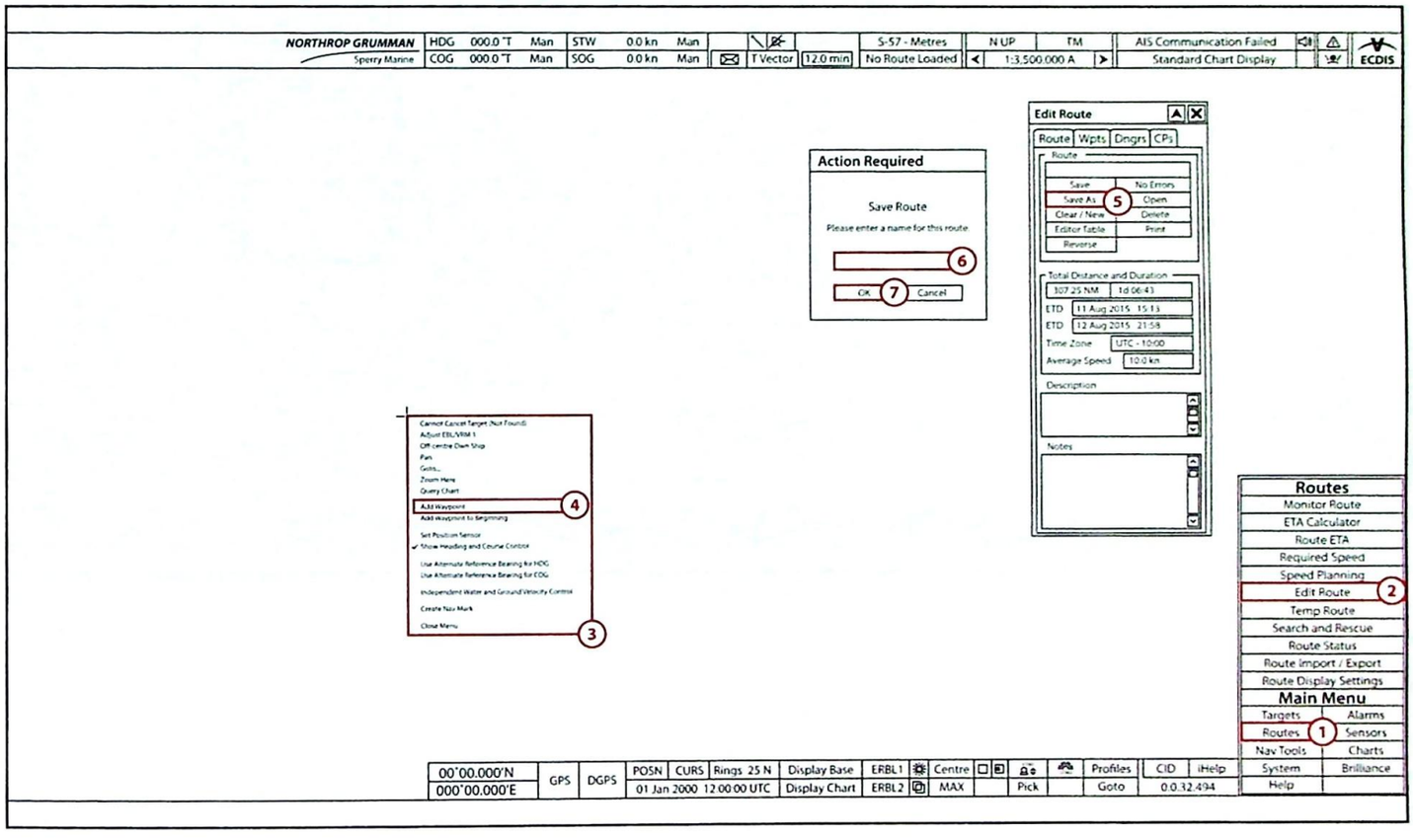
3.4 Abbreviations



1. Heading
2. Course Over Ground
3. Speed Through Water
4. Speed Over Ground
5. North Up
6. True Motion
7. Automatic Identification System
8. Electronic Chart Display and Information System
9. Global Positioning System
10. Differential Global Positioning System
11. Position
12. Cursor
13. Universal Time Coordinated
14. Electronic Range and Bearing Line 1
15. Electronic Range and Bearing Line 2
16. Standard
17. Conning Information Display

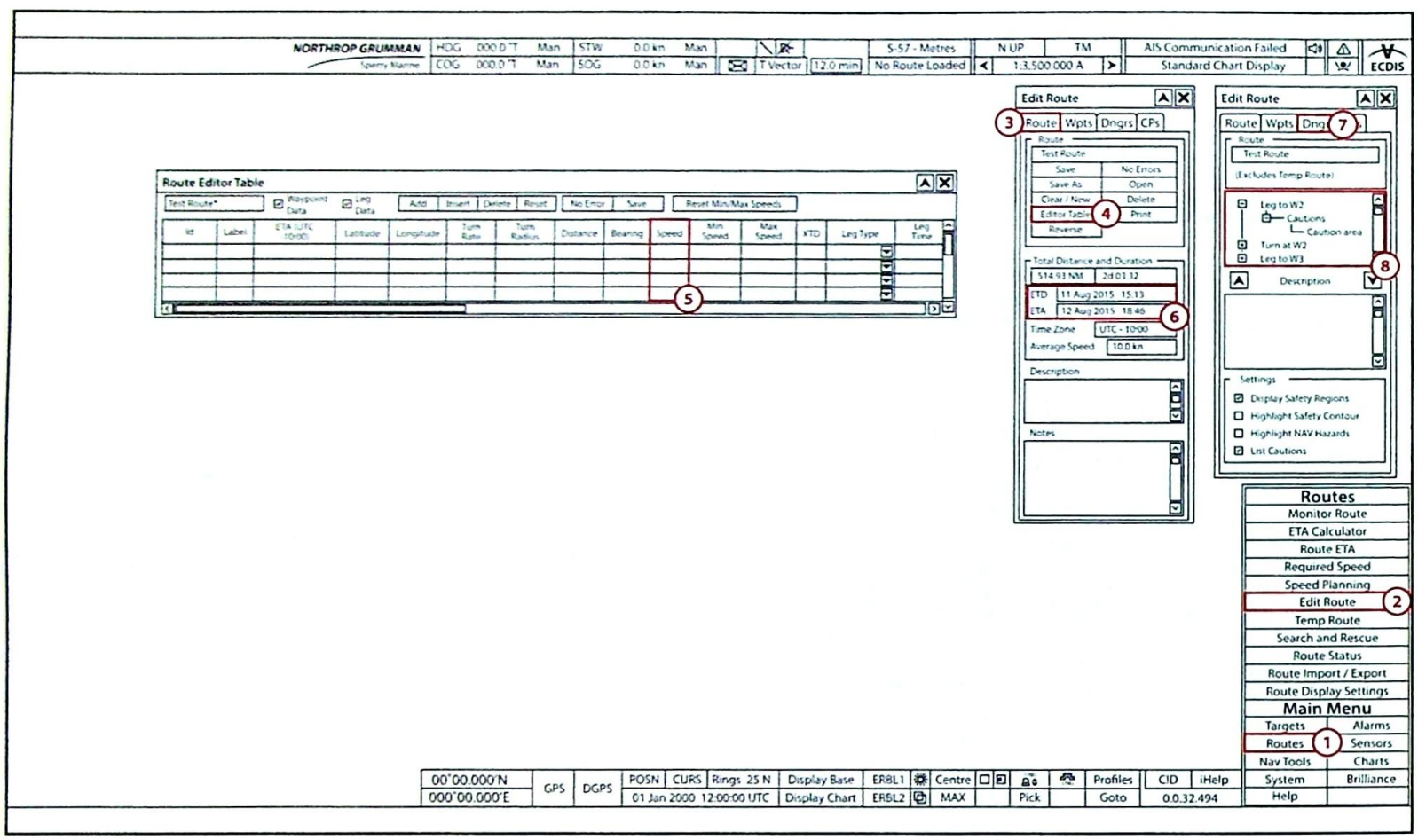
Section 4: Route Planning

4.1 **Creation**



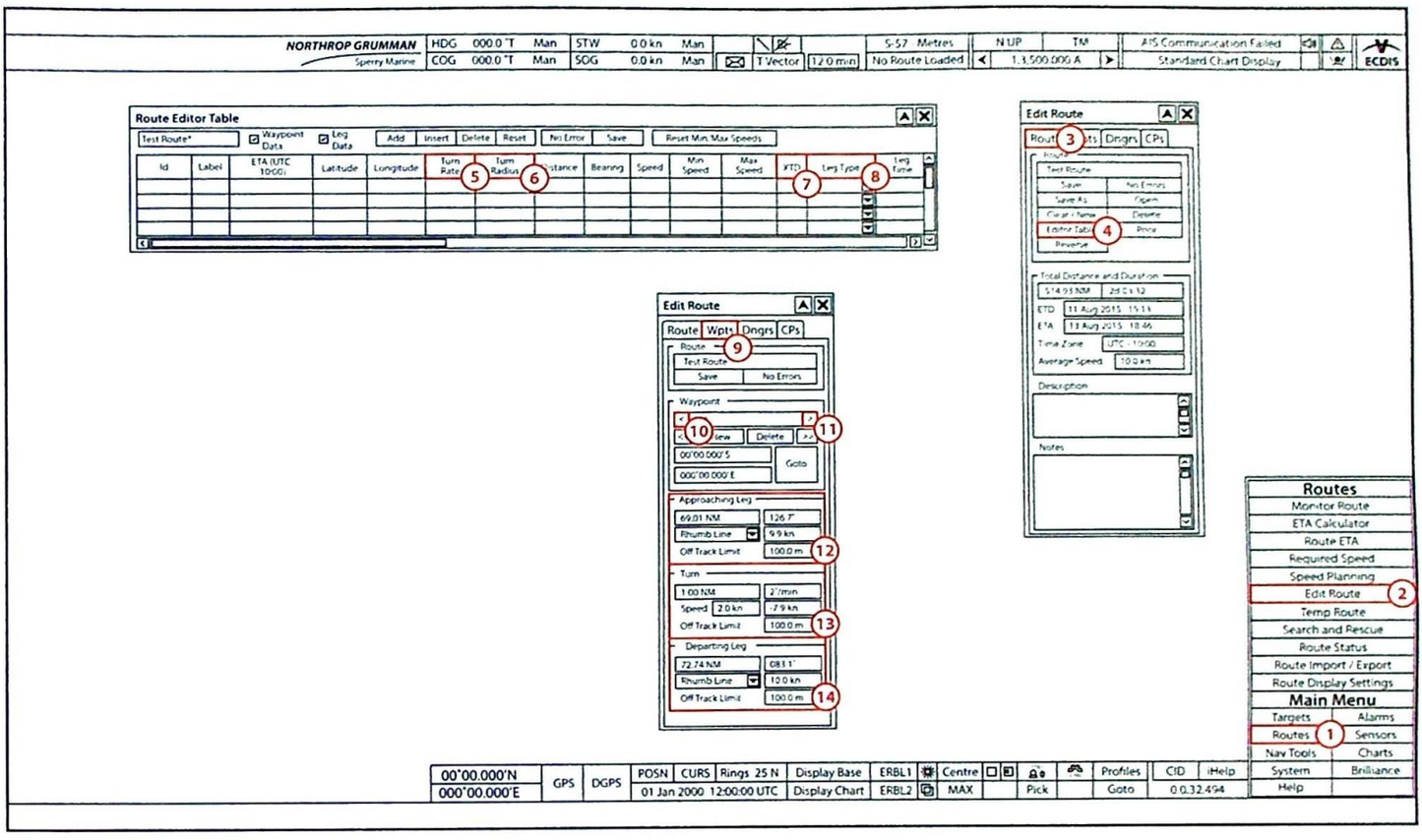
1. Click 'Routes'.
2. Open 'Edit Route'.
3. Right click to open the context menu.
4. Click 'Add Waypoint'. (Repeat steps 3 to 4 to add more waypoints.)
5. Click 'Save As'.
6. Name your route.
7. Click 'OK' to finish.

4.2 Schedule/Route Checking



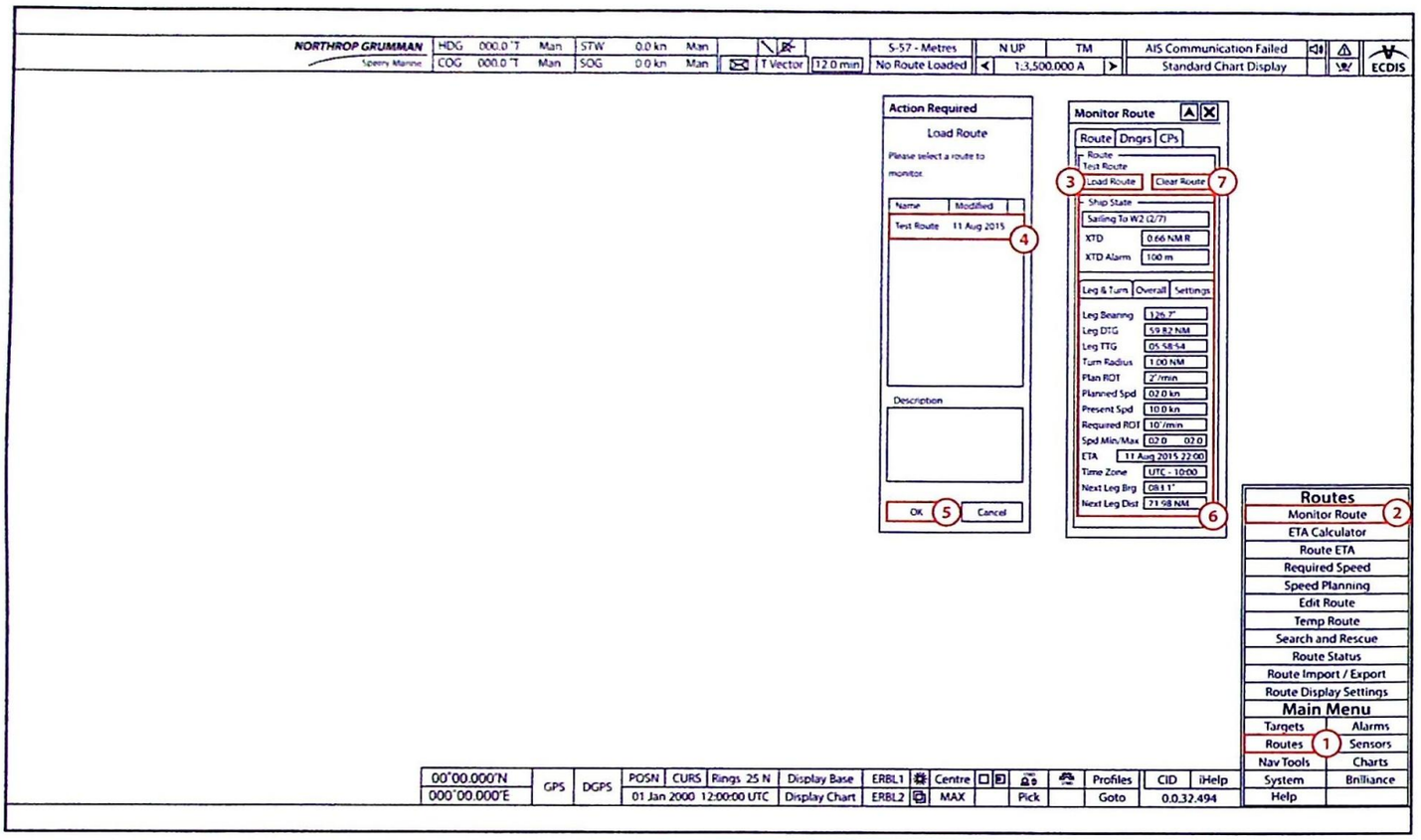
1. Click 'Routes'.
2. Open 'Edit Route'.
3. Select 'Route'.
4. Open 'Editor Table'.
5. Manually adjust the speeds.
6. Alternatively, manually adjust ETD and ETA.
7. Click 'Dngrs'.
8. View dangers at each waypoint on the list.

4.3 Optimisation



1. Click 'Routes'.
2. Open 'Edit Route'.
3. Select 'Route'.
4. Open 'Editor Table'.
5. Adjust 'Turn Rate'.
6. Adjust 'Turn Radius'.
7. Adjust 'XTD'.
8. Adjust 'Leg Type'.
9. Select 'Wpts' tab.
10. Use left arrow to select previous waypoint.
11. Use right arrow to select next waypoint.
12. Edit 'Approaching Leg' settings.
13. Edit 'Turn' settings.
14. Edit 'Departing Leg' settings.

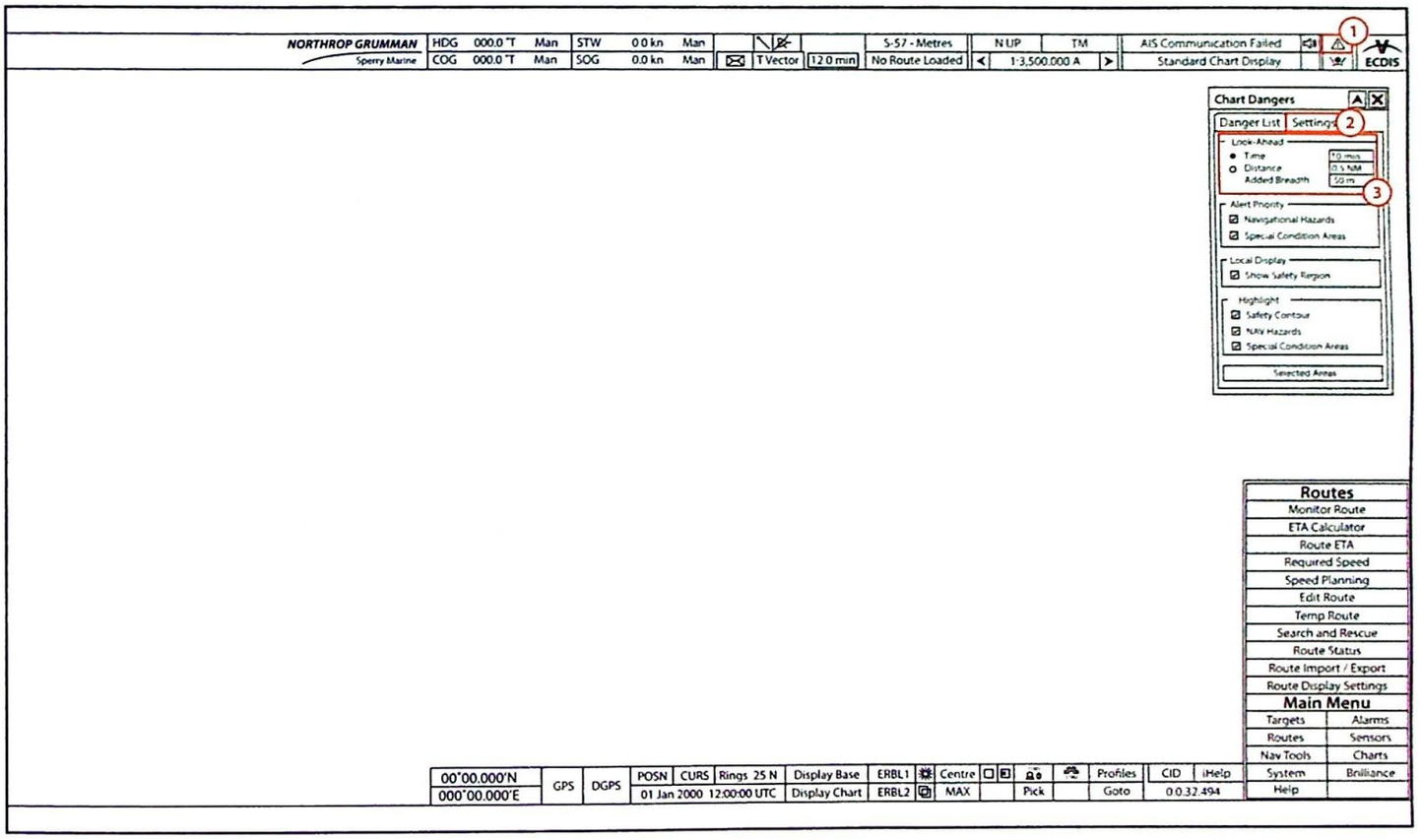
4.4 Selecting Active Route



1. Click 'Routes'.
2. Open 'Monitor Route'.
3. Click 'Load Route'.
4. Select your route from the list.
5. Click 'OK'.
6. Route information will appear.
7. Click 'Clear Route' to end monitoring.

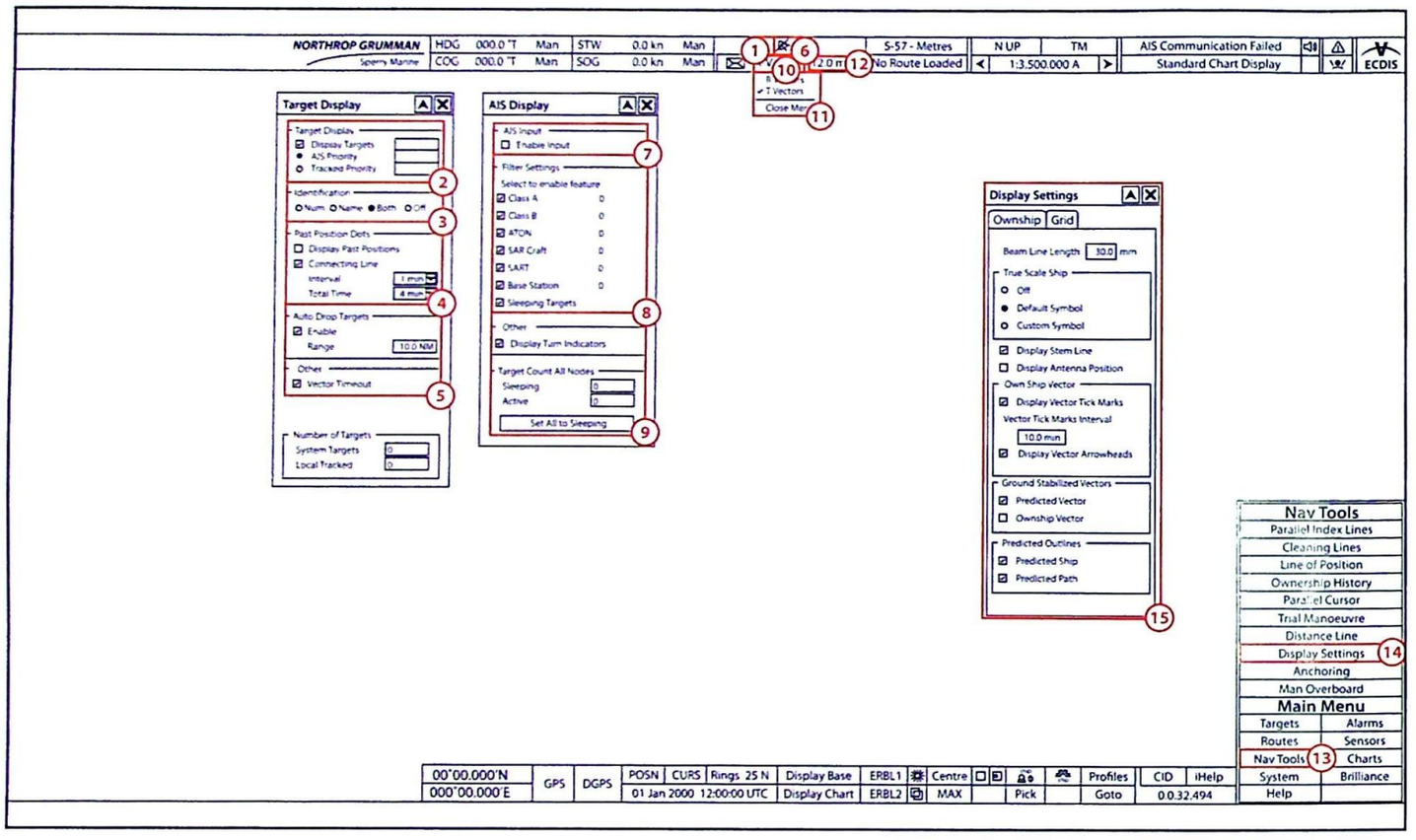
Section 5: Route Monitoring

5.1 **Look-Ahead**



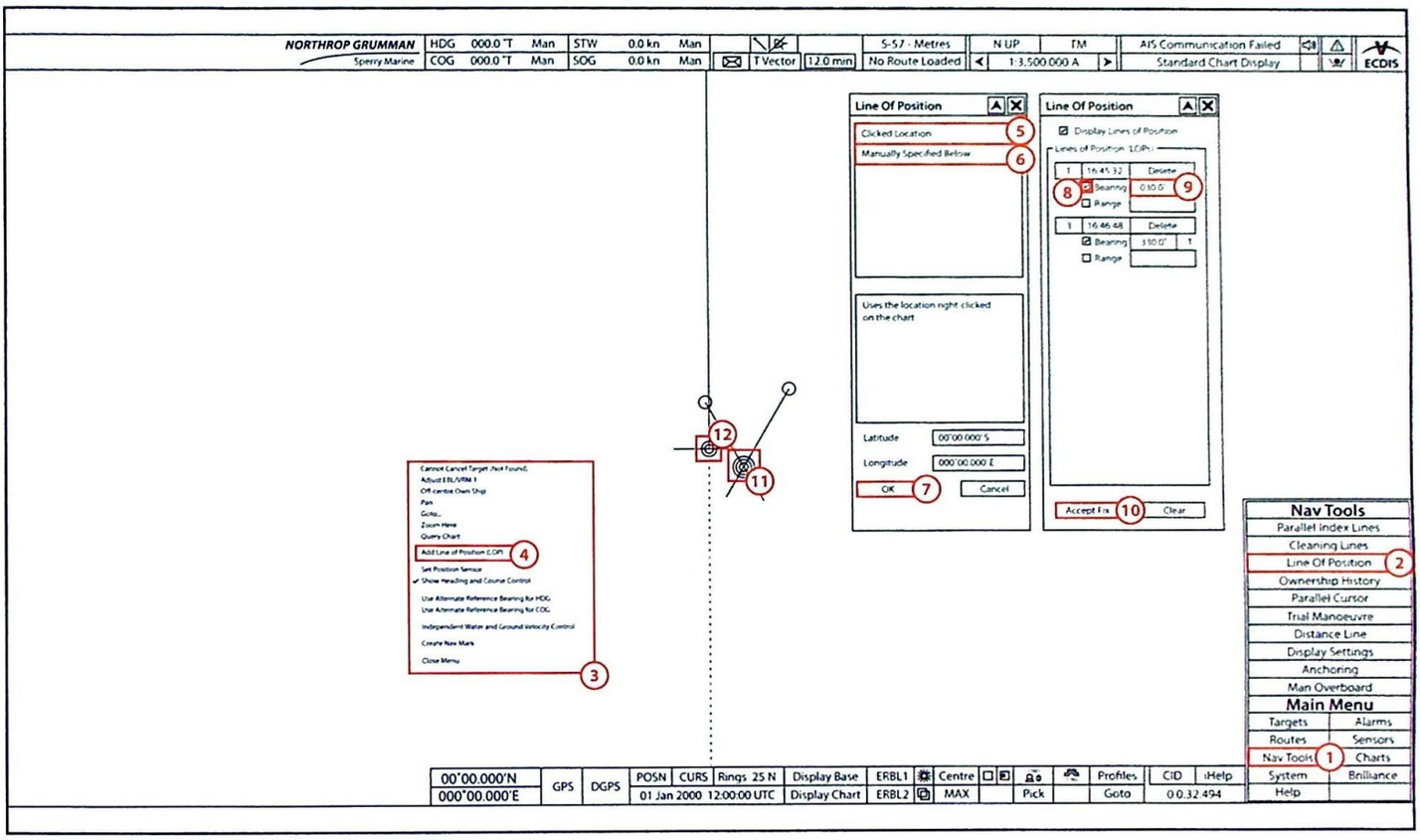
1. Right click on the warning icon.
2. Click 'Settings'.
3. Adjust the 'Look-Ahead' settings, as required.

5.2 TT/AIS/Vectors



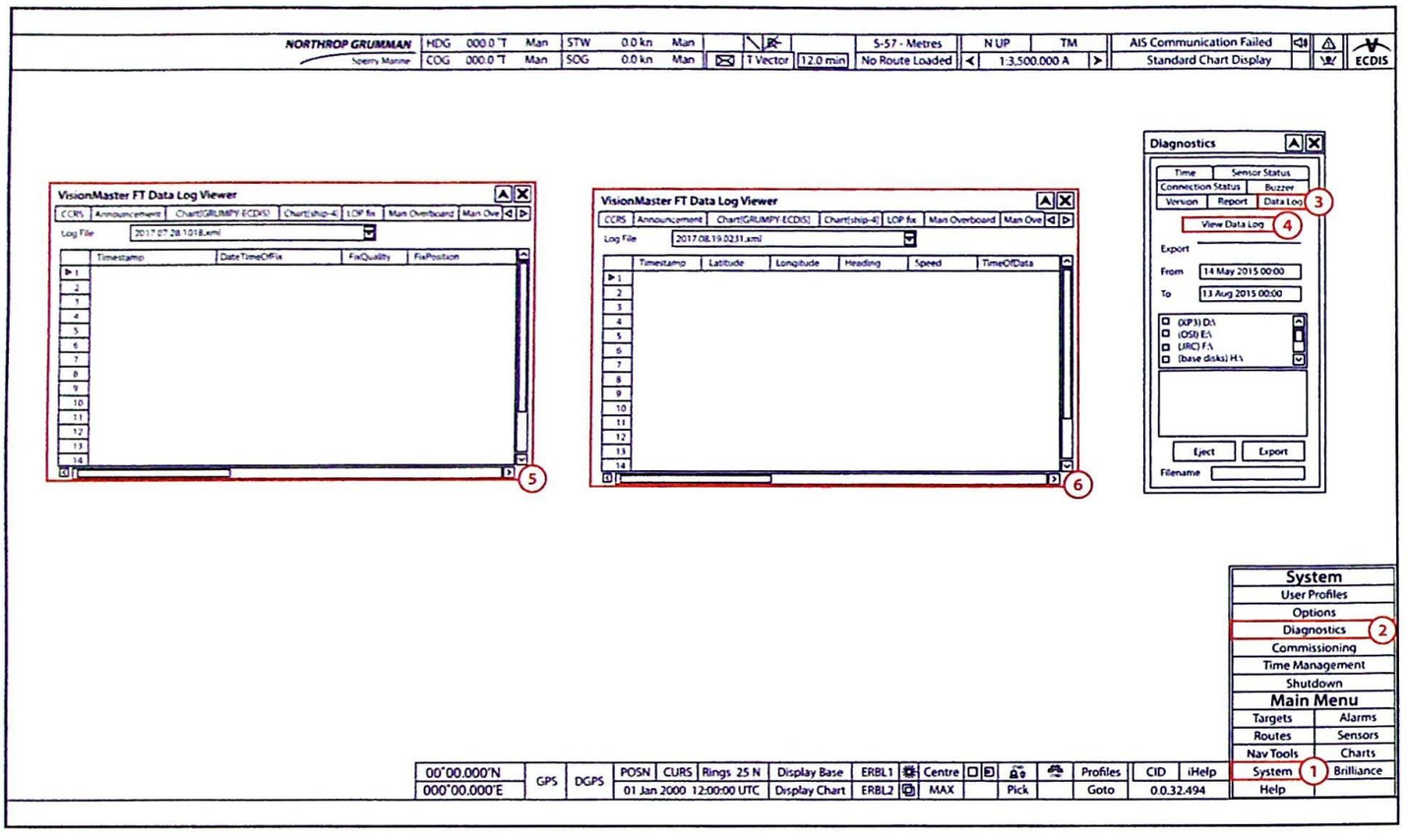
1. Left click on the targets button.
2. Adjust 'Target Display' settings, as required.
3. Adjust 'Identification' settings, as required.
4. Adjust 'Past Position Dots' settings, as required.
5. Adjust 'Auto Drop Targets' settings, as required.
6. Left click on AIS button.
7. Tick to turn on/off AIS.
8. Adjust 'Filter Settings', as required.
9. Adjust 'Other' settings, as required.
10. Right click on 'T Vector'.
11. Switch between True/Relative vectors.
12. Change vector length.
13. Click 'Nav Tools'.
14. Open 'Display Settings'.
15. Adjust Ownship vectors in the 'Ownship' tab.

5.3 Position Fixing



1. Click on 'Nav Tools'.
2. Open 'Line Of Position'.
3. Right click to open the context menu.
4. Click 'Add Line of Position (LOP)'.
5. Click on 'Clicked Location' to place the LOP in the position of the context menu.
6. Click on 'Manually Specified Below' to manually enter the position of the LOP.
7. Click 'OK' to add LOP.
8. Click the tick box to use a bearing for your LOP.
9. Enter the bearing value to the object.
   a. Note: Repeat steps 3 to 8 to add more LOPs.
10. When enough LOPs have been entered, click 'Accept Fix' to complete the LOP fix.
11. Fix position.
12. Original position.

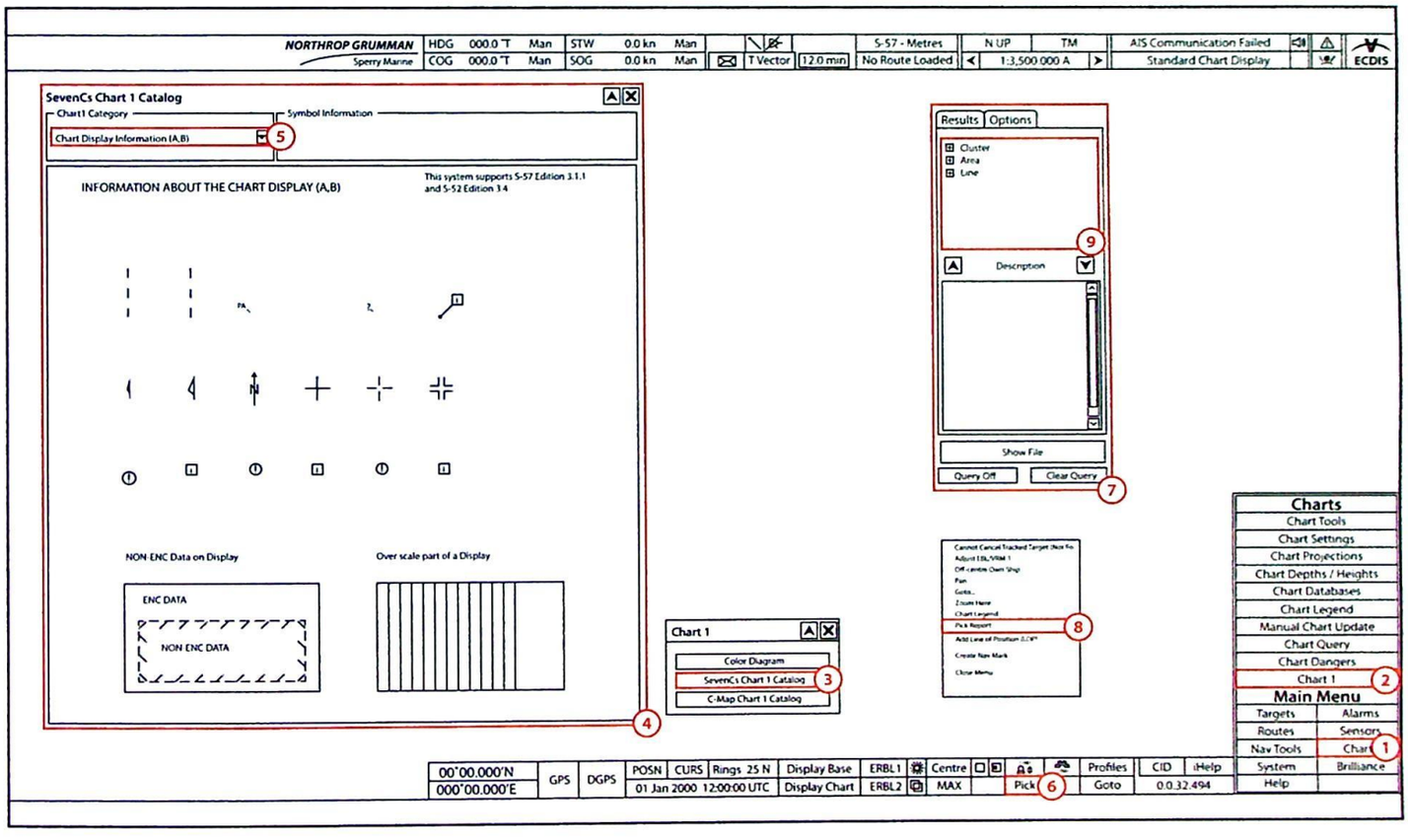
5.4 Voyage Data Logs



1. Click 'System'.
2. Open 'Diagnostics'.
3. Select 'Data Log' tab.
4. Click 'View Data Log'.
5. Example LOP Data Log.
6. Example CCRS Data Log.

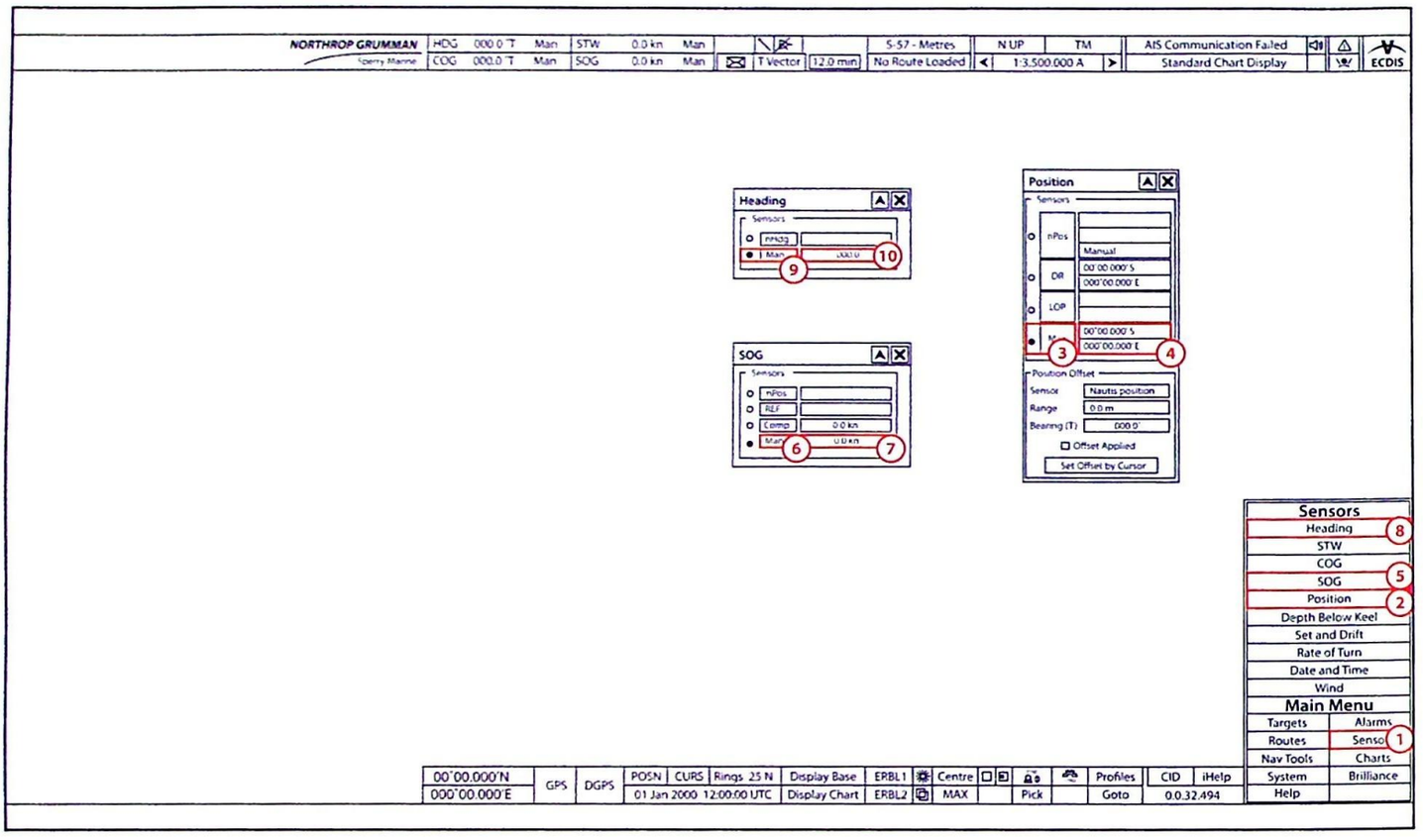
Section 6: System Settings

6.1 Chart 1/Chart Query



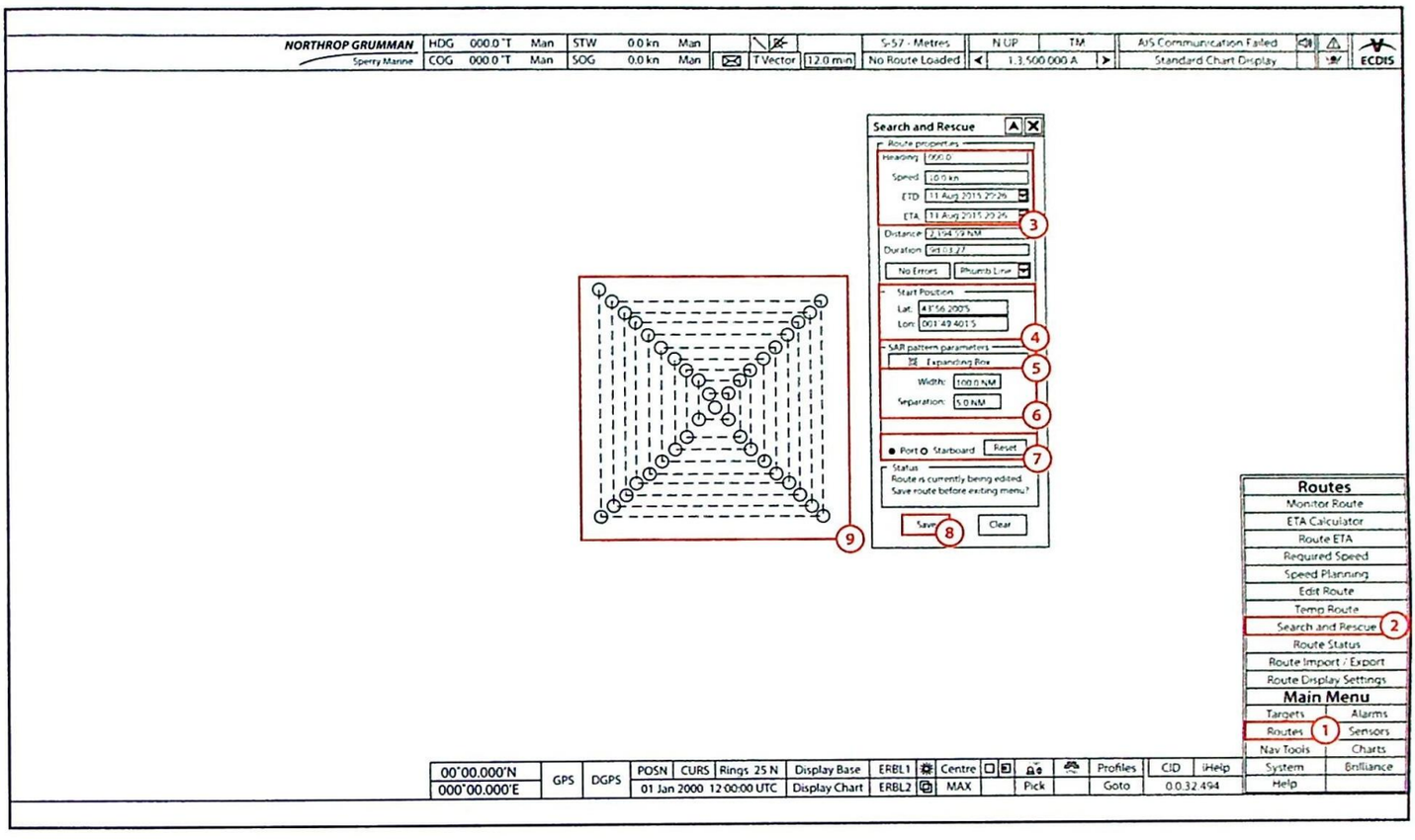
1. Click on 'Charts' from the main menu.
2. Click 'Chart 1'.
3. Select 'SevenCs Chart 1 Catalog'.
4. 'SevenCs Chart 1 Catalog' window will appear.
5. Use the dropdown to select different areas of 'Chart 1'.
6. Select 'Pick'.
7. 'Pick Report' window will open.
8. Right click on the area you would like to check and click 'Pick Report'.
9. Object will appear in this area.

6.2 Position/Heading/Speed



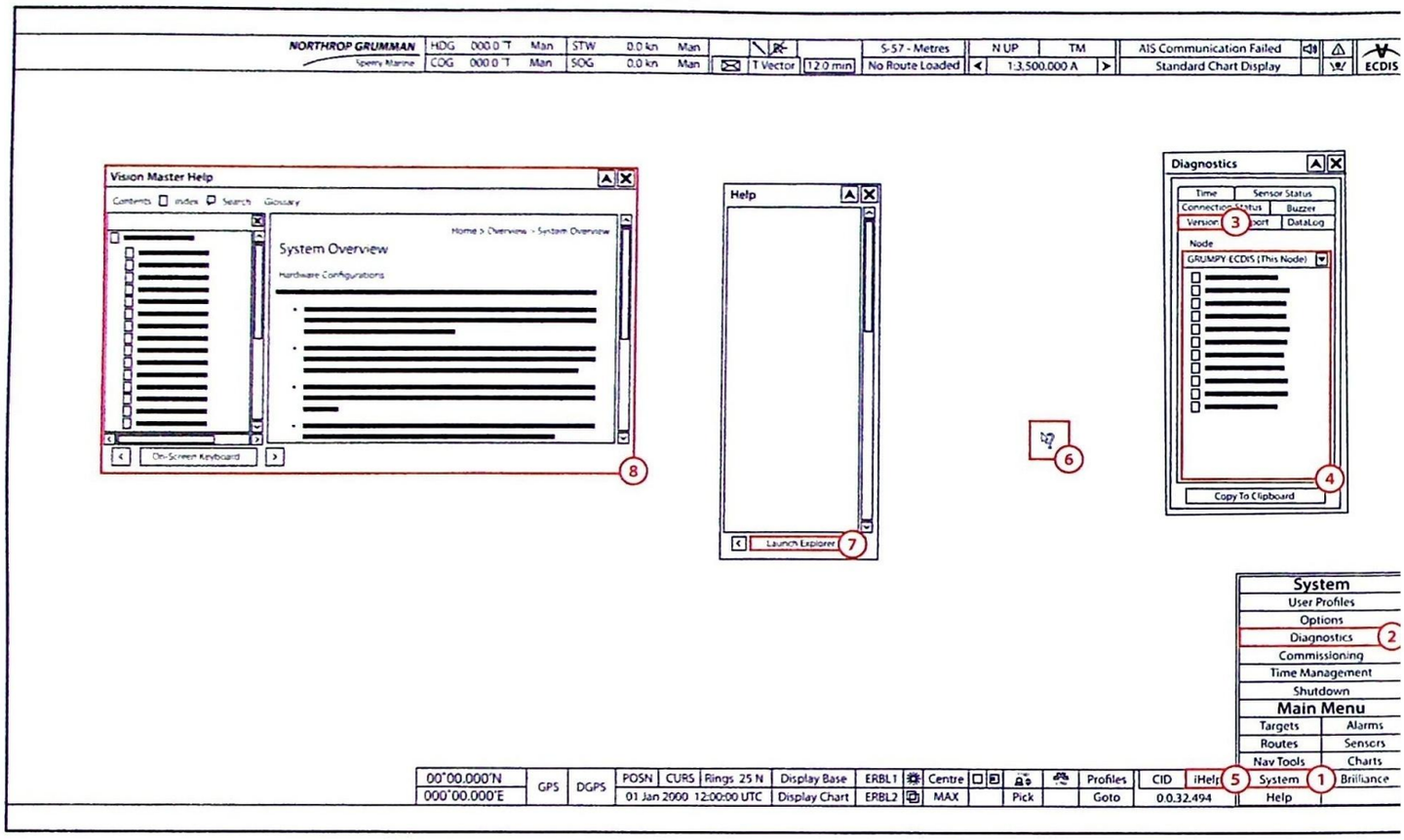
1. Click 'Sensors'.
2. Open 'Position'.
3. Select 'Man'.
4. Enter manual position.
5. Open 'SOG' (speed over ground).
6. Select 'Man'.
7. Enter manual speed.
8. Open 'Heading'.
9. Select 'Man'.
10. Enter manual heading.

6.3 SAR



1. Click 'Routes'.
2. Open 'Search and Rescue'.
3. Set 'Heading', 'Speed', 'ETD' and 'ETA'.
4. Set 'Start Position'.
5. Set 'SAR' pattern.
6. Set 'Width' and 'Separation'.
7. Set search orientation.
8. Click 'Save'.
9. Example SAR on the chart.

6.4 Manual/About



1. Click 'System'.
2. Open 'Diagnostics'.
3. Select 'Version'.
4. View information from the list displayed.
5. Click the 'iHelp' button.
6. Use the help cursor to click anywhere on the chart.
7. Click 'Launch Explorer'.
8. Manual/Explorer opens to display content.

17. TECDIS – Familiarisation Checklist (Page 1 of 2)

1. **Company ECDIS Procedures**
Review company documentation for ECDIS procedures and complete the below ECDIS Type Specific Familiarisation checklist.

2. **Chart Display**
Become familiar with the basic chart functionality from the main display.

Main Toolbar		**Information panel**	
	Monitor colour palette		Date and time
	Chart orientation		Sensor data for navigation
	STD		Cursor information
	USER		Depth and Tide information
	Conning and anchorwatch		Wind speed
	Zoom in		Drift
	Chart scale		Display for anti grounding system
	Zoom out		Menus
	Query cursor		Voyage information and/or Autopilot information
			Alarms, warnings and notifications

3. **Navigational Tools**
Operate all basic navigational functions and vessel setting options contained within the ECDIS for use of navigation.

Main Toolbar		**User-created symbols**	
	Radar overlay		Mariner Objects
	EBL/VRM bearing		Mariner Objects toolbar
	Show ARPA targets		Add new symbol
	Show AIS targets	**Maritime calculations/LOP**	
	MOB symbol/eventmarker		Calculations
			LOP
NAVTEX			

4. **Chart Display Settings**
Operate all chart display settings, become familiar with object layers, ENC symbology and define the vessel's safe water settings. Identify where all chart updates are managed in the system.

Chart		**Safe**	
	Layers		Safety contour
	More		Safety depth
	Page 1		Ship Draught
	Page 2		Check time/width
	Page 3		Select highlighting
	Base		Navigational hazards (ON/OFF)
	Standard		
	S-52/INT 1		
	Admiralty Information Overlay		
	Accuracy (ON/OFF)		
	Spot soundings (ON/OFF)		
	Scale min (ON/OFF)		
	Data dependent time		

5. **Route Planning**
Operate all route planning functions and obtain all relevant schedule information for passage planning and route monitoring purposes.

Route planner			
	Route toolbar		Voyage planner
	Route selection window		SAR

TECDIS – Familiarisation Checklist (Page 2 of 2)

6.	**Route Monitoring** Operate the variety of voyage data functions for route monitoring to display and obtain relevant information for navigation and the ship's safety.			
	Past Track		**Wind speed**	
	Depth and Tide information		**Drift Voyage information and/or Autopilot information**	
7.	**Chart Updating** The operator should know how to update electronic charts and be thoroughly aware of their responsibilities concerning updating. It is a legal requirement that charts are maintained in an up-to-date condition.			
	Settings menu			
	Chart utilities		C-Map chart update	
	Load charts		Chart licenses	
	Installed Certificates		INT-1 dictionary	
	Chart library			
	Manual chart updates			
8.	**System Sensors** Identify where the operator can select or deselect all sensors connected to the ECDIS and verify the vessel's particulars.			
	Main Toolbar		**Settings menu**	
	Past Track		Setup	
	Primary pos. source		NMEA input status	
	Secondary pos. source		Navigation position offset	
	Sensor data for navigation			
9.	**System Alerts** Identify the ECDIS system's category of Alarms and Prompts generated by the operator and by the ECDIS system.			
	Display for anti grounding system			
	Alarms, warnings and notifications			
10.	**System Units** Become familiar with the system's logbook, records, data storage and configuration set up.			
	Log			
	Date		AIS ship data	
	Visual replay		Screenshots	
11.	**ECDIS Operator's Manual** Locate the system's operator's user guide for referencing and help.			
	Hard copy of Operator's Manual only available			

18. Tokyo Keiki EC-8100/8600/8000-A/8500-A – Familiarisation Checklist (Page 1 of 2)

1. **Company ECDIS Procedures**

   Review company documentation for ECDIS procedures and complete the below ECDIS Type Specific Familiarisation checklist.

2. **Main Screen**

   Become familiar with the basic chart functionality from the main display.

Main Screen		Menu	
	Toolbar		Monitor mode
	System data		Settings
	Information of route monitoring/track control		TT/AIS List
	Cursor info and active chart info		Navigational INFO
	Menu		Chart
	Alerts		Route
	Status bar		NavLine and No-Go Area/Line
			Navigation Record
			Plan mode
			Update mode

3. **Navigational Tools**

   Operate all basic navigational functions and vessel setting options contained within the ECDIS for use of navigation.

TOOLS		Settings	
	Toolbar		NaviLine and No-Go Area/Line
	Activate AIS targets		

4. **Chart Display Settings**

   Operate all chart display settings, become familiar with object layers, ENC symbology and define the vessel's safe water settings. Identify where all chart updates are managed in the system.

Toolbar		Chart	
	Chart object display		Chart
	Chart Display INFO (ON/OFF)		Presentation
	Safety contour		Customize
			Other
			Safety Contour
			AIO layer (ON/OFF)
			Hazard Symbol (ON/OFF)
			Check Periodic Dates (ON/OFF)

5. **Route Planning**

   Operate all route planning functions and obtain all relevant schedule information for passage planning and route monitoring purposes.

Plan mode			
	Chart		Route
			SAR Assist

6. **Route Monitoring**

   Operate the variety of voyage data functions for route monitoring to display and obtain relevant information for navigation and the ship's safety.

Menu			
	Monitor mode		Past POSN ON/OFF
	Route Monitoring and TC		Guard Frame
	Settings		Radar
	North Up		Targets
	Vector Length		Association
	Own Ship		Anchor
	Safety Depth		Danger/Caution Objects (ON/OFF)
	2nd POSN Sensor Display (ON/OFF)		Past Positions (ON/OFF)
	TT/AIS List		Navigational INFO

Tokyo Keiki EC-8100/8600/8000-A/8500-A– Familiarisation Checklist

(Page 2 of 2)

7. **Chart Updating**

The operator should know how to update electronic charts and be thoroughly aware of their responsibilities concerning updating. It is a legal requirement that charts are maintained in an up-to-date condition.

Update mode		**Delete Chart**	
Chart Licenses		**Chart Catalogue**	
			Database
			Charts
			Auto Updating
			Semi-Auto Updating
			Update Log
			Manual Update

8. **System Sensors**

Identify where the operator can select or deselect all sensors connected to the ECDIS and verify the vessel's particulars.

Main Screen		**SETTINGS**	
	Sensor Panel		Vessel
			Sensors
			AIS
			Radar targets

9. **System Alerts**

Identify the ECDIS system's category of Alarms and Prompts generated by the operator and by the ECDIS system.

Alerts		**Status bar**	
	Active Alerts		
	Limits		

10. **System Units**

Become familiar with the system's logbook, records, data storage and configuration set up.

Navigation Record			
	Log File		Reference
	Screen Shot		Maintenance

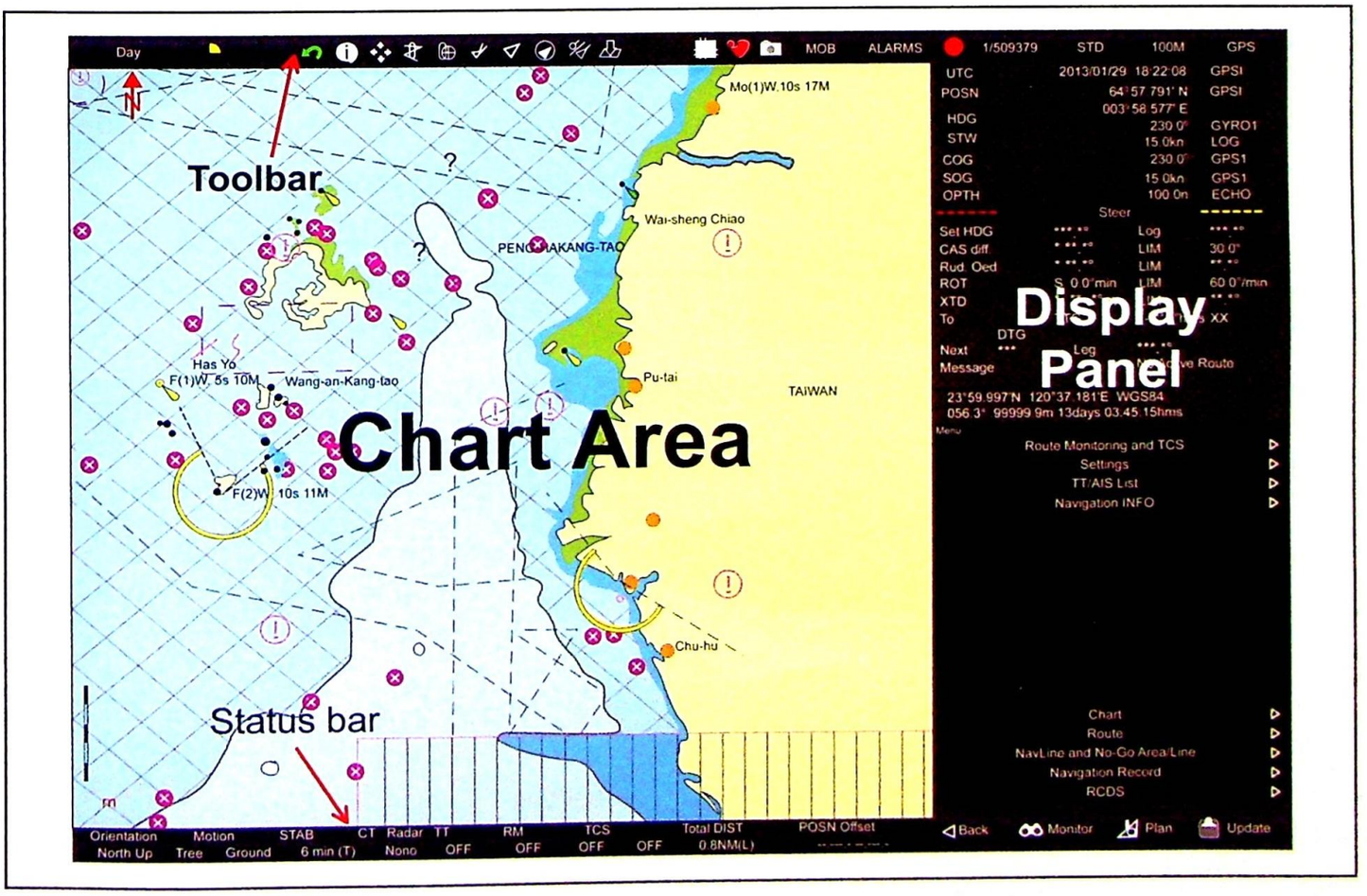
11. **ECDIS Operator's Manual**

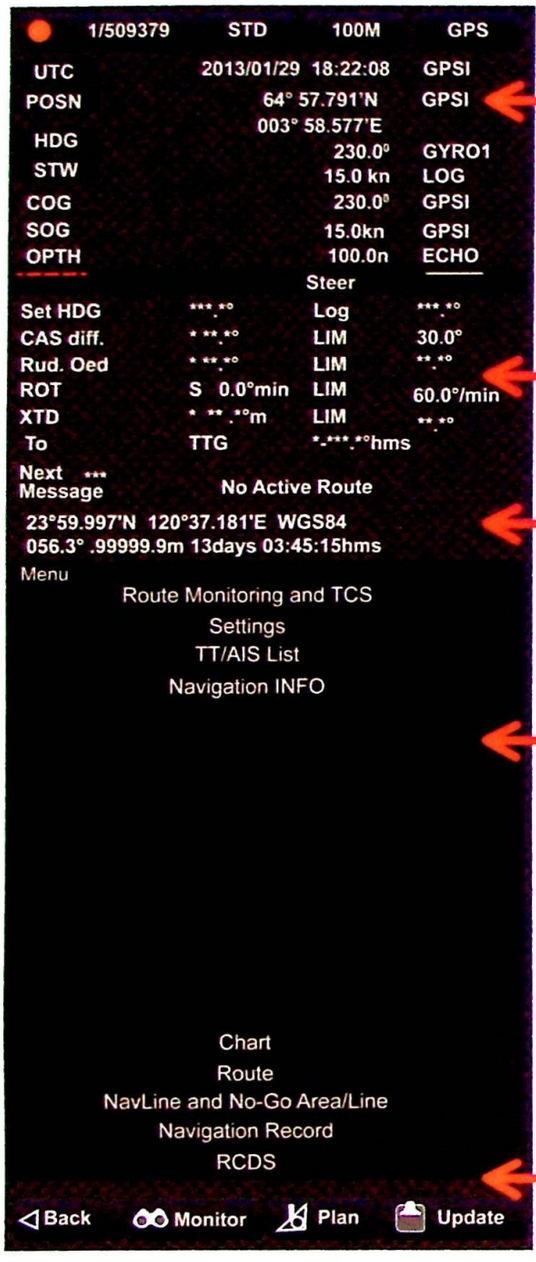
Locate the system's operator's user guide for referencing and help.

Main Menu			
	MANUALS		

Tokyo Keiki EC-8100/8600/8000-A/8500-A

Key Tokyo Keiki EC-8100/8600/8000-A/8500-A ECDIS Menu Functions		
1.	View list of installed Charts	**Update>Chart Catalogue>Charts Tab>Chart List>Database**
2.	View the latest update number installed	**Update>Update Log>Select Database>Description/Updates**
3.	Change Chart Settings	**Monitor>Chart>Presentation/Customise Tab**
4.	View information on charted objects and view additional text	**Toolbar>Show information on chart objects>ENT on selected object**
5.	Set the Safety Depth, Safety Contour, Shallow and Deep Contour	**Menu>Monitor Settings>Own Ship Tab>Safety Depth**
6.	Input a User Map Object	**Update>Manual Update>Add New**
7.	Input a Manual Update	**Update>Manual Update>Add New**
8.	Turn the Predictor on	**Monitor>Settings>Own Ship Tab>Prediction Line (ON/OFF)**
9.	Configure the Guard Frame (Anti-grounding Cone)	**Monitor>Settings>Guard Frame Tab**
10.	Configure Ship's Track	**Monitor>Settings>Past Position**
11.	Configure Velocity Vectors	**Monitor>Settings>Own Ship [and] Display Tab**
12.	View past Alarms and Warnings	**Toolbar>Red Alarms Icon**
13.	Input a Visual or Radar Fix	**Monitor>Navigational Info>Line of Position (On)**
14.	Turn on Radar Image Overlay	**Monitor>Settings>Radar Tab>No.1/2 System**
15.	Take a Screenshot	**Toolbar>Take a screenshot**





System Data

Route Monitoring and Track Control Data

Cursor Information

Menu

Mode Buttons

Day Colour Palette

Adjust Brightness

Zoom In

Zoom Out

Previous Chart Display

Chart Object Information

Scroll Chart

Create/Modify Waypoints

Create/Modify Critical Points

Activate AIS Targets

Deactivate AIS Targets

Associate Targets

Dissociate Targets

Create/Modify No-Go Line/Areas

Off-centre Own Ship

True Motion/Relative Motion

Take a Screenshot

MOB Show Man Overboard Info

ALARM Show and Set Alarms

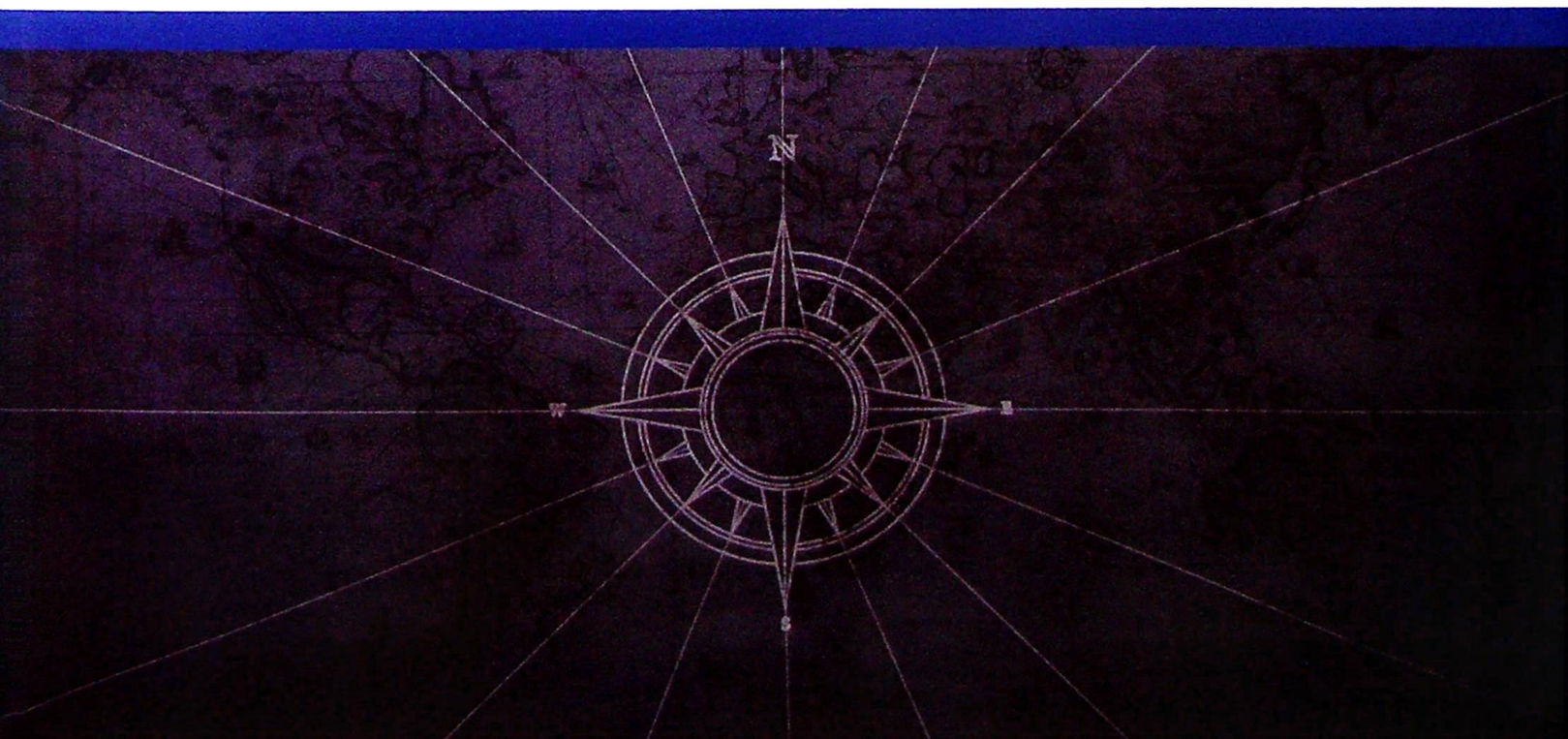
RED CIRCLE Scale Indication/Change Scale

STD Display Category

110m Safety Depth

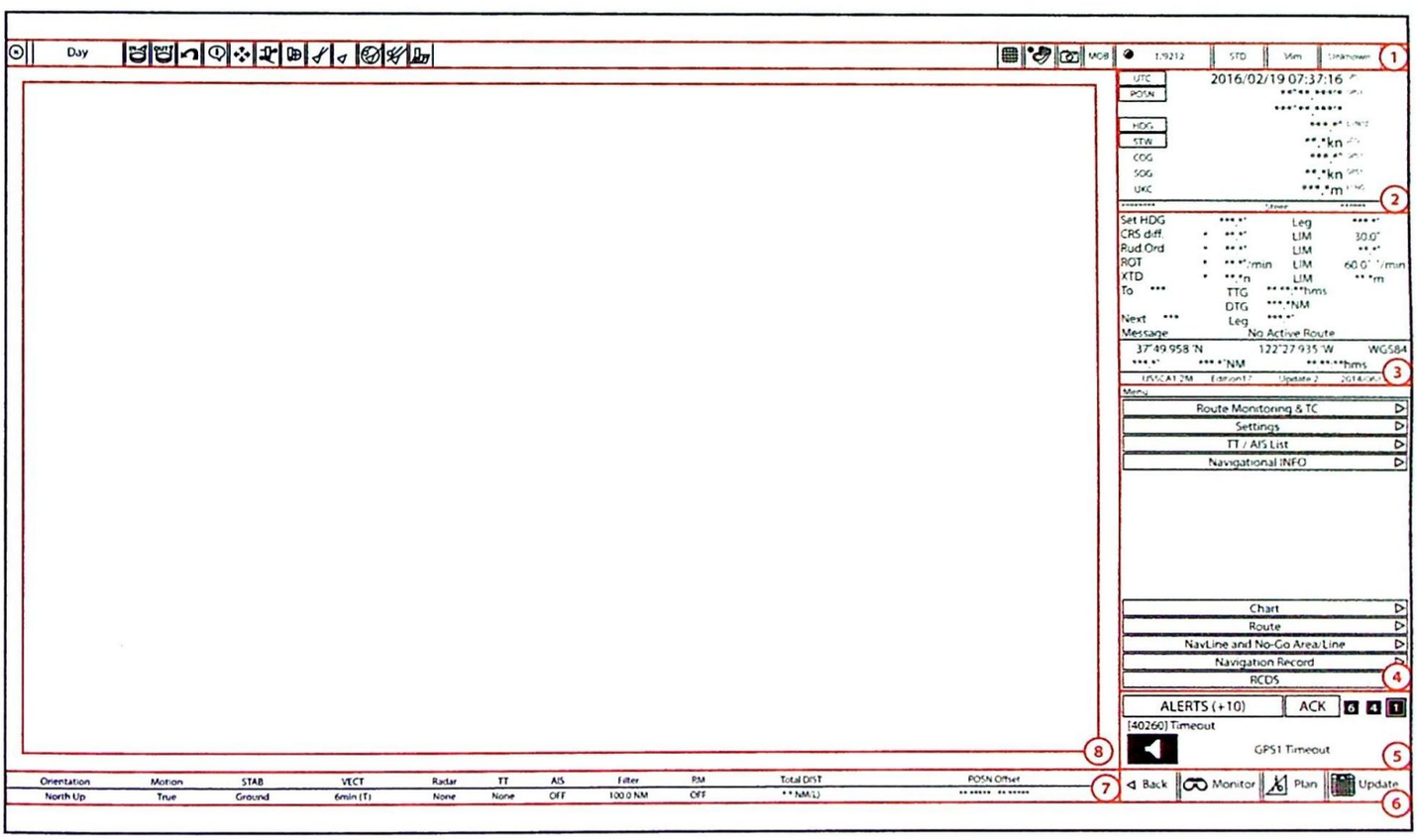
gps Accuracy of Primary Posn Sensor

Tokyo Keiki
EC-8100/EC-8600/EC-8000-A/EC-8500-A



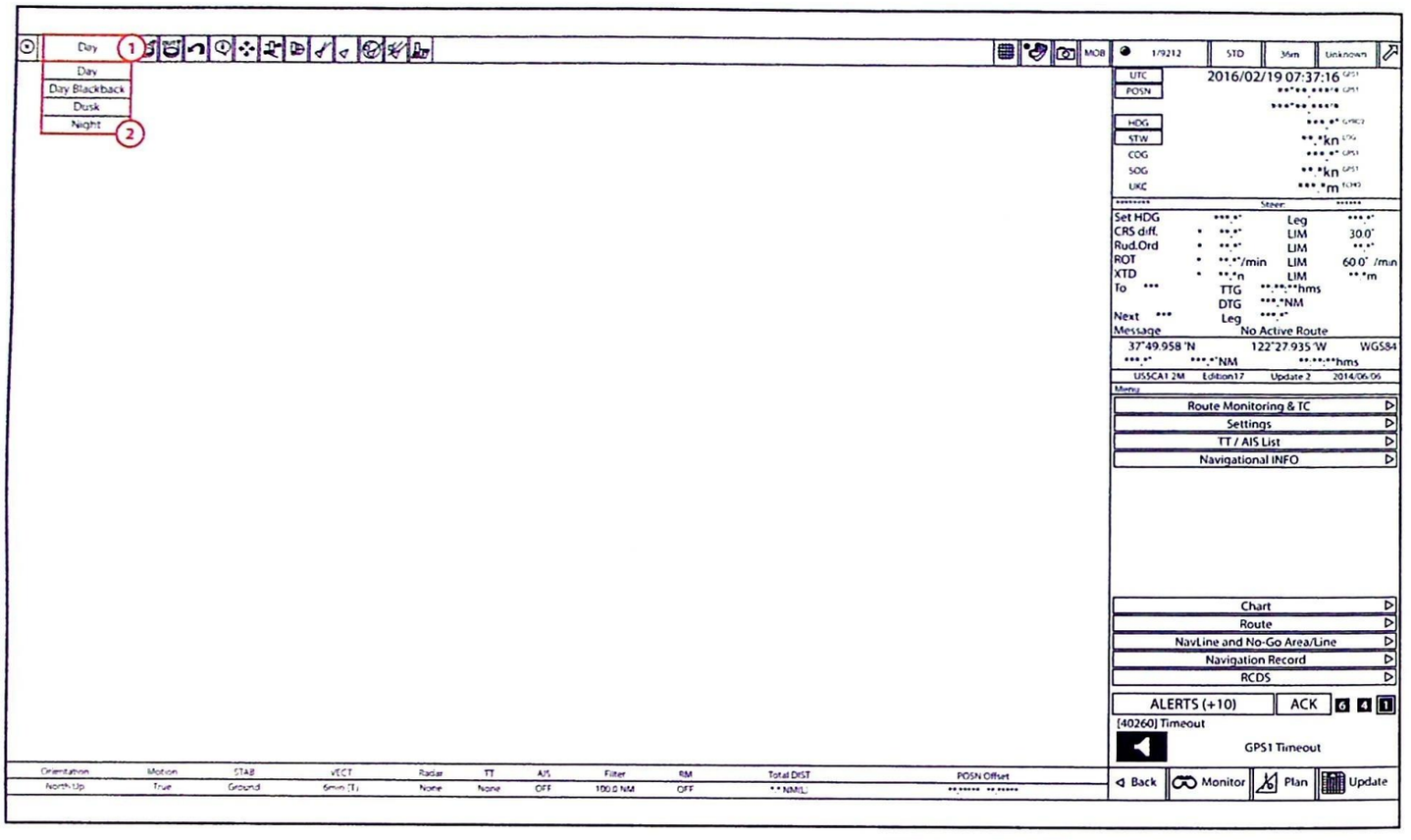
Section 1: Main Display

1.1 **Screen Layout**



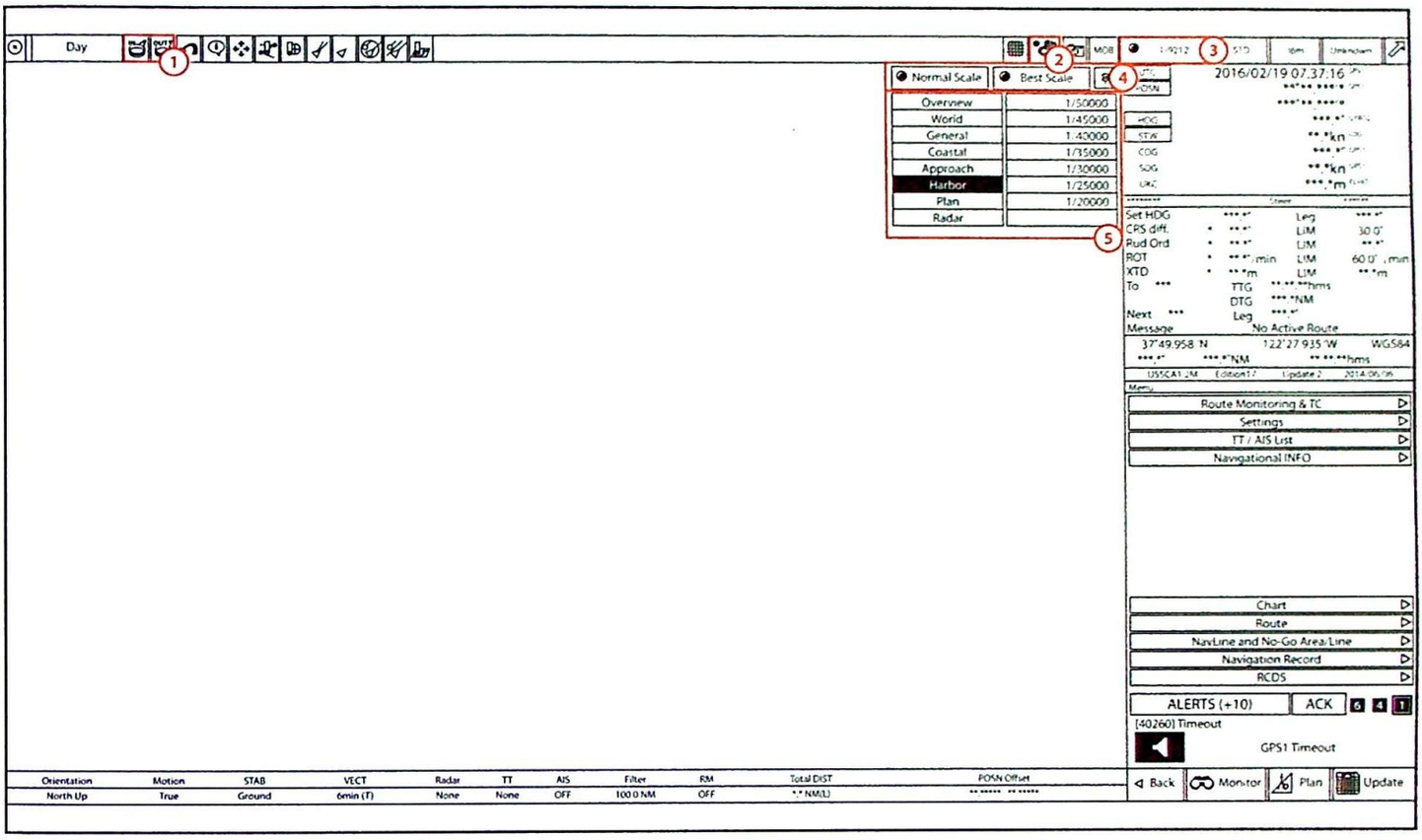
1. Toolbar
2. System data
3. Information of route monitoring/ track control
4. Menu
5. Alert
6. Mode and view-switching buttons
7. Status bar
8. Chart display area

1.2 Colour Palette



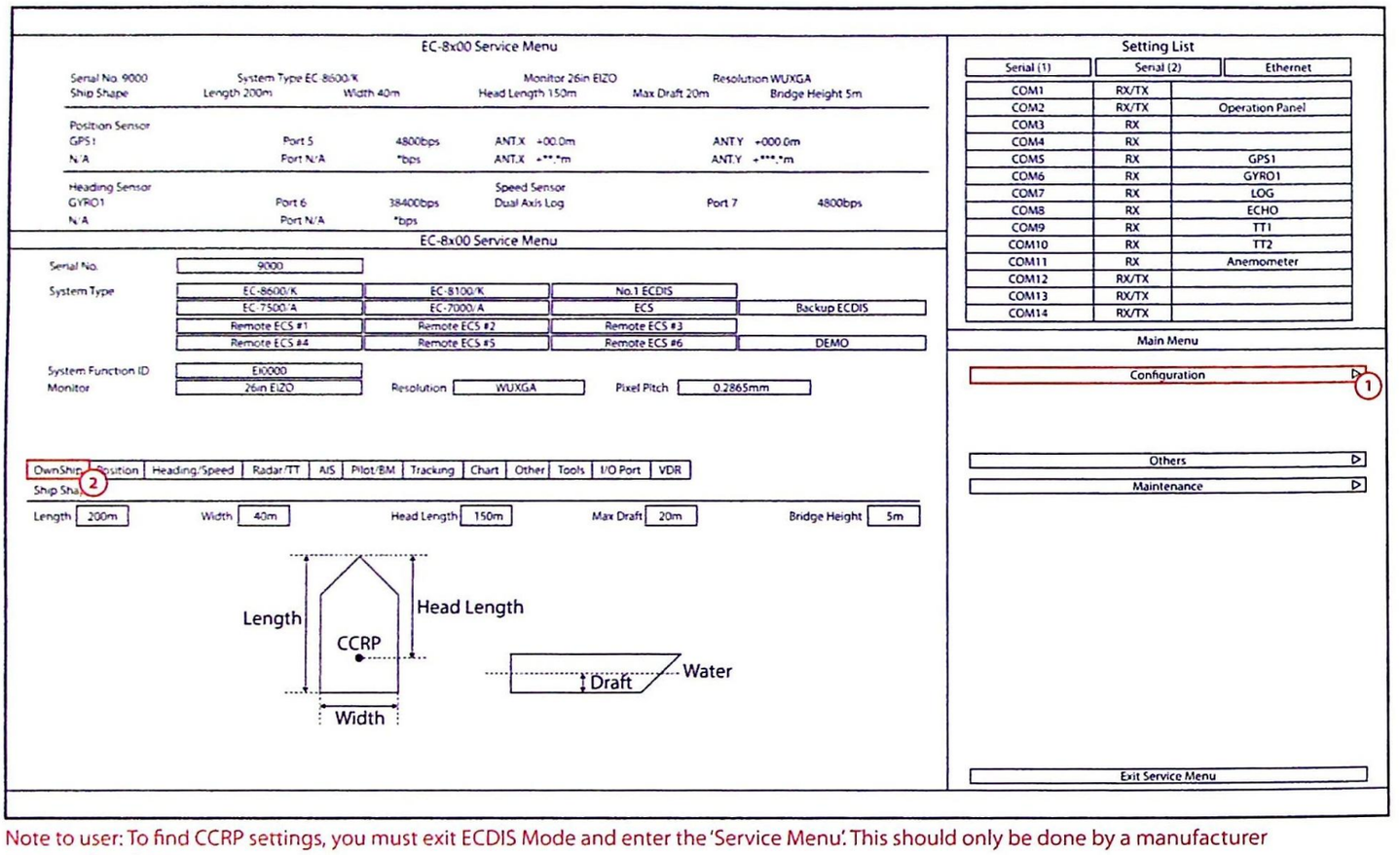
1. Select the 'Colour' table button.
2. Left click to select the colour palette.

1.3 Range/Scale/Motion



1. Left click to zoom in and out.
2. Left click to select 'Relative Motion' and 'True Motion'.
3. Scale indication button shows the scale red or green indication.
   - a. Red – Unsuitable scale.
   - b. Green – Suitable scale.
4. Scale condition of an active chart.
5. Scale list.

1.4 Setting CCRP

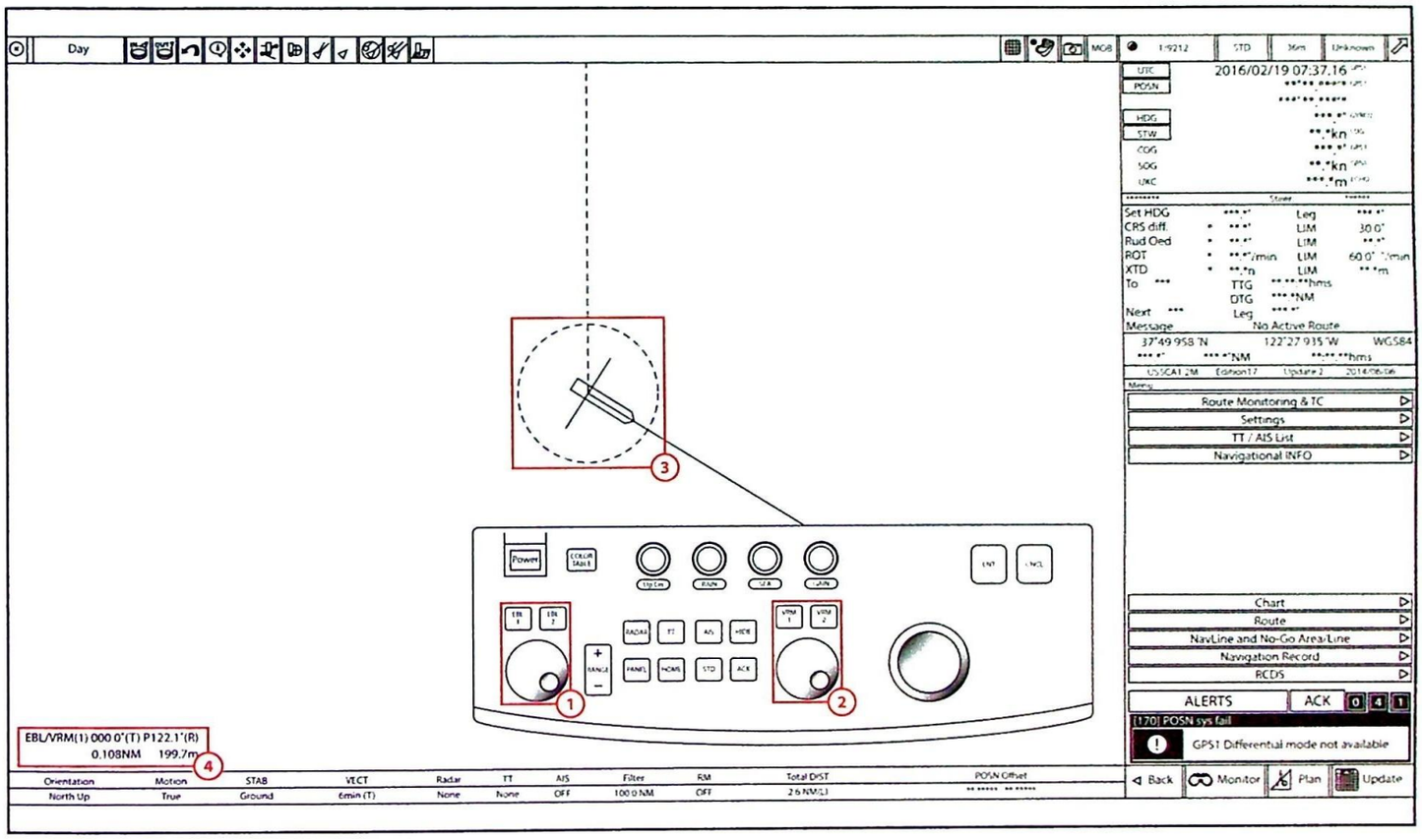


Note to user: To find CCRP settings, you must exit ECDIS Mode and enter the 'Service Menu'. This should only be done by a manufacturer approved engineer.

1. Select 'Configuration'.
2. Make sure 'OwnShip' is selected to see the CCRP.

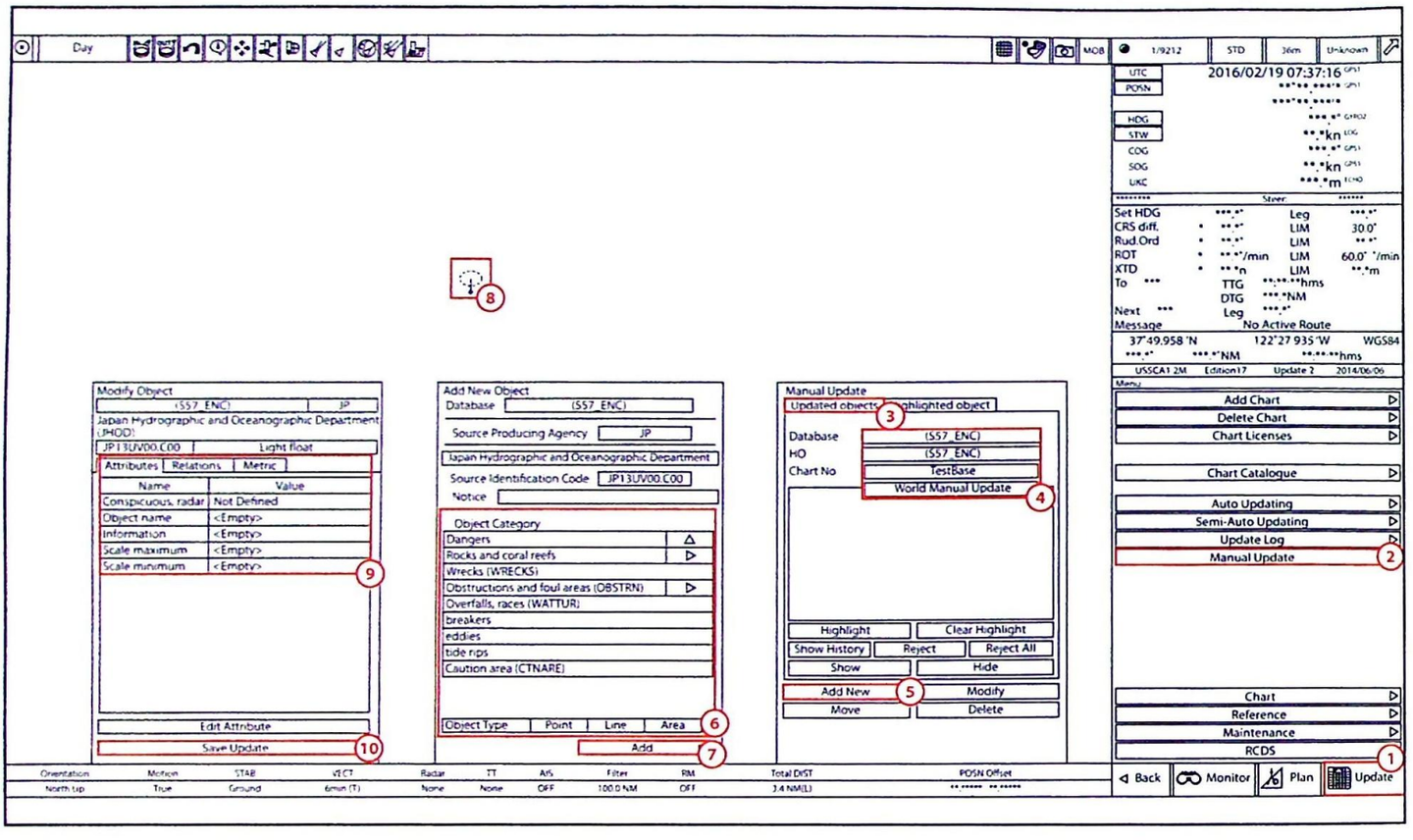
Section 2: Navigation Tools

2.1 **EBL/VRM**



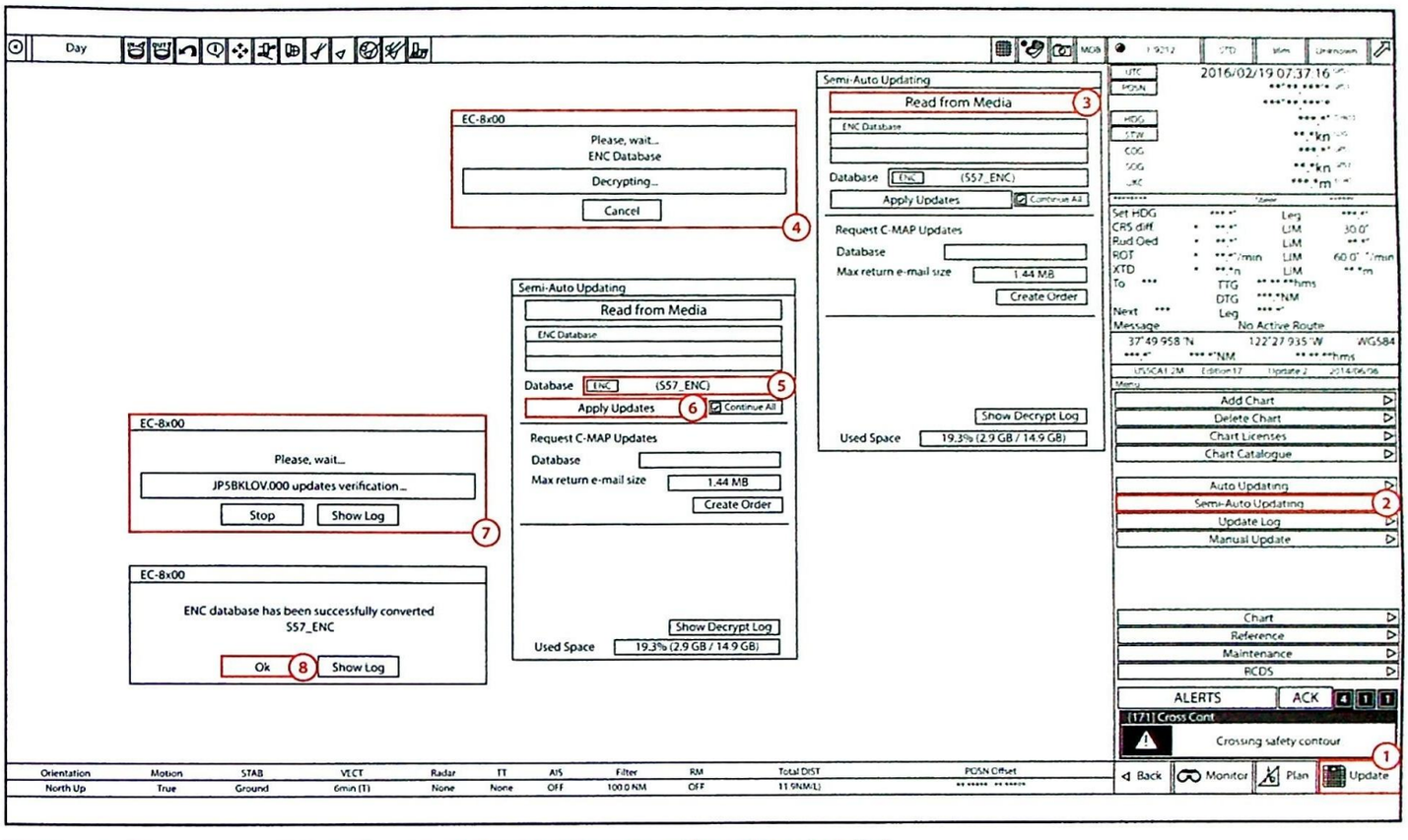
1. EBL/VRM 1 from the operation panel.
2. EBL/VRM 2 from the operation panel.
3. Example of EBL/VRM on the chart.
4. EBL/VRM information box.

2.2 Manual Corrections



1. Select 'Update' within Mode.
2. Select 'Manual Update'.
3. Select 'Updated objects'.
4. Choose a database from the dropdown.
5. Select 'Add New'.
6. Choose an object from the 'Object Category'.
7. Select 'Add'.
8. Left click on the chart to specify the position.
9. Modify the attributes of the object.
10. Select 'Save Update'.

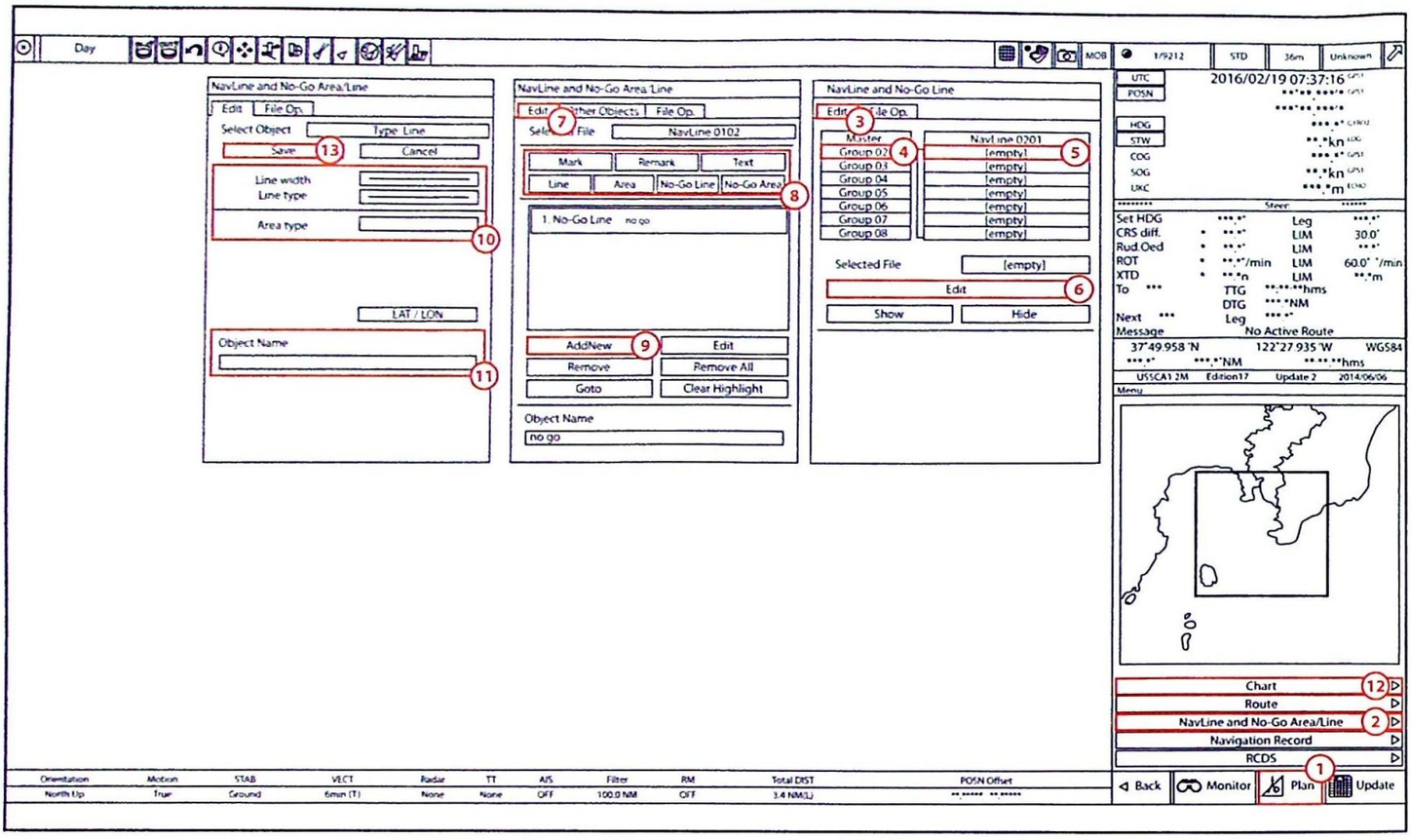
2.3 Chart Updates



Note to user: Ensure your update media is inserted and that permits and base CD are installed.

1. Select 'Update' within Mode.
2. Select 'Semi-Auto Updating'.
   a. Make sure your update media is connected.
3. Select 'Read from Media'.
4. Decryption window.
5. Select the correct database.
6. Select 'Apply Updates' to begin updating the charts.
7. This pop-up window shows progress.
8. Select 'OK'.

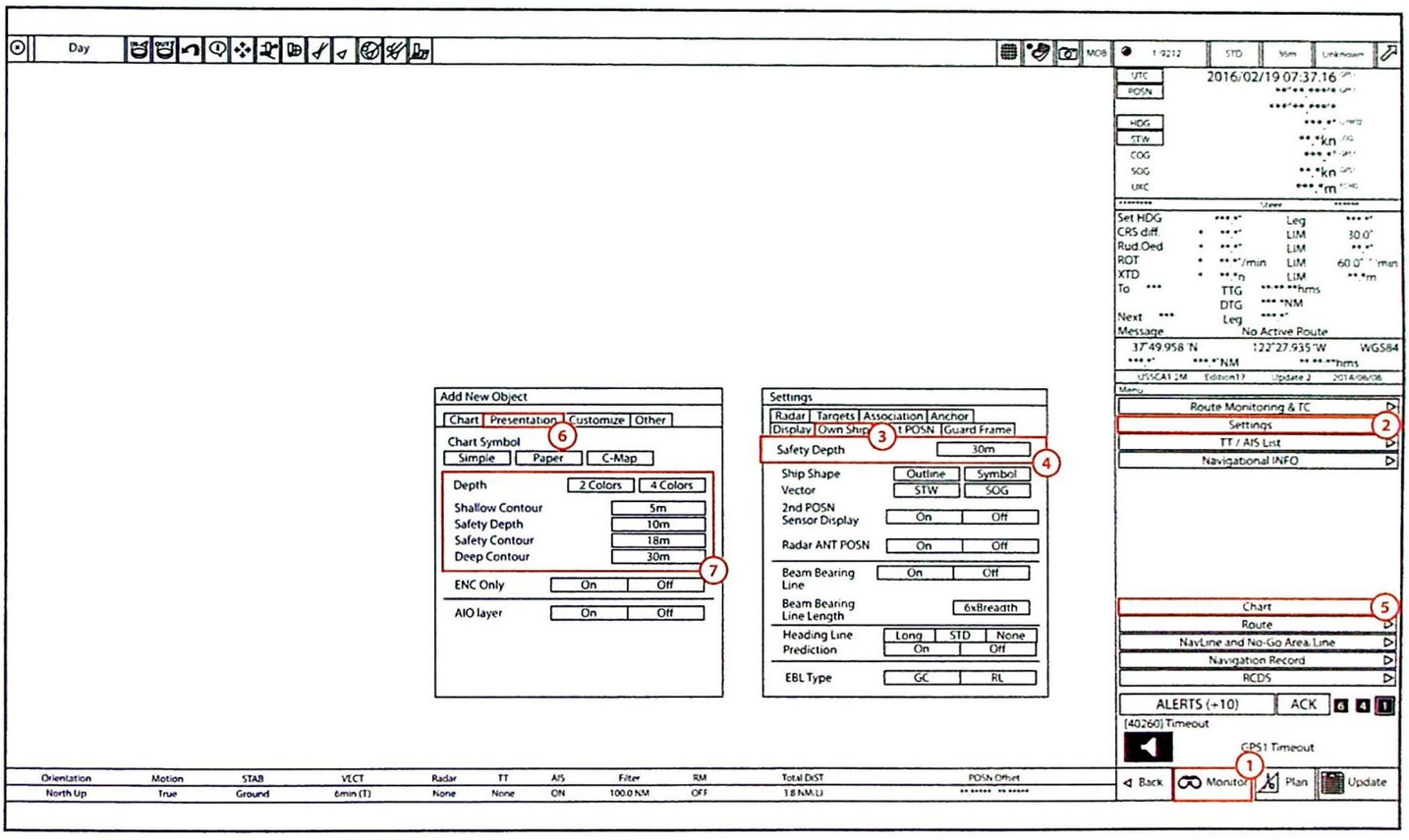
2.4 No Go Areas/User Charts



1. Select 'Plan'.
2. Select 'NavLine and No-Go Area/Line'.
3. Select the 'Edit' tab.
4. Choose a group.
5. Select '[empty]'.
6. Select 'Edit'.
7. Ensure 'Edit' is selected again.
8. Choose one of the items to add.
9. Select 'AddNew'.
10. Select object attributes.
11. Object name is required.
12. Left click on the chart to specify first point and click again to add line.
13. Select 'Save'.

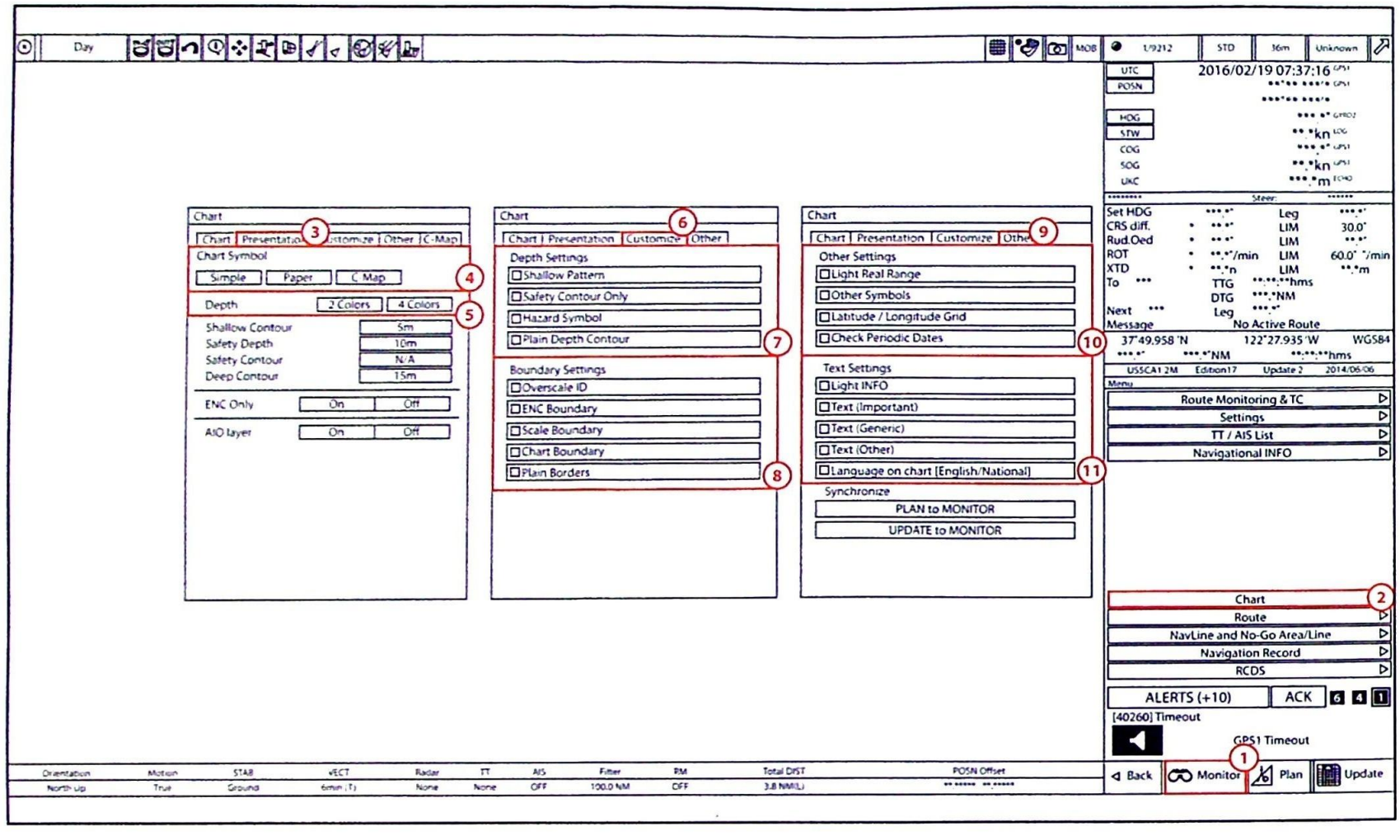
Section 3: Chart Display Settings

3.1 **Safety Depth/Contour**



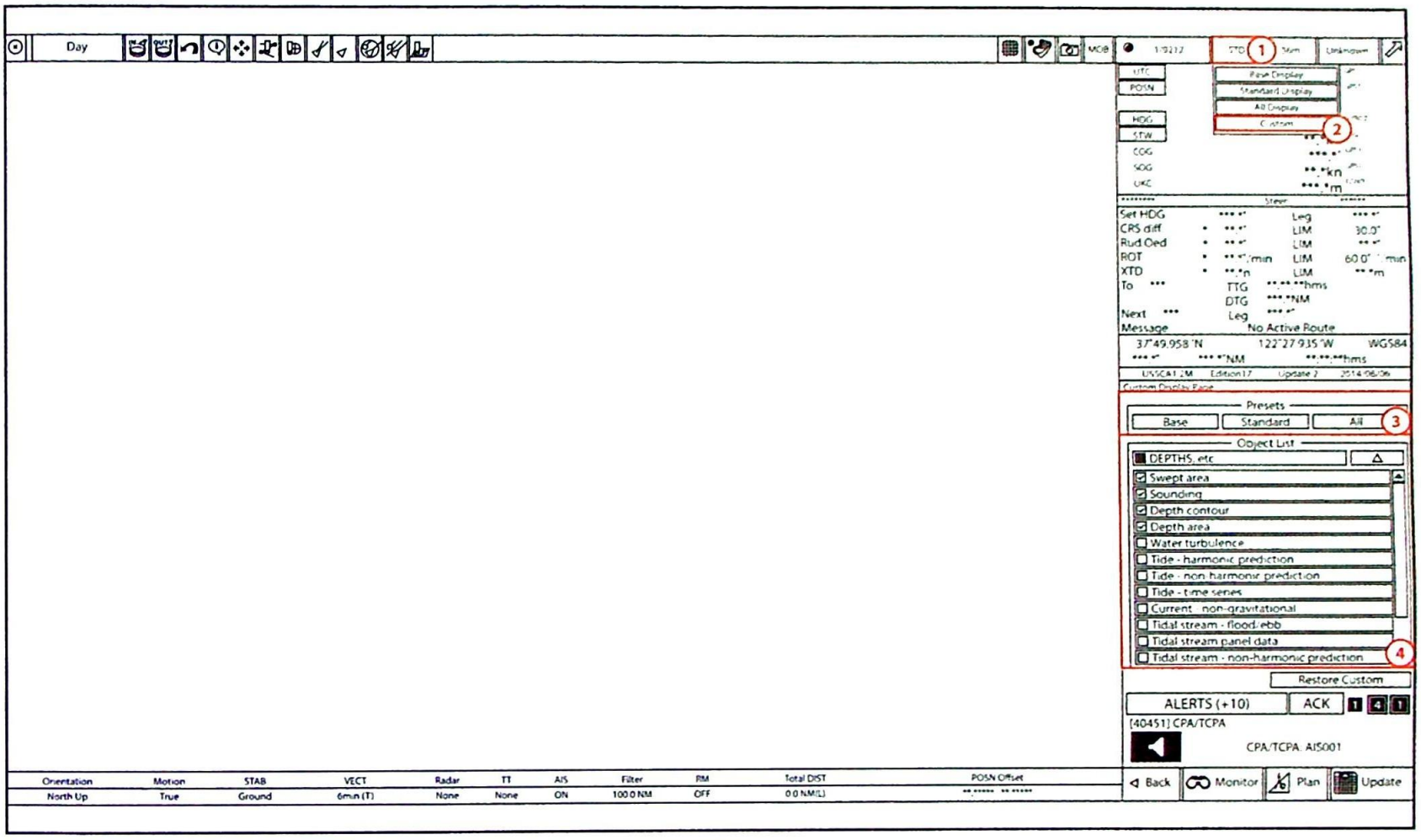
1. Select 'Monitor'.
2. Choose 'Settings'.
3. Select 'Own Ship'.
4. Edit 'Safety Depth'.
5. Select 'Chart' from the top menu.
6. Select 'Presentation'.
7. Edit 'Shallow Contour' and 'Deep Contour'.

3.2 Display Preference Options



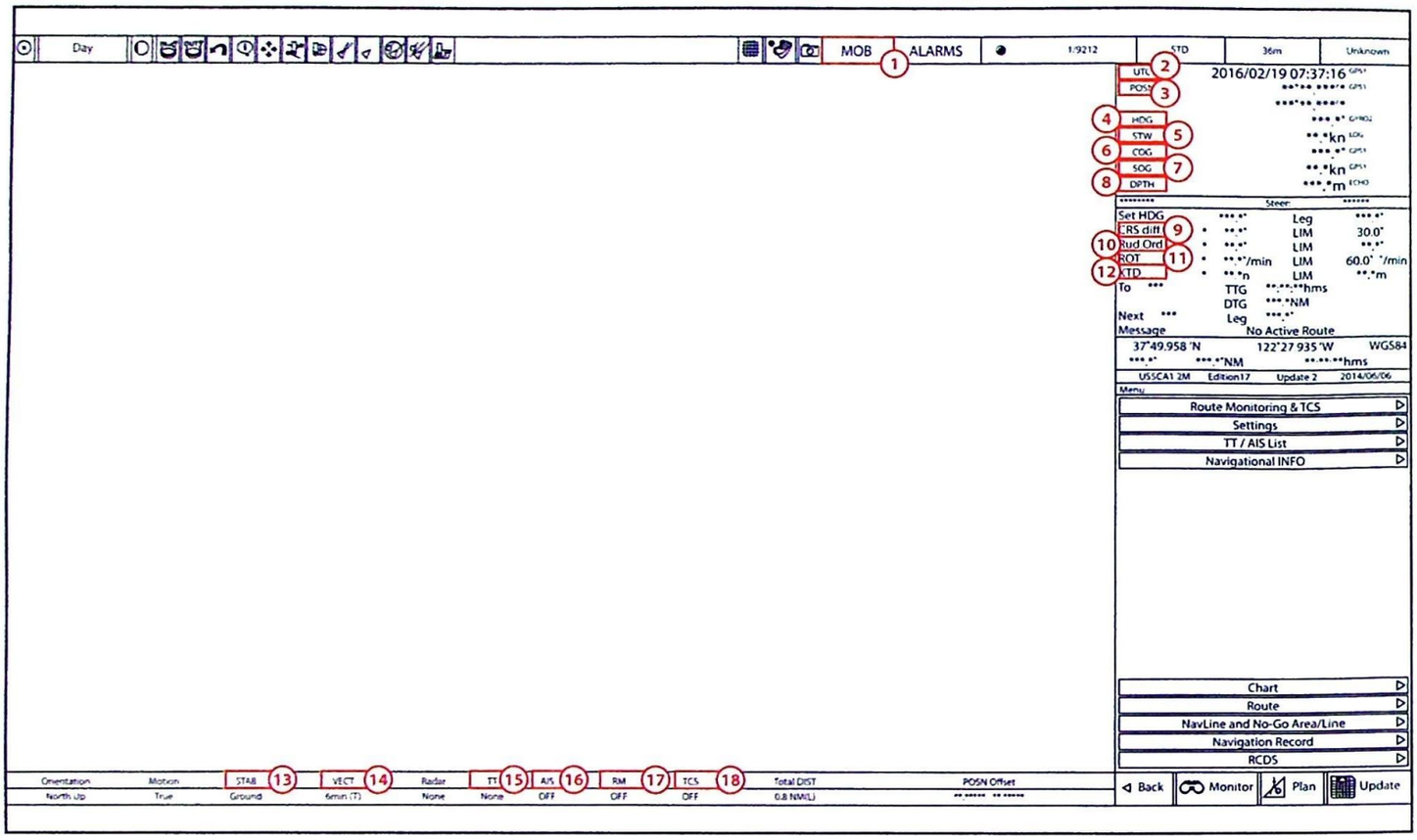
1. Select 'Monitor'.
2. Select 'Chart' from the top menu.
3. Select 'Presentation' tab.
4. Configure 'Chart Symbol' settings.
5. Select '2 Colors' or '4 Colors'.
6. Select 'Customize' tab.
7. Configure 'Depth Settings'.
8. Configure 'Boundary Settings'.
9. Select 'Other' tab.
10. Configure 'Other Settings'.
11. Configure 'Text Settings'.

3.3 Display Configuration



1. Press 'Chart object button'.
2. Select 'Custom' from the dropdown.
3. Select 'Presets'.
4. Enable/disable layers, as required.

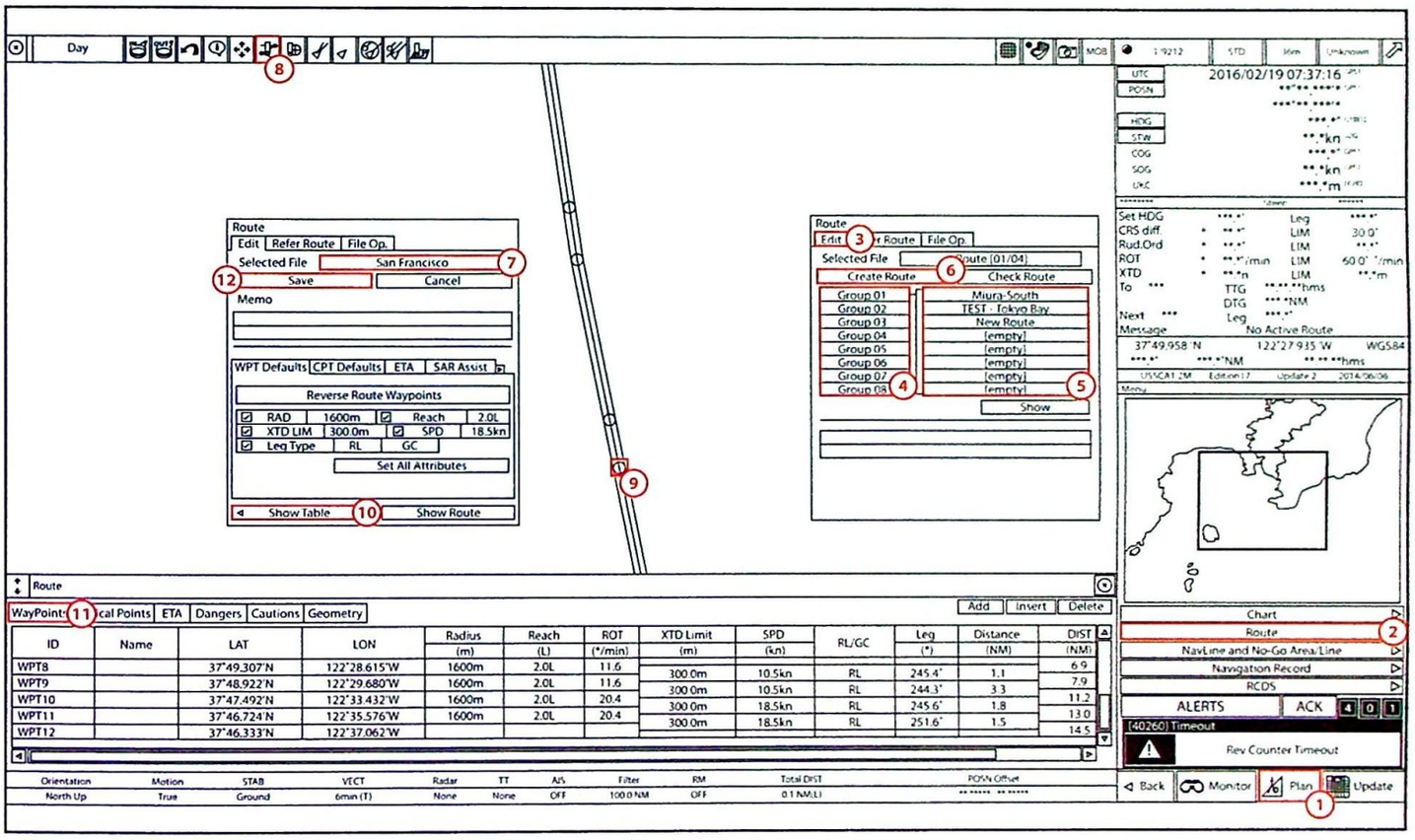
3.4 Abbreviations



1. Man Overboard
2. Universal Time Coordinated
3. Position
4. Heading
5. Speed Through Water
6. Course Over Ground
7. Speed Over Ground
8. Depth
9. Course Difference
10. Rudder Order
11. Rate of Turn
12. Cross Track Distance
13. Stabilisation
14. Vector
15. Tracked Targets
16. Automatic Identification System
17. Relative Motion
18. Track Control System

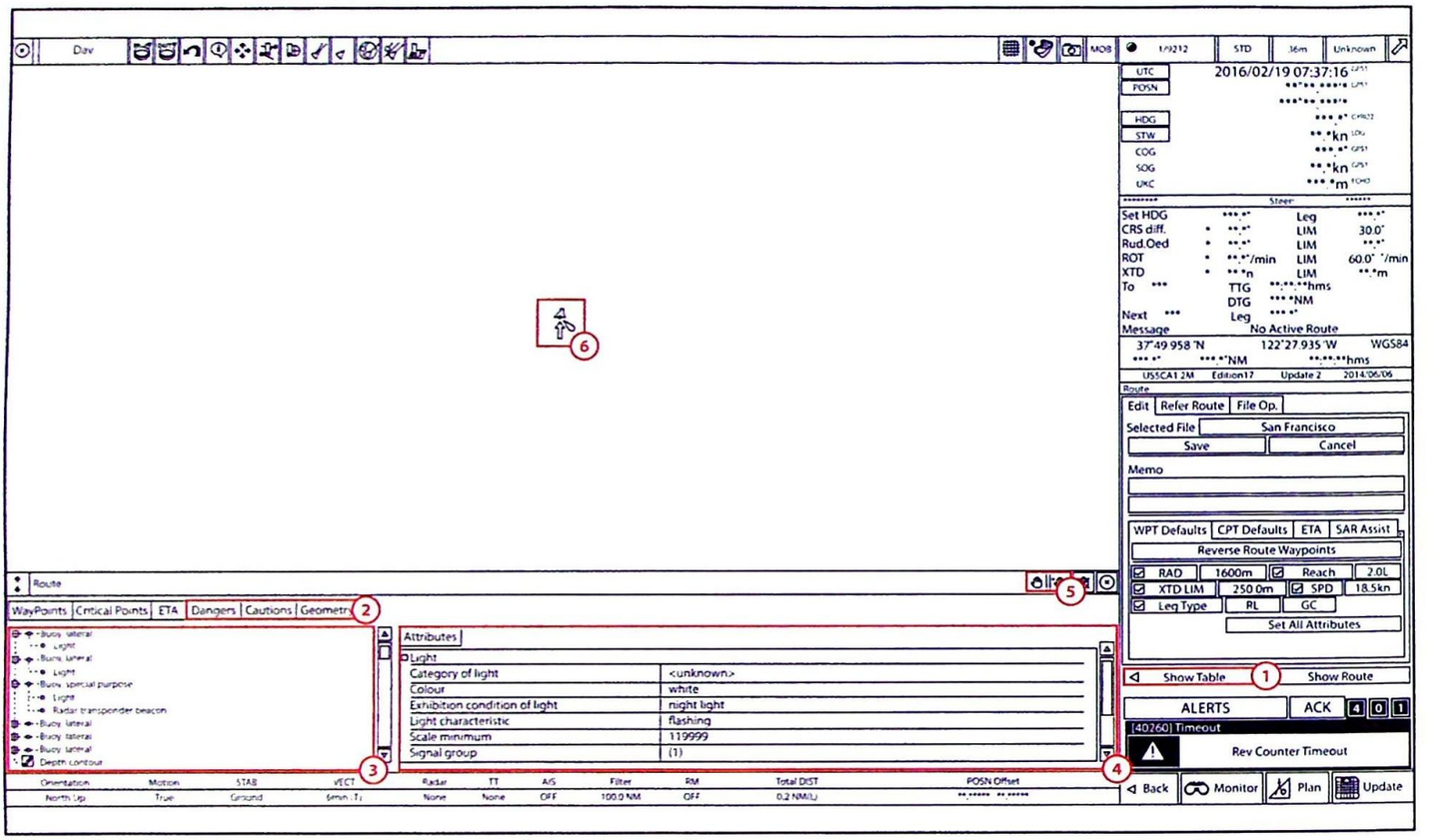
Section 4: Route Planning

4.1 **Creation**



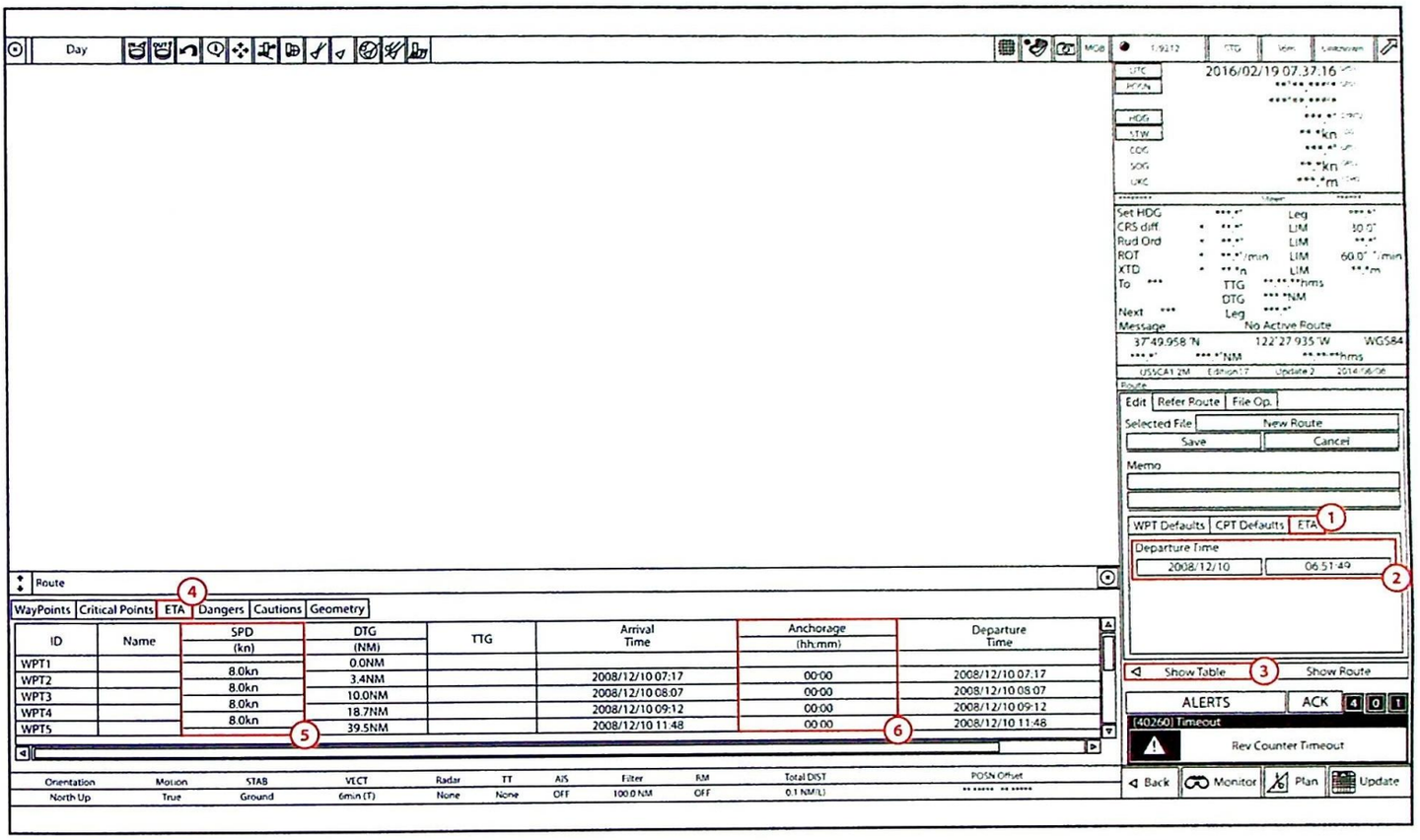
1. Select 'Plan'.
2. Select 'Route'.
3. Select 'Edit'.
4. Choose a group.
5. Select '[empty]' field.
6. Select 'Create Route'.
7. Name your route.
8. Select 'Add'.
9. Left click to place first waypoint. Consecutive left clicks will place more waypoints.
10. To view the table editor select 'Show Table'.
11. Select 'WayPoints' tab to edit through the table.
12. Select 'Save'.

4.2 Schedule/Route Checking



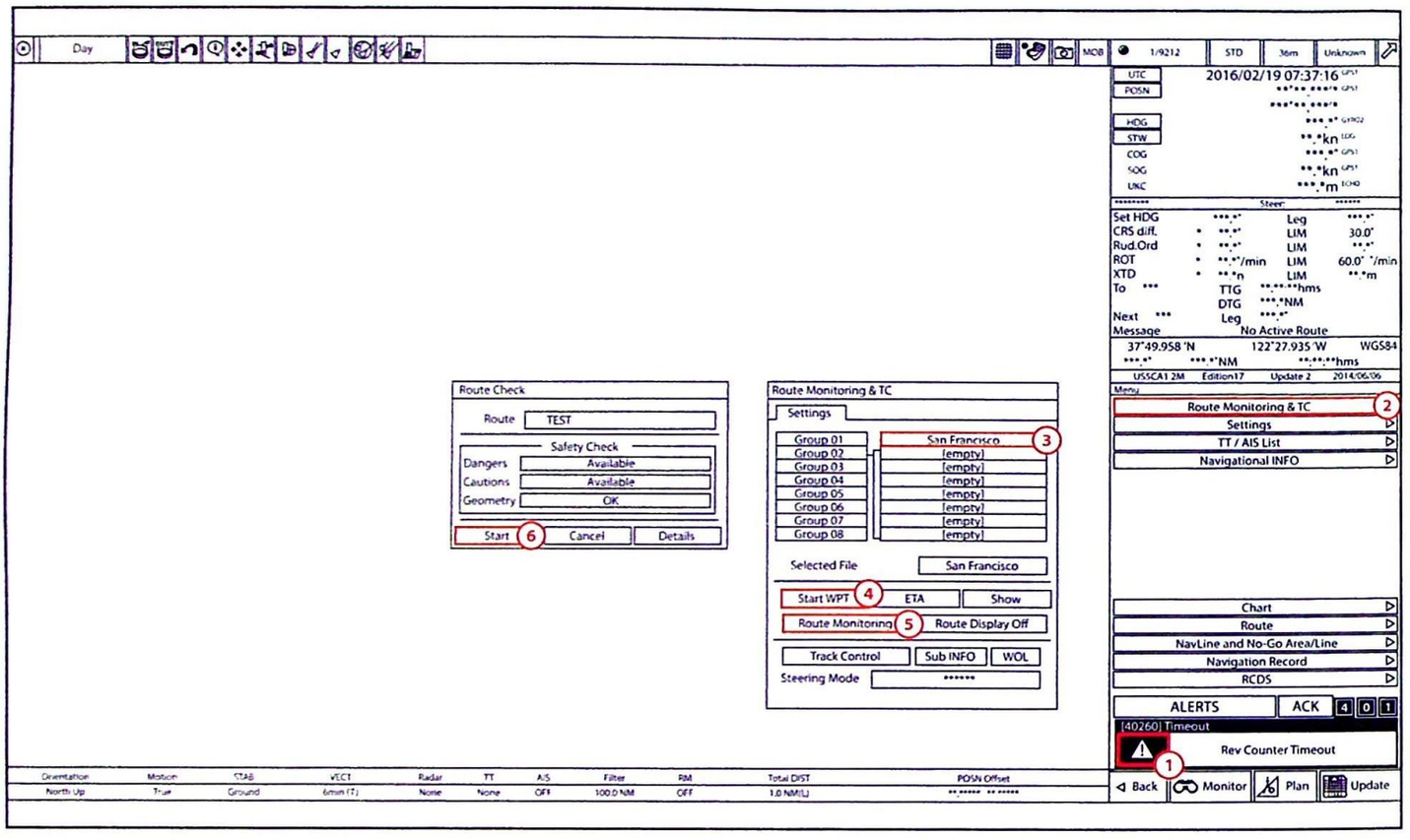
1. Select 'Show Table'.
2. Select 'Dangers', 'Cautions' or 'Geometry' to check.
3. Example of dangers shown. Left click to show attributes.
4. Shows the attributes of object.
5. Select 'highlight' and 'GO TO'.
6. Example visual indication of a selected danger.

4.3 Optimisation



1. Select 'ETA'.
2. Set 'Departure Time'.
3. Select 'Show Table'.
4. Select 'ETA' again.
5. Set speed for each leg.
6. If required, set an anchorage time.

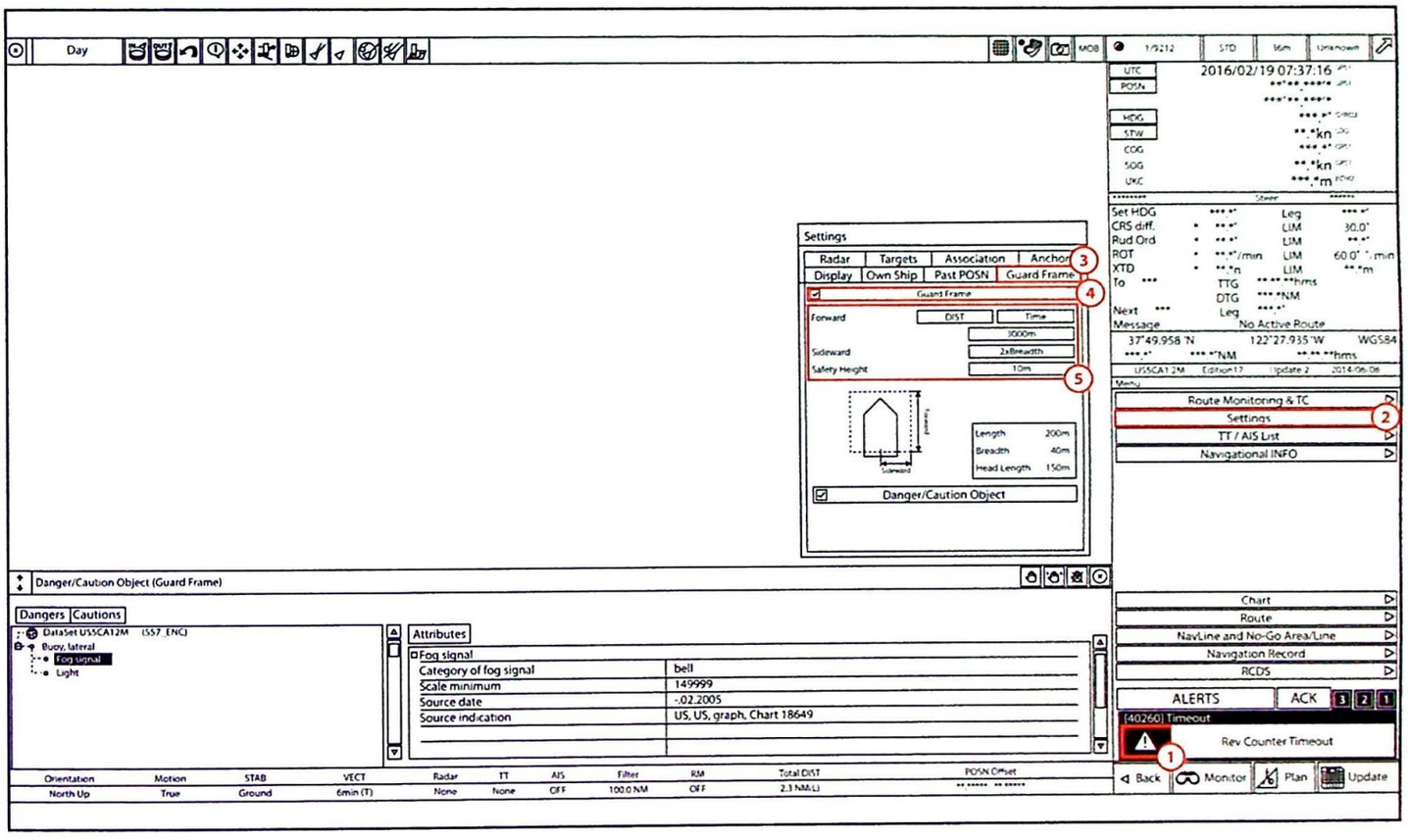
4.4 Selecting Active Route



1. Select 'Monitor'.
2. Select 'Route Monitoring & TC'.
3. Select the route.
4. Select 'Start WPT'.
5. Once the ship is near the start of the route, select 'Route Monitoring'.
6. Select 'Start'.

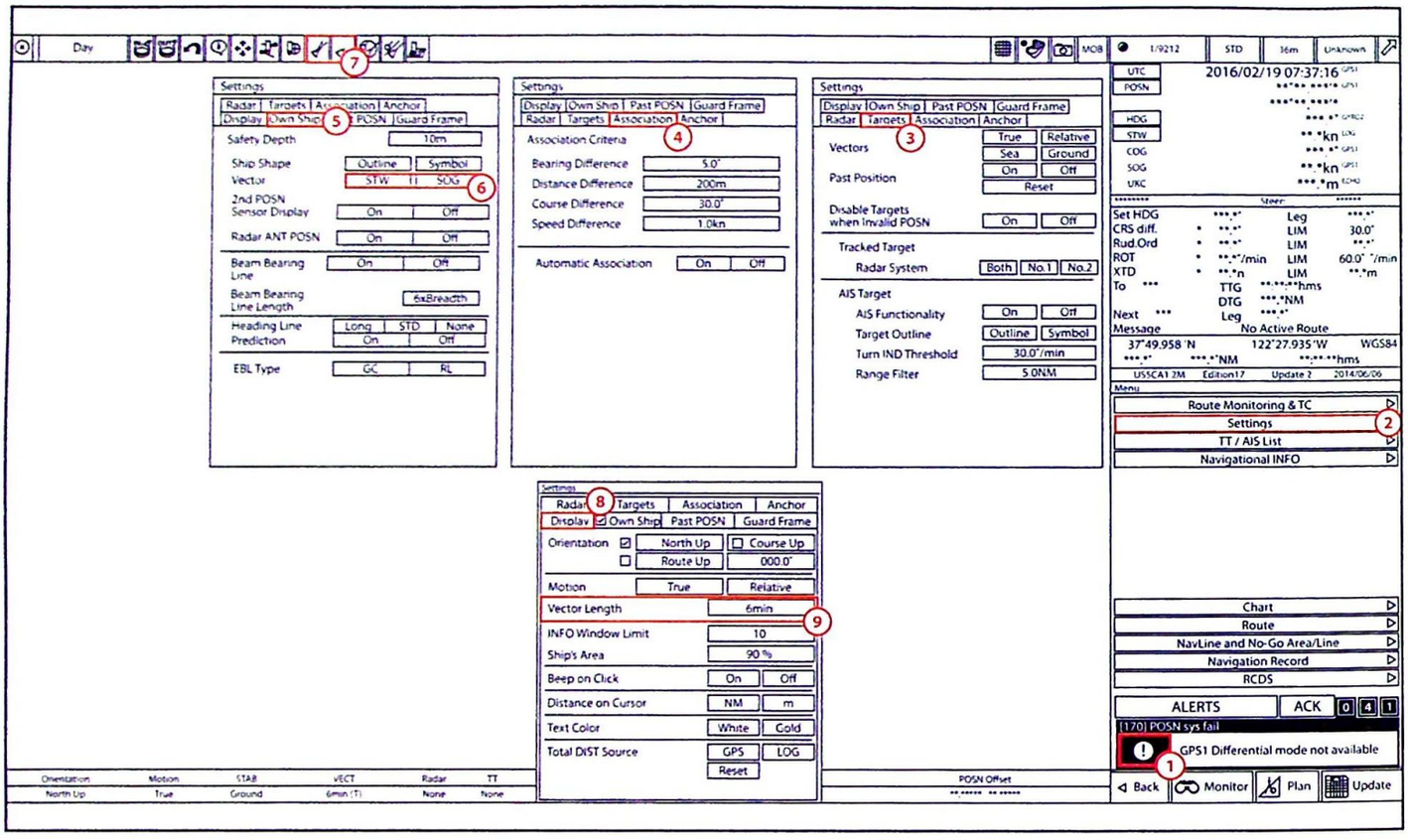
Section 5: Route Monitoring

5.1 **Look-Ahead**



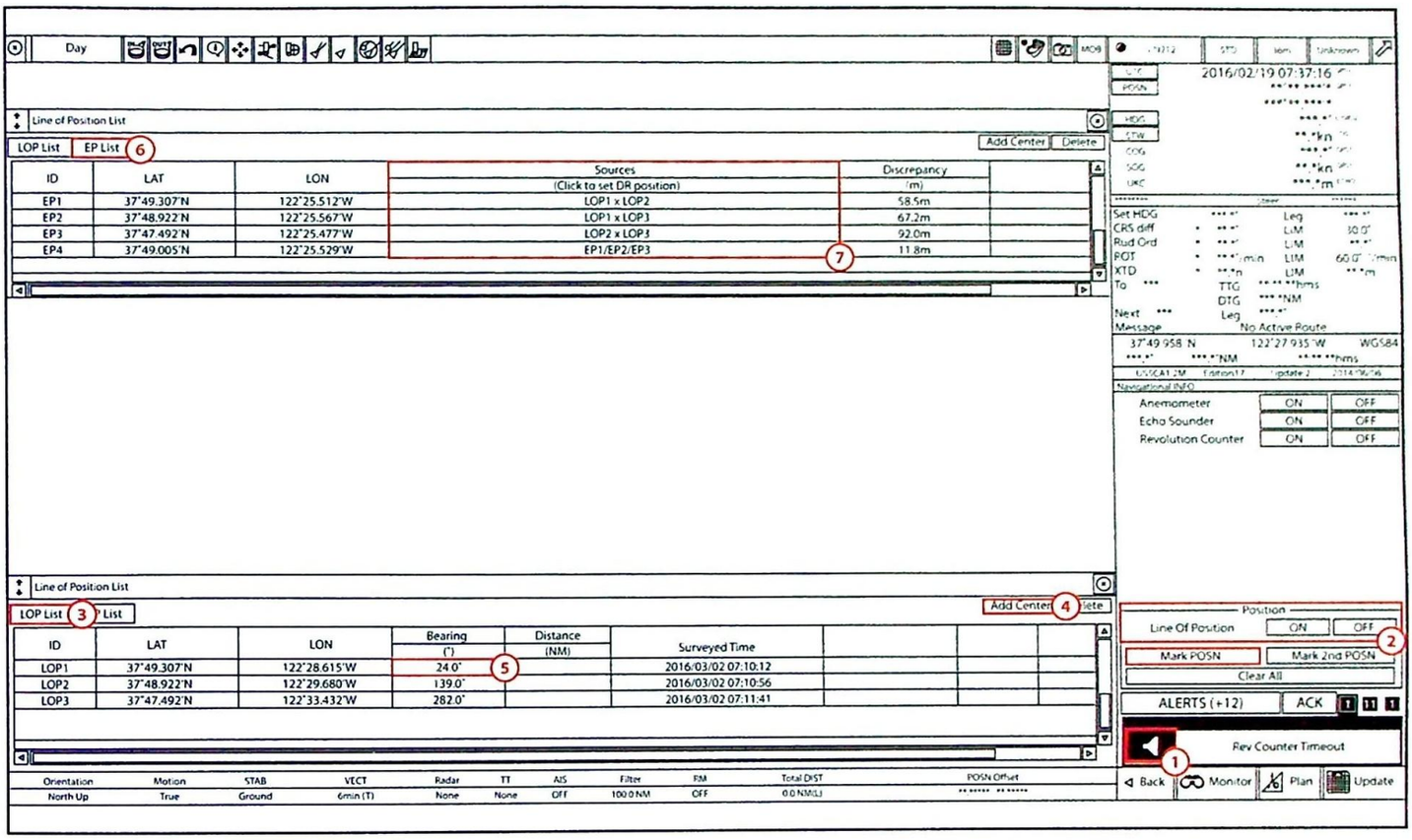
1. Select 'Monitor'.
2. Select 'Settings'.
3. Select 'Guard Frame'.
4. Turn guard frame on/off.
5. Set up guard frame, as required.

5.2 TT/AIS/Vectors



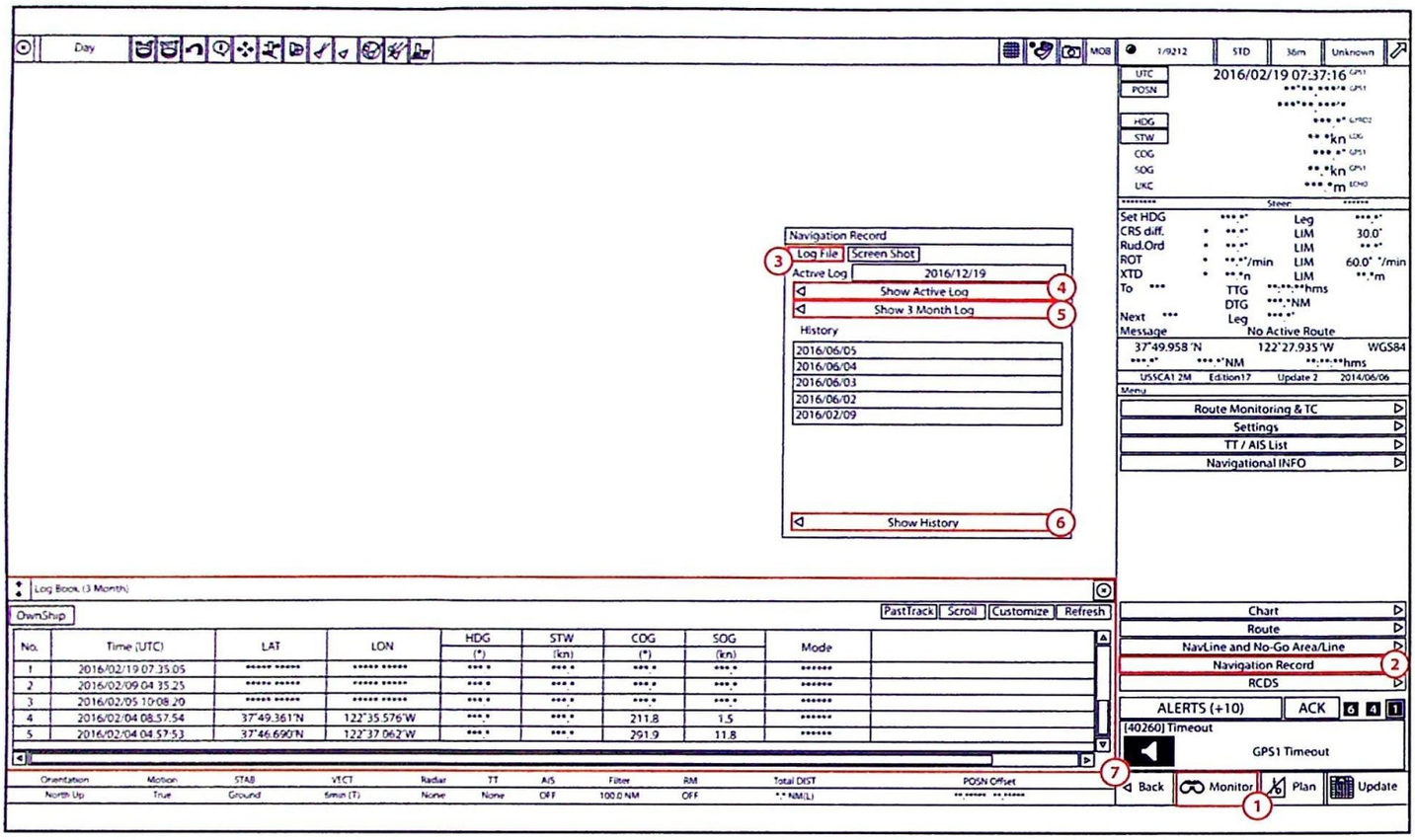
1. Select 'Monitor'.
2. Select 'Settings'.
3. Select 'Targets' tab. Configure, as required.
4. Select 'Association'. Configure target association, as required.
5. Select 'Own Ship'.
6. Change vector 'STW/SOG'.
7. Activate/deactivate AIS targets.
8. Select 'Display' tab.
9. Set vector length, as required.

5.3 Position Fixing



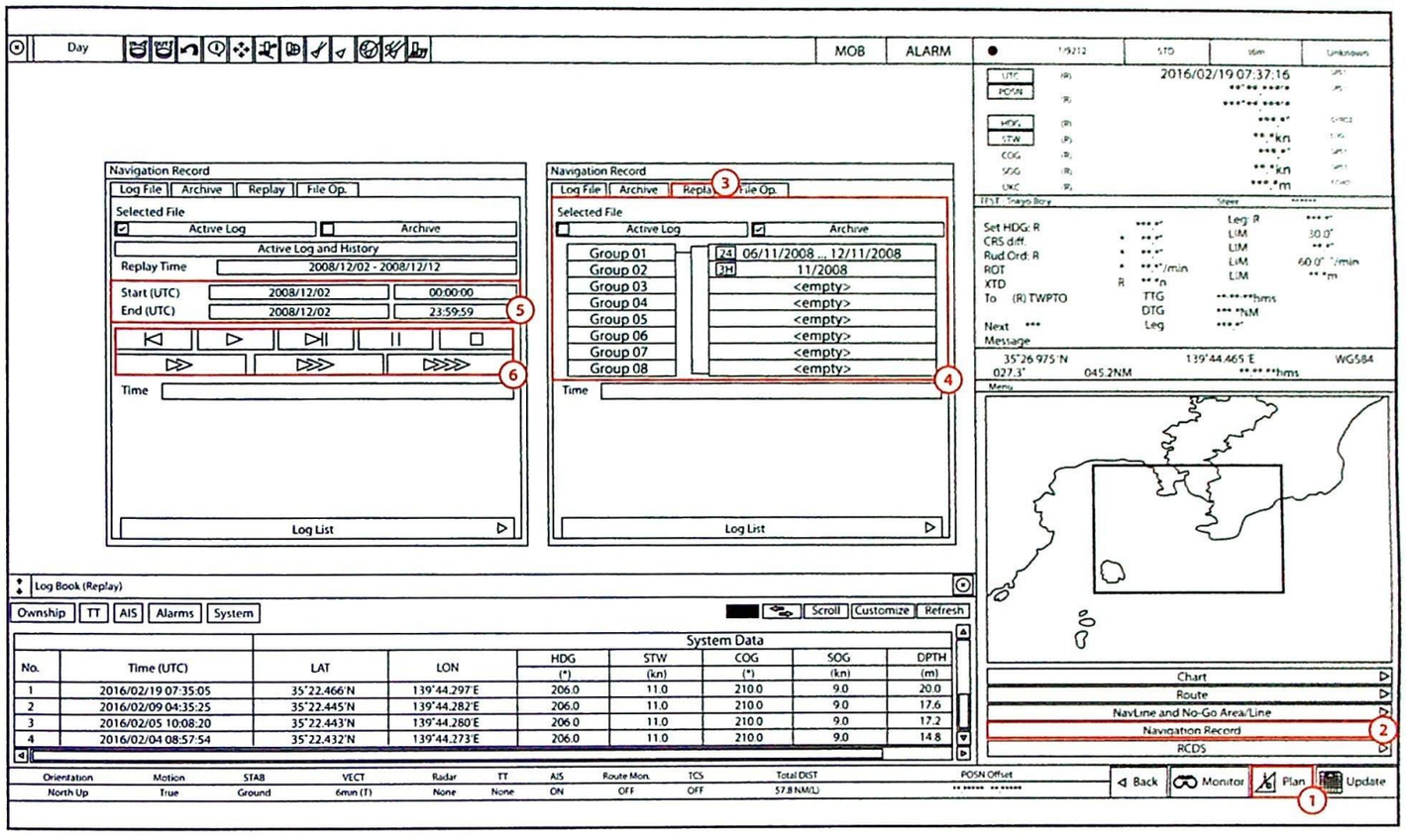
1. Select 'Monitor' and then 'Navigational INFO'.
2. Select 'ON' from the 'Line Of Position' menu.
3. Select 'LOP List'.
4. Select 'Add Center'.
5. Add bearing/distance from your own ship position.
   a. Repeat steps 4 and 5 two more times to get three LOPs.
6. Select 'EP List'.
7. Select the position most suitable for own ship position.
8. Select 'Mark POSN'.

5.4 Logs/Playback Part 1



1. Select 'Monitor'.
2. Select 'Navigation Record'.
3. Select 'Log File'.
4. Select 'Show Active Log' to show today's log.
5. Select 'Show 3 Month Log' to show a 3 month log.
6. Select 'Show History'.
7. Example of 3 month log book.

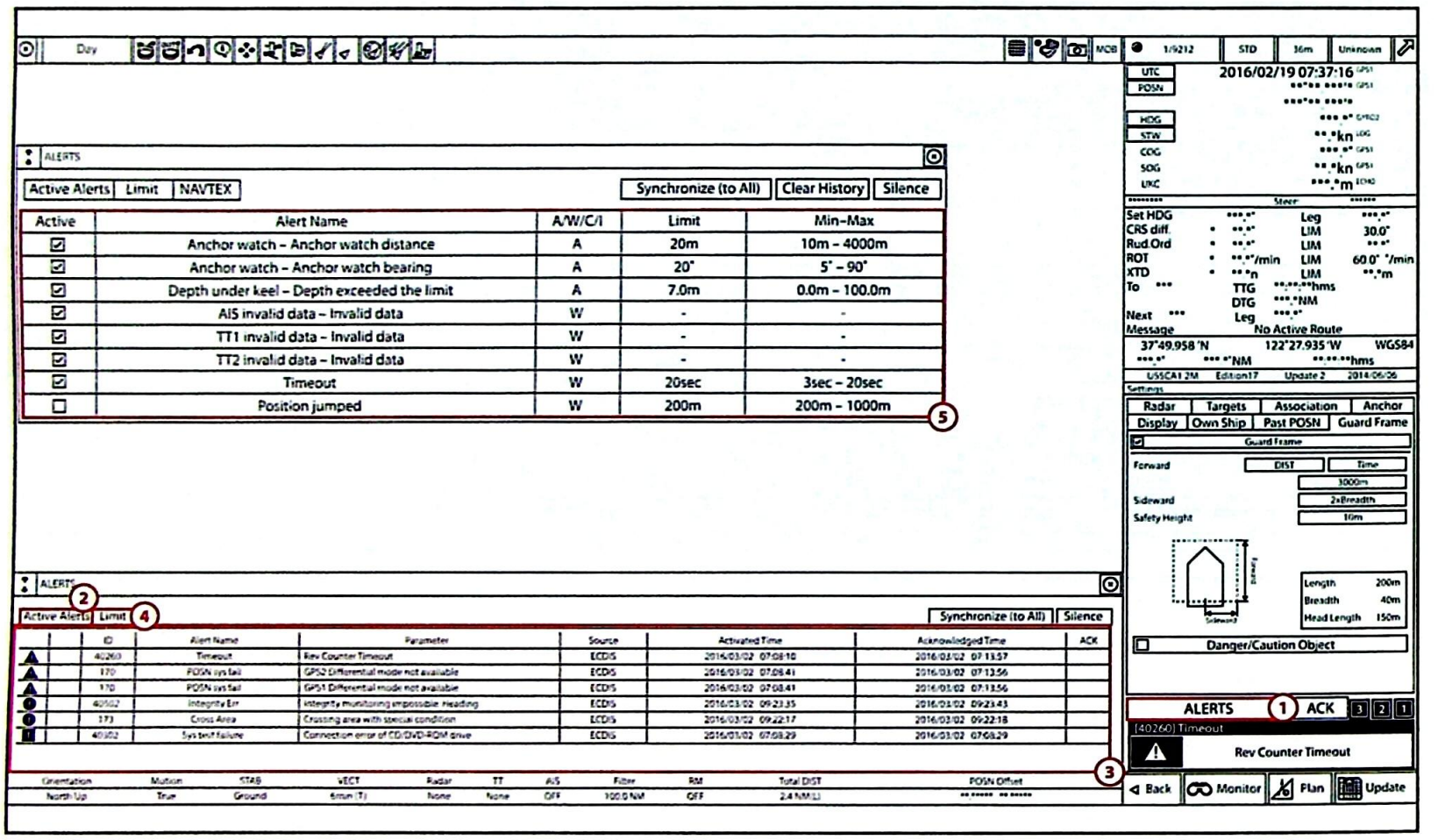
5.4 Logs/Playback Part 2



1. Select 'Plan'.
2. Select 'Navigation Record'.
3. Select 'Replay' tab.
4. Select the log you would like to play back.
5. Select 'Start' and 'End' date.
6. Use 'Playback Panel' to control playback speed.

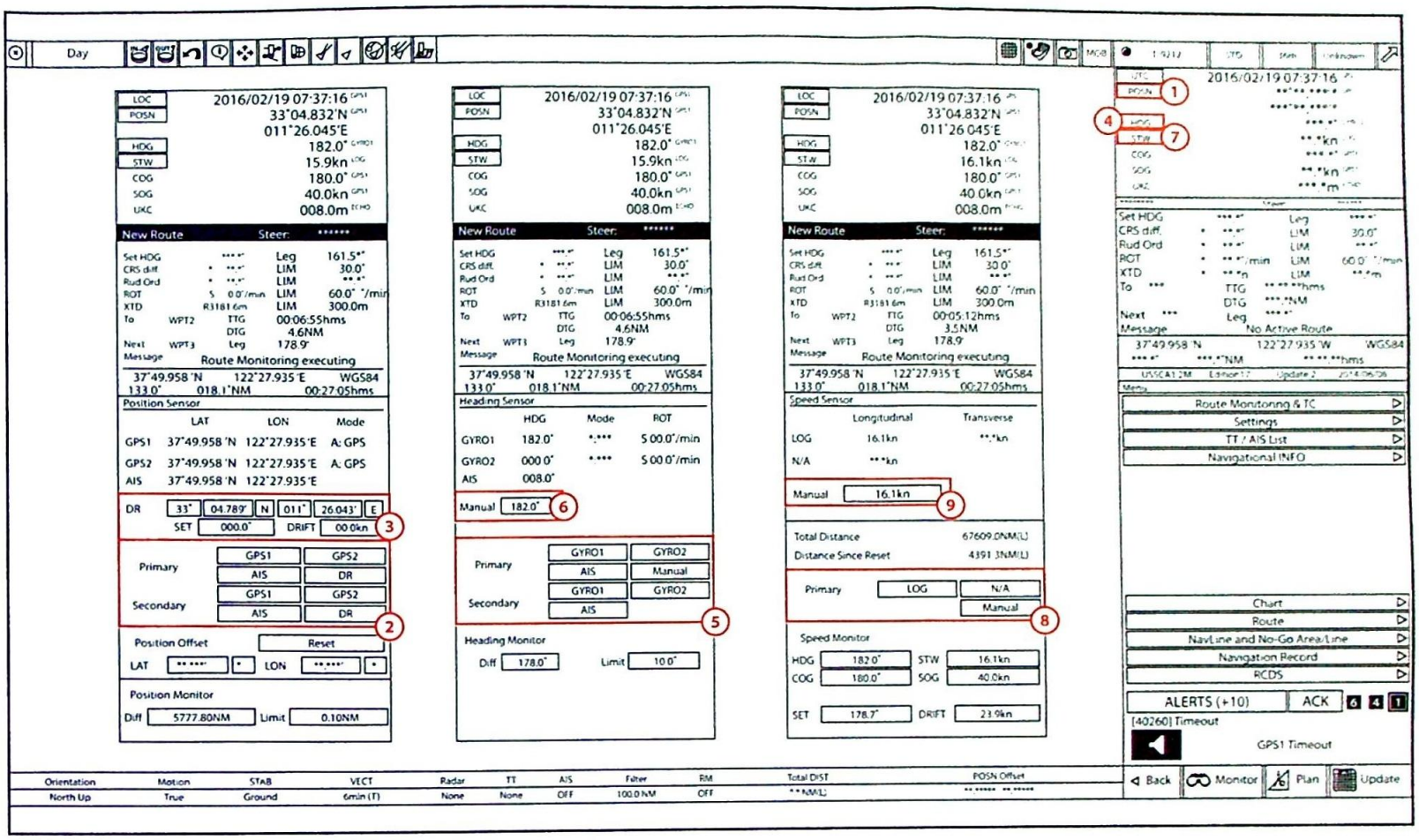
Section 6: System Settings

6.1 Warning/Alarm Configuration



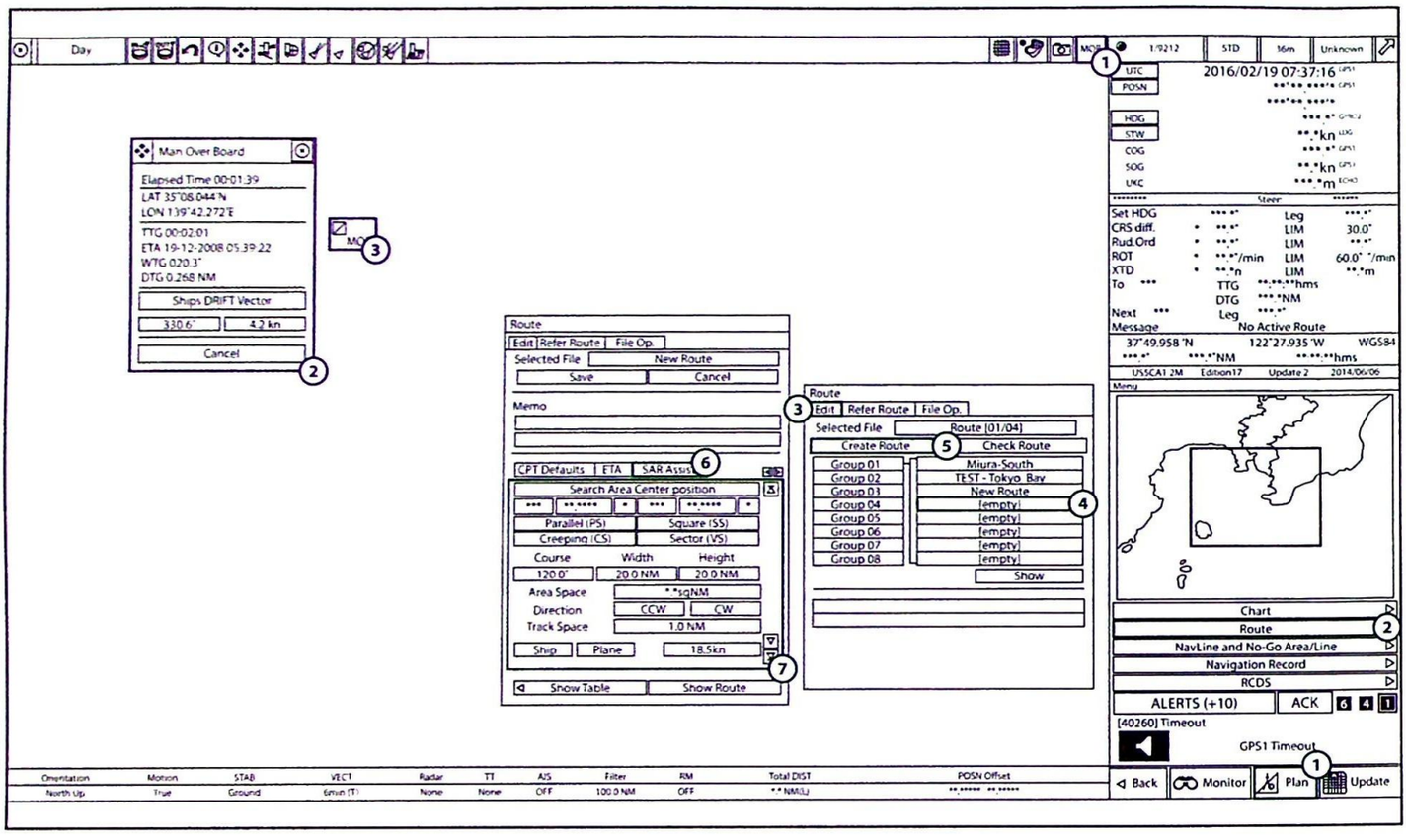
1. Select 'ALERTS' to view the alerts window.
2. Select 'Active Alerts'.
3. Example of alerts.
4. Select 'Limit'.
5. Configure limits, as necessary.

6.2 Position/Heading/Speed



1. Select 'POSN' to open position sensor information.
2. Position sensor settings.
3. If 'DR' is selected, enter position.
4. Select 'HDG' to open heading sensor information.
5. Heading sensor settings.
6. If 'Manual' is selected, enter heading.
7. Select 'STW' to open speed sensor information.
8. Speed sensor settings.
9. If 'Manual' is selected, enter speed.

6.3 Emergency Menus

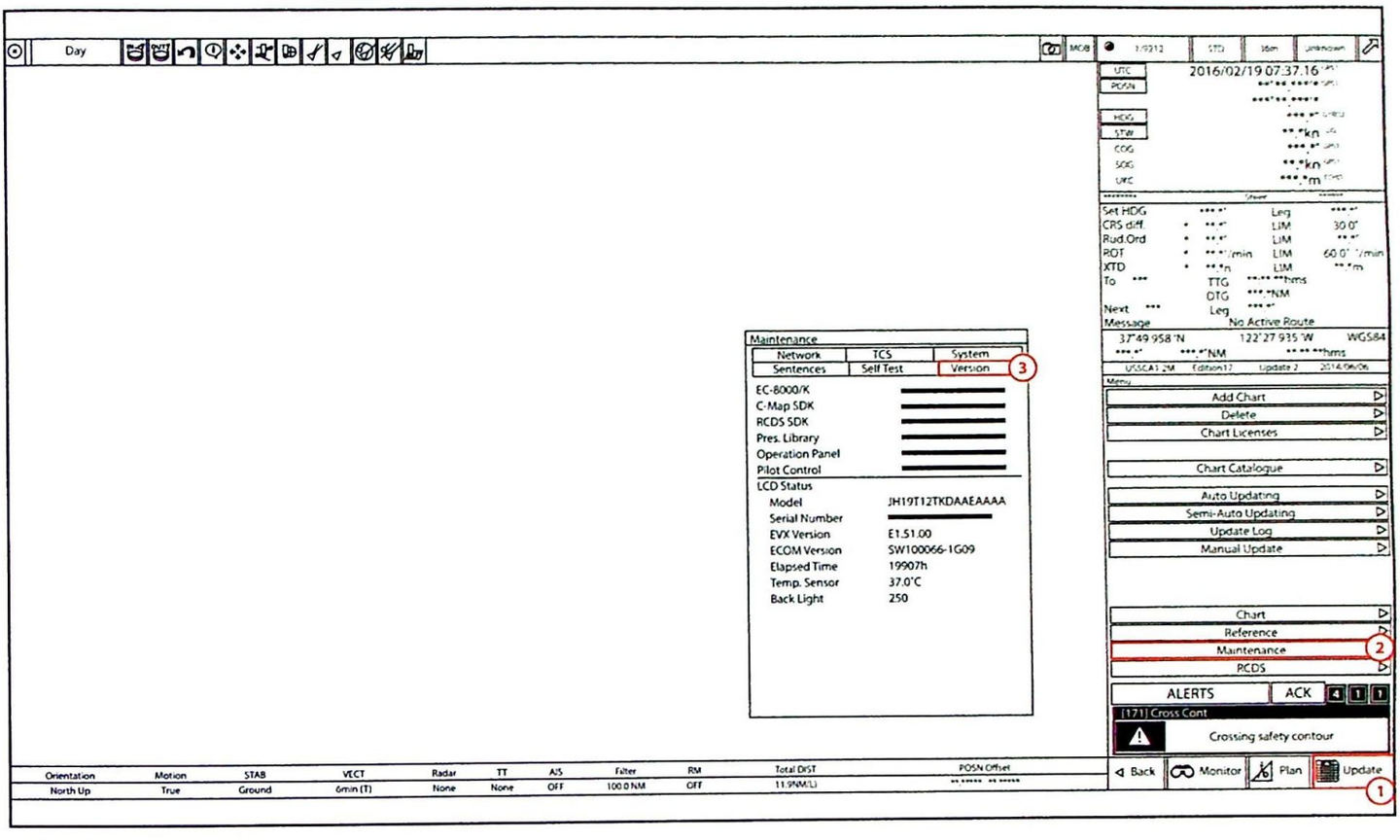


1. Select 'MOB'.
2. Man Over Board information window.
3. Example of an MOB marker.

1. Ensure 'Plan' mode is selected.
2. Select 'Route'.
3. Select 'Edit'.
4. Select empty group.

5. Select 'Create Route'.
6. Select 'SAR Assist'.
7. Configure the search parameters and select 'Apply'.

6.4 Manual/About



1. Select 'Update'.
2. Select 'Maintenance'.
3. Select 'Version' tab and review information in the version window.

19. Totem ECDIS – Familiarisation Checklist (Page 1 of 2)

1.	**Company ECDIS Procedures** Review company documentation for ECDIS procedures and complete the below ECDIS Type Specific Familiarisation checklist.			
2.	**Chart Display** Become familiar with the basic chart functionality from the main display.			
	Basic Menu Line			
		Mode		Std Disp
		View		Brightness
		Range/Scale Field		Tree
		Set Centre		Navigation Data Line
		VRM		
3.	**Navigational Tools** Operate all basic navigational functions and vessel setting options contained within the ECDIS for use of navigation.			
	Main Menu			
		Tools		Mariner Objects
		Toolbar		
4.	**Chart Display Settings** Operate all chart display settings, become familiar with object layers, ENC symbology and define the vessel's safe water settings. Identify where all chart updates are managed in the system.			
	View			
		Presentation Parameters		Show Soundings (ON/OFF)
		Show Scale Boundaries (ON/OFF)		Safety Contour (m)
5.	**Route Planning** Operate all route planning functions and obtain all relevant schedule information for passage planning and route monitoring purposes.			
	Route Planning			
		Default Measurement Type		Disable RTE MSGs from GPS (ON/OFF)
		Reached Waypoint Criteria		Automatically add new waypoints to library (ON/OFF)
		Pre Run Distance (Meters)		Visual Route Information
		Default Route Values		Planned Position Interval
		Import route/WPT from GPS		
	New Route			
6.	**Route Monitoring** Operate the variety of voyage data functions for route monitoring to display and obtain relevant information for navigation and the ship's safety.			
	Setup			
		Targets		Serial Devices
		Own Ship		COLREGs
		Past Track		Charts and Navigation
		Lost Target Alarm (ON/OFF)		Highlight Danger Objects in Guard Zone (ON/OFF)
		Show Active AIS Track (ON/OFF)		Display Past Track (ON/OFF)
		Vector Stabilization		
7.	**Chart Updating** The operator should know how to update electronic charts and be thoroughly aware of their responsibilities concerning updating. It is a legal requirement that charts are maintained in an up-to-date condition.			
		Manual Updates		Chart Catalog
		S63 Manager (AVCS/Primar)		Database In View
		Generate User Permit		

Totem ECDIS – Familiarisation Checklist (Page 2 of 2)

8.	**System/Local Sensors** Identify where the operator can select or deselect all sensors connected to the ECDIS and verify the vessel's particulars.			
	Sensor Settings			
		System Sensors		2nd Position Sensor
		Set Gyro		Speed Sensor
		Position Sensor		Date/Time
9.	**System Alerts** Identify the ECDIS system's category of Alarms and Prompts generated by the operator and by the ECDIS system.			
	Main Menu			
		Targets		Alarms
10.	**System Units** Become familiar with the system's logbook, records, data storage and configuration set up.			
	System			
		Setup		
11.	**ECDIS Operator's Manual** Locate the system's operator's user guide for referencing and help.			
	Help			

20. Wärtsilä SAM MULTIPILOT NACOS Platinum/ECDISPILOT NACOS Platinum – Familiarisation Checklist (Page 1 of 2)

1.	**Company ECDIS Procedures** Review company documentation for ECDIS procedures and complete the below ECDIS Type Specific Familiarisation checklist.			
2.	**Chart Display** Become familiar with the basic chart functionality from the main display.			
	Main Chart Display			
		Title Bar		Menu Bar
		Navigation Sidebar		Settings Menu
		Top Alert Line		Context Menus
		Tools Sidebar		
3.	**Navigational Tools** Operate all basic navigational functions and vessel setting options contained within the ECDIS for use of navigation.			
	Navigation Sidebar			
		Display		Anchor Watch
		Course Up		EBL and VRM
		True Motion		LOP
		Heading and Speed		MOB Drift
		Position WGS-84		Pilotage
		Vector and Trials		User Symbols
		Charts		Routes
		ENC		Targets
		Targets		
		Fusion		
	Tools Sidebar			
		AIS		
		Display		
4.	**Chart Display Settings** Operate all chart display settings, become familiar with object layers, ENC symbology and define the vessel's safe water settings. Identify where all chart updates are managed in the system.			
	Presentation			
		Chart		Own Ship
		Spot soundings (deep) (ON/OFF)		Past Track (ON/OFF)
		Advanced		True Scaled Outline (ON/OFF)
		Accuracy Symbols		Route
		Scale Dependent		Target
		Date Dependent Display Features		ARPA (ON/OFF)
		Depth Contour		True Motion
		ECDIS Hazards		User Symbols
		Show navigation hazards ahead on chart (ON/OFF)		
5.	**Route Planning** Operate all route planning functions and obtain all relevant schedule information for passage planning and route monitoring purposes.			
	Routes		**Presentation**	
		Route Explorer		Route
		Voyage Monitoring		

Wärtsilä SAM MULTIPILOT NACOS Platinum/ECDISPILOT NACOS Platinum – Familiarisation Checklist (Page 2 of 2)

6. **Route Monitoring**

Operate the variety of voyage data functions for route monitoring to display and obtain relevant information for navigation and the ship's safety.

Presentation		**Tools Sidebar**	
	Own Ship		AIS
	Past Track (ON/OFF)		Alarms
	Route		Display
	Show Wheel Over (ON/OFF)		Navigation Tools
	Target		Routes
	True Motion		Targets
	True Motion Reset		
Navigation Sidebar			
	Display		
	Vector and Trails		
	Targets		

7. **Chart Updating**

The operator should know how to update electronic charts and be thoroughly aware of their responsibilities concerning updating. It is a legal requirement that charts are maintained in an up-to-date condition.

Super Home			
	Maintenance		
	Nautical Charts		

8. **System Sensors**

Identify where the operator can select or deselect all sensors connected to the ECDIS and verify the vessel's particulars.

Sensors			
	Draught		Position
	Heading		Depth
	STW		Sensor Priorities
	SOG		

9. **System Alerts**

Identify the ECDIS system's category of Alarms and Prompts generated by the operator and by the ECDIS system.

Top Alert Line		**Settings Menu**	
	Silence		Depth Alerts
	ACK		ECDIS Alerts
	Alerts		Navigation hazard ahead caution (ON/OFF)
	Cautions		Look Ahead Sector
			Show on chart (ON/OFF)
			Guard Zones
			Targets

10. **System Units**

Become familiar with the system's logbook, records, data storage and configuration set up.

Menu Bar			
	ECDIS		About
	Conning		Screen Snapshot
	VDR		Super Home
	Maintenance		Favourite
	Service		Man Over Board

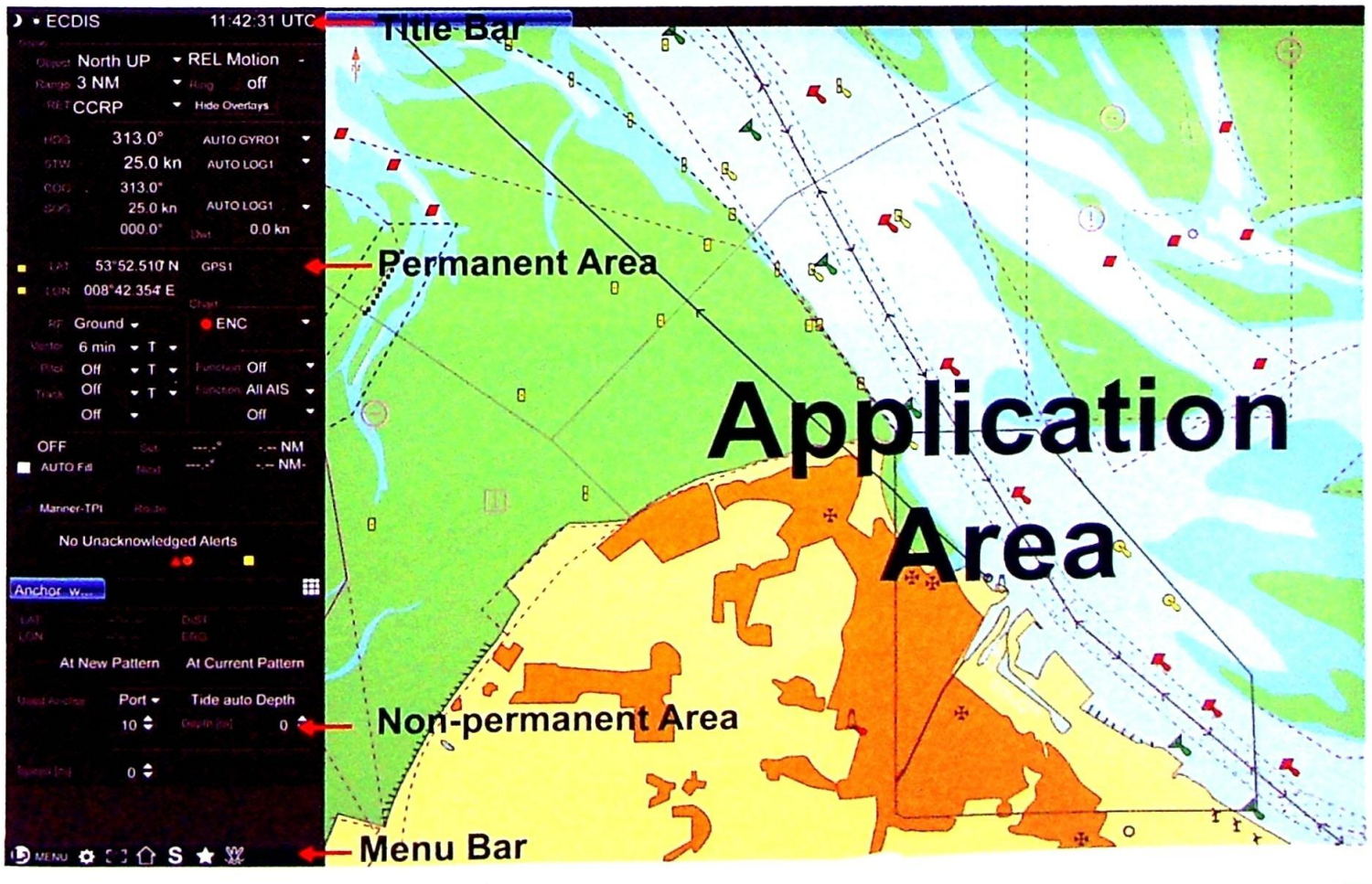
11. **ECDIS Operator's Manual**

Locate the system's operator's user guide for referencing and help.

Super Home			
	Take the Tour		Read Documentation

Wärtsilä SAM MULTIPILOT NACOS Platinum/ECDISPILOT NACOS Platinum

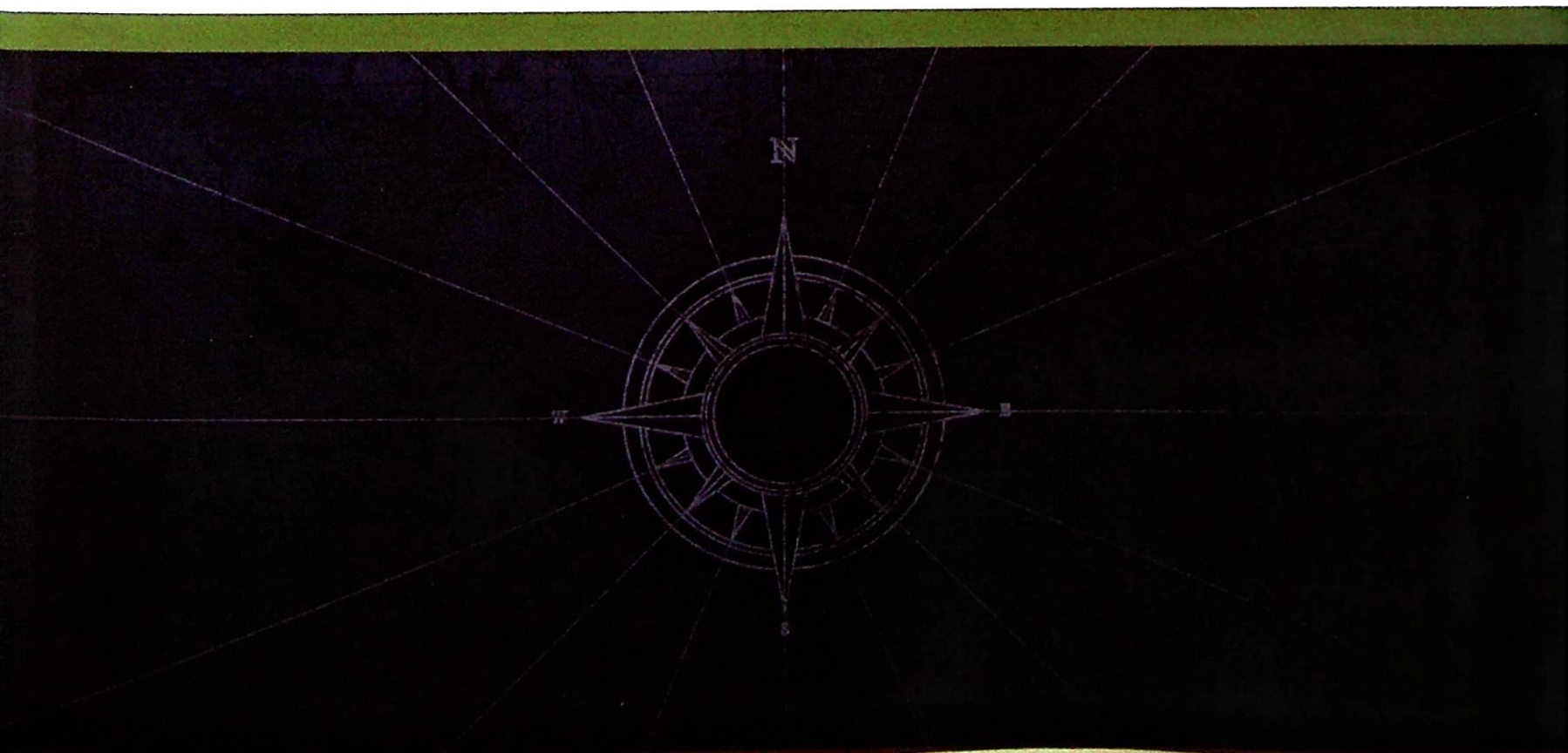
Key Wärtsilä SAM MULTIPILOT NACOS Platinum/ECDISPILOT NACOS Platinum ECDIS Menu Functions		
1.	View list of installed Charts	**Super Home menu>Maintenance>Nautical Charts or Data Base**
2.	View the latest update number installed	**Right click in application area>Chart Information**
3.	Change Chart Settings	**Settings>Chart**
4.	View information on charted objects and view additional text	**Right click>Chart Information**
5.	Set the Safety Depth, Safety Contour, Shallow and Deep Contour	**Settings>Depth Contour**
6.	Input a User Symbol	**Tools>User Symbols**
7.	Input a Manual Update	**Super Home menu>Nautical Charts>select chart>Right click>Manual Update Editor**
8.	Turn EBL/VRM on	**Tools>EBL and VRM**
9.	Configure the Look-Ahead Sector	**Settings>ECDIS Alerts**
10.	Configure Ship's Track	**Sidebar>Permanent Area>Vector and Trails**
11.	Configure Velocity Vectors	**Sidebar>Permanent Area>Vector and Trails**
12.	View Logbook	**Super Home menu>Voyage Replay**
13.	Input a Visual or Radar Fix	**Right click>Create LOP**
14.	Configure Radar Image	**Menu>Info>Radar Image**
15.	View Alarm List	**Sidebar>Permanent Area>Alerts...**



A B C D E F G

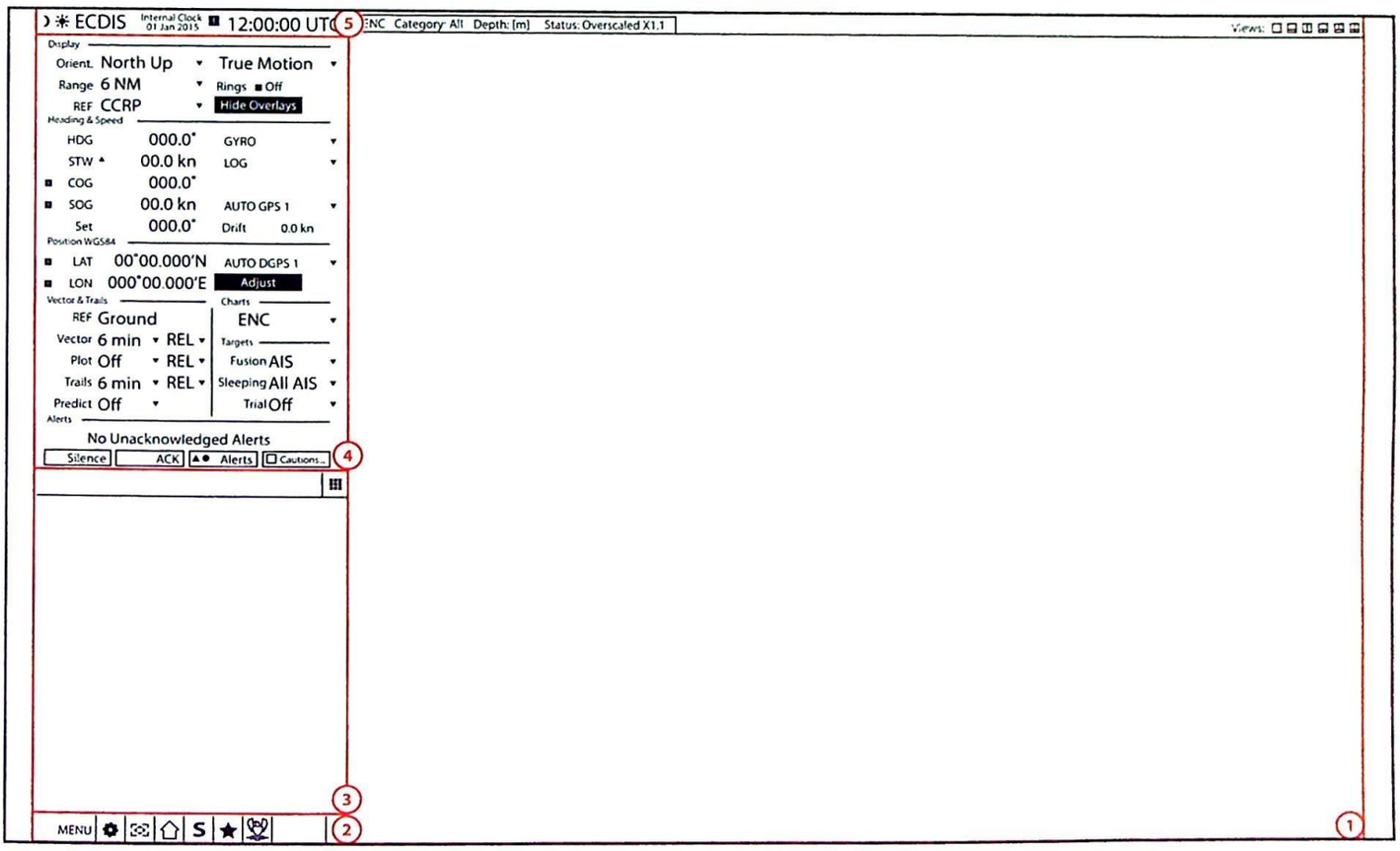
A – Menu
B – Settings Bar
C – Screen Snapshot
D – Super Home
E – S-Mode
F – Favourite Settings
G – Man Overboard Button

Wärtsilä SAM
MULTIPILOT NACOS Platinum
ECDISPILOT NACOS Platinum



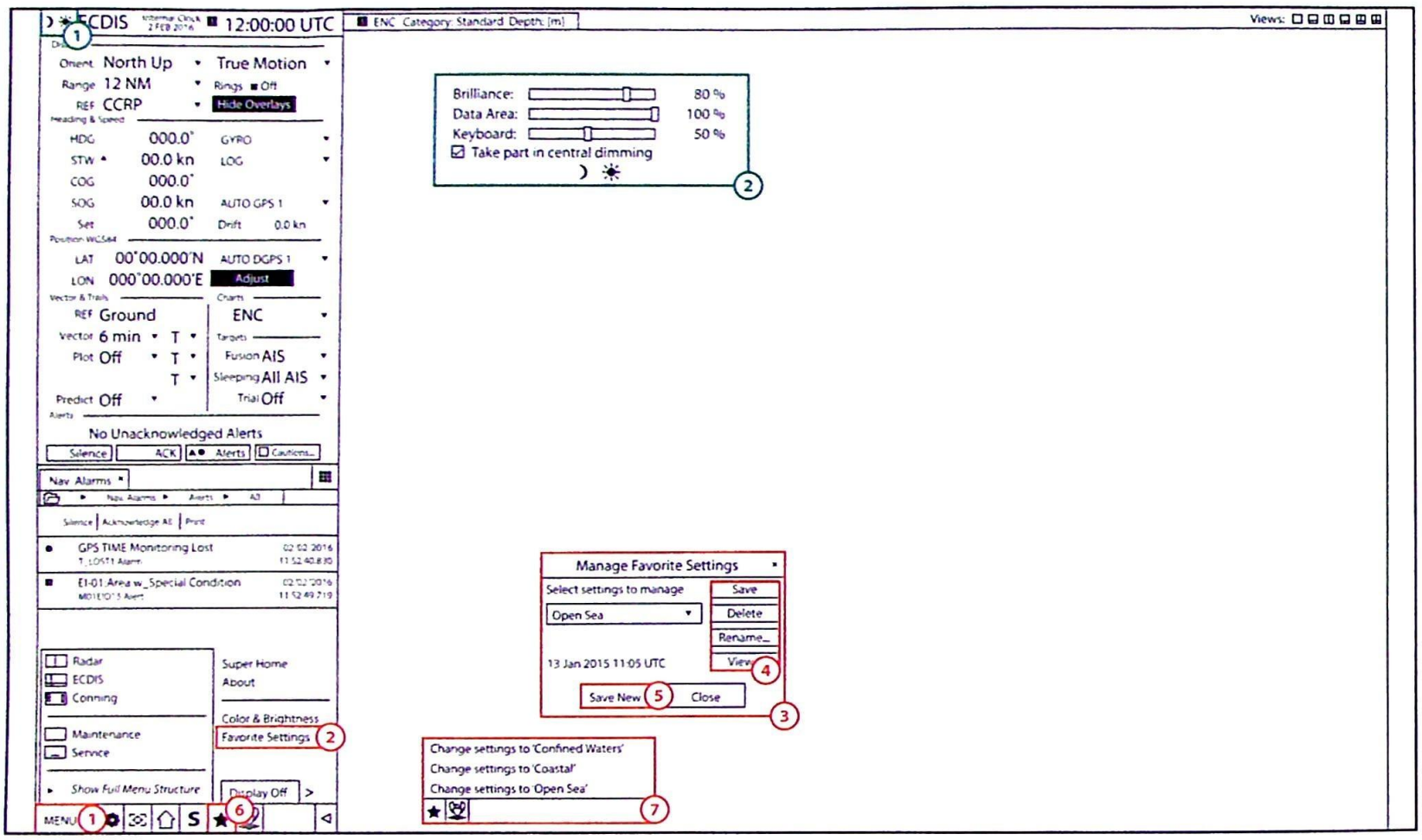
Section 1: Main Display

1.1 Screen Layout



1. Application area
2. Menu bar
3. Tools sidebar
4. Navigation sidebar
5. Title bar

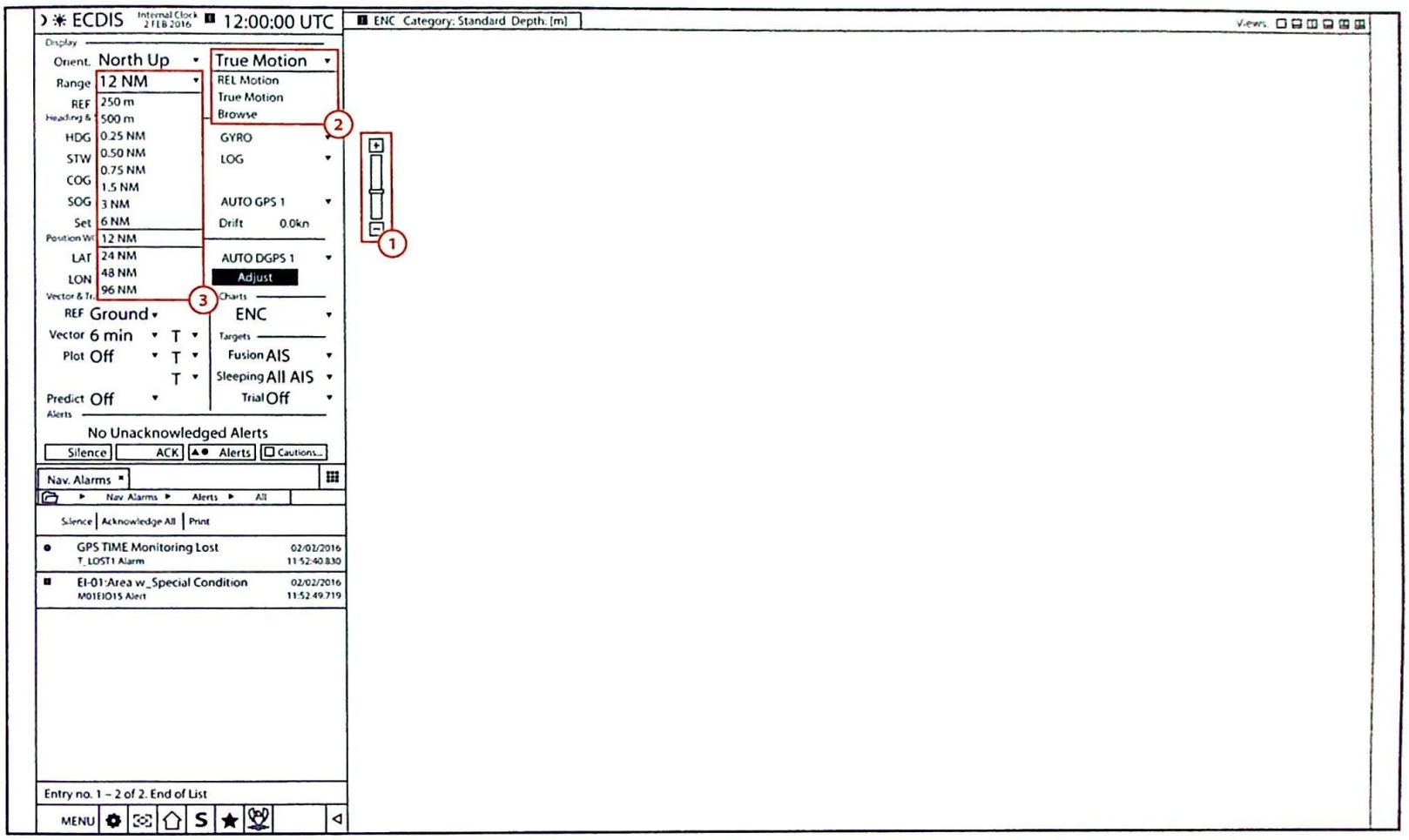
1.2 Colour Palette/Profiles



1. Click 'MENU' to reveal the main menu options.
2. Click 'Favorite Settings'.
3. The 'Manage Favorite Settings' window is displayed.
4. Edit existing settings using any of these options.
5. Click 'Save New...' to create a new favourite setting.
6. Click the star symbol to show all of your favourite settings.
7. Select one of your favourite settings from the list.

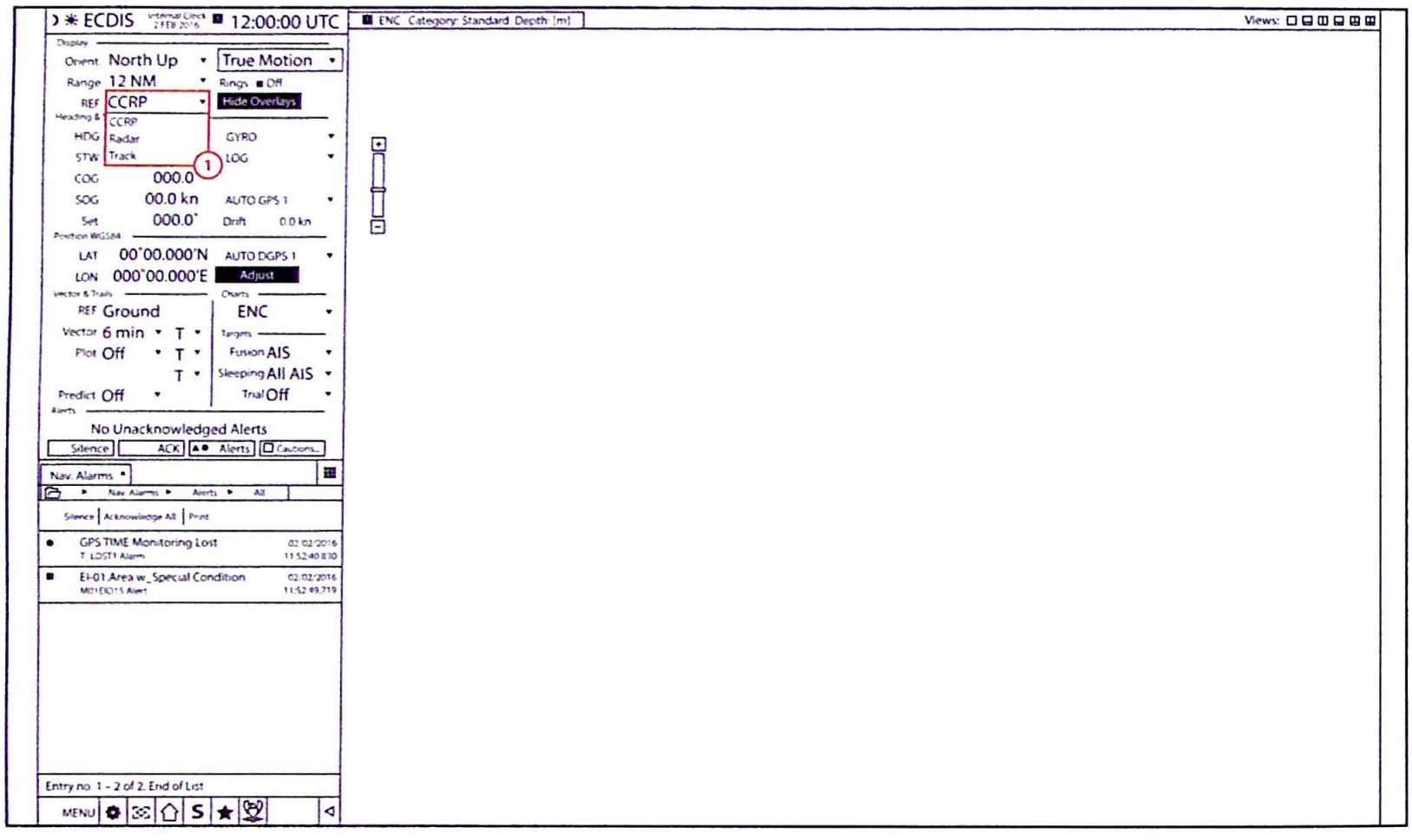
1. Left click on the moon/sun to switch between colour schemes, or right click to open the window in step 2.
2. Use the scroll bars to change settings and the colour scheme will adjust accordingly.

1.3 Range/Scale/Motion



1. Use the scale bar to zoom in and zoom out.
2. Click the dropdown to select 'True Motion' or 'Relative Motion'.
3. Click the dropdown to select a manual viewing range.

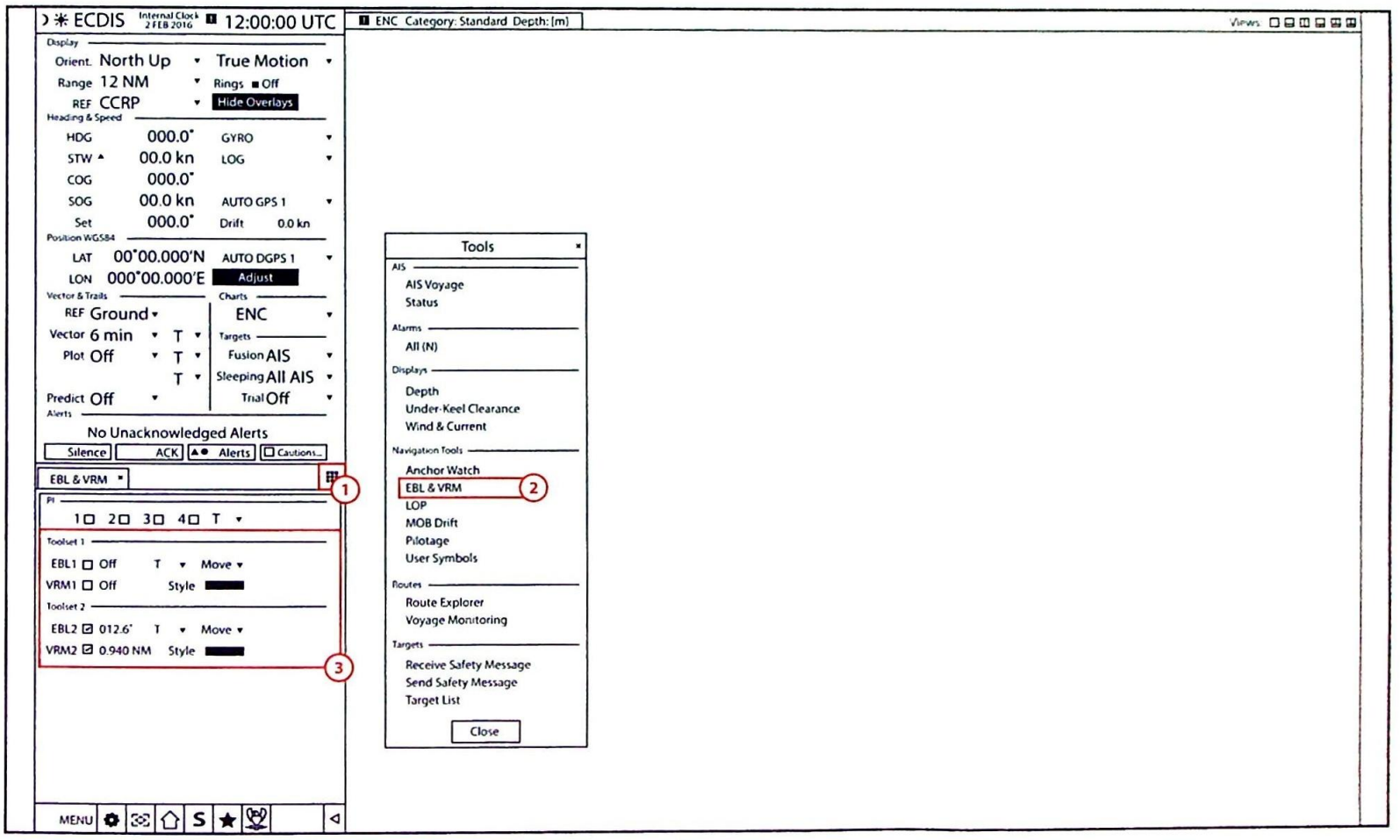
1.4 Setting CCRP



1. From the navigation sidebar, select 'REF' to choose the reference point on your ship that is used for calculation of the system data.

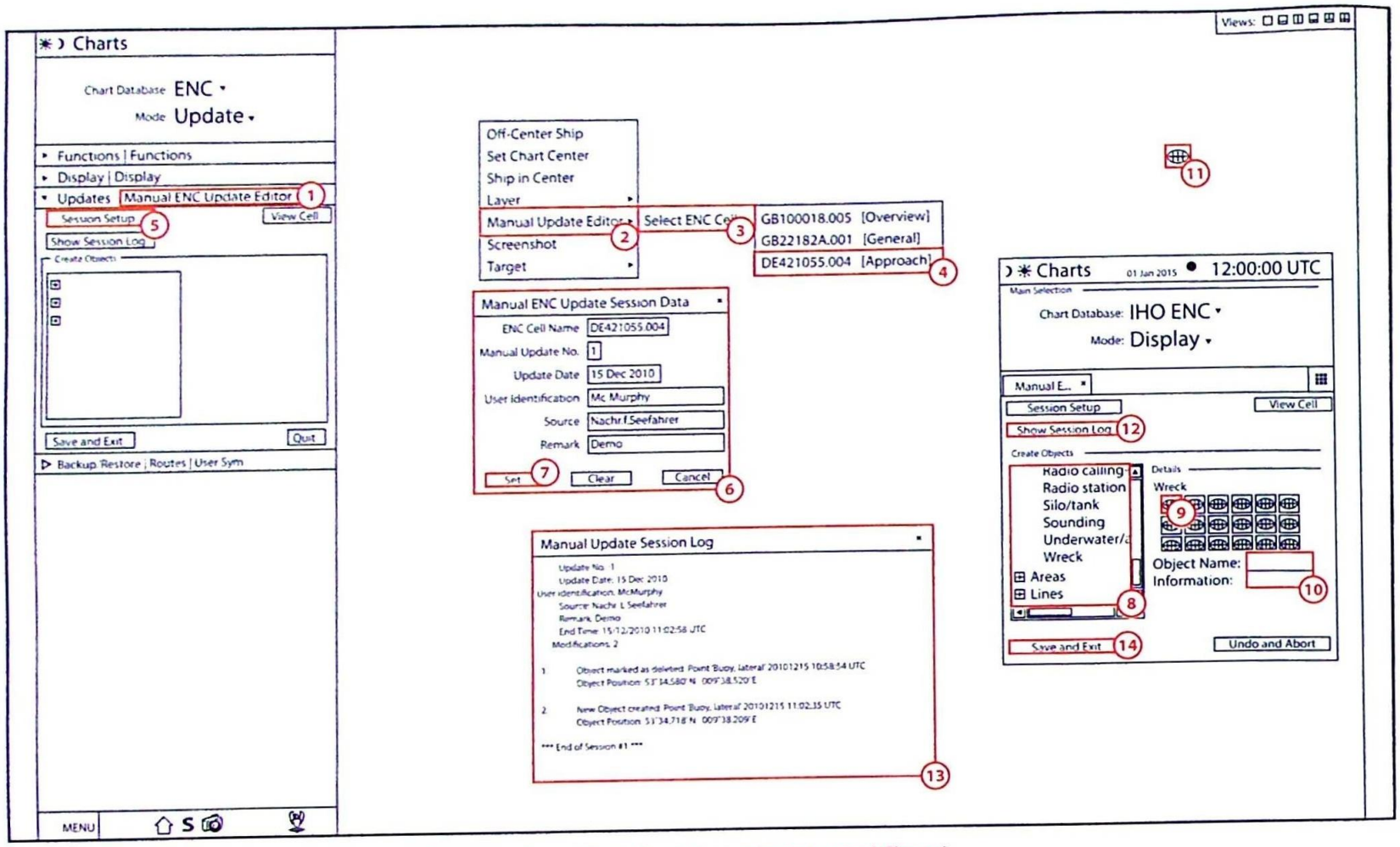
Section 2: Navigation Tools

2.1 **EBL/VRM/PI**



1. Click 'Tools'.
2. Click 'EBL & VRM'.
3. From the 'EBL & VRM' tab, enable EBL/VRMs as required.
   a. To adjust EBL/VRM, move the cursor onto the handle and move as required.

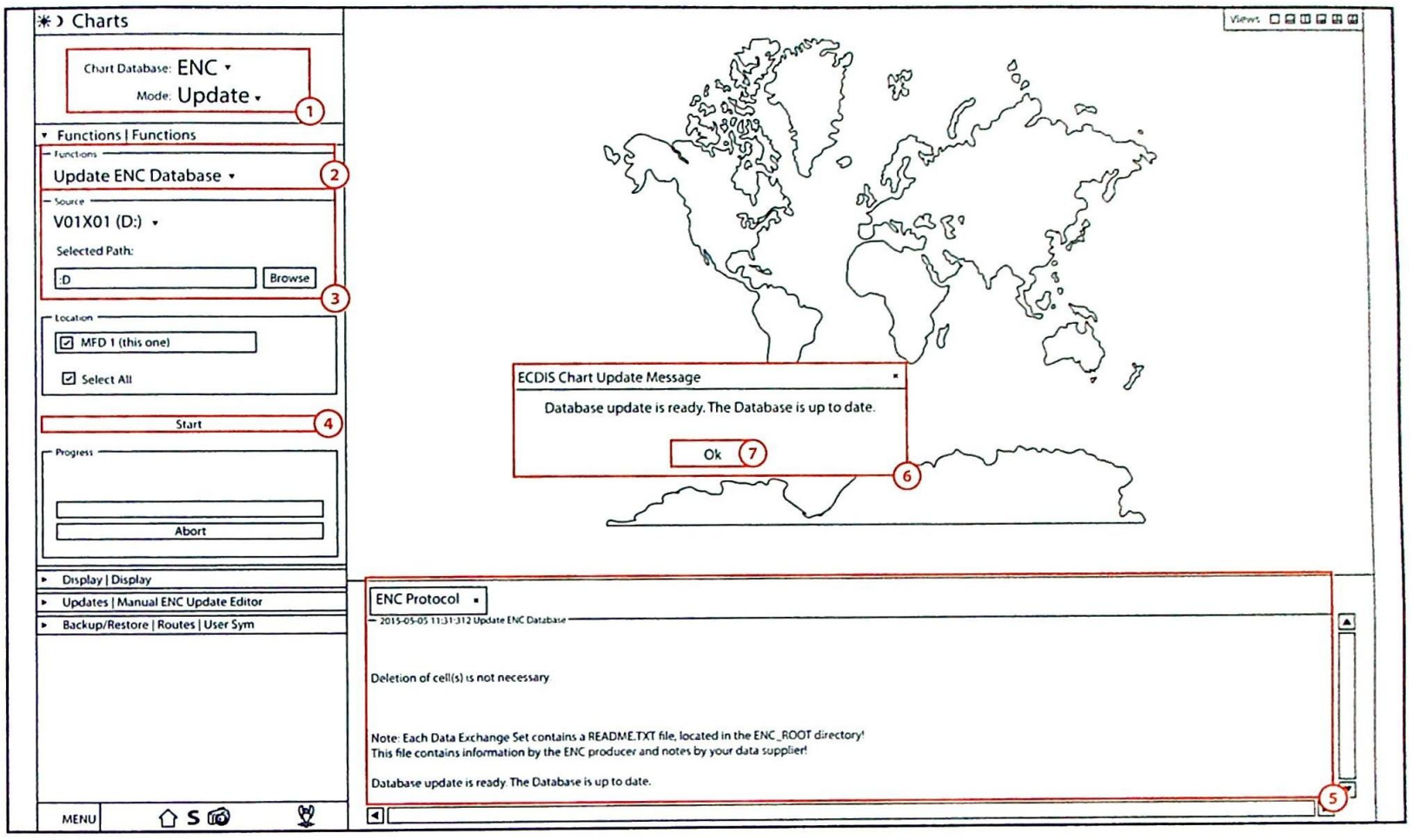
2.2 Manual Corrections



Note to user: To begin this process, you must first enter 'Super Home' and then select 'Nautical Charts'.

1. Select 'Manual ENC Update Editor' from the dropdown.
2. Zoom in on the required chart, right click to show the context menu and click 'Manual Update Editor'.
3. Click 'Select ENC Cell'.
4. Select the chart to which you would like to apply the manual update.
5. Click 'Session Setup'.
6. The 'Manual ENC Update Session Data' window will open, allowing you to configure your settings.
7. Click 'Set'.
8. Find/select the symbol you would like to insert onto the chart.
9. Select the type of symbol you would like to use.
10. Configure the symbol settings.
11. Place the symbol on the chart.
12. Click 'Show Session Log'.
13. A log of the changes made during the update session is displayed.
14. Click 'Save and Exit' to finish.

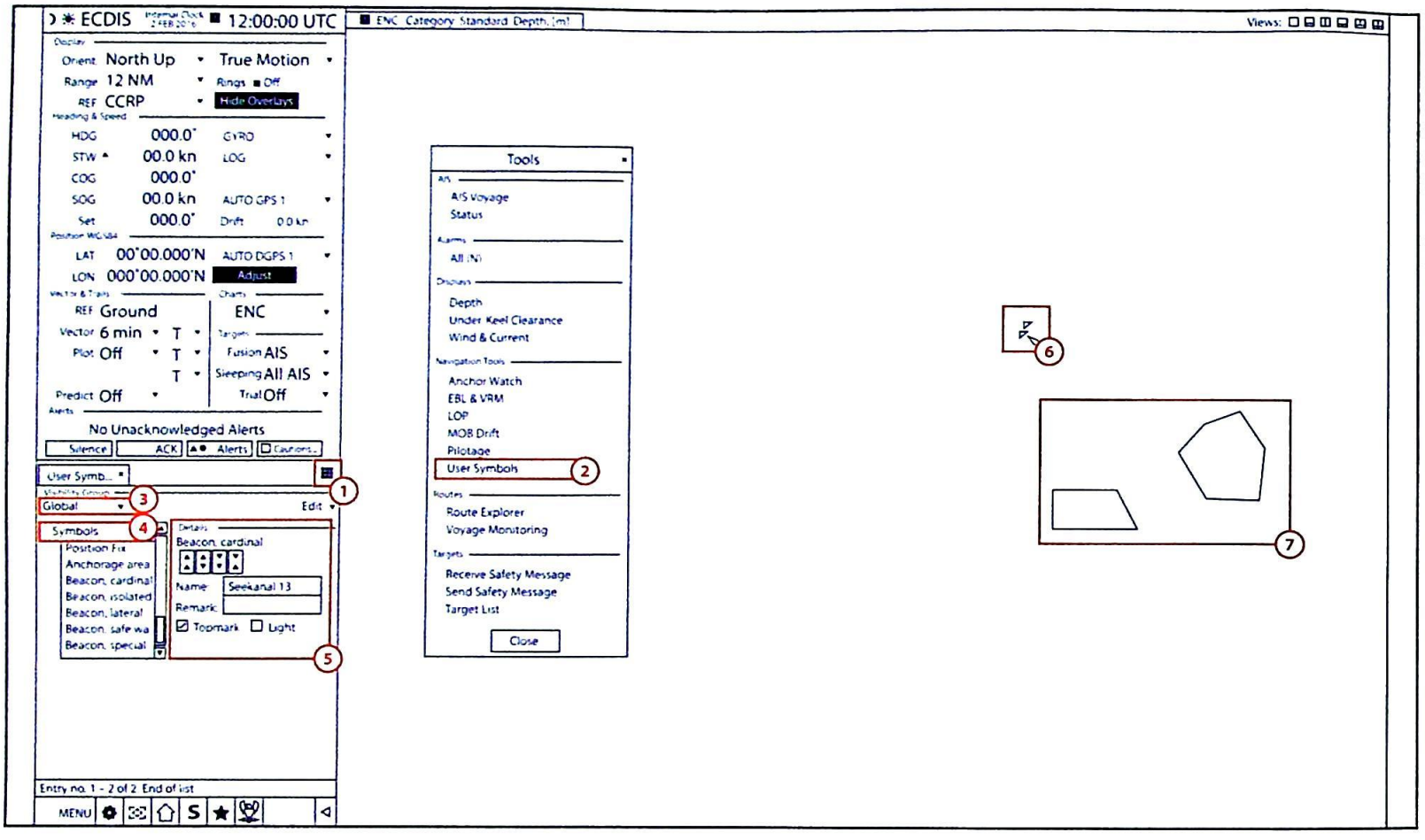
2.3 Chart Updates



Note to user: To begin this process, you must first enter 'Super Home' and then select 'Nautical Charts'.

1. Select 'ENC' from the Chart Database dropdown and 'Update' from the Mode dropdown.
2. Select 'Update ENC Database' from the Functions dropdown.
3. Select the Source.
4. Click 'Start'.
5. The 'ENC Protocol' box will show progress of the updates.
6. Once updates have finished, the 'ECDIS Chart Update Message' will appear.
7. Click 'Ok'.

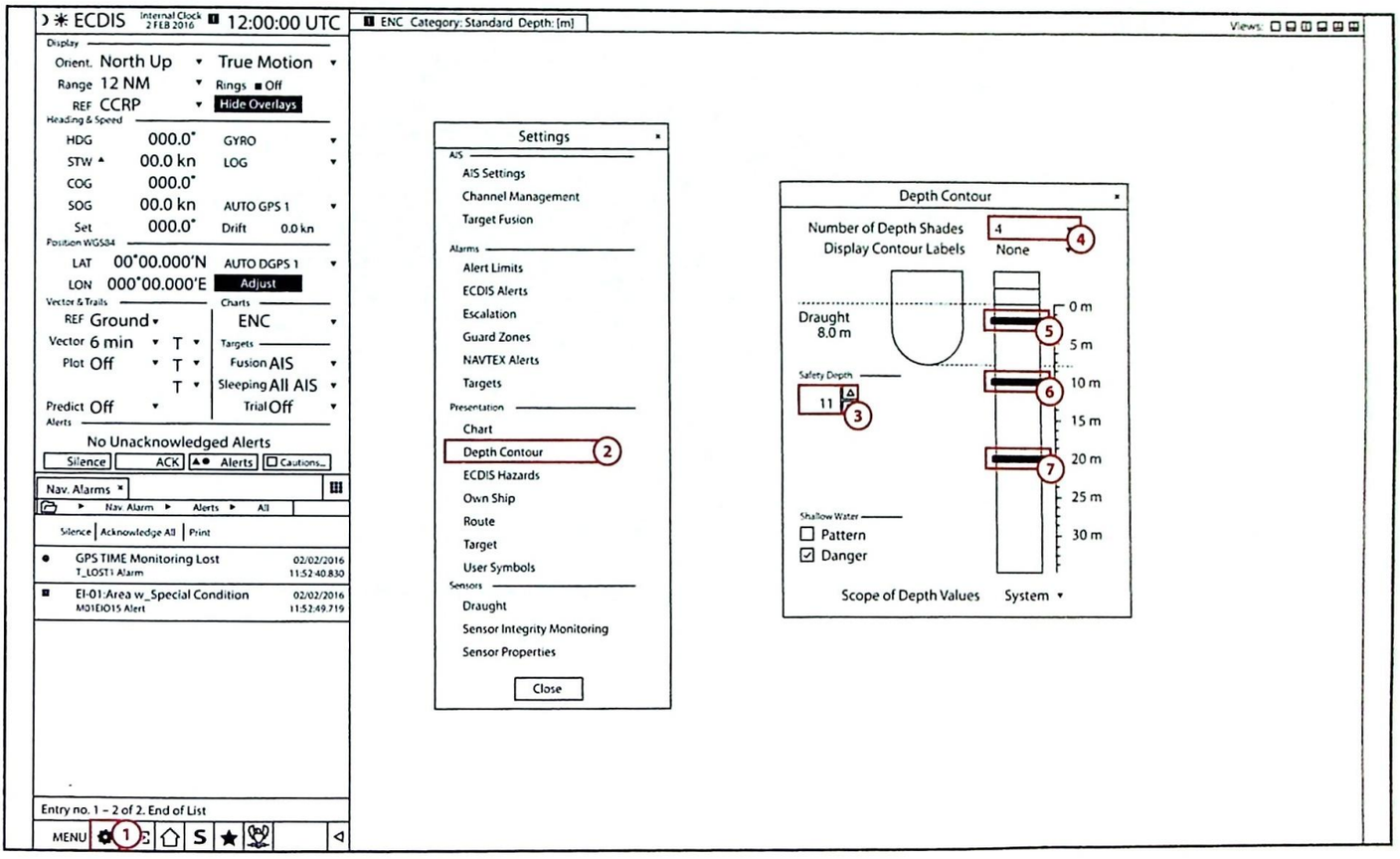
2.4 No Go Areas/User Charts



1. Click to open the 'Tools' menu.
2. Select 'User Symbols'.
3. Select a 'Visibility Group'.
4. Select the type of symbol you would like to use from the list, ie:
   a. Symbols
   b. Areas
   c. Lines
   d. Events/text
5. Select any additional settings you would like to add to your symbol.
6. Place the symbol onto the chart.
7. Example of area symbols.

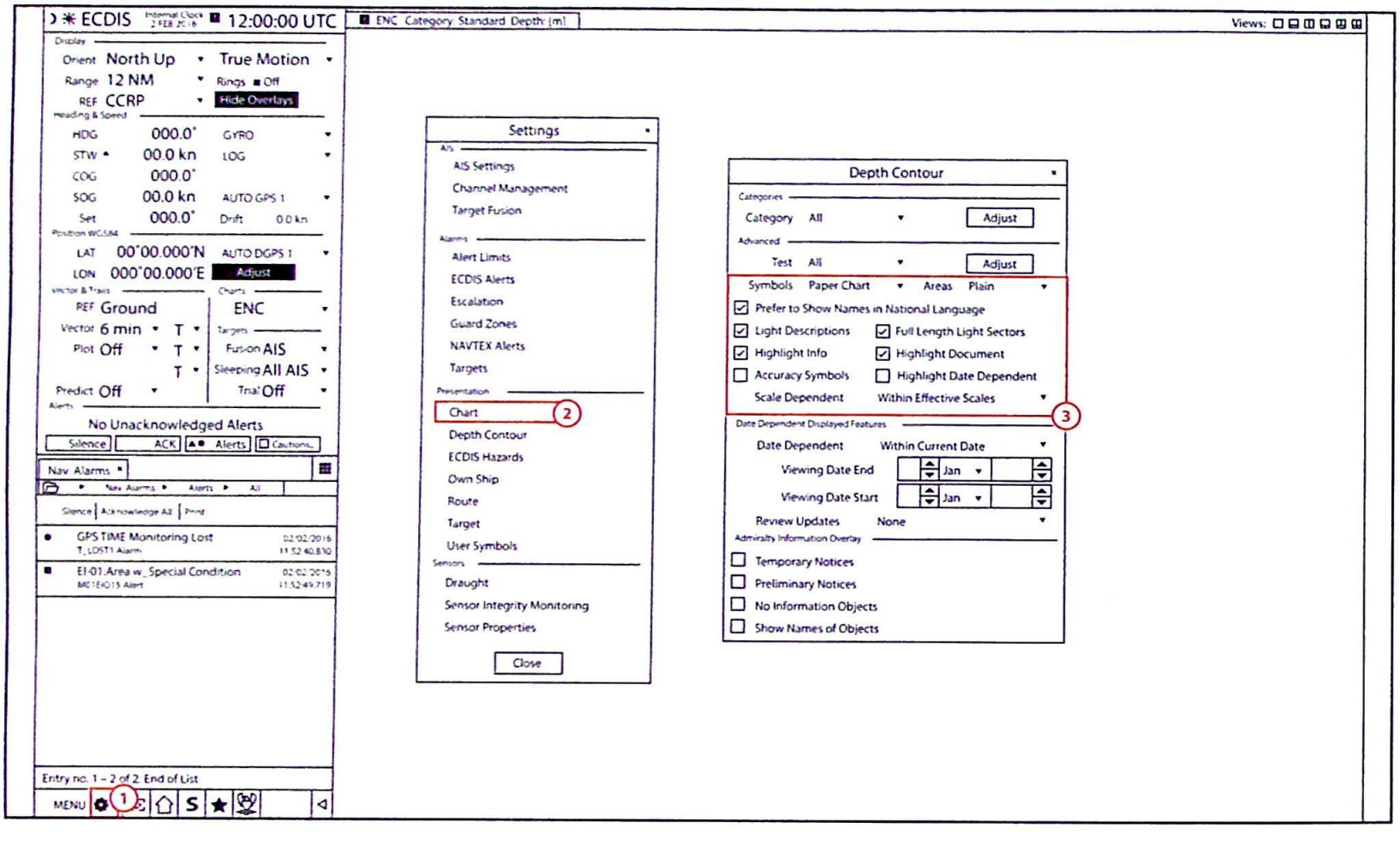
Section 3: Chart Display Settings

3.1 **Safety Depth/Contour**



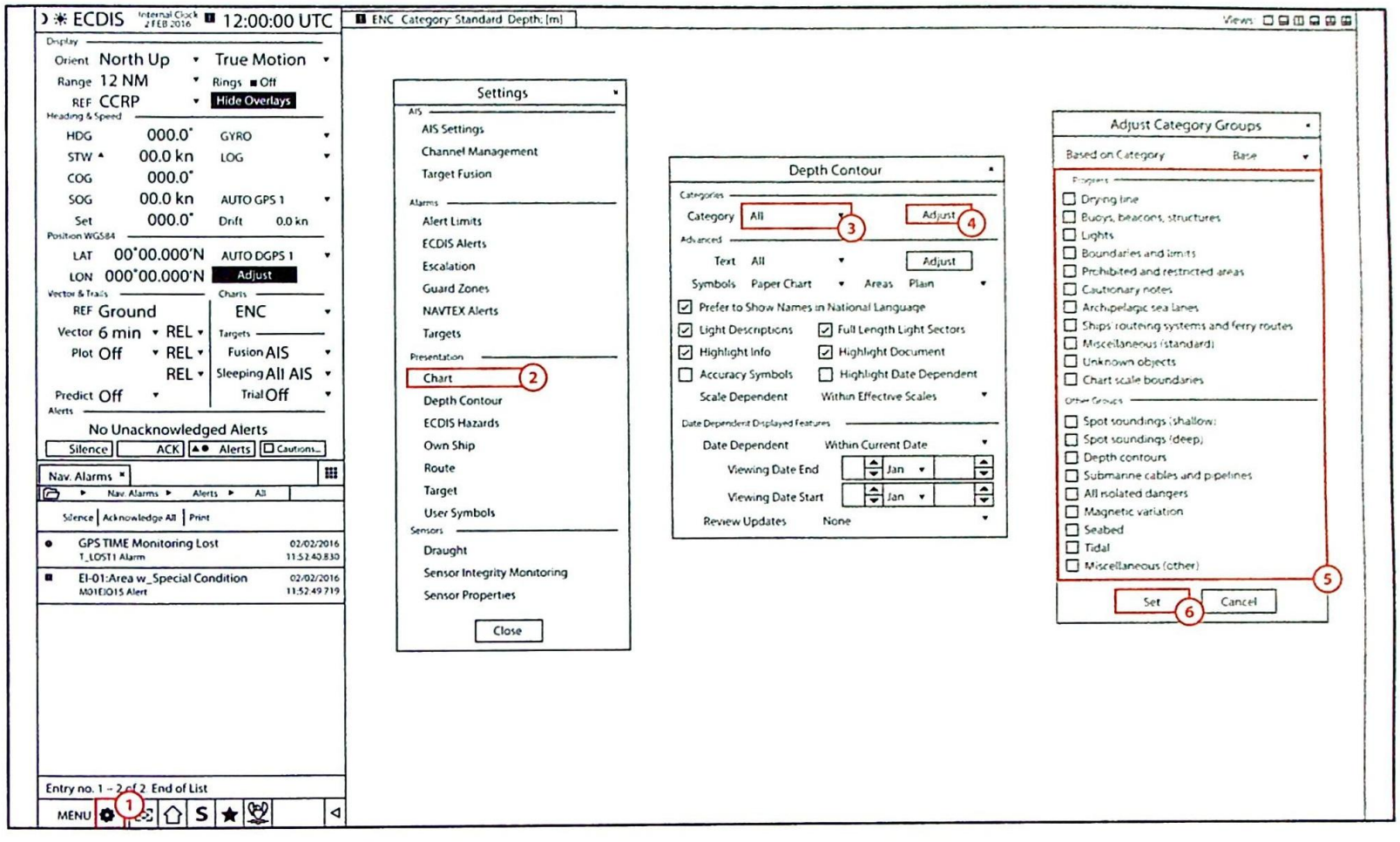
1. Click the settings icon.
2. Click 'Depth Contour'.
3. Set a Safety Depth.
4. Select 4 shades or 2 shades from the dropdown.
5. Set your Shallow Contour.
6. Set your Safety Contour.
7. Set your Deep Contour.

3.2 Display Preference Options



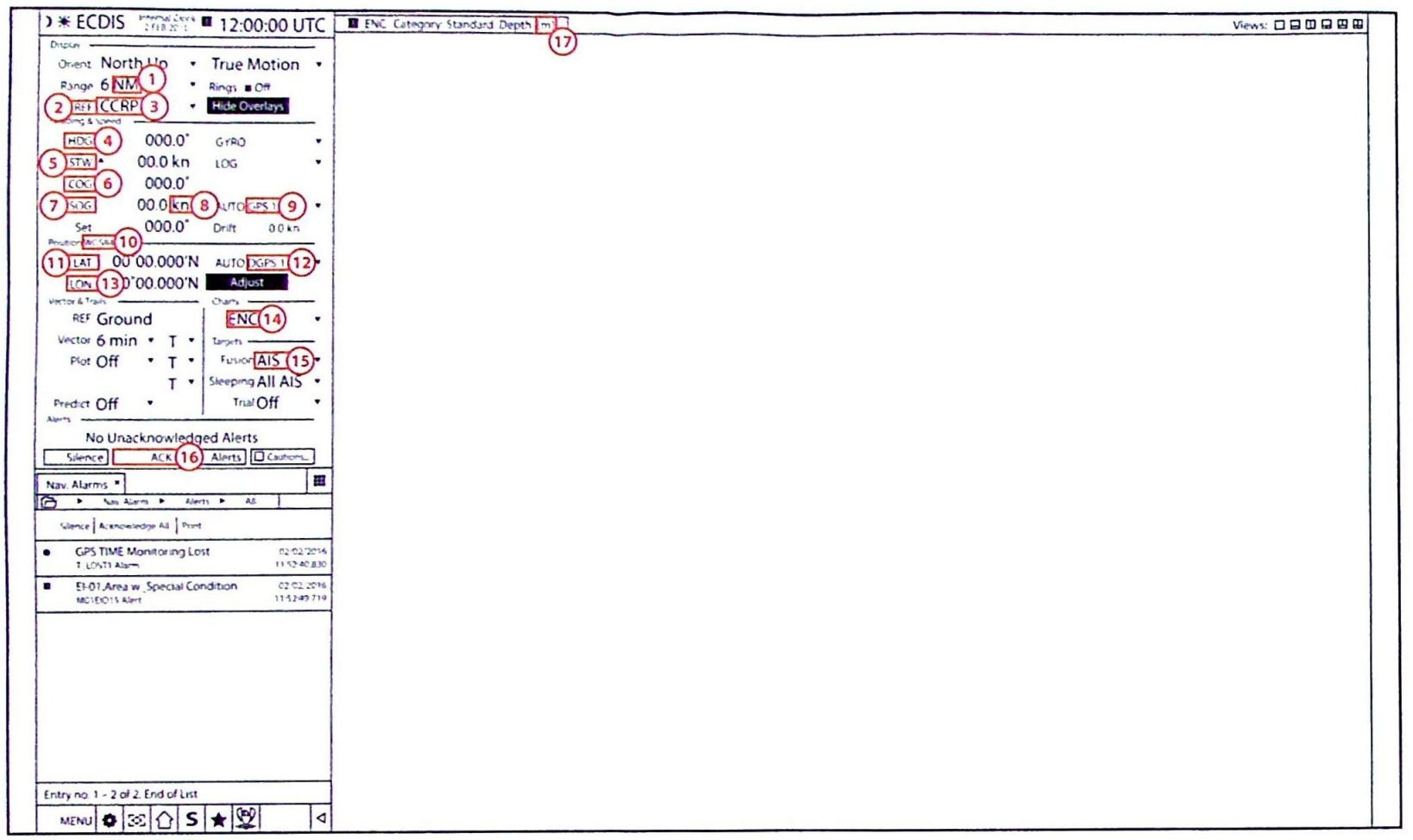
1. Click on settings.
2. Click on 'Chart'.
3. Adjust SENC features (display preference), as necessary.

3.3 Display Configuration



1. Click settings.
2. Click 'Chart'.
3. Change the category to 'Custom'.
4. Click 'Adjust'
5. Manually select layers.
6. Click 'Set' to finish.

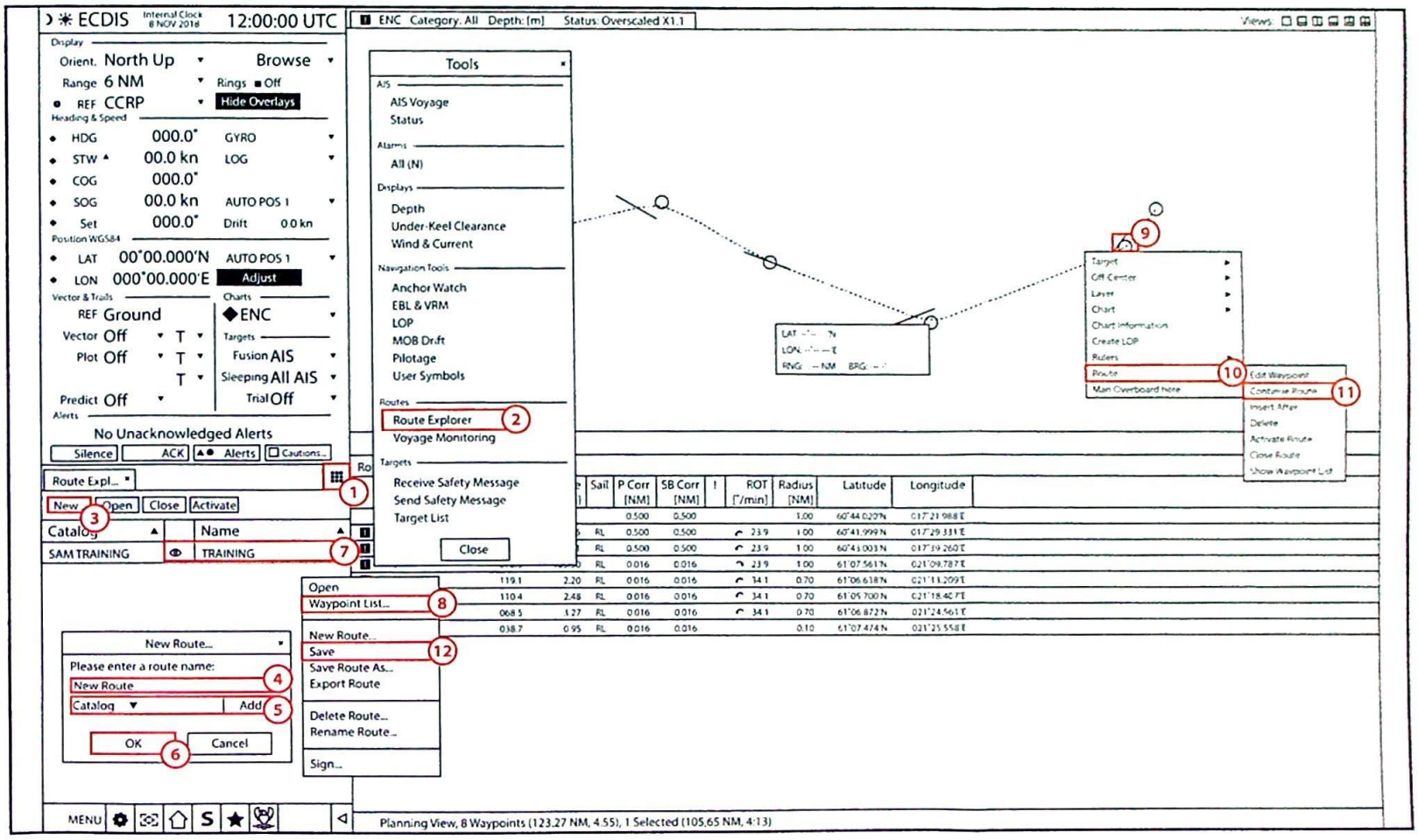
3.4 Abbreviations



1. Nautical Miles
2. Reference
3. Continuous Common Reference Point
4. Heading
5. Speed Through Water
6. Course Over Ground
7. Speed Over Ground
8. Knots
9. Global Positioning System
10. World Geodetic System 1984
11. Latitude
12. Differential Global Positioning System
13. Longitude
14. Electronic Navigational Chart
15. Automatic Identification System
16. Acknowledge
17. Metres

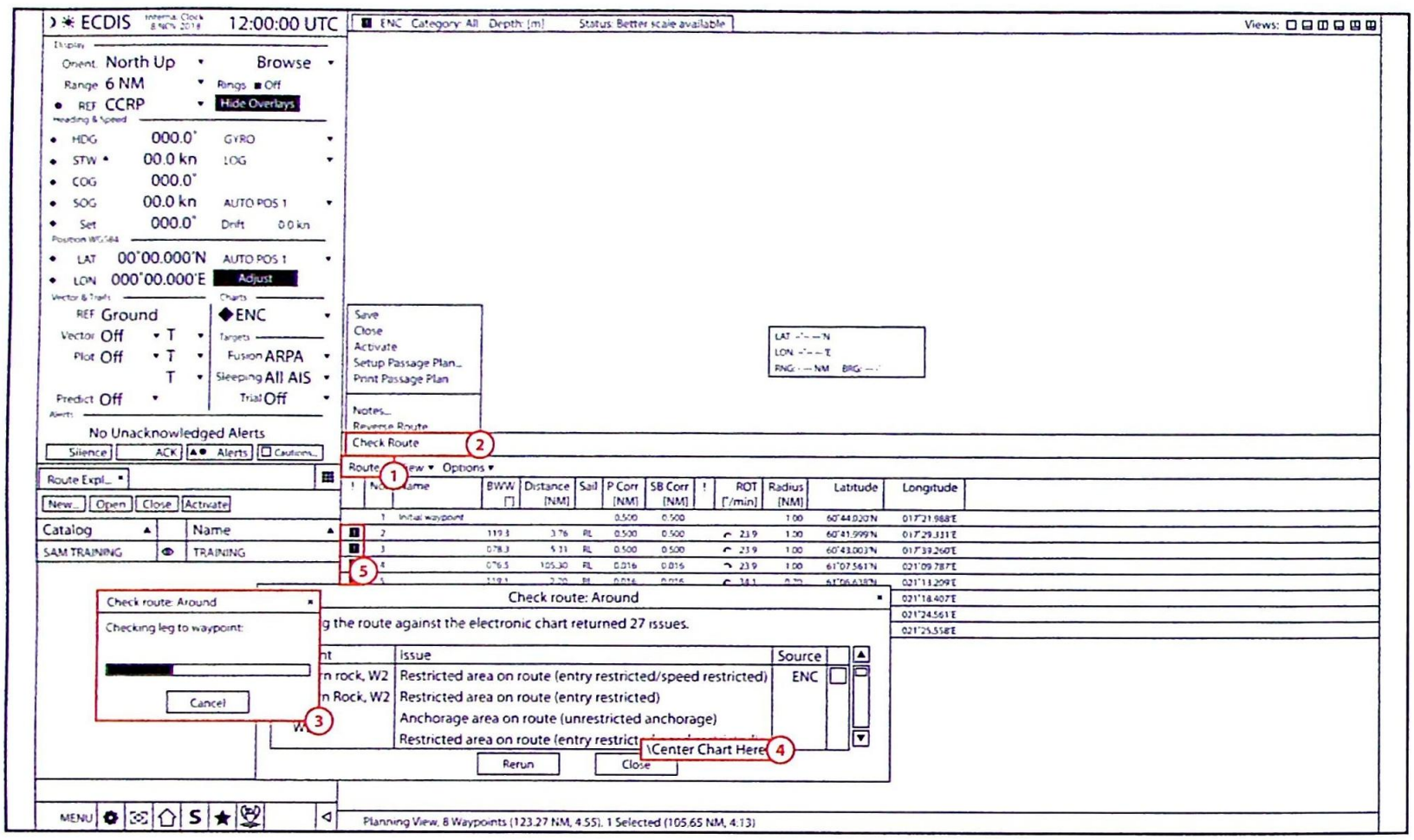
Section 4: Route Planning

4.1 **Creation**



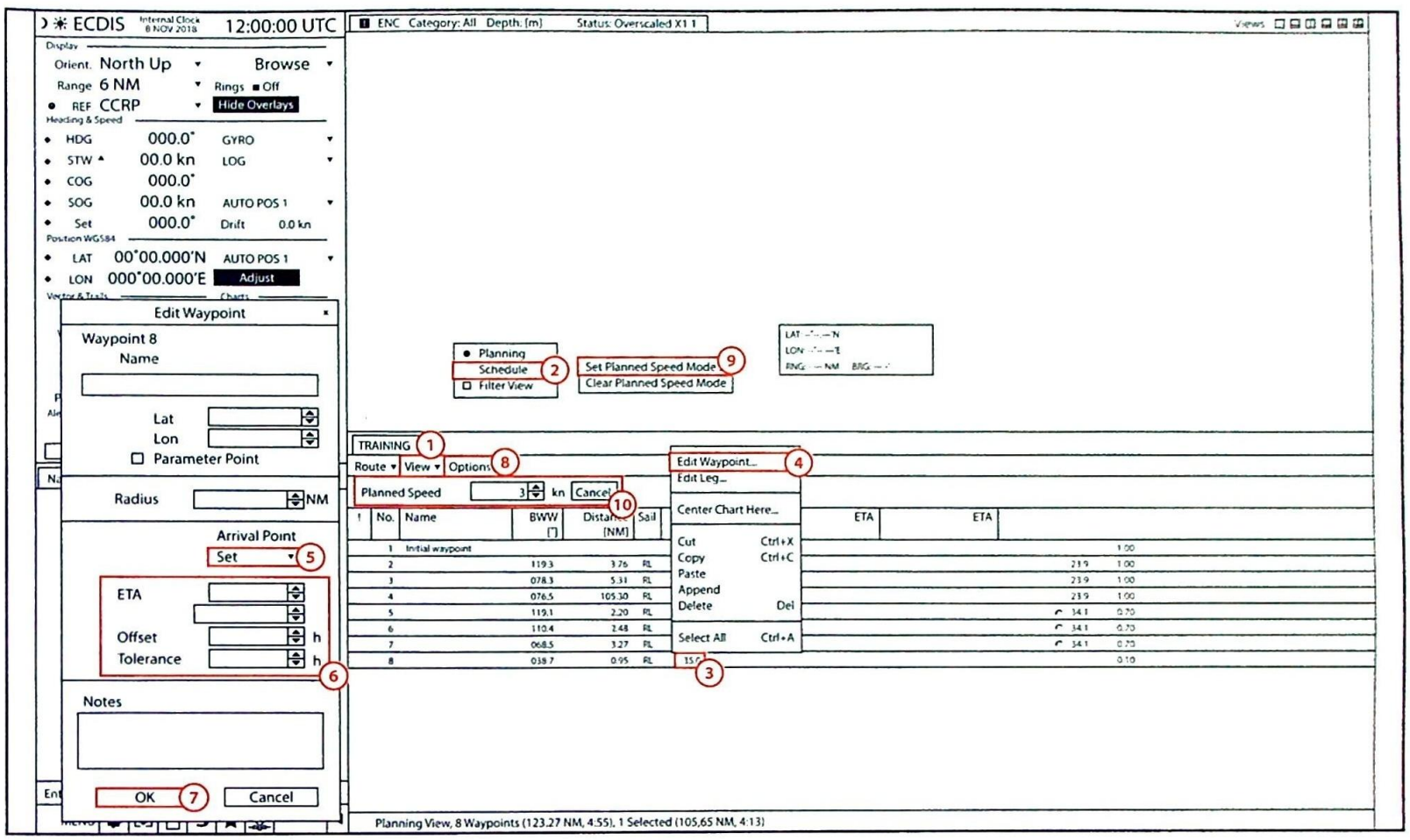
1. Click 'Tools'.
2. Click 'Route Explorer'.
3. Click 'New...'
4. Enter a name for the route.
5. Select 'Catalog' or add new catalog.
6. Click 'OK'.
7. Right click on the route.
8. Click 'Waypoint List…' to bring up the waypoint list.
9. Right click on the waypoint.
10. Click 'Route'.
11. Click 'Continue Route', then move the cursor to the desired location and click.
12. To save the route, right click on it and select 'Save'.

4.2 Schedule/Route Checking



1. Click 'Route'.
2. Click 'Check Route'.
3. Route check is being carried out.
4. In the 'Check Route' results box, right click on a danger/warning and click 'Center Chart Here'.
5. Hover the cursor here to view additional information from the 'Check' results.

4.3 Optimisation



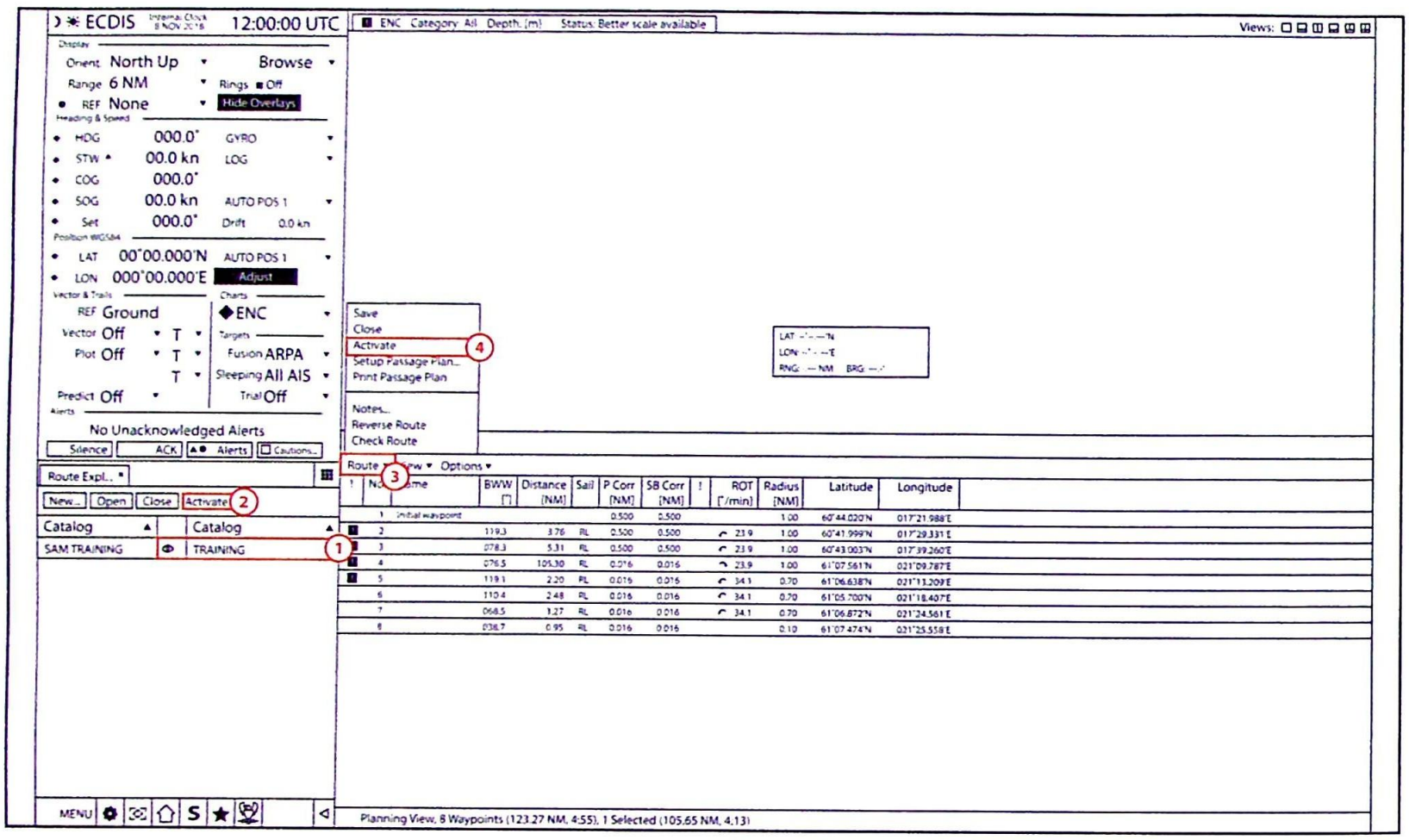
ETA Calculator:

1. Click 'View'.
2. Click 'Schedule'.
3. Right click on the last waypoint.
4. Select 'Edit Waypoint…'
5. Select 'Set' in the ETA dropdown menu.
6. Set the desired ETA/Offset/Tolerance.
7. Click 'OK'. The desired ETA for each waypoint will now show in the desired ETA.

Setting Planned Speed:

8. Click 'Options'.
9. Select 'Set Planned Speed Mode…'
10. Set the planned speed for the entire voyage.

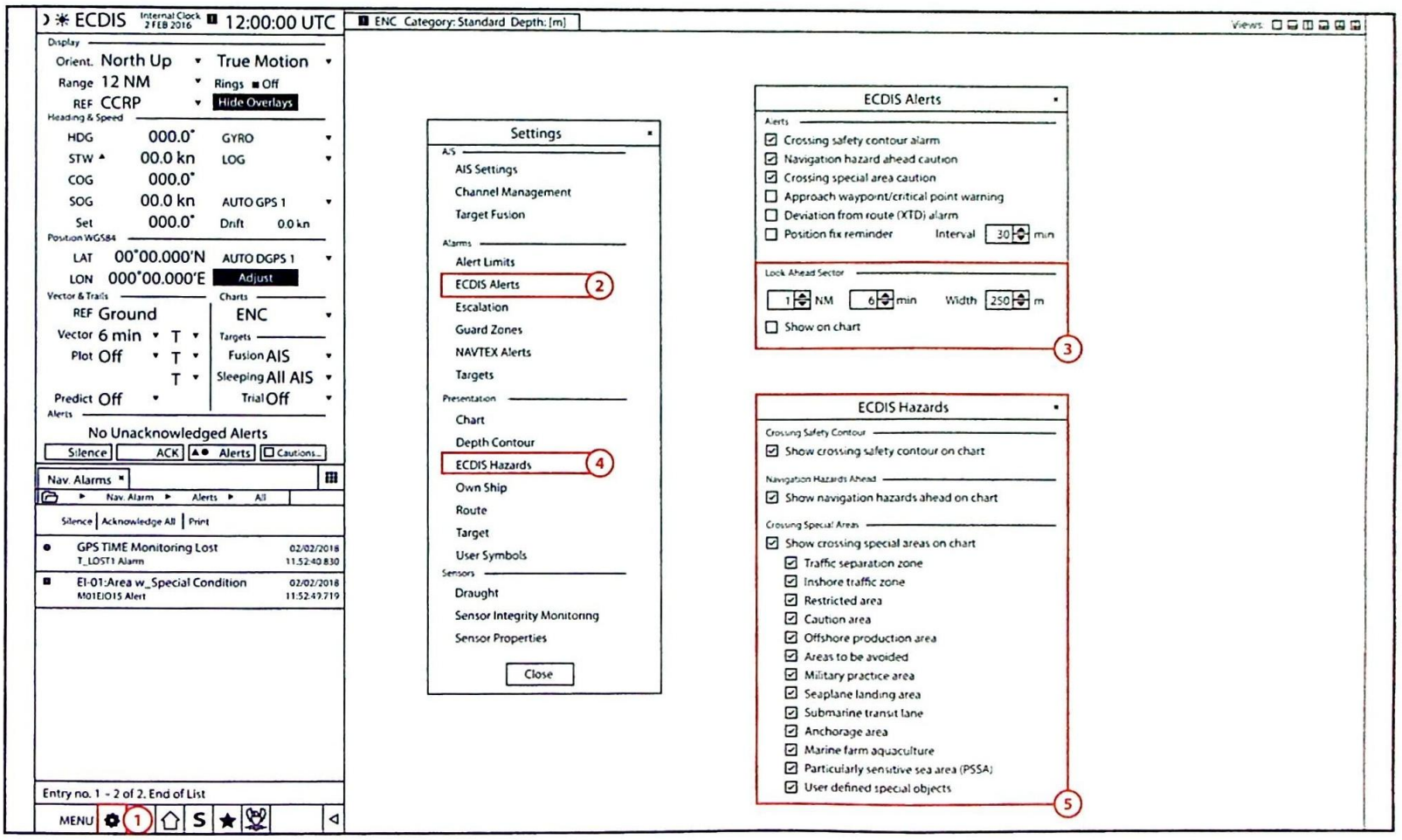
4.4 Selecting Active Route



1. From the route explorer, select the route you would like to activate.
2. Click 'Activate'.
3. To activate a route from the waypoint list, click 'Route'.
4. Select 'Activate'.

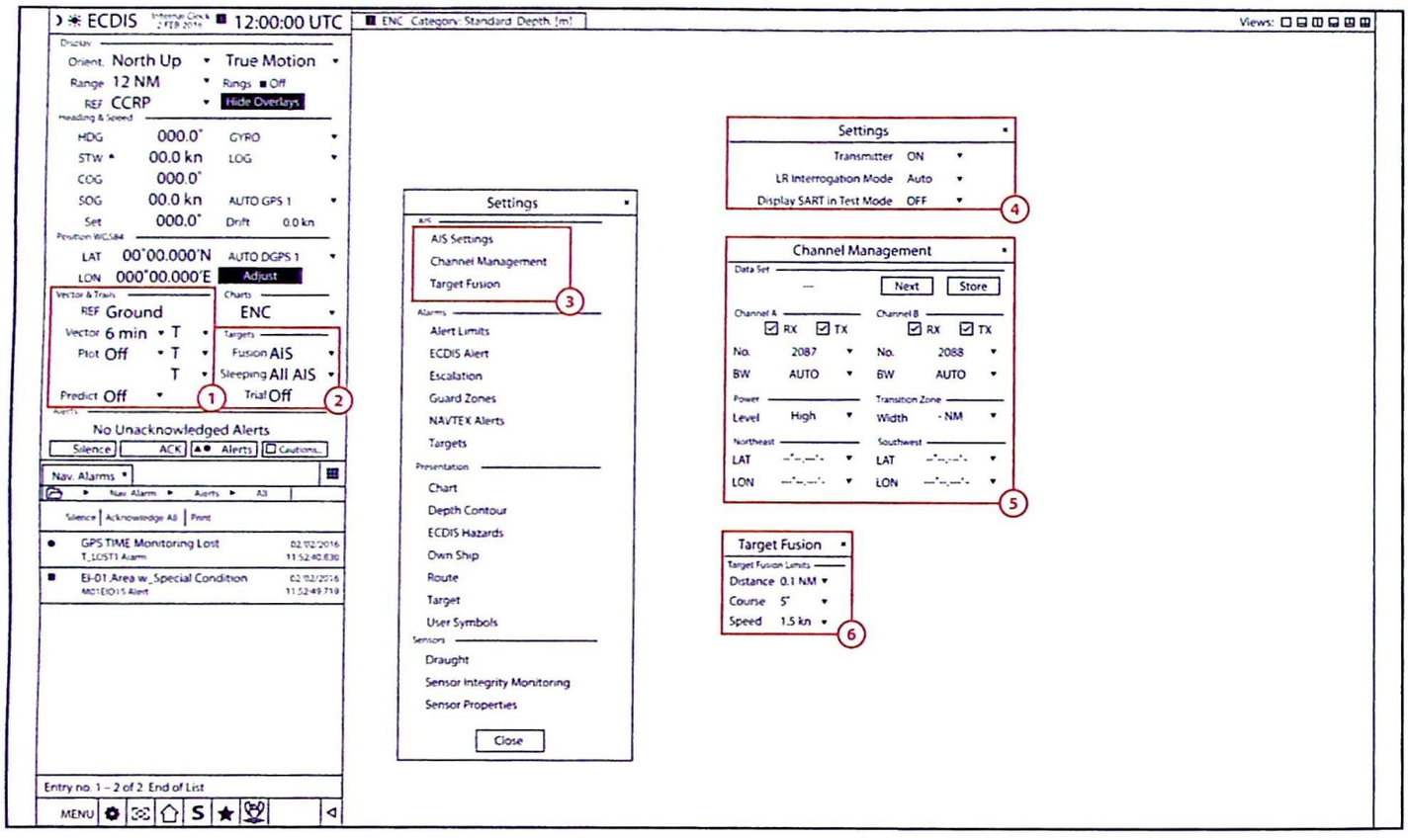
Section 5: Route Monitoring

5.1 **Look-Ahead**



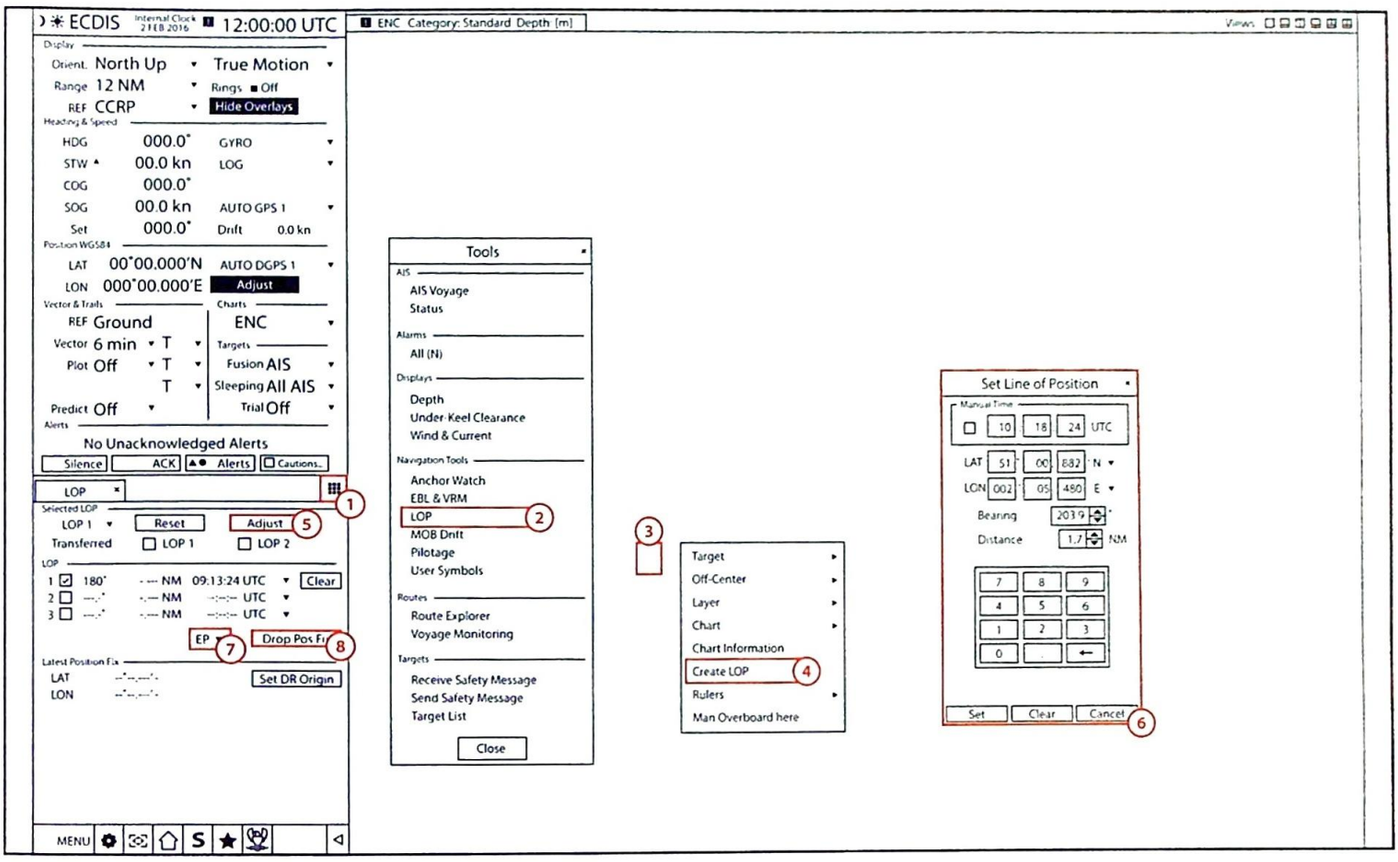
1. Click settings.
2. Click 'ECDIS Alerts'.
3. Set up 'Look-Ahead Sector'.
4. Select 'ECDIS Hazards'.
5. Enable/disable the hazards you would like to be highlighted on the chart.

5.2 TT/AIS/Vectors



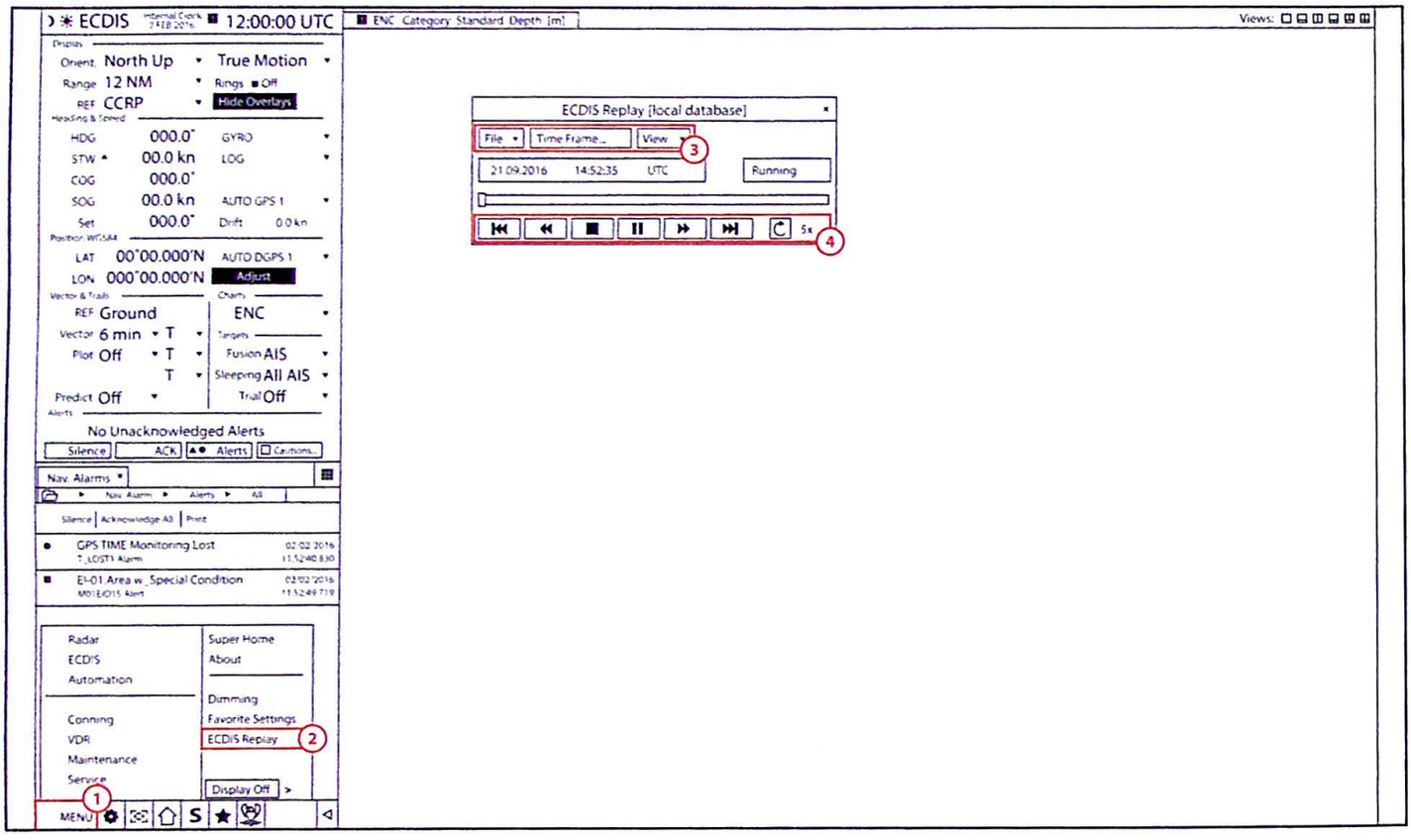
1. Vector length can be changed in this area.
2. Quick access AIS settings can be changed here.
3. Optional AIS menus:
   - a AIS Settings
   - b Channel Management
   - c Target Fusion
4. Example of AIS Settings menu.
5. Example of Channel Management menu.
6. Example of Target Fusion menu.

5.3 Position Fixing



1. Click 'Tools'.
2. Click 'LOP'.
3. Right click on the object.
4. Select 'Create LOP'.
5. Click 'Adjust'.
6. Enter the desired bearing/distance.
   a. Repeat steps 3 to 6 two more times to get three LOPs.
7. Select the source – EP/R/V.
8. Click 'Drop Pos Fix' to create a position fix.

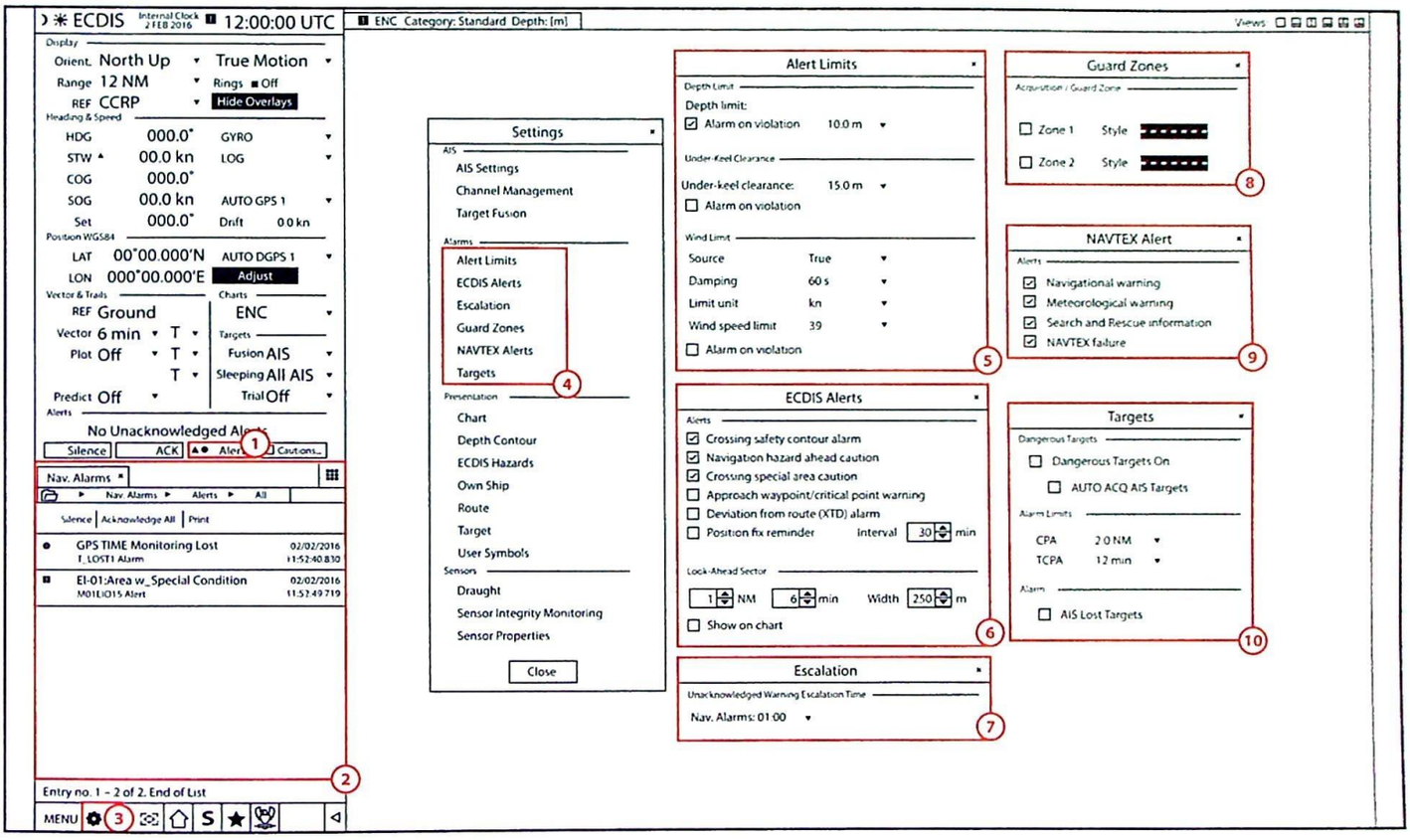
5.4 Logs/Playback



1. Click 'MENU'.
2. Click 'ECDIS Replay'.
3. Select replay file.
4. Use time bar tools to control replay.

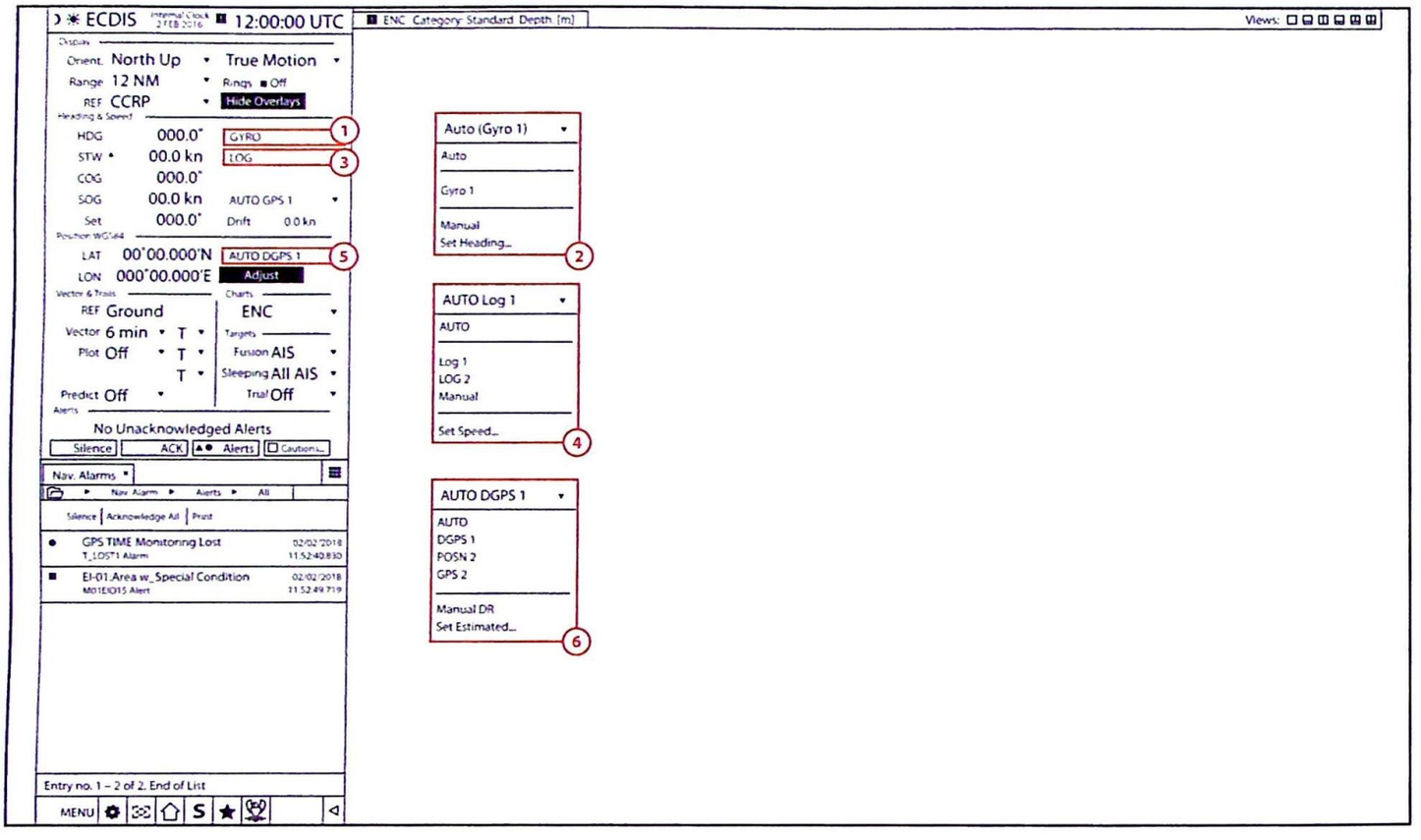
Section 6: System Settings

6.1 **Warning/Alarm Configuration**



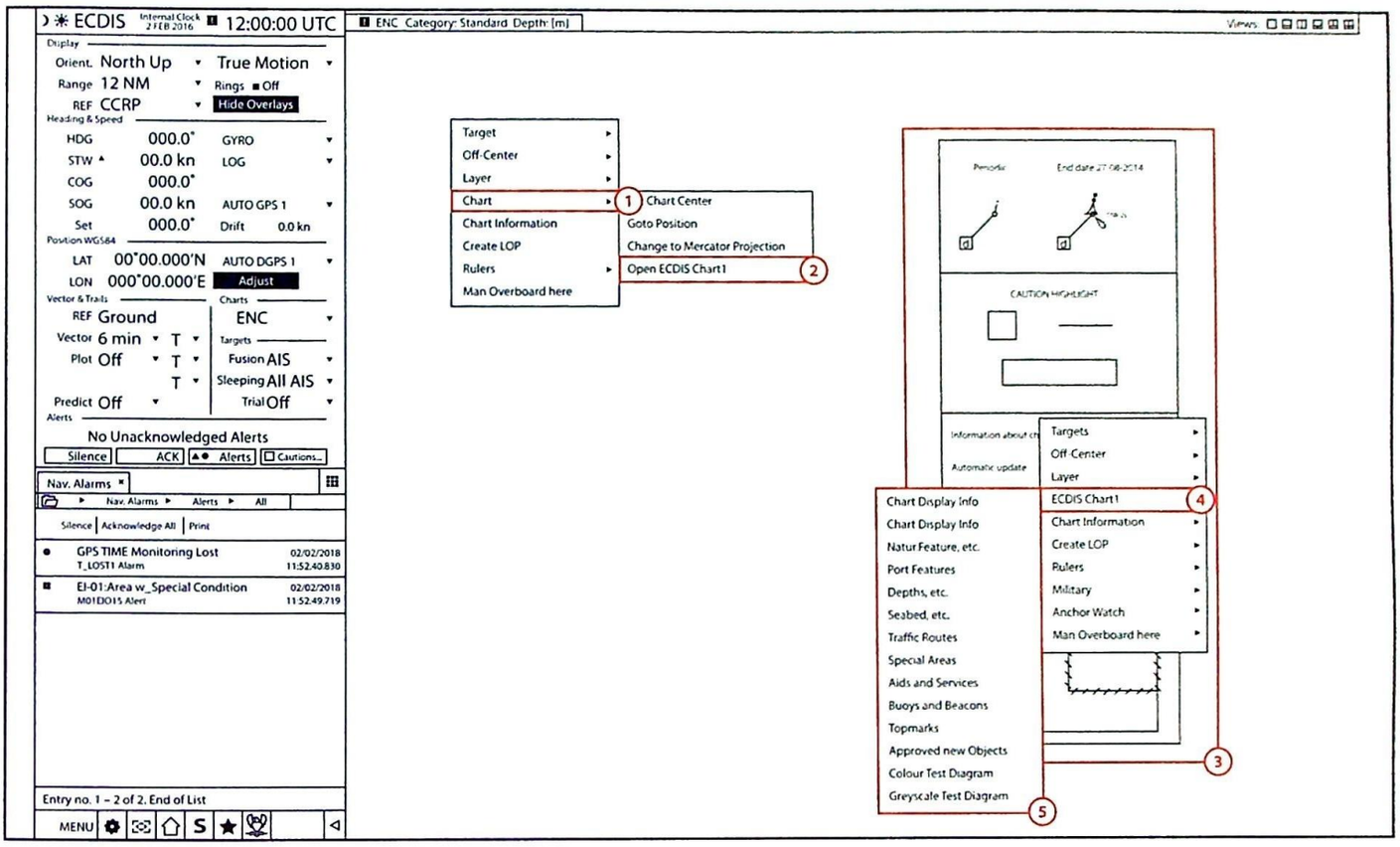
1. Click 'Alerts'.
2. Alerts list will be shown.
3. Click settings.
4. Choose from the following alert settings:
   - a. Alert Limits
   - b. ECDIS Alerts
   - c. Escalation
   - d. Guard Zones
   - e. NAVTEX Alerts
   - f. Targets
5. Alert Limits menu.
6. ECDIS Alerts menu.
7. Escalation menu.
8. Guard Zones menu.
9. NAVTEX Alerts menu.
10. Targets menu.

6.2 Position/Heading/Speed



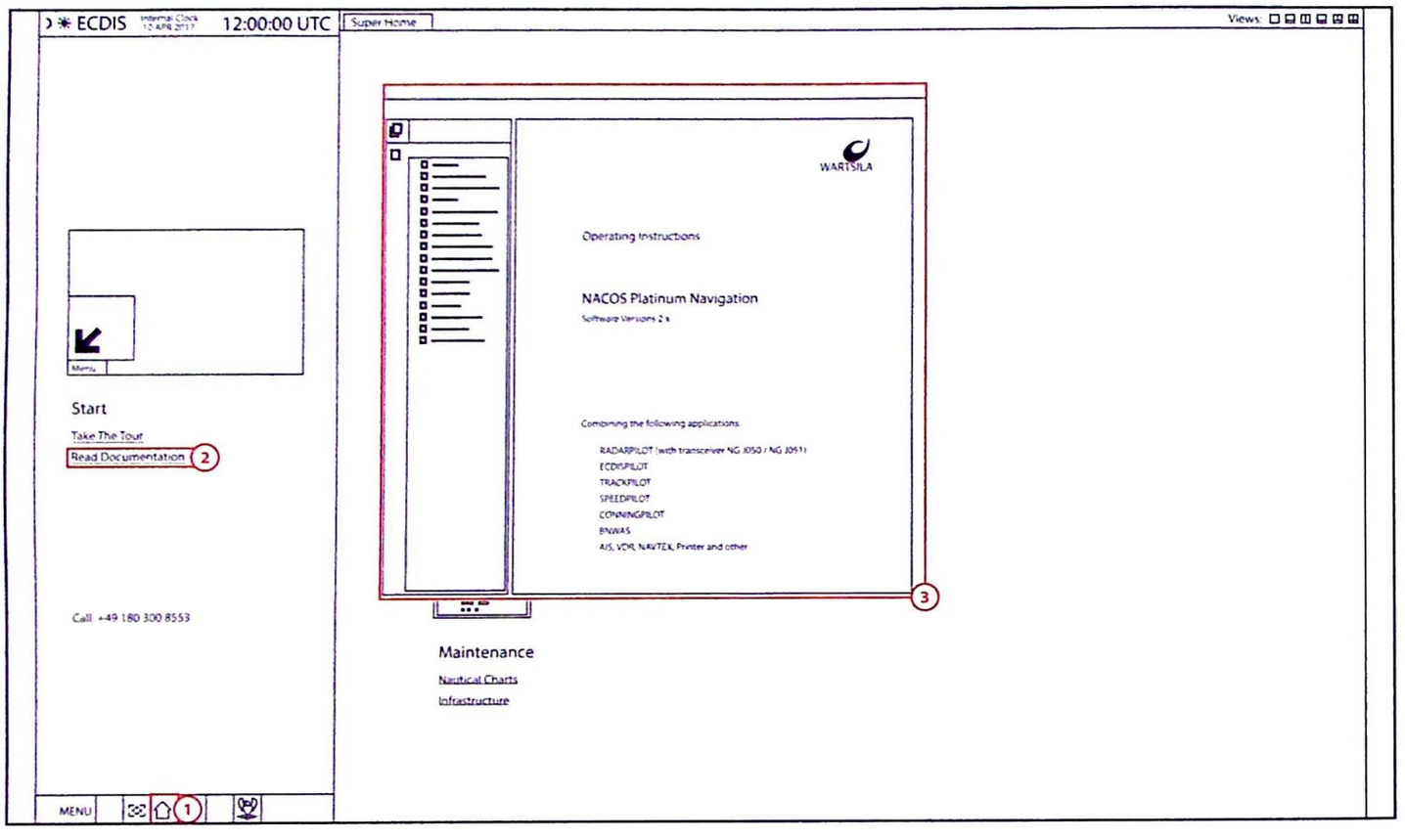
1. Click 'GYRO'.
2. Select input from the list available.
3. Click 'LOG'.
4. Select input from the list available.
5. Click 'AUTO DGPS 1'.
6. Select input from the list available.

6.3 Emergency Menus



1. Right click anywhere on the chart and press 'Chart'.
2. Click 'Open ECDIS Chart1'.
3. ECDIS Chart1 will open.
4. The context menu within Chart 1 is slightly different, allowing you to select 'ECDIS Chart1'.
5. Select a symbol topic from the list available.

6.4 Manual/About



1. Click 'Super Home'.
2. Click 'Read Documentation'.
3. A PDF of the manual will open.

21. Wärtsilä (Transas) Navi-Sailor 4000 ECDIS MFD (Standard/ Standard+/Premium/Premium+) – Familiarisation Checklist (Page 1 of 3)

1. **Company ECDIS Procedures**
   Review company documentation for ECDIS procedures and complete the below ECDIS Type Specific Familiarisation checklist.

2. **Chart Display**
   Become familiar with the basic chart functionality from the main display.

Main Chart Area			
	Chart Area Toolbars		Panels
	Control Panel		

3. **Navigational Tools**
   Operate all basic navigational functions and vessel setting options contained within the ECDIS for use of navigation.

Display Panel Windows			
	AIS Messages		Sun/Moon
	Environment Data		System Information
	Tides (ON/OFF)		TRIAL/TGT Simulator
	Manually Fix Position		Targets
	Navigator		EBL/VRM/CHL
	Parallel Index Lines	**Overlays**	
	Precision Instrument		AIO Charts
	RADAR Settings		TODO Charts
	Route Data		Clearing Bearings
	Sensor Data/Status		MSI
	Special Purpose Objects		MARPOL Areas

4. **Chart Display Settings**
   Operate all chart display settings, become familiar with object layers, ENC symbology and define the vessel's safe water settings. Identify where all chart updates are managed in the system.

Charts		**Safety Alerts**	
	Complete List		Safety Parameters
	By Position		Safety contour
	General	**Transas Integrator**	
	Layers		Charts
	ENC	**Manual Corrections**	
	Chart priority None/ENC/DNC/HCRF		Man Corr
	Spot soundings		
	Scale min (ON/OFF)		
	Accuracy (ON/OFF)		

Wärtsilä (Transas) Navi-Sailor 4000 ECDIS MFD (Standard/Standard+/ Premium/Premium+) – Familiarisation Checklist (Page 2 of 3)

5. **Route Planning**

Operate all route planning functions and obtain all relevant schedule information for passage planning and route monitoring purposes.

Route Planning		**Tasks**	
	New		SAR
	WPT Editor		Tides
	Ref Points		Ports
	Focus	**Route Monitoring**	
	Show		Ship
	Monitoring		Route
	Load		Waypoints
	Save		Headline (ON/OFF)
	Edit Options		XTD (ON/OFF)
	Schedule Calculation	**Maps**	
	Check Route		Load/Create New Map
	Voyage plan		Add Objects
	Protection Control		Edit Objects
	Anchor		Monitoring
	Default Route Settings		Maps
			Find Objects
			Display Options

6. **Route Monitoring**

Operate the variety of voyage data functions for route monitoring to display and obtain relevant information for navigation and the ship's safety.

Route Monitoring			
	Ship		Vectors Window
	Ship by Contour/Symbol		Environment Data
	Route		Far Sounder
	Set Schedule		Manually Fix Position
	Waypoints		Parallel Index Lines
	Past track settings		Radar Settings
	Show primary track (ON/OFF)		Route Data
	Alerts		Sun/Moon
	Out of schedule (ON/OFF)		System Information
Display Panel Window			TRIAL/TGT Simulator
	COG/SOG/HDG/STW Window		Targets

7. **Chart Updating**

The operator should know how to update electronic charts and be thoroughly aware of their responsibilities concerning updating. It is a legal requirement that charts are maintained in an up-to-date condition.

Chart Area Toolbars			
	Transas Integrator		

8. **System Sensors**

Identify where the operator can select or deselect all sensors connected to the ECDIS and verify the vessel's particulars.

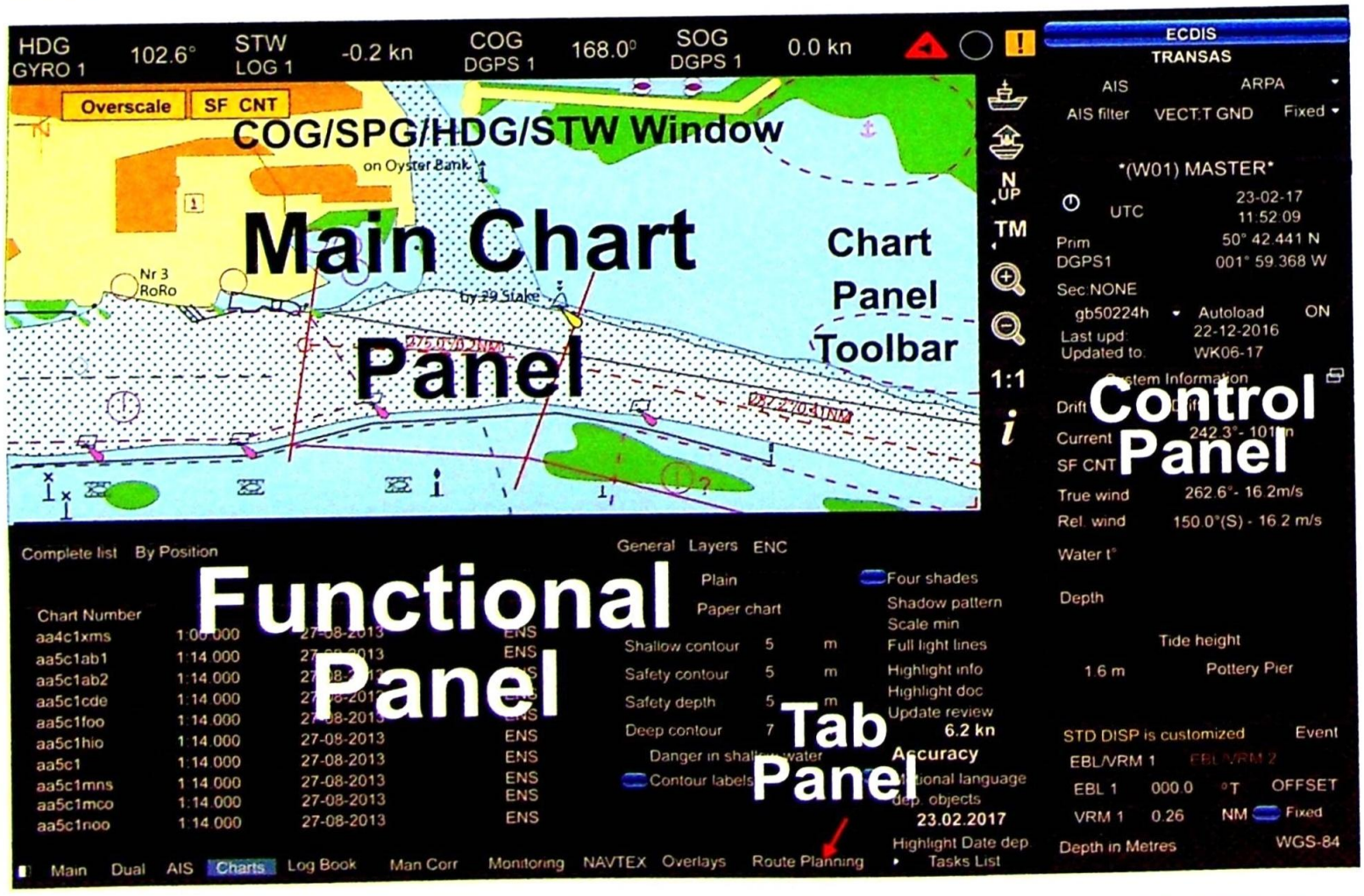
Sensors			
	Ship Position		Speed
	Show Pos mark (ON/OFF)		Echo Sounder
	Heading		
	Gyro Offset		

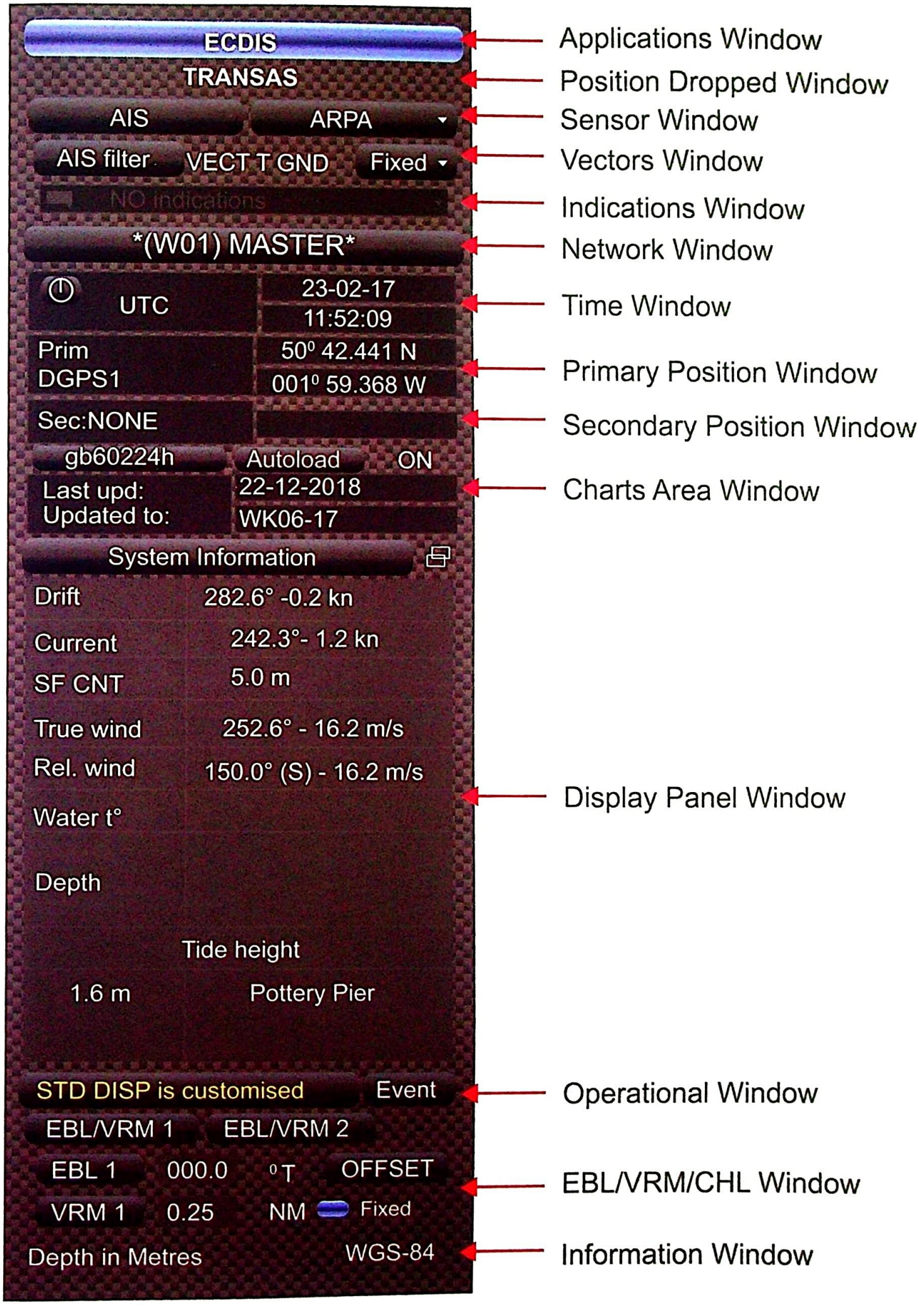
Wärtsilä (Transas) Navi-Sailor 4000 ECDIS MFD (Standard/Standard+/ Premium/Premium+) – Familiarisation Checklist (Page 3 of 3)

9.	**System Alerts** Identify the ECDIS system's category of Alarms and Prompts generated by the operator and by the ECDIS system.			
	Safety Alerts			
		Safety Frame		Source of Safety Parameters
		Show safety frame (ON/OFF)		Area Alerts
		Antigrounding Alerts		Anchorage area (ON/OFF)
		Highlight Danger (ON/OFF)		Navigational Alerts
		Safety Parameters		Prim/Sec diverged (ON/OFF)
		Safety depth		
10.	**System Units** Become familiar with the system's logbook, records, data storage and configuration set up.			
	Config			
		General		Units
		RADAR Settings		Ship Settings
		Time Zone		Logbook
		Licence Info		Archive System Log
		COM Trace		Logbook Settings
11.	**ECDIS Operator's Manual** Locate the system's operator's user guide for referencing and help.			
	Config			
		Help		

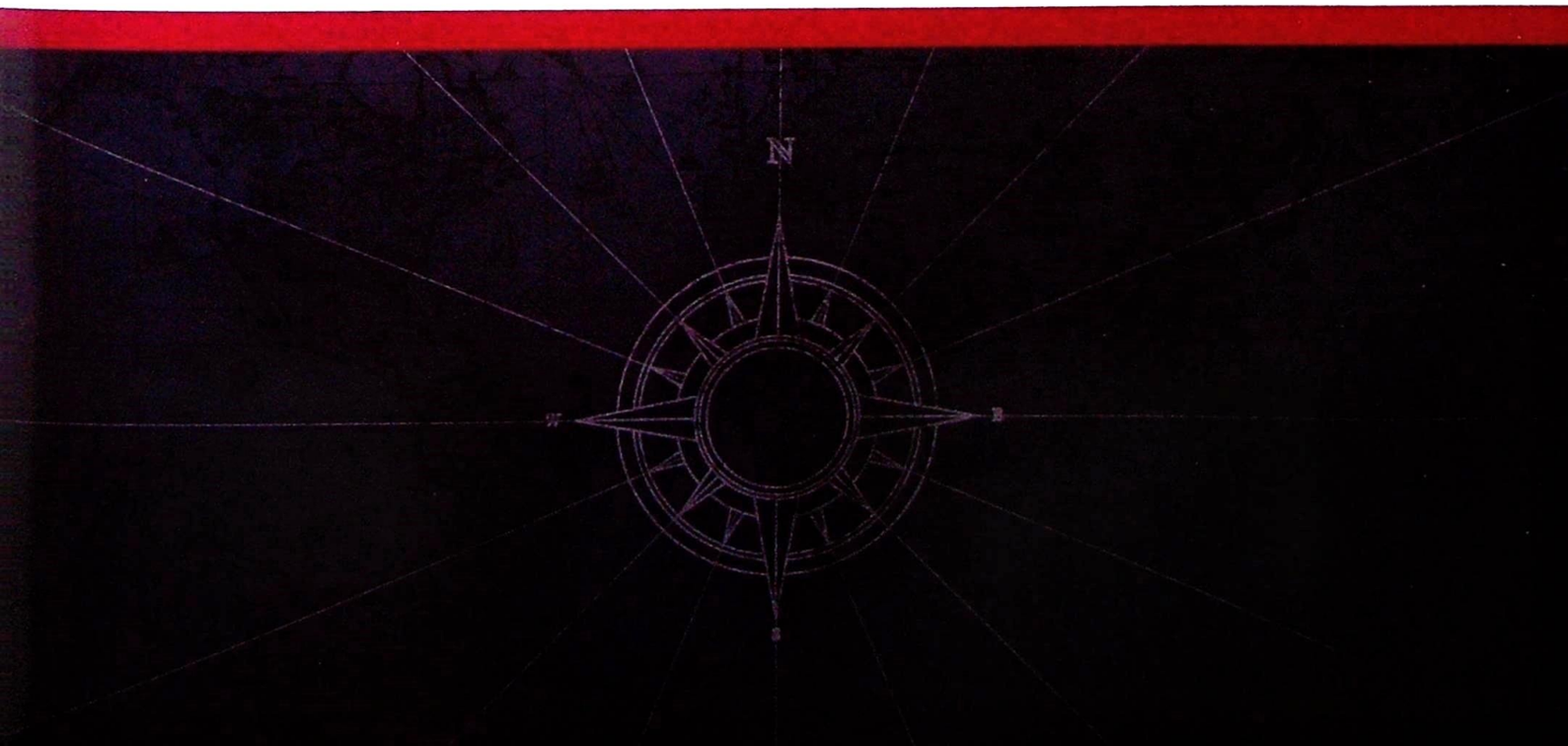
Wärtsilä (Transas) Navi-Sailor 4000 ECDIS MFD (Standard/Standard+/ Premium/Premium+)

	Key Wärtsilä (Transas) Navi-Sailor 4000 ECDIS MFD (Standard/Standard+/Premium/Premium+) New ECDIS Menu Functions	
1.	Configuration of Ship's Length, Beam, Maximum Speed and ROT	**System Configuration Utility>INS>Ship Settings/Speed Maneuvering**
2.	View list of installed Charts	**Tasks List>Charts>Complete List**
3.	View the latest update number installed	**Use Info function to interrogate chart or Tasks List>Charts**
4.	View information on charted objects and view additional text	**Info Button>Left Click**
5.	Set the Safety Depth and Safety Contour	**Tasks List>Monitoring>Safety Alerts>Safety Parameters**
6.	Set the Shallow and Deep Contour	**Tasks List>Monitoring>Safety Alerts>Safety Parameters**
7.	Input a User Map Object	**Tasks List>Maps**
8.	Input a Manual Update	**Tasks List>Man Corr**
9.	Turn the ship outline on	**Tasks List>Monitoring>Route Monitoring>Ship by Contour**
10.	Configure the Safety Frame	**Tasks List>Monitoring>Safety Alerts>Safety Frame**
11.	Configure Velocity Vectors and Ship's Track	**Tasks List>Monitoring>Route Monitoring>Ship/Past Track Control Panel>Vectors Window**
12.	Configure Area Alarms	**Tasks List>Monitoring>Safety Alerts>Area Alerts**
13.	Manually change WPT information of an Active Route	**Tasks List>Monitoring>Waypoints>Next Waypoint – Manual**
14.	View past Alarms and Warnings	**Alerts Windows and Tasks List>Log Book**
15.	Input a Visual or Radar Fix	**Display Panel>Manually Fix Position**



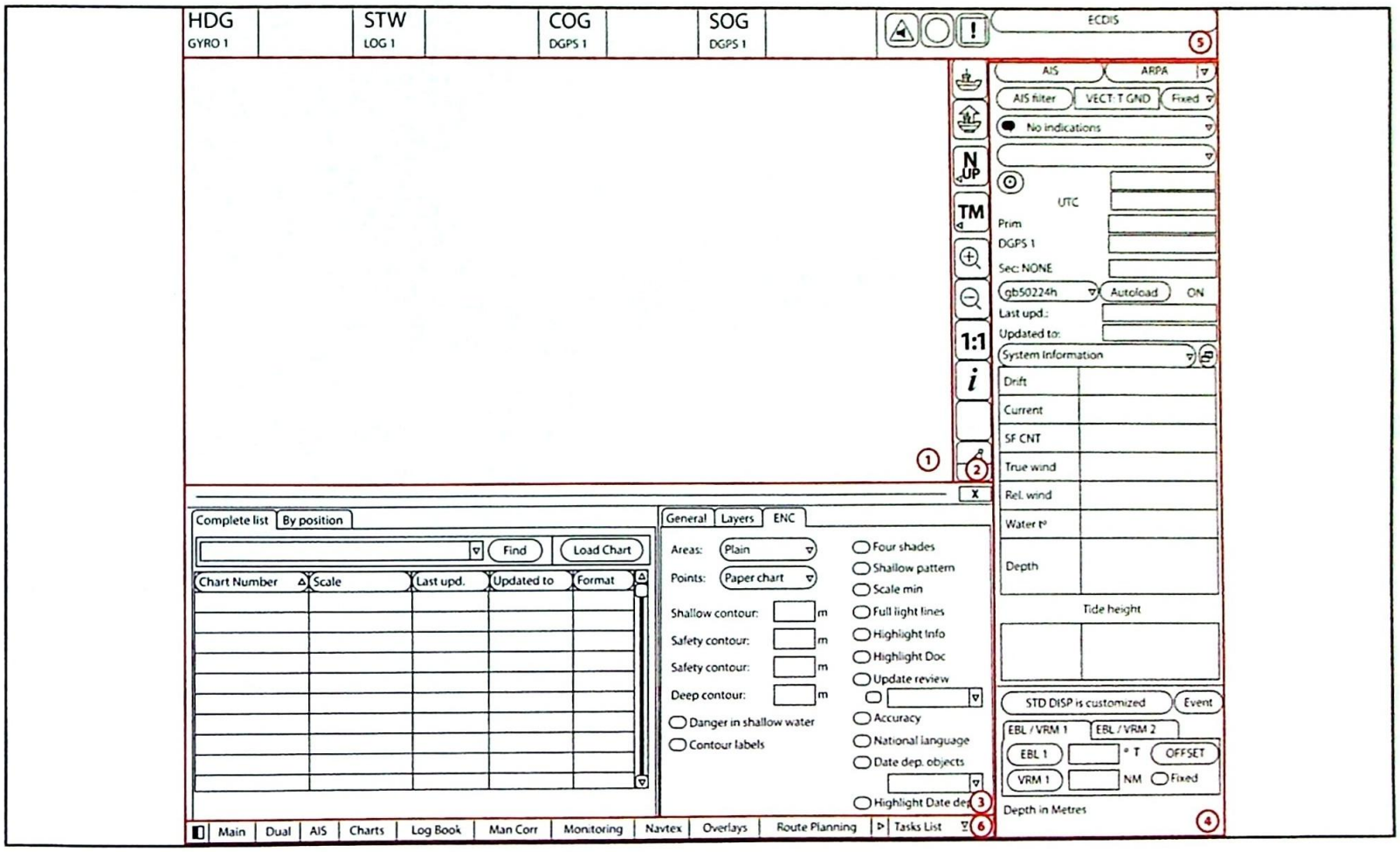

ECDIS
TRANSAS
AIS
ARPA
AIS filter
VECT T GND
Fixed
NO indications
(W01) MASTER
UTC
23-02-17
11:52:09
Prim
DGPS1
50⁰ 42.441 N
001⁰ 59.368 W
Sec:NONE
gb60224h
Autoload
ON
Last upd:
22-12-2018
Updated to:
WK06-17
System Information
Drift
282.6° -0.2 kn
Current
242.3°- 1.2 kn
SF CNT
5.0 m
True wind
252.6° - 16.2 m/s
Rel. wind
150.0° (S) - 16.2 m/s
Water t°
Depth
Tide height
1.6 m
Pottery Pier
STD DISP is customised
Event
EBL/VRM 1
EBL/VRM 2
EBL 1
000.0
⁰T
OFFSET
VRM 1
0.25
NM
Fixed
Depth in Metres
WGS-84
Applications Window
Position Dropped Window
Sensor Window
Vectors Window
Indications Window
Network Window
Time Window
Primary Position Window
Secondary Position Window
Charts Area Window
Display Panel Window
Operational Window
EBL/VRM/CHL Window
Information Window

Wärtsilä (Transas)
Navi-Sailor 4000 ECDIS MFD
(Standard/Standard+/Premium/Premium+)



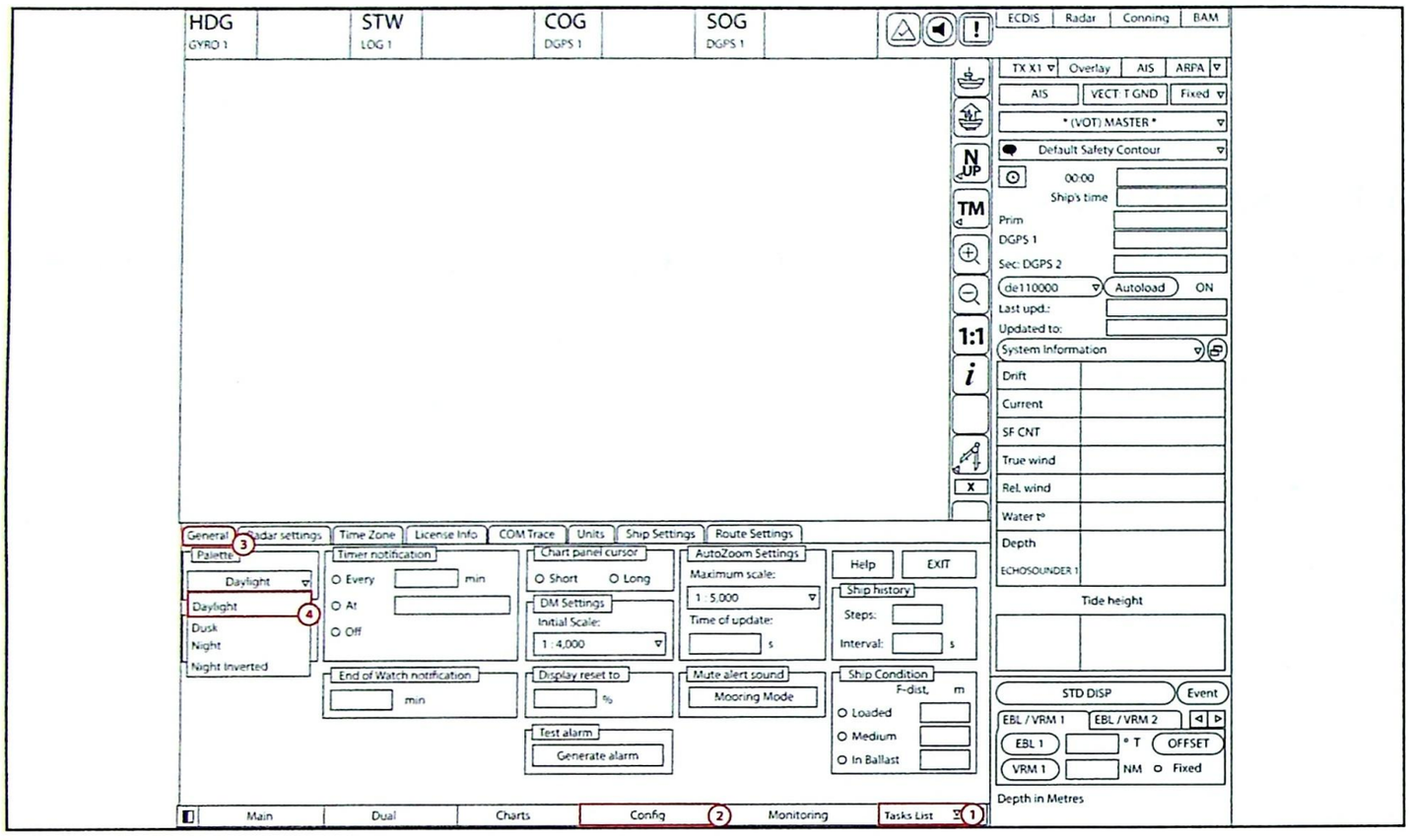
Section 1: Main Display

1.1 **Screen Layout**



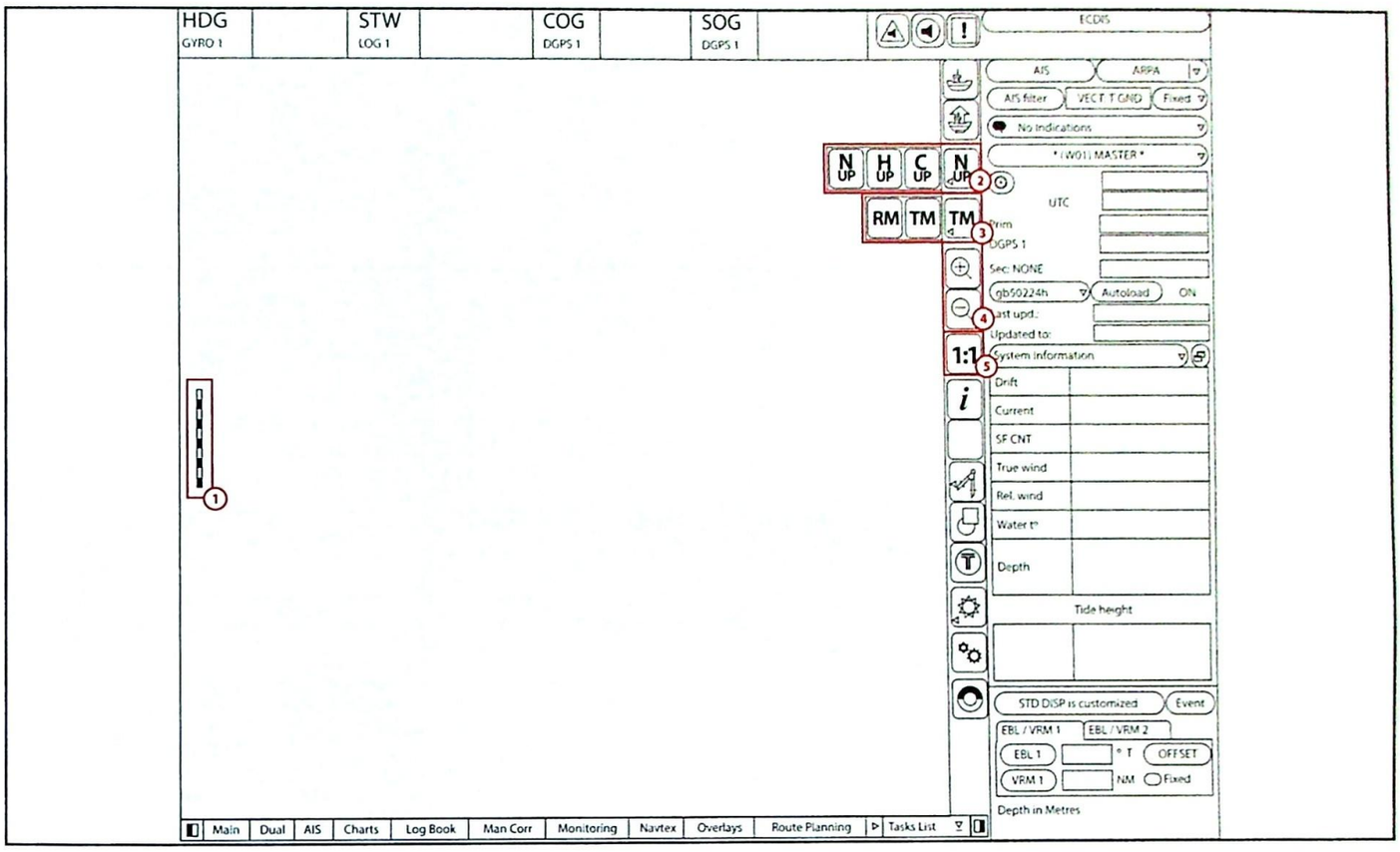
1. Main chart panel
2. Chart panel toolbar
3. Function panel
4. Control panel
5. Sensor panel
6. Tab panel

1.2 Colour Palette



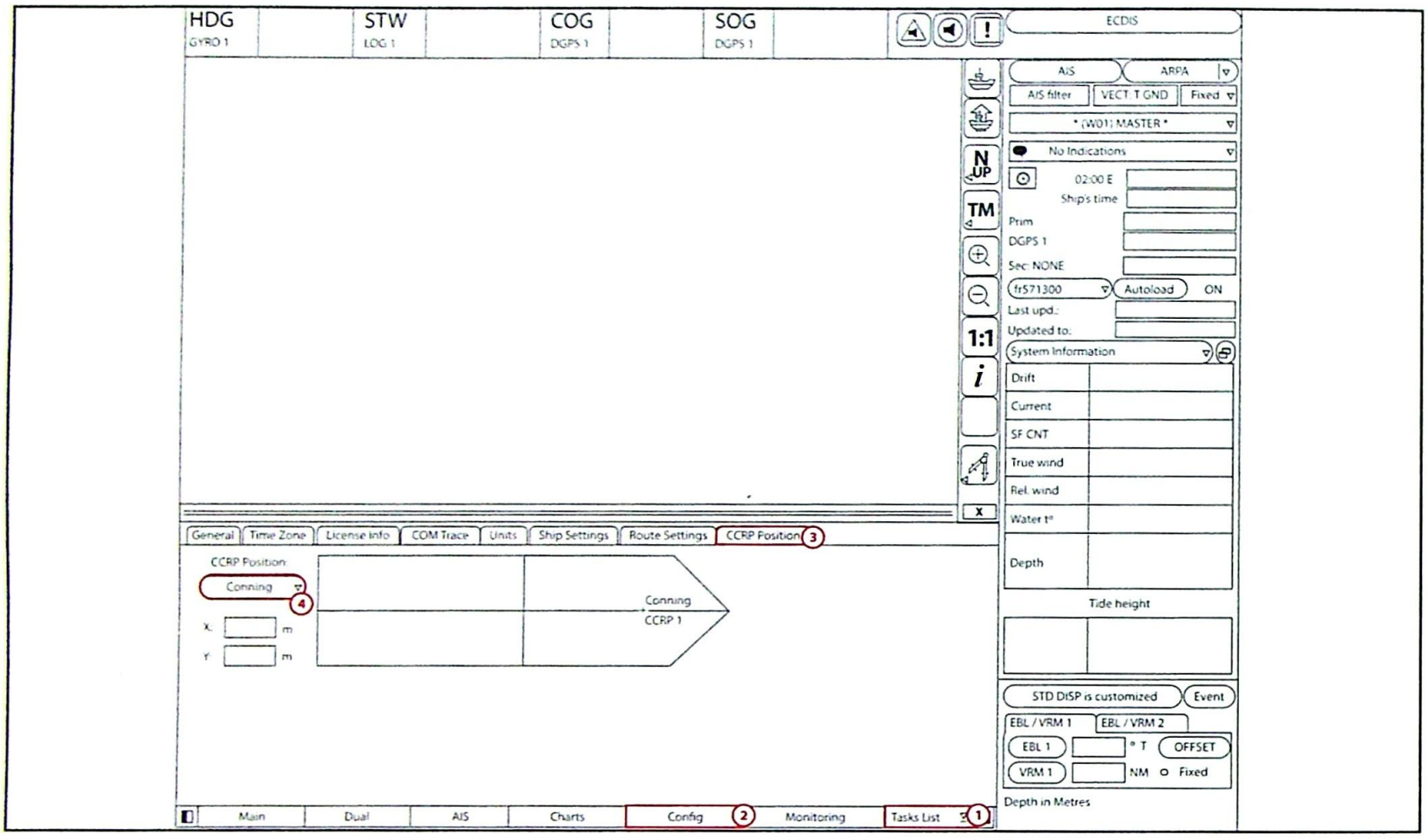
1. Ensure 'Config' is enabled in the 'Tasks List'.
2. Ensure the 'Config' tab is selected.
3. Ensure the 'General' tab is selected.
4. Choose your colour palette from the dropdown menu.

1.3 Range/Scale/Motion



1. Scale bar to view.
2. Select 'North Up', 'Heads Up' or 'Course Up'.
3. Select 'Relative Motion' or 'True Motion'.
4. Use '+' and '–' to manually zoom in and zoom out.
5. Click '1:1' to select the compilation scale for the area bound by your main chart panel.

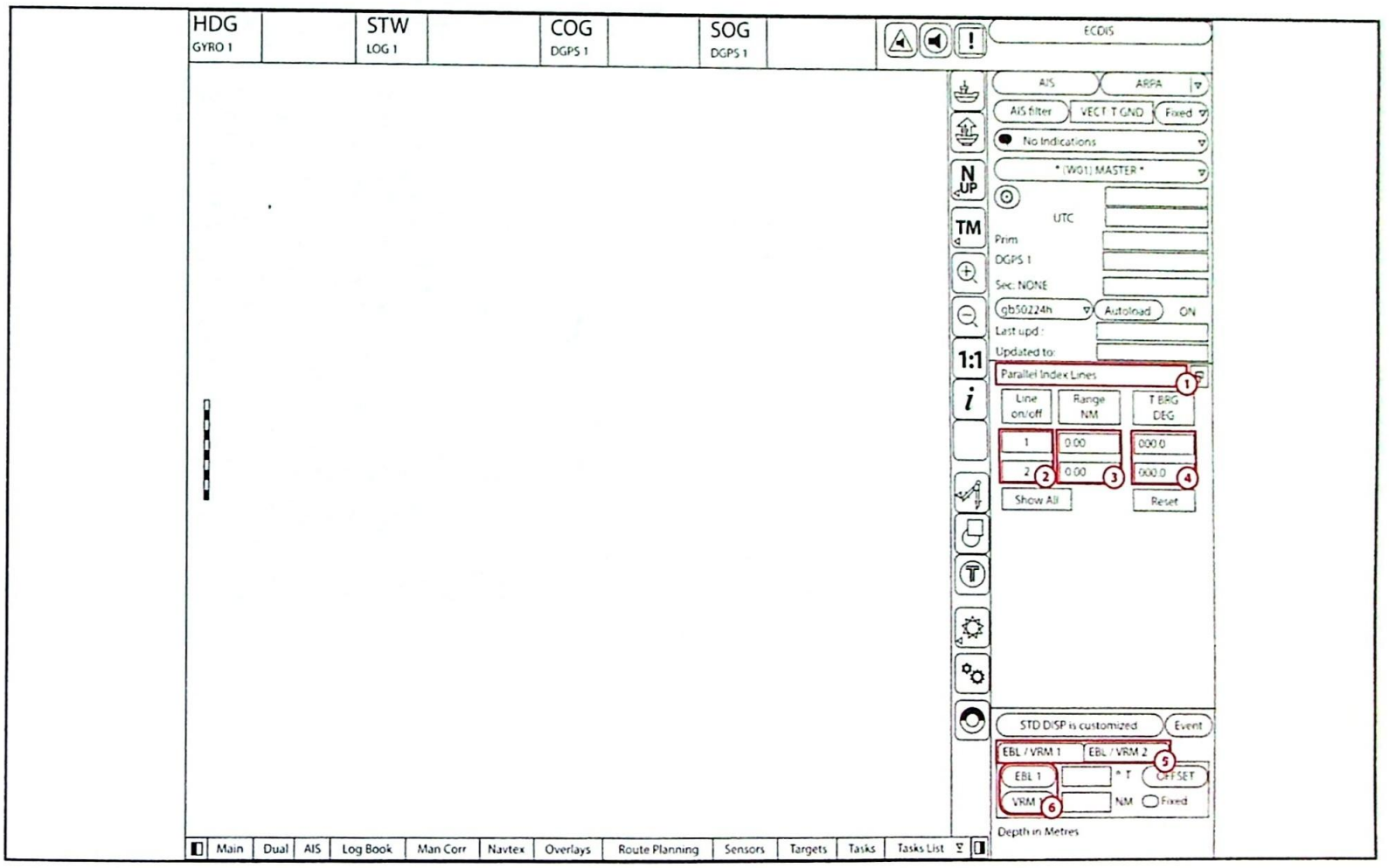
1.4 Setting CCRP



1. Ensure 'Config' has been enabled in the 'Tasks List'.
2. Ensure 'Config' is selected.
3. Click on 'CCRP Position'.
4. Left click to select CCRP position.

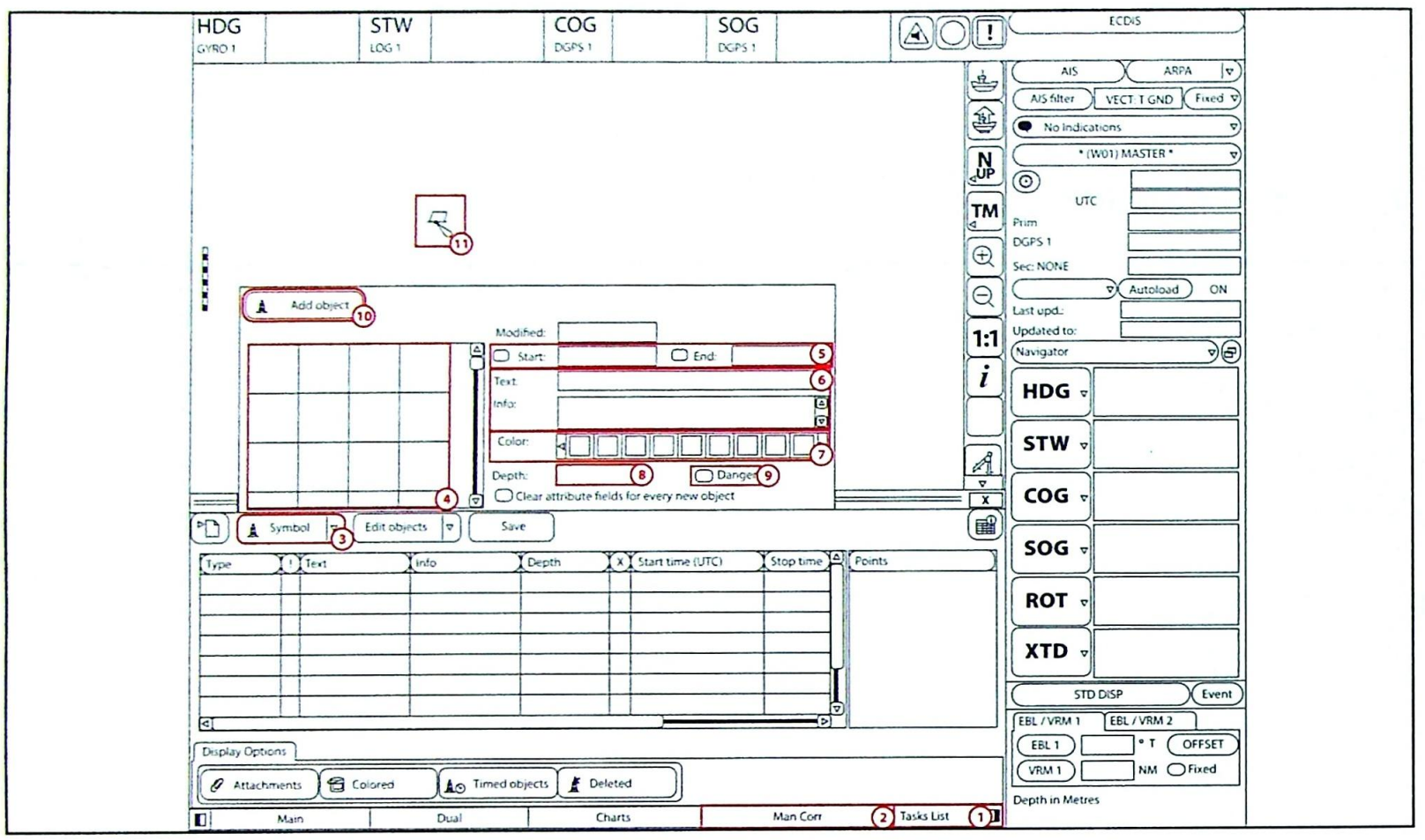
Section 2: Navigation Tools

2.1 **EBL/VRM/PI**



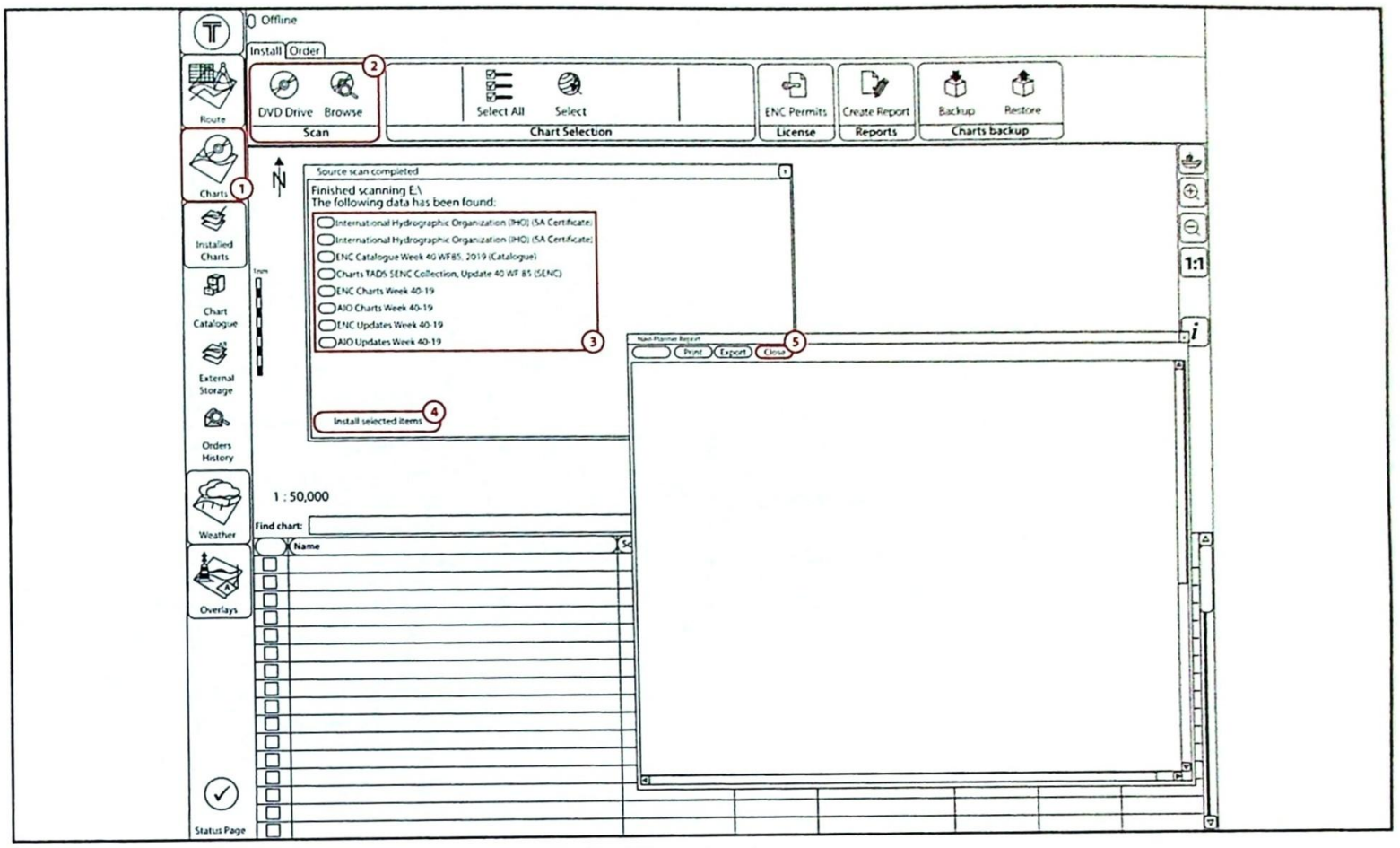
1. Ensure 'Parallel Index Lines' is selected from the Display Panel dropdown menu.
2. Click on '1' or '2' to enable/disable PI lines.
3. Insert the PI line range.
4. Insert the PI line bearing.
5. Select 'EBL/VRM 1' or 'EBL/VRM 2'.
6. Click 'EBL 1/VRM 1' to enable/disable.

2.2 Manual Corrections



1. Ensure 'Manual Corrections' has been enabled in the 'Tasks List'.
2. Ensure 'Man Corr' is selected.
3. Click on 'Symbol'.
4. Choose an object from the list available.
5. Configure 'Start' and 'End' options.
6. Insert 'Text' and additional 'Info'.
7. Select a 'Colour', if available.
8. Set 'Depth' value.
9. Enable 'Danger', as required.
10. Click 'Add object'.
11. Left click anywhere on the chart to place the object.

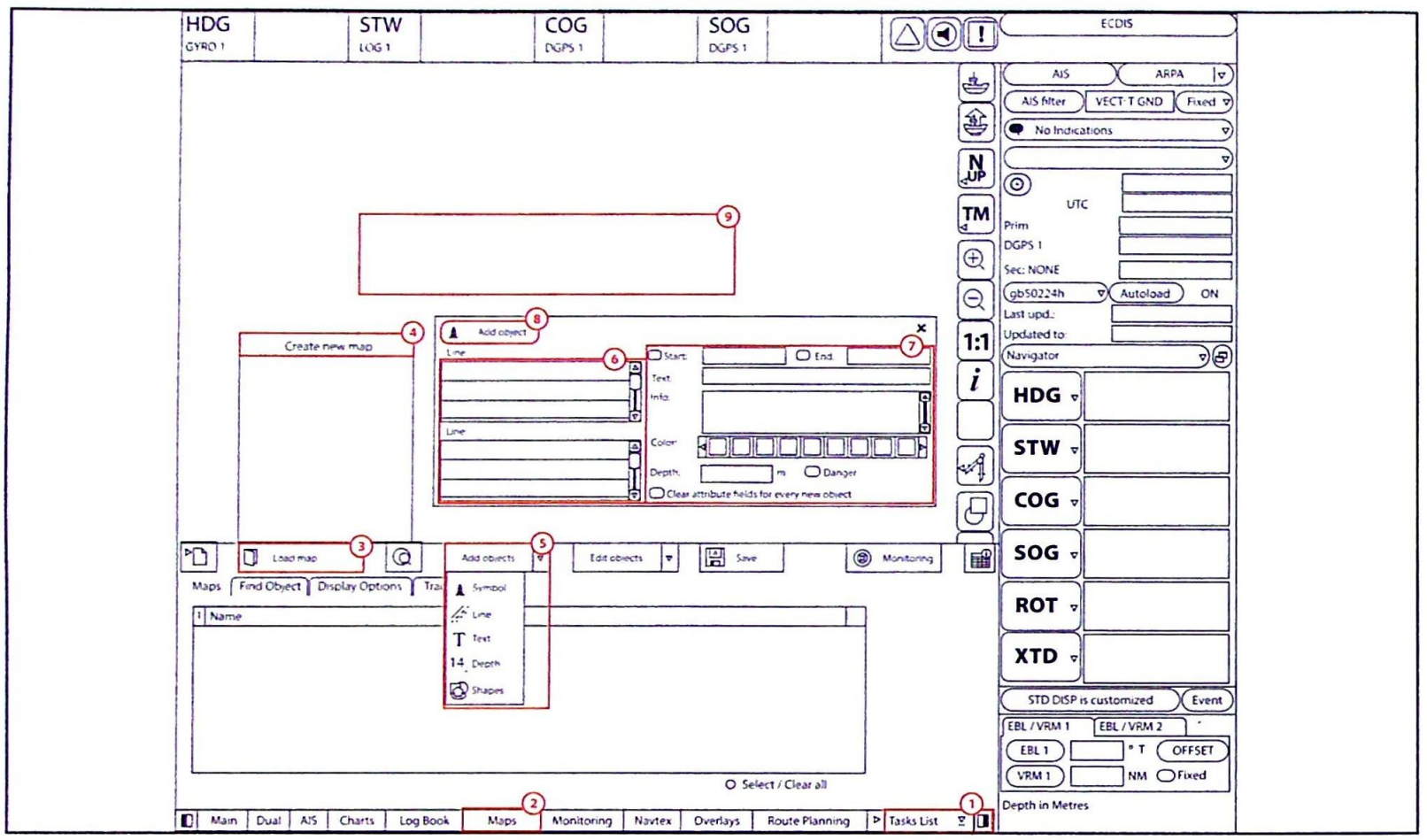
2.3 Chart Updates



Note to user: To update charts, you are required to enter the 'Navi Planner' mode.

1. Click 'Charts'.
2. Select the 'DVD Drive' or 'Browse' containing your charts.
3. Select the data that is required to install.
4. Click to install selected items.
5. Click to close.

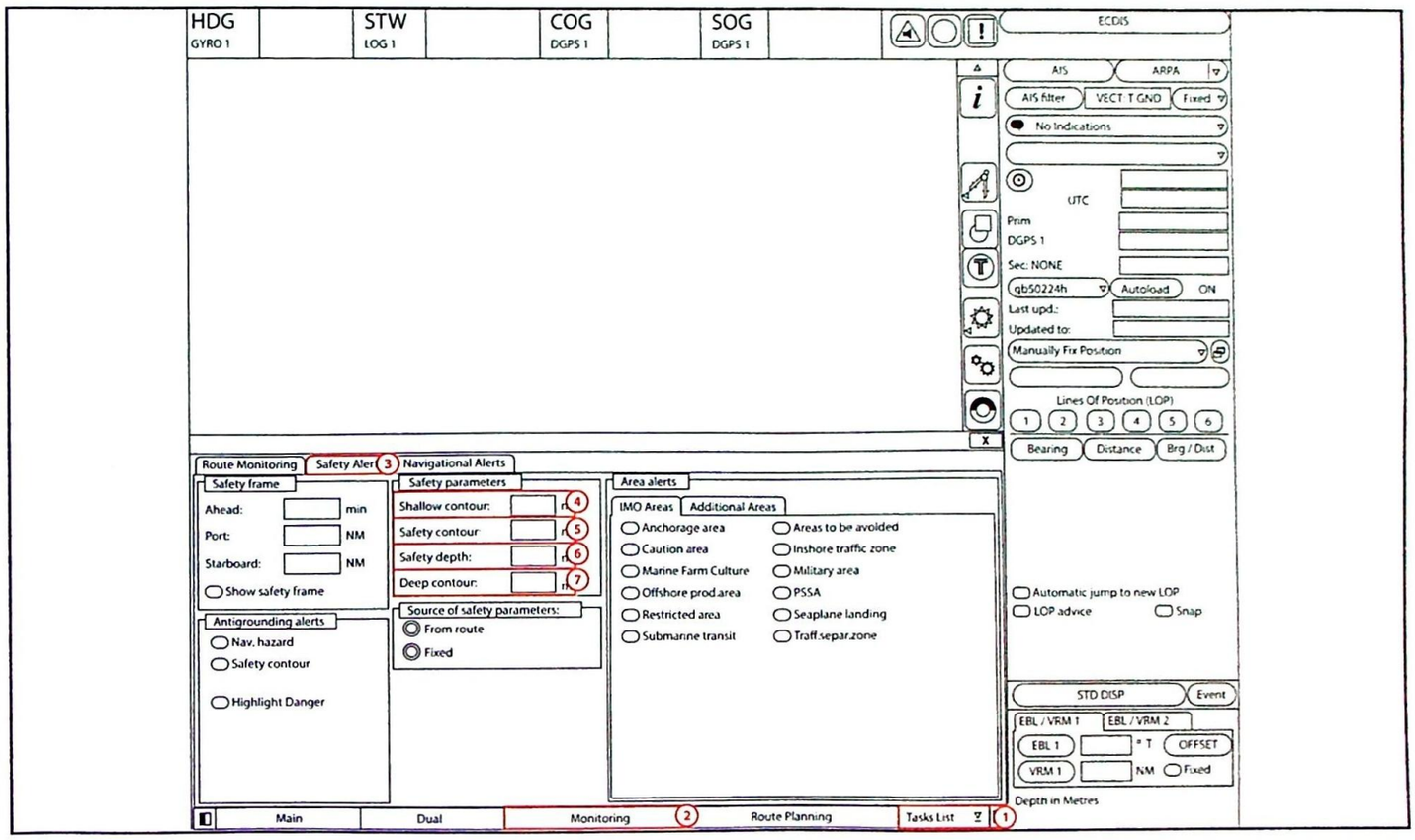
2.4 No Go Areas/User Charts



1. Ensure 'Maps' has been enabled in the 'Tasks List'.
2. Ensure 'Maps' is selected.
3. Click 'Load map'.
4. Click 'Create new map'.
5. Select an object from the dropdown menu.
6. Select an object from the list available.
7. Insert object info, as required.
8. Click 'Add object'.
9. Left click anywhere on the chart to start placing the object.

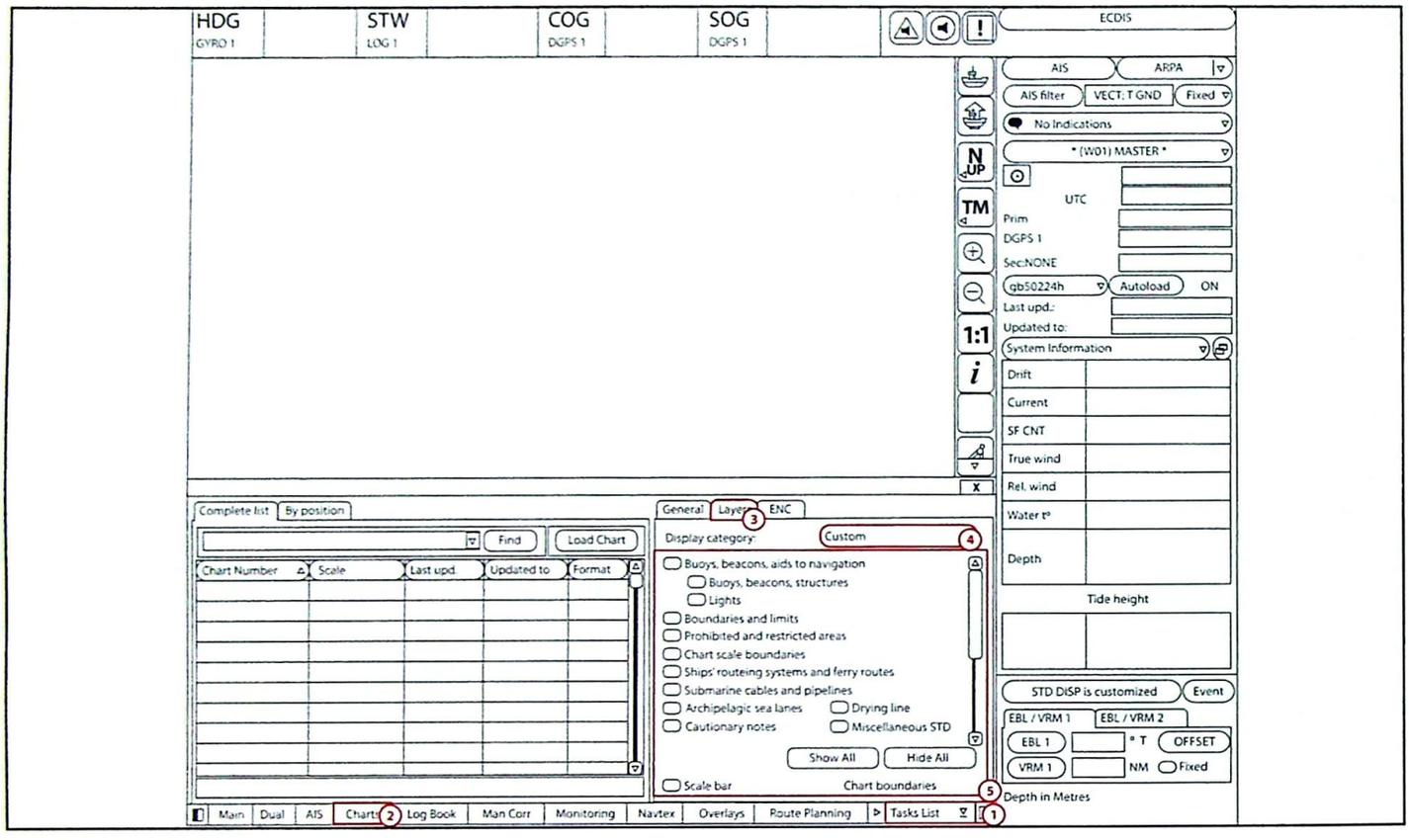
Section 3: Chart Display Settings

3.1 **Safety Depth/Contour**



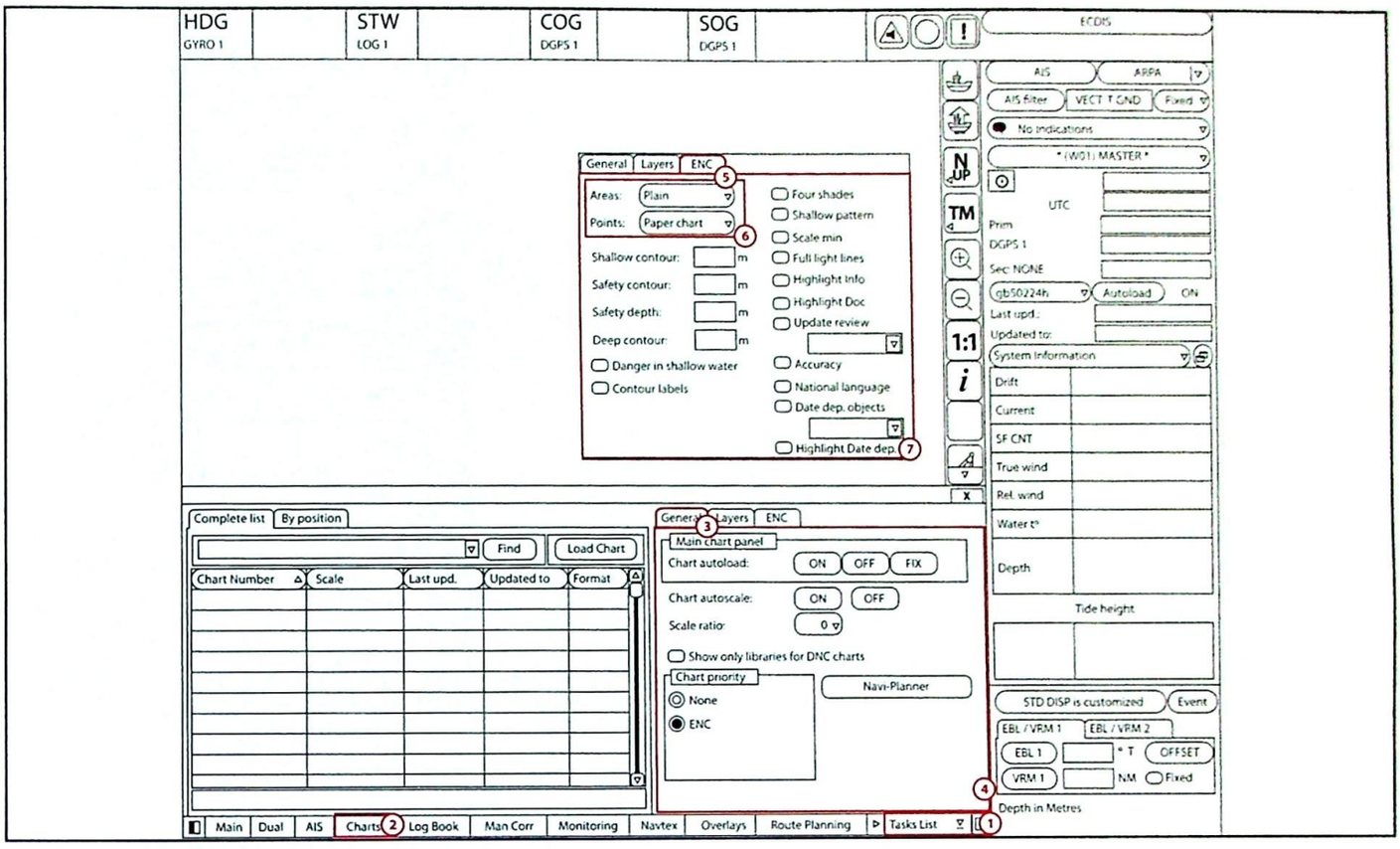
1. Ensure 'Monitoring' is enabled in the 'Tasks List'.
2. Ensure 'Monitoring' is selected.
3. Select 'Safety Alerts'.
4. Set 'Shallow contour'.
5. Set 'Safety contour'.
6. Set 'Safety depth'.
7. Set 'Deep contour'.

3.2 Display Preference Options



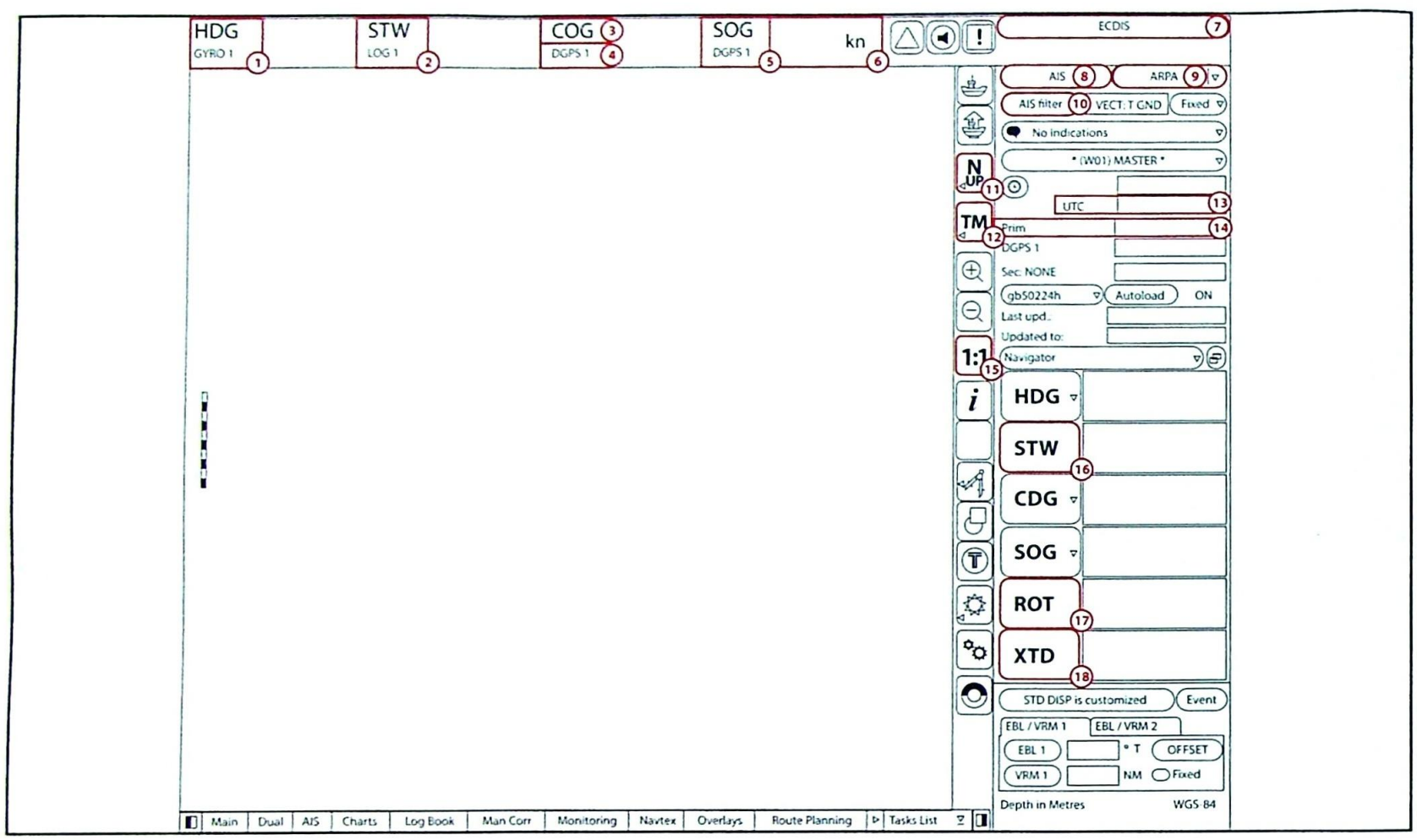
1. Ensure 'Charts' is enabled in the 'Tasks List'.
2. Ensure 'Charts' is selected.
3. Select 'Layers'.
4. Ensure 'Custom' is selected from the dropdown menu.
5. Turn 'Layers' ON/OFF, as required.

3.3 Display Configuration



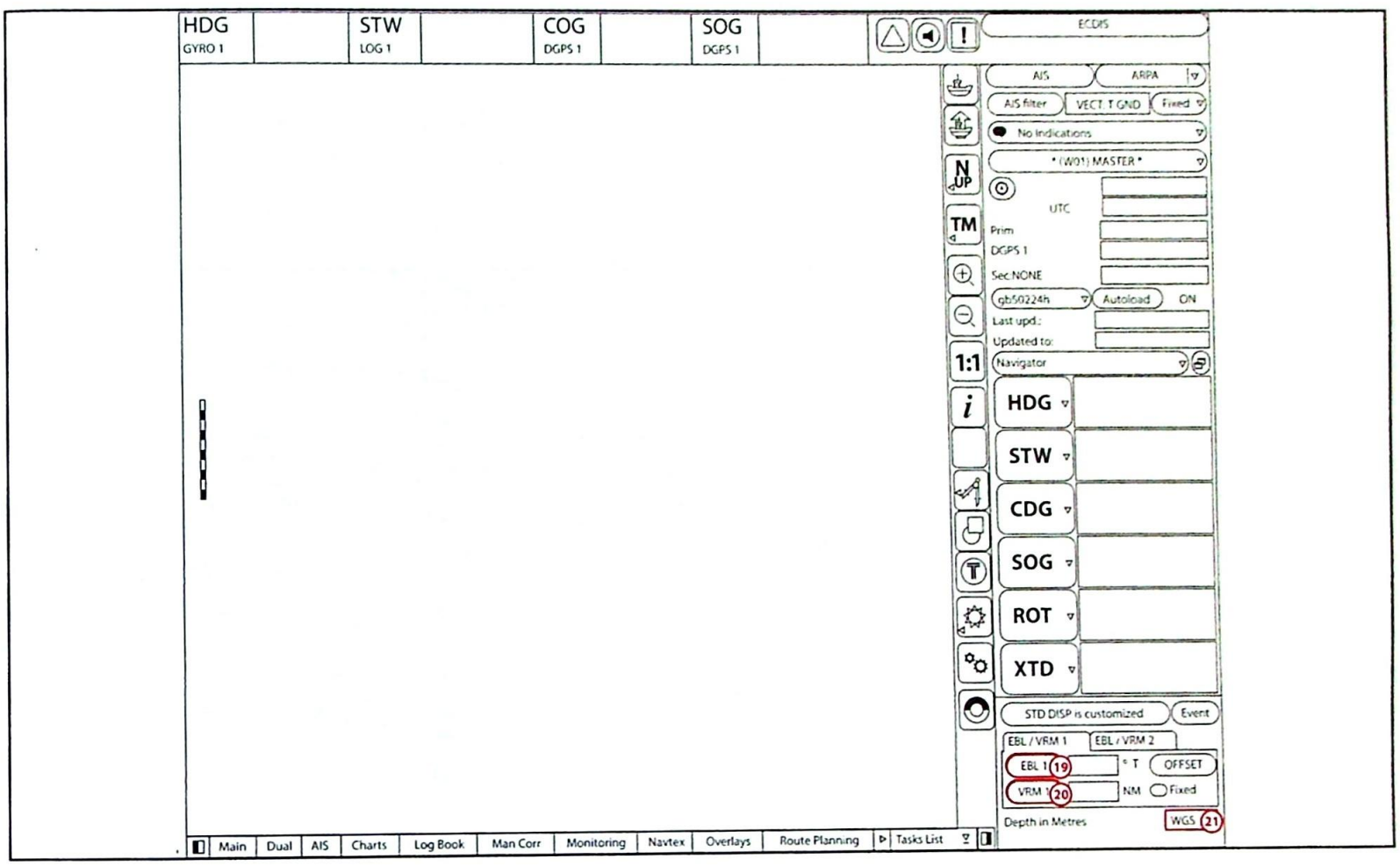
1. Ensure 'Charts' is enabled in the 'Tasks List'.
2. Ensure 'Charts' is selected.
3. Select 'General'.
4. Edit 'Main chart panel' and 'Chart priority' settings, as required.
5. Select 'ENC'.
6. Choose between 'Plain' and 'Paper chart' symbology.
7. Edit ENC features, as required.

3.4 Abbreviations Part 1



1. Heading
2. Speed Through Water
3. Course Over Ground
4. Differential Global Positioning System
5. Speed Over Ground
6. Knots
7. Electronic Chart Display and Information System
8. Automatic Information System
9. Automatic Radar Plotting Aid
10. Automatic Information System filter
11. North Up
12. True Motion
13. Universal Time Coordinated
14. Primary
15. Compilation Scale (1:1)
16. Speed Through Water
17. Rate of Turn
18. Cross Track Distance

3.4 Abbreviations Part 2



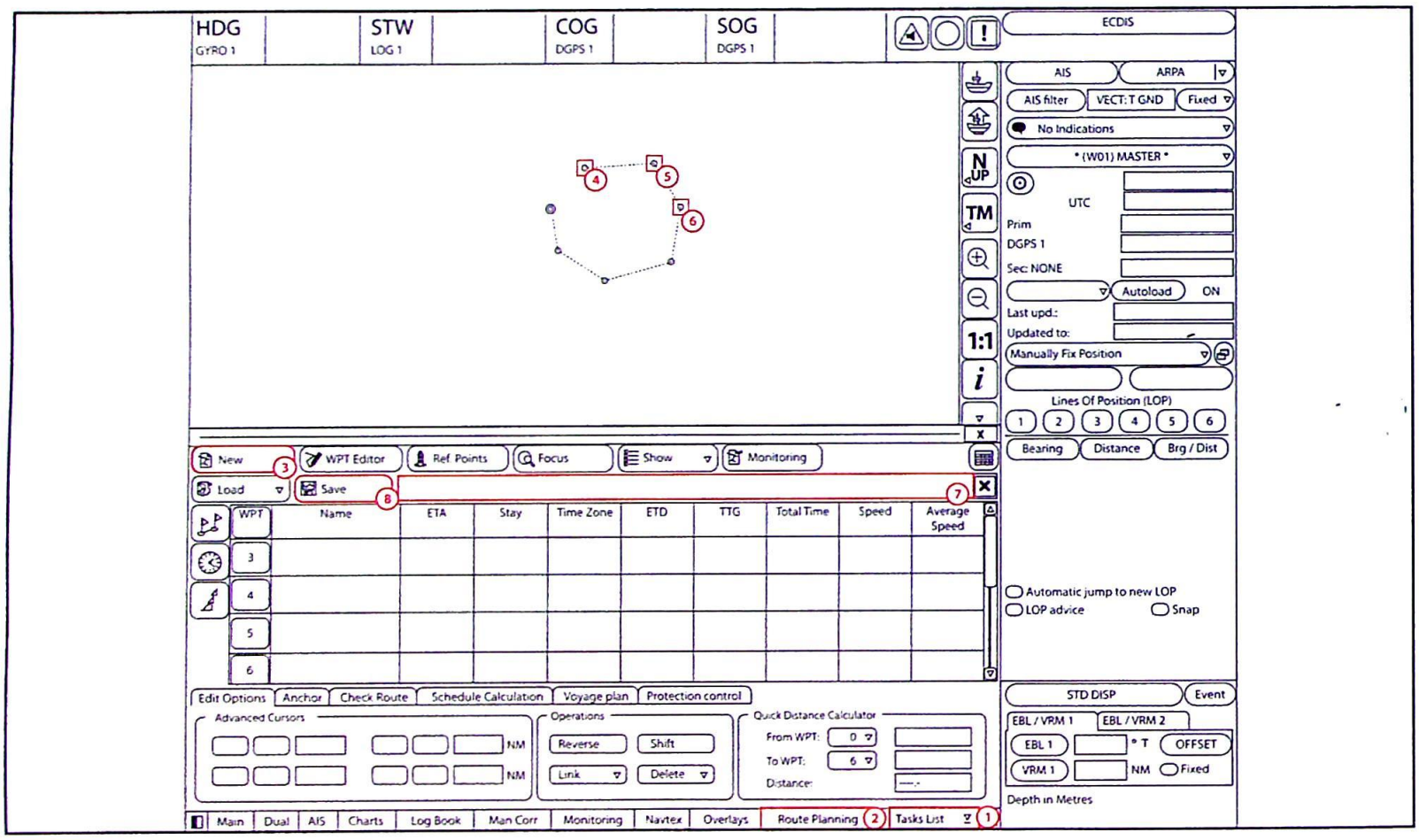
19 Electronic Bearing Line

20 Variable Range Marker

21 World Geodetic System 1984

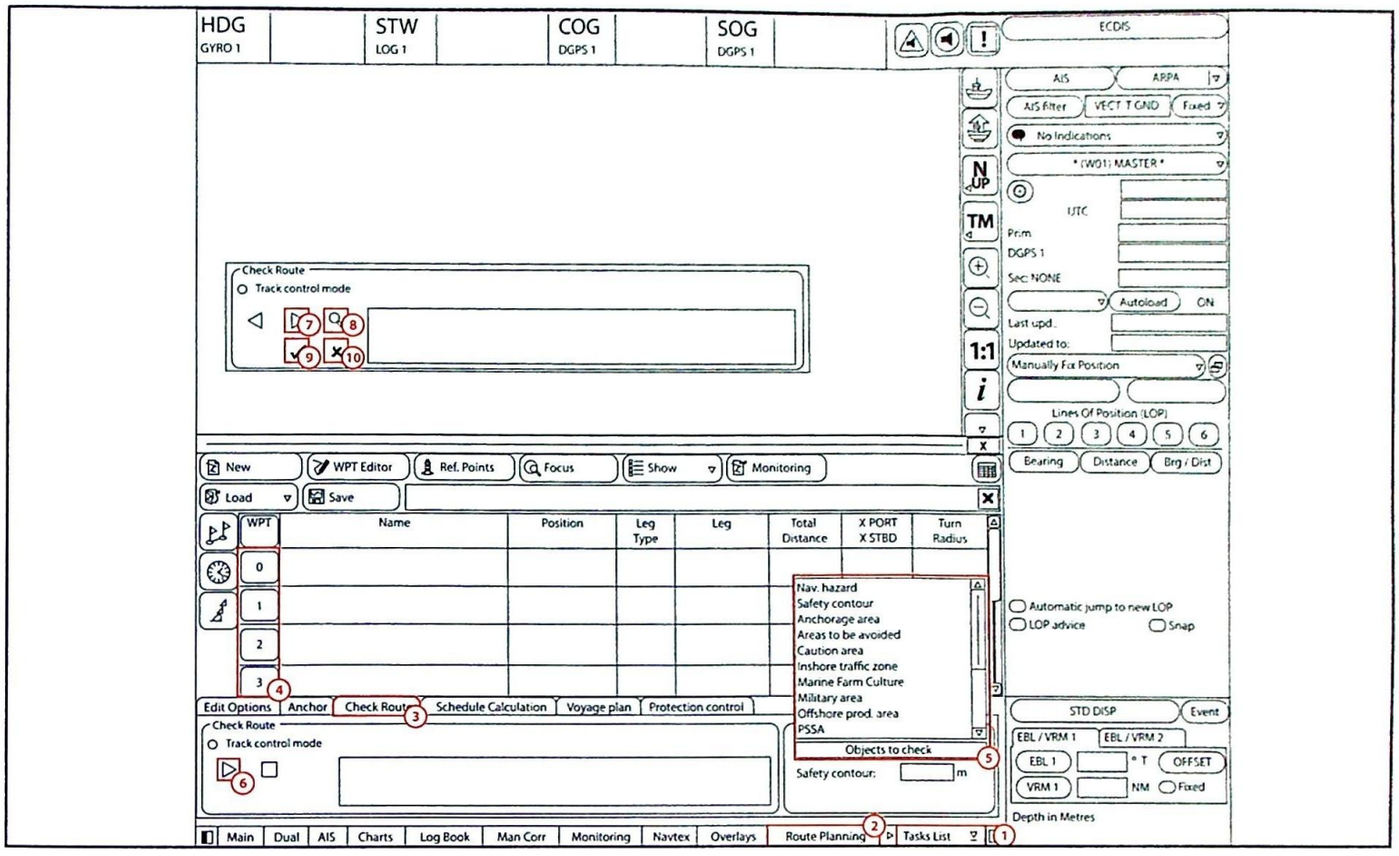
Section 4: Route Planning

4.1 Creation



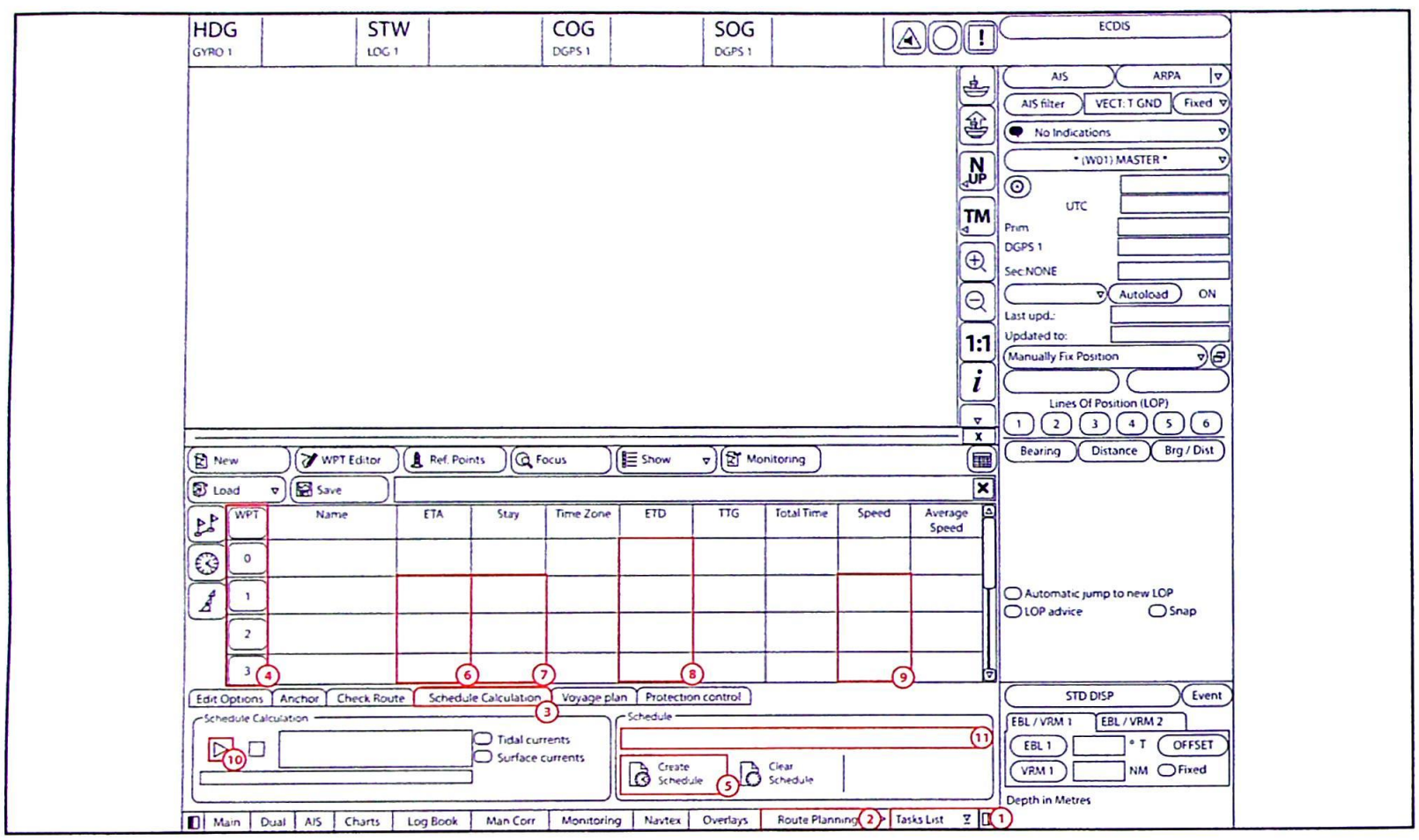
1. Ensure 'Route Planning' is enabled in the 'Tasks List'.
2. Ensure 'Route Planning' is selected.
3. Click 'New'.
4. Left click on the chart to place your first waypoint.
5. Left click again to place your next waypoint.
6. Consecutive left clicks will place more waypoints.
7. Give your route a name.
8. Click 'Save' to finish.

4.2 Route Checking



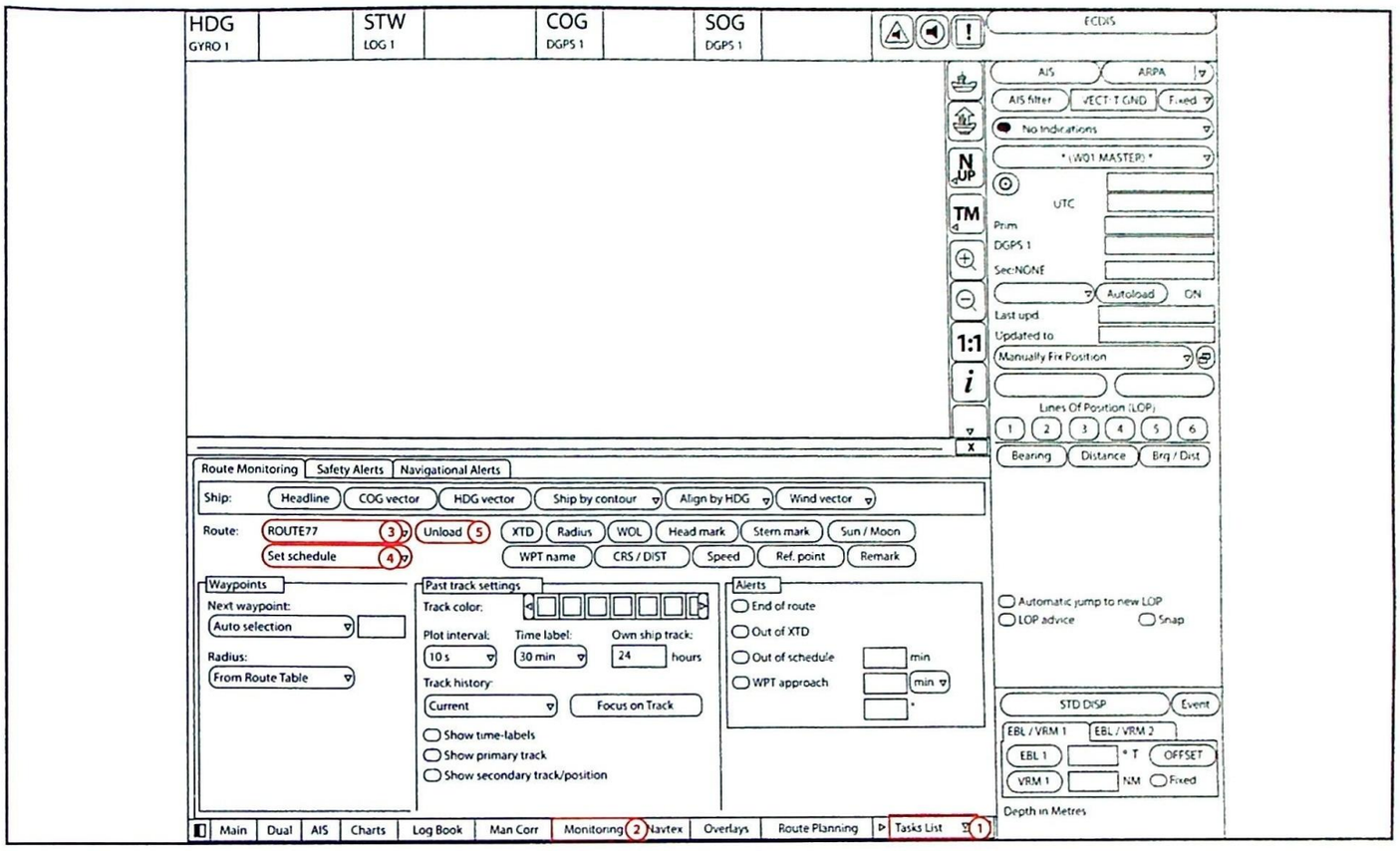
1. Ensure 'Route Planning' is enabled in the 'Tasks List'.
2. Ensure 'Route Planning' is selected.
3. Select 'Check Route'.
4. Ensure the route contains waypoints.
5. Dropdown shows areas to be checked for errors.
6. Click to begin check.
7. Use left/right arrows to cycle through warnings/alarms.
8. Click to highlight the error on the chart.
9. Click to accept route check.
10. Click to exit/finish route checking.

4.3 Schedule



1. Ensure 'Route Planning' is enabled in the 'Tasks List'.
2. Ensure 'Route Planning' is selected.
3. Select 'Schedule Calculation'.
4. Ensure the route contains waypoints.
5. Click 'Create Schedule'.
6. Insert 'ETA'.
7. Insert 'Stay'.
8. Insert 'ETD'.
9. Insert 'Speed'.
10. Click to start calculation.
11. Insert a name for the schedule.

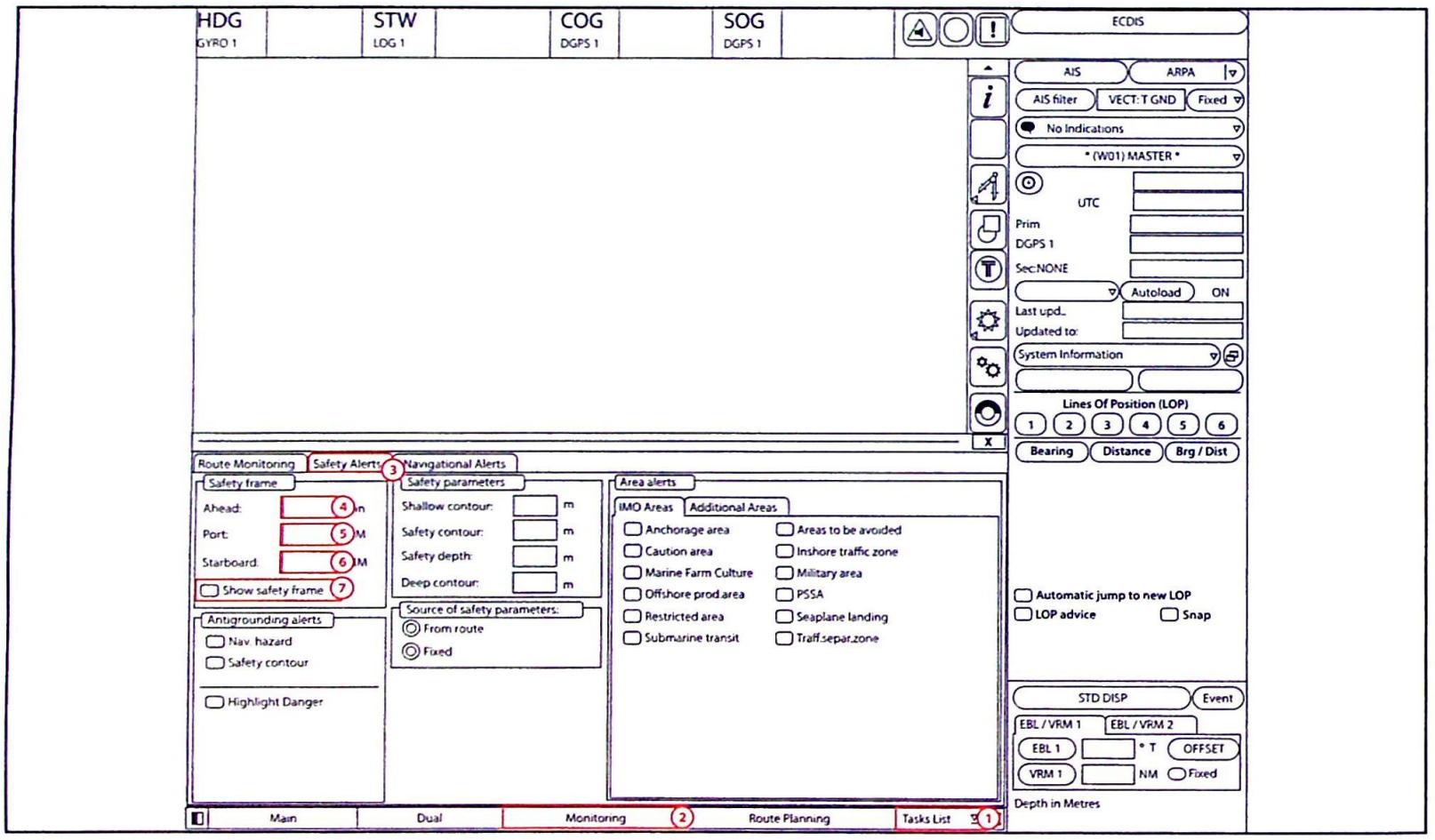
4.4 Selecting Active Route



1. Ensure 'Monitoring' is enabled in the 'Tasks List'.
2. Ensure 'Monitoring' is selected.
3. Select a route to activate from the 'Route' dropdown menu.
4. Select a schedule to use for your active route from the 'Set schedule' dropdown menu.
5. Select 'Unload' when you have finished monitoring to disable the route.

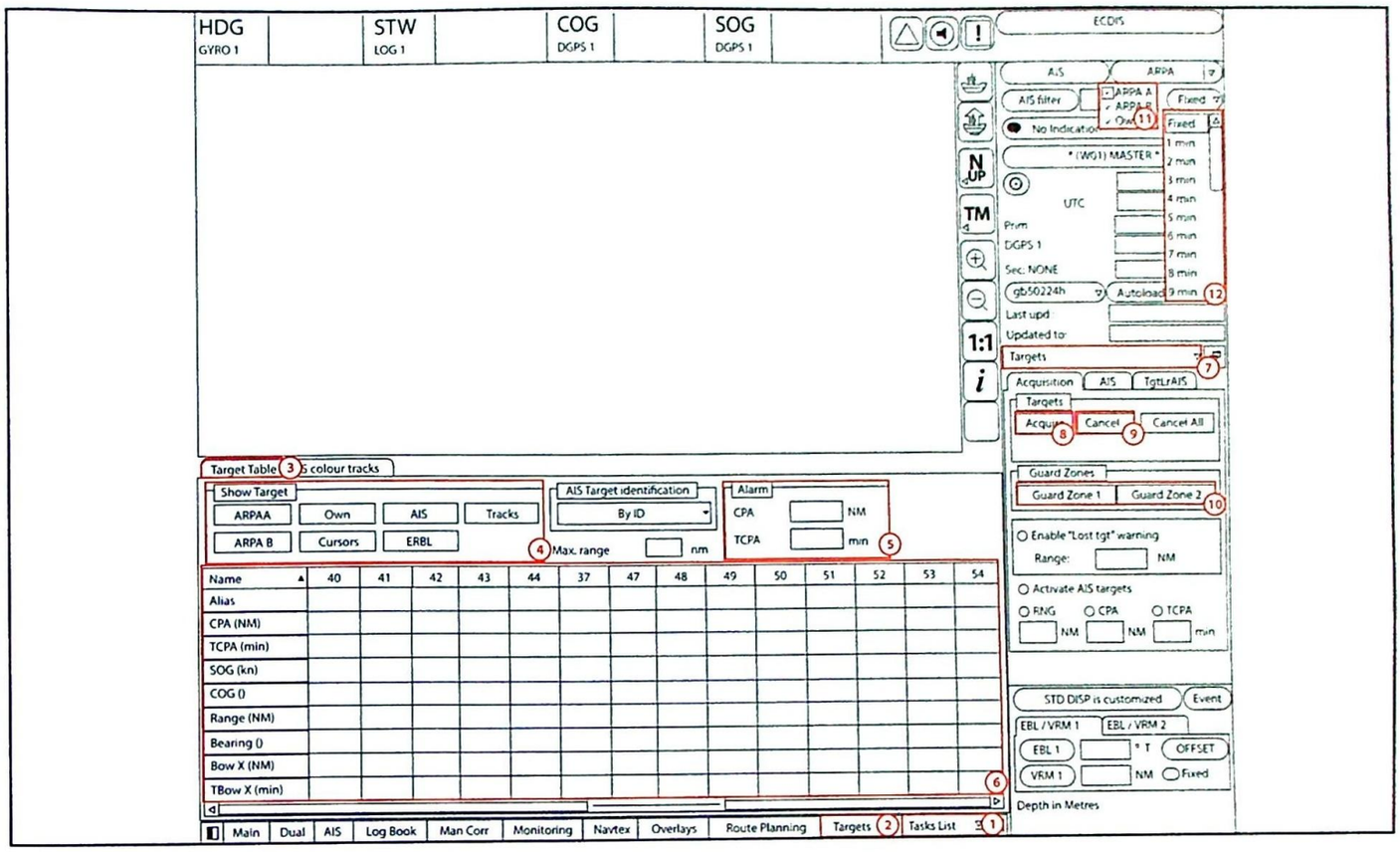
Section 5: Route Monitoring

5.1 **Look-Ahead**



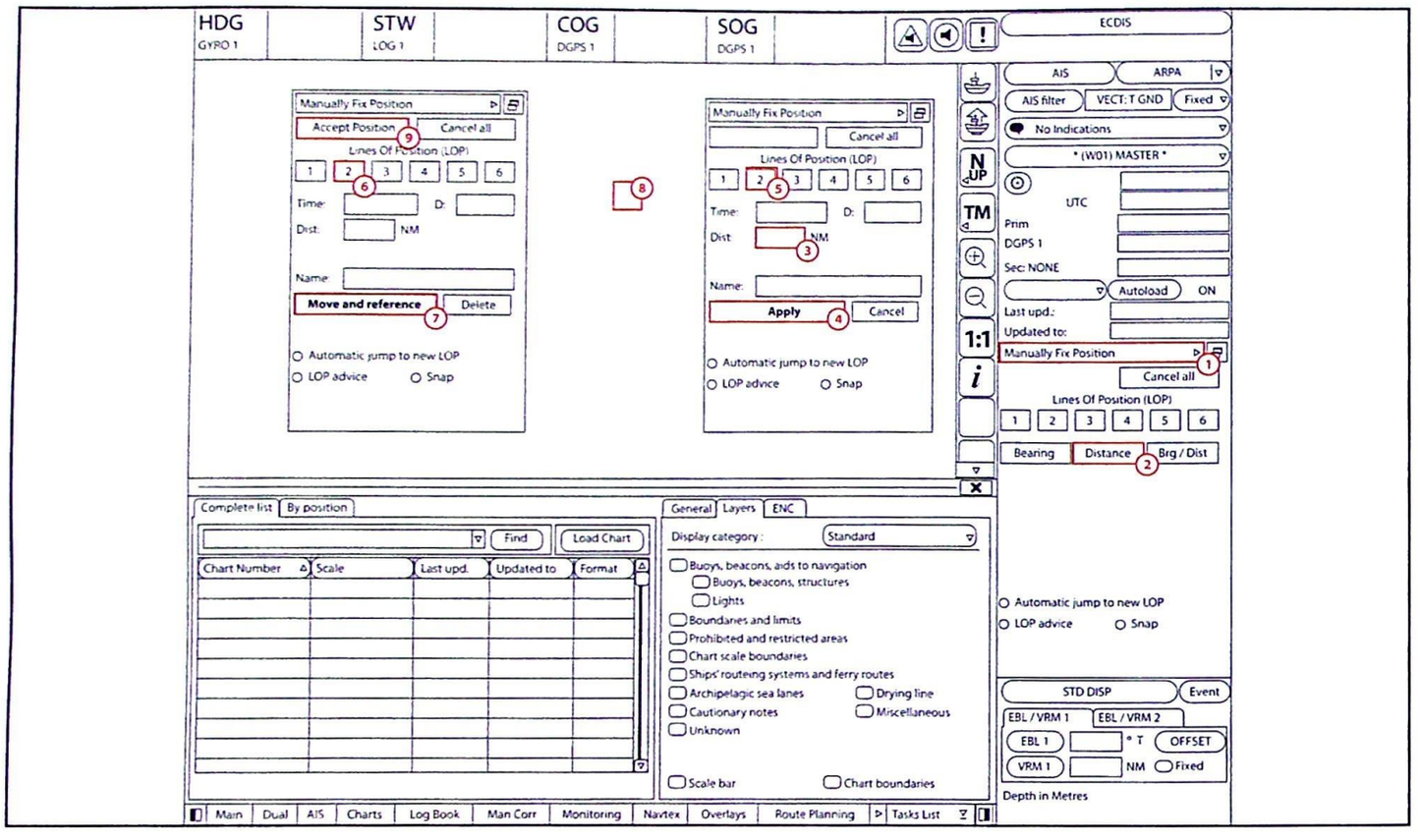
1. Ensure 'Monitoring' is enabled in the 'Tasks List'.
2. Ensure 'Monitoring' is selected.
3. Select 'Safety Alerts'.
4. Insert 'Ahead' value, as required.
5. Insert 'Port' value, as required.
6. Insert 'Starboard' value, as required.
7. Ensure 'Show safety frame' is selected.

5.2 TT/AIS/Vectors



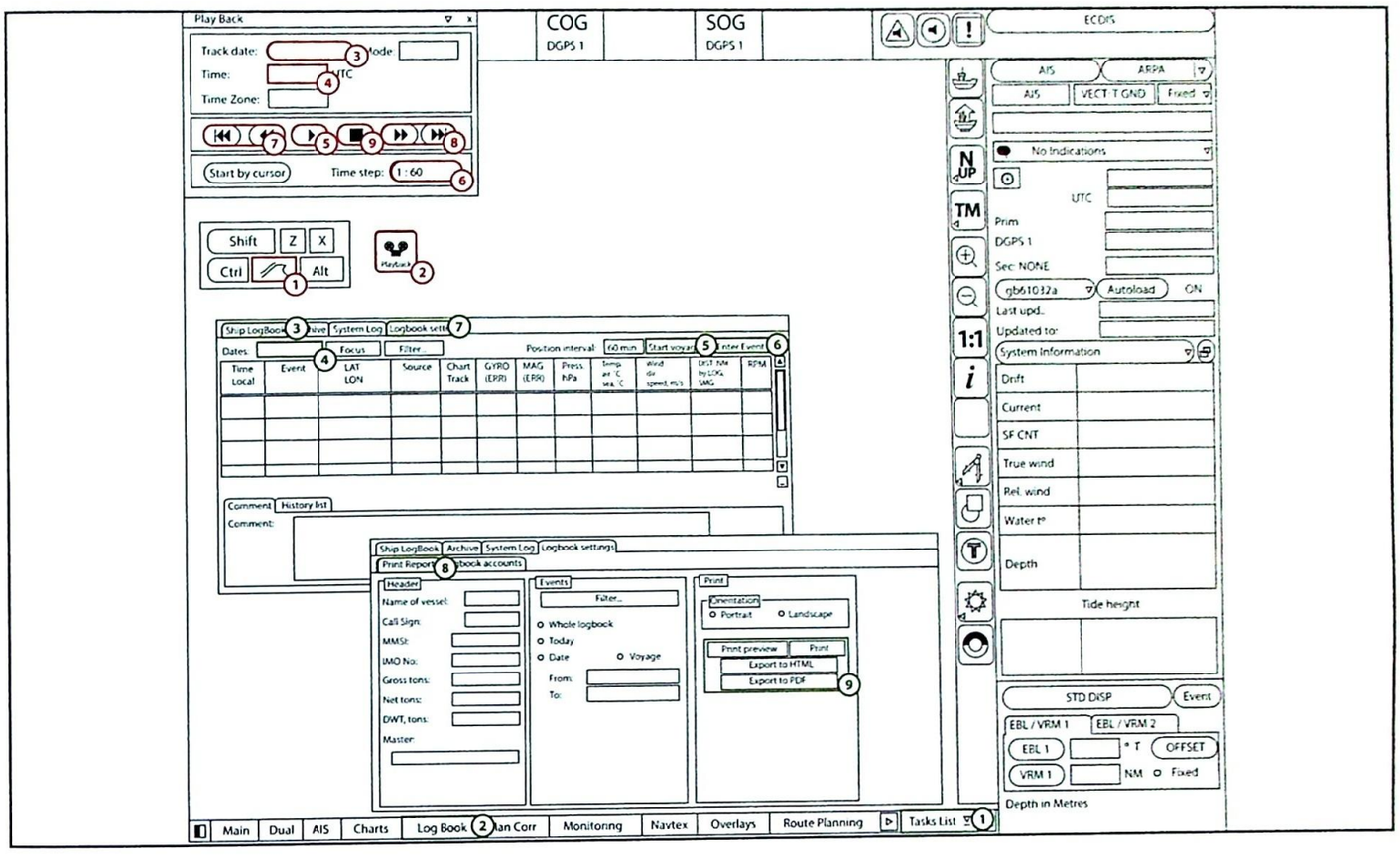
1. Ensure 'Targets' is enabled in the 'Tasks List'.
2. Ensure 'Targets' is selected.
3. Select 'Target Table'.
4. Select options to show/hide, as required.
5. Set 'Alarm' conditions, as required.
6. View 'Target Information' table.
7. Select 'Targets' from the dropdown menu.
8. Select 'Acquire' and left click on a target to acquire it.
9. Select 'Cancel' and left click on a target to cancel it.
10. Enable/disable guard zone 1/2.
11. Enable/disable 'ARPA' from the dropdown menu.
12. Select vector lengths, as required.

5.3 Position Fixing



1. Ensure 'Manually Fix Position' is selected from the Nav Tools menu.
2. Select 'Distance'.
3. Insert distance to your reference object.
4. Click 'Apply'.
5. The next LOP will be enabled.
6. Reselect the LOP for which you just added a value.
7. Click 'Move and reference'.
8. Left click on the reference position on the chart.
9. Add as many LOPs as required, then click 'Accept Position'.

5.4 Logs/Playback

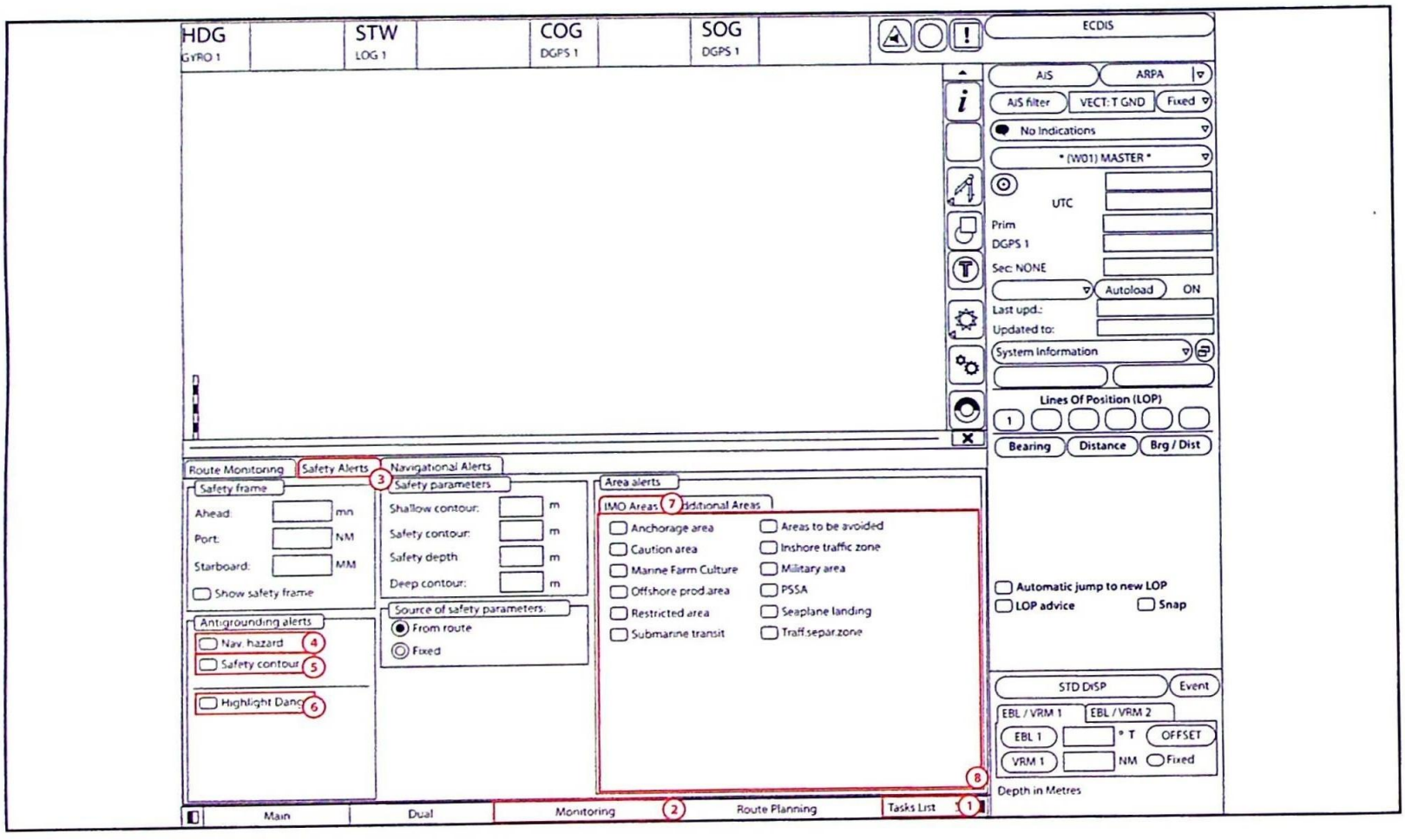


1. On your keyboard, press the highlighted button to open your Navi-Planner.
2. Click the 'Playback' button and enter your HCRF pin, if required.
3. Select a 'Track date'.
4. Select a 'Time', as required.
5. Click the 'Play' button.
6. Select 'Time step', as required.
7. Use rewind buttons, as required.
8. Use fast forward buttons, as required.
9. Press to stop the playback.

1. Ensure 'Log Book' is enabled in the 'Tasks List'.
2. Ensure 'Log Book' is selected.
3. Select 'Ship LogBook'.
4. Select dates from the dropdown menu.
5. Click 'Start voyage' to log the commencement of a voyage.
6. Click 'Enter Event' to log a manual event.
7. Click 'Logbook settings'.
8. Click 'Print Report'.
9. Choose print/export options, as required.

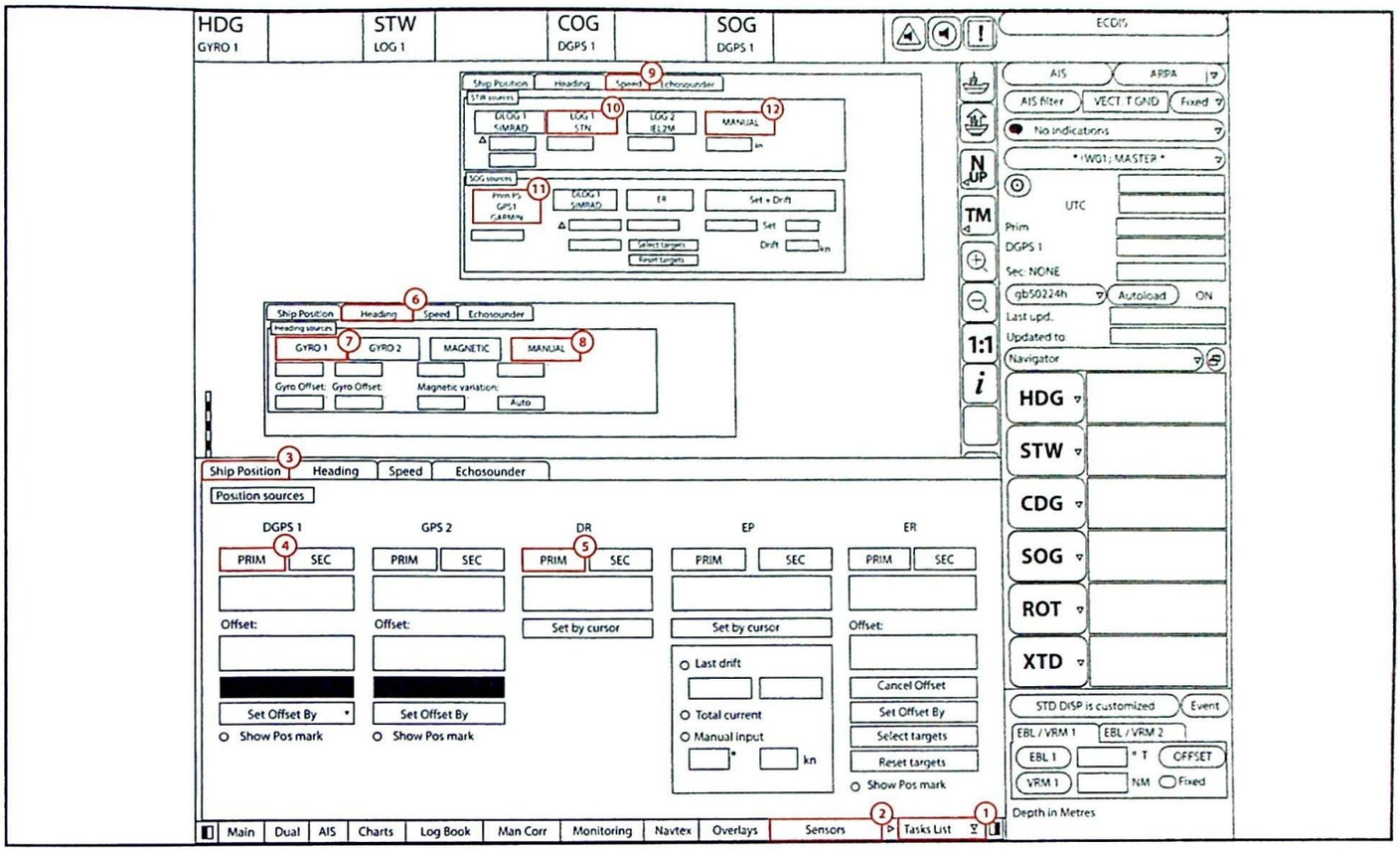
Section 6: System Settings

6.1 Warning/Alarm Configuration



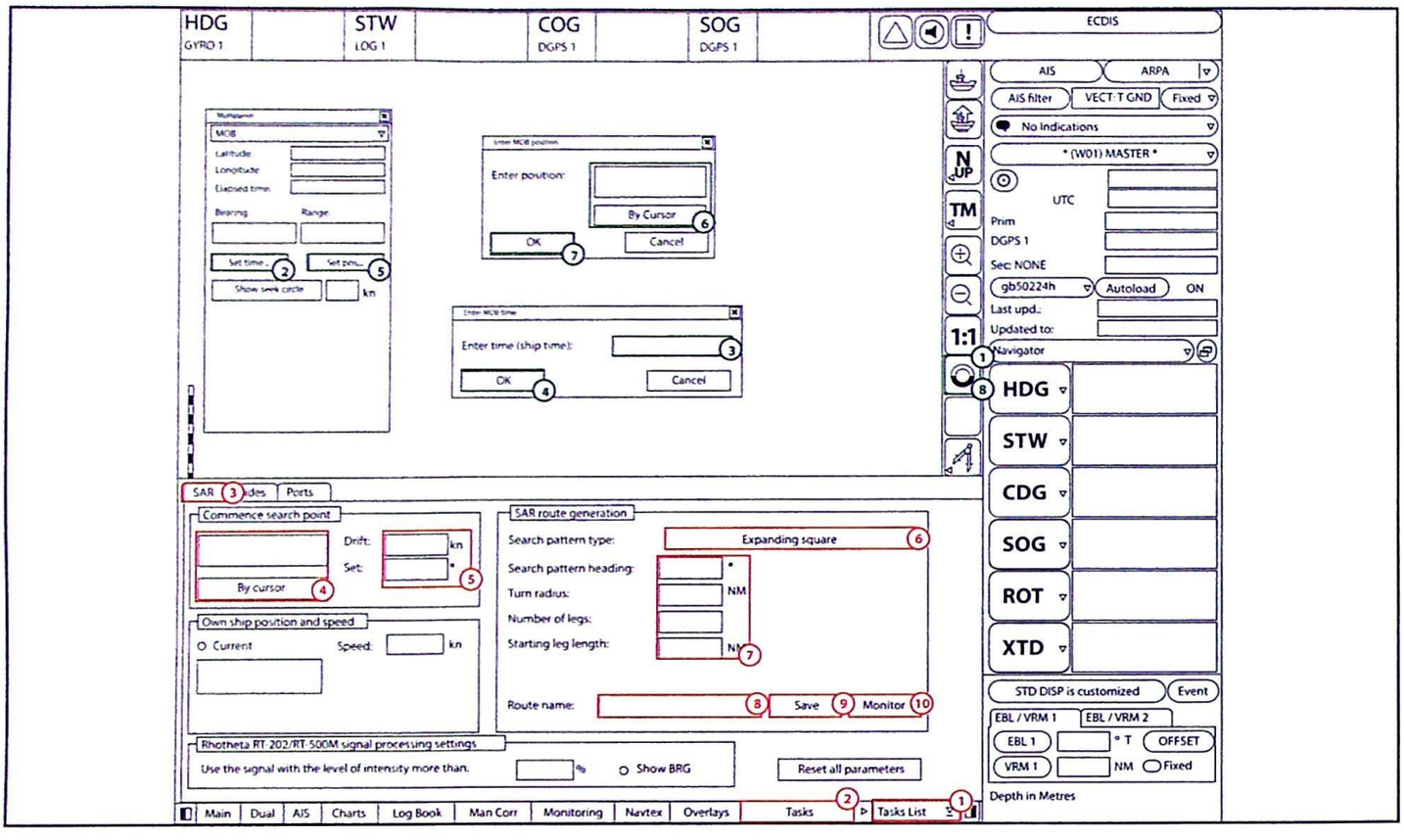
1. Ensure 'Monitoring' is enabled in the 'Tasks List'.
2. Ensure 'Monitoring' is selected.
3. Select 'Safety Alerts'.
4. Tick 'Nav. hazard' to enable/disable.
5. Tick 'Safety contour' to enable/disable.
6. Tick 'Highlight Danger' to enable/disable.
7. Select 'IMO Areas'.
8. Tick to enable/disable.

6.2 Position/Heading/Speed



1. Ensure 'Sensors' is enabled in the 'Tasks List'.
2. Ensure 'Sensors' is selected.
3. Select 'Ship Position'.
4. Select a sensor as primary.
5. Set 'DR' as primary.
6. Select 'Heading'.
7. Select 'GYRO 1'.
8. Set manual heading.
9. Select 'Speed'.
10. Set primary speed log.
11. Set SOG log, if available.
12. Set manual speed.

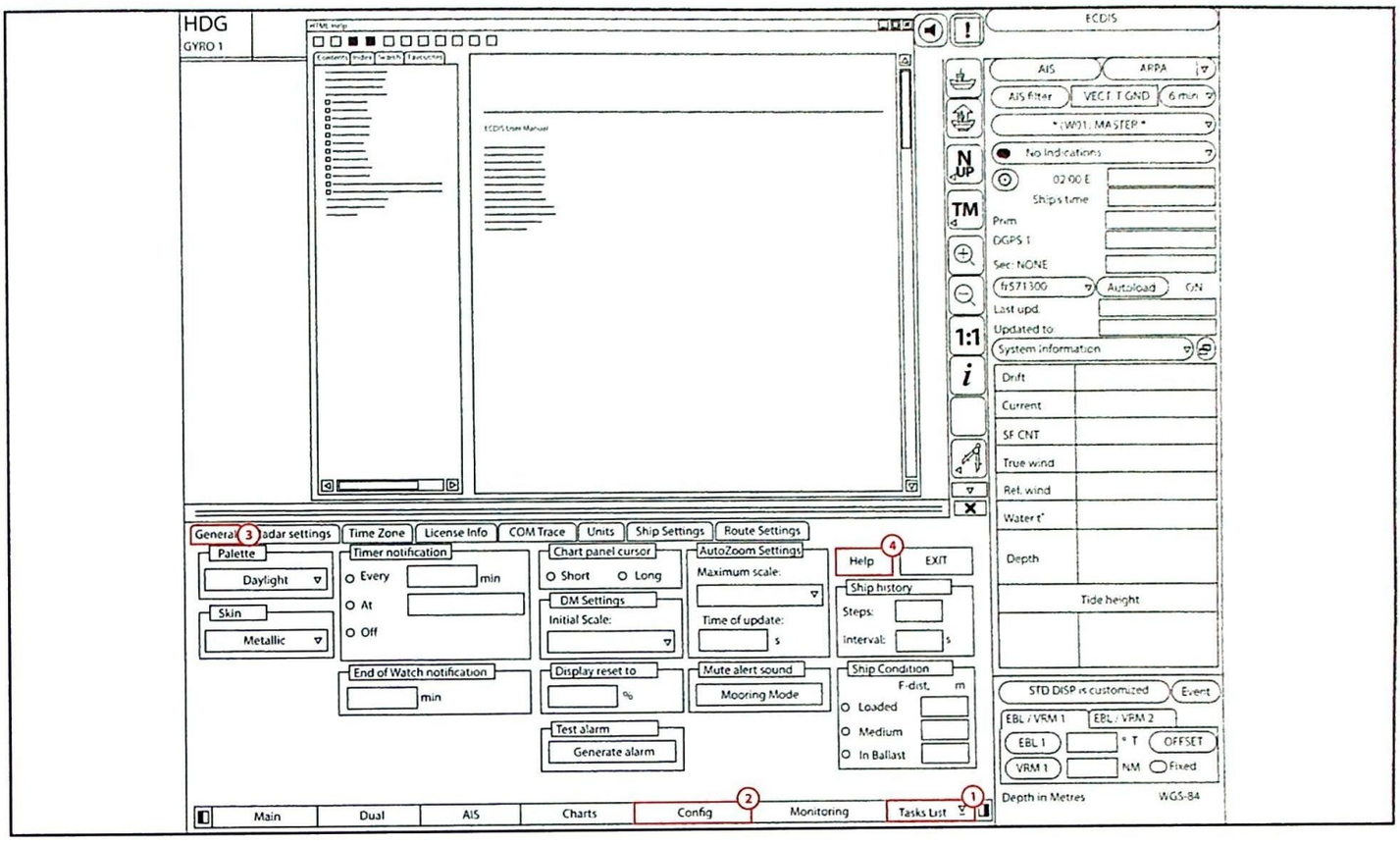
6.3 Emergency Menus



1. Ensure 'Tasks' is enabled in the 'Tasks List'.
2. Ensure 'Tasks' is selected.
3. Select 'SAR'.
4. Insert 'Commence search point' position.
5. Insert 'Set' and 'Drift'.
6. Select search pattern from the dropdown menu.
7. Insert search pattern settings.
8. Add a name for your SAR.
9. Click 'Save' to save the route.
10. Click 'Monitor' to save and monitor the route.

1. Click the 'MOB' button.
2. Click 'Set time...'
3. Insert time of MOB.
4. Click 'OK' to confirm.
5. Click 'Set pos...'
6. Insert position manually or by cursor.
7. Click 'OK' to confirm.
8. Click the 'MOB' button to close the MOB window.

6.4 Manual/About



1. Ensure 'Config' has been enabled in the 'Tasks List'.
2. Ensure 'Config' is selected.
3. Click on 'General'.
4. Left click to select 'Help'.

Notes

Notes

Notes