	<p>HEALTH, SAFETY, ENVIRONMENT AND QUALITY MANAGEMENT SYSTEM</p> <p>14.0 RECORDING POSITIONS USING FURUNO 2000 SERIES</p> <p>ON THE JOB TRAINING</p>	<p>OJT : 014 Page : 1 of 3 Date : 07-Nov-25 Rev : 10.1 Appr : DPA</p>
--	---	---

VESSEL : _____

DATE : _____


Training: Recording Positions using Furuno 2000 Series

- OOW shall use Radar fixes (bearing/range and parallel indexing) and visual navigation aids. i.e., landmarks in coastal areas to support electronic position-fixing methods,
- During the voyage parallel indexing and transit bearings should be utilized wherever possible. Targets suitable for radar parallel index are to be highlighted/prepared on the charts where beneficial.
- At least two methods of fixing the ships position shall be used at all times in accordance with the passage plan requirements. These will be termed —primary and —secondary. This rule is also applicable when the vessel is under pilotage or is navigating in confined waters.
- The sole use of only electronic position finding devices is not acceptable. GPS derived positions should always be verified by alternative methods.
- The frequency of position fixing should be such that the vessel cannot run into danger during the interval between fixes. In determining a fixing interval, a good —Rule of thumb is to fix the ship in half the time it would take to stand into danger. Using this rule a vessel coasting 12 miles off and steaming at 12 knots must be fixed at least every 30 minutes.
- During ocean navigation, the interval between check fixes should not be greater than 30 minutes.
- During coastal navigation, the interval between check fixes should not be greater than 30 minutes, but a radar information overlay alignment check with the coastline should be carried out at not more than 15-minute intervals between fixes, if available.
- Fixed points such as lighthouses and headlands should always be used for position fixing.

To record position fixes from coastline with radar overlay function on Furuno 2000 series:

- Turn on the two EBL and VRM available in the Nav Marks on position of observation; and verify the accuracy of bearing and distant from the position of observation.
- Open the sensor dialog box and select position source as visual.
- Move the cursor to the intersection of EBL and VRM then left click on mouse button.
- Click the record button to save the position into the voyage log as a visual observation.

Reference: Navigation Manual – Section 10
ECDIS Maker Manual on recording positions (Attached)

	<p>HEALTH, SAFETY, ENVIRONMENT AND QUALITY MANAGEMENT SYSTEM</p> <p>14.0 RECORDING POSITIONS USING FURUNO 2000 SERIES</p> <p>ON THE JOB TRAINING</p>	<p>OJT : 014 Page 2 of 3 Date : 07-Nov-25 Rev : 10.1 Appr : DPA</p>
--	---	---

Training conducted to following staff onboard:

CO

2O:

3O:

JNO

Deck Cadet

24. Recording Functions

24.4.4 Recording positions

The operator may manually save positions to the Voyage log in various ways. These are:

- Direct sensor position (GPS, Loran, etc.)
- Positions calculated by the system (in example below such are Kalman filter and Dead reckoning)
- User observations. (Visual, astronomical and MFDF. MFDF is Medium Frequency Direction Finder.)



An example of saving direct position or position calculated by the system



An example of saving position based on operator observation

First you should locate the position of your observation on the ECDIS chart. Use, for example, the two separate EBL and VRM available in the Nav Marks dialog box. Open the Sensors dialog box then click the Record tab. Select appropriate method from the Device list box. In case a User Observation is selected, put the cursor on the desired location on the ECDIS display then press the left mouse button. The latitude/longitude position of the cursor is then copied to the Lat and Lon fields. If you are satisfied, then click the **Record** button to save the position observation into the Voyage log. If you wish you can also enter Lat and Lon values manually.

Position fixes defined by Line of Position (LOP)

A plotted line on which a vessel is located, determined by observation or measurement of the range or bearing to an aid to navigation or other charted element. Two or more simultaneous observations can be combined to produce an estimate of the ship's current position. If the position is based on only two observations, it is an "estimated position" (EP); otherwise it is called a fix.

Line of Position (LOP) can be found in the Sensors dialog, Record tab as one of the Position Sources. A maximum of 6 observations can be entered to obtain a fix.