TELKO

Feature Guide:
TELchart ECS 3.8.3.1

With the release of TELchart ECS software version 3.8.3.1 your TELchart ECS is now fully upgraded to match the latest TECDIS version. For a complete list of changes, see the release history on www.telko.no. Here you will also find Feature Guides for previous releases.

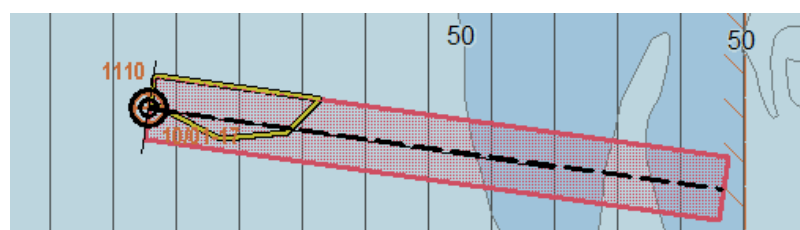## Important: TELchart ECS is now compliant with IHO Presentation Library 4.0

A big part of this compliance is the upgrade to a new version of the C-Map SDK (the chart engine in TECDIS and TELchart ECS). This brings in new nice improvements such as:

- Faster chart display times
- New chart overscale pattern, compliant with PresLib 4.0
- New scale bars
- Hover over the chart scale field in the main toolbar to see info on overscale factor
- The northern and southern chart display edge is now at 85 degrees N/S
- If a chart object is selected (to display more information) it is now outlined with orange color
- Edges and borders between different charts and charts of different scales are now presented with a thin line(if display is switched on)

Important behavior change: Antigrounding zone

The change you might notice first is the new antigrounding zone in TELchart ECS. No longer a circular sector, it is now shaped as a rectangle. This has obvious benefits;

- When performing sharp turns, there are no blind spots for your antigrounding alerts.
- You can now have a long check time, but keep the width low enough to minimize irrelevant danger detection (noise).

New feature: 1-click chart updating with ChartCo and PassageMaker 6

We are now adding our super-easy single-click chart updating to ChartCo AVCS charts as well.

So now users of Chartco AVCS and PassageMaker 6 will get a trouble-free and fast way to perform chart updates. Contact ChartCo for more information ☺

Note: ChartCo AVCS uses the S63 chart loading tool in TELchart ECS. Use of this requires an S57/S63 license, which is optional. Contact your TECDIS dealer for more information.
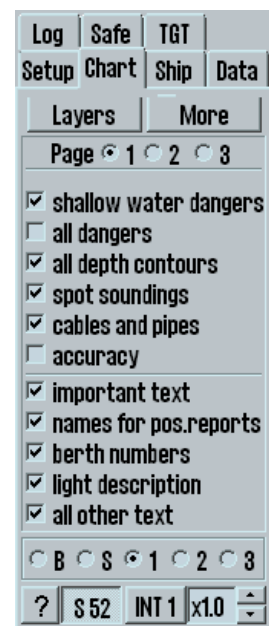
Important improvement: Chart menu

One of the bigger changes in this release is in the chart menu. It has been almost completely remade, and now contains 3 panels for the chart display shortcuts, that are now all organized in groups based on their effect on the chart view.

A new feature in the chart menu is that you now can edit all your B-S-1-2-3 preset settings, not just your 1-2-3 presets. So you can now customize the Base and Standard chart presentation freely. You reset to the standard settings in the Viewing group panel.

You can now also show chart information for a specific time period, in the past or the future. This helps you plan your routes based on the charted information for the planned voyage, and not based on the charts today.

This function is complimented by the possibility to highlight additional chart information, with an "i"-symbol for chart objects with additional information available, and a "d"-symbol for date dependent chart objects.

New feature: Export routes to pdf

This is a highly requested new feature. You can now save and export your routes in the pdf document format, from both the **Route Report** and the route **Export** function, both found in the Route tool.

WP	Lat.	Lon.	Distance (NM)	BRG (T)	Speed (kn)	Lane (NM)	Turn (NM)	Delay (min)	Leg time
1	58° 51.991' N	010° 17.595' E	12.9	262.8°	10.0	0.05	0.20		1 hr 17 min
2	58° 50.371' N	009° 52.851' E	13.4	239.9°	10.0	0.05	0.20		1 hr 20 min
3	58° 43.643' N	009° 30.517' E	4.0	219.1°	10.0	0.05	0.20		24 min 02 s
4	58° 40.559' N	009° 25.698' E	5.4	211.5°	10.0	0.05	0.20		32 min 08 s
5	58° 36.010' N	009° 20.359' E	14.3	213.0°	10.0	0.05	0.20		1 hr 25 min
6	58° 24.056' N	009° 05.502' E	31.1	228.9°	10.0	0.05	0.20		3 hr 06 min
7	58° 03.639' N	008° 21.204' E	19.7	247.2°	10.0	0.05	0.20		1 hr 58 min
8	57° 55.989' N	007° 47.013' E	17.1	265.0°	10.0	0.05	0.20		1 hr 42 min
9	57° 54.502' N	007° 15.187' E	14.9	274.8°	10.0	0.05	0.20		1 hr 29 min

Route: Oslofjord - Stavanger · Time: mandag 6. februar 2017 · Page 1

Close | Save | Print | ENC Update Status | Page 1 of 1

The route report is formatted automatically in the system, and is updated live if you make changes to the route while the route report is open.

Important improvement: Query cursor is now CURSOR PICK

The query cursor is where you select objects in the chart view (both chart objects and user made symbols) and view detailed information about them, and the new name of the function is **Cursor Pick**. The object inspector has therefore also been renamed to **Pick Report**.

We have also updated the functionality of the Cursor Pick and Pick Report, and you can now:
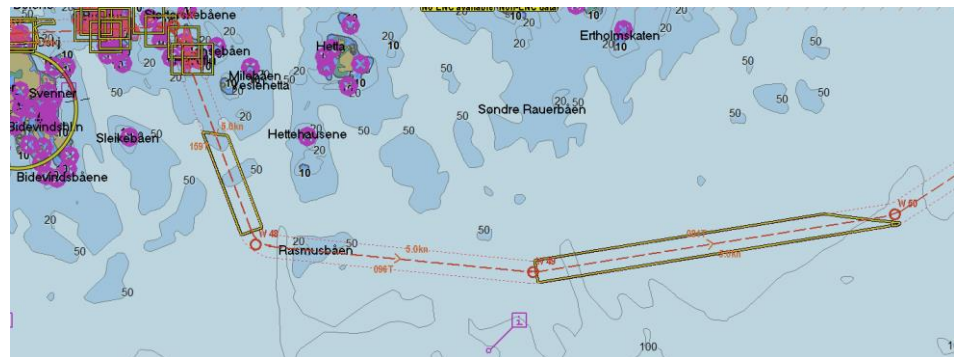
- See a highlight frame around your selected chart object
- Choose to display **value descriptions** in the Pick Report by pressing the corresponding button
- Switch to the Chart Legend by pressing the corresponding button, to view chart information such as accuracy and scale for the chart at the selected position

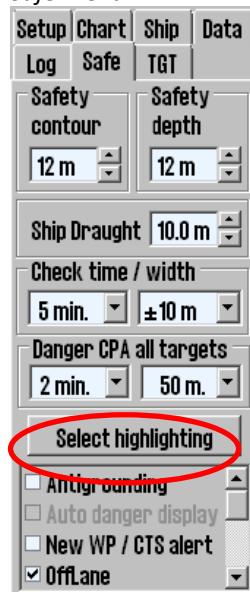# Important improvement: Danger and caution display for routes

When you create routes, the danger highlighting in TELchart ECS has now been updated. The graphical indication of dangers is improved and covers up less of the chart features.

- The safety contour in the chart is drawn with red color
- Navigational hazards are drawn with yellow
- Areas with special conditions (cautions) are drawn with yellow
- Dangers in the route lane are now indicated directly, and not just by displaying the route lane with yellow or red.

We have also added danger highlight settings so you can customize how dangers are highlighted both when planning (route danger highlight is displayed when checking for dangers) and sailing (antigrounding highlight) a route.
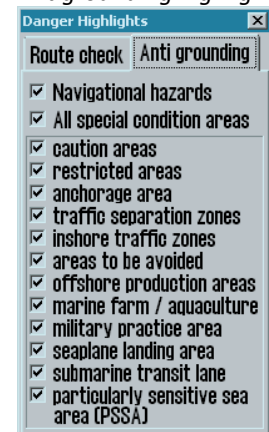
Safe Menu

Route danger highlight

Antigrounding highlight

Important improvement: Navtex

This is one of the bigger changes to a feature in this release of TELchart ECS. The Navtex function has been mostly redesigned, with new activation, Navtex window and several other improvements.

We have removed the station selection in the chart, and instead placed it in the Navtex window, with standardized **navtex station letters** to filter out stations. We have also remade the message type filter, so you now select what messages to display with the navtex-standardized **message type letter**.

There are also shortcut buttons to display **All/None** of the received navtex messages.

So now, when you want to view the received navtex messages, you click on the MSI/Navtex button on the main toolbar, and the Navtex window appears. Select stations and message types, and the list will be populated with messages.
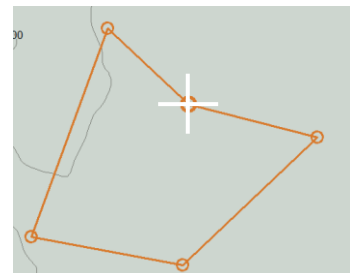
Important improvement: Changes to alerts

These are some of the changes made to the alert system in TELchart ECS:

Alert	Changes
Navigational hazards warning	This is by default given as a caution, but you can set it as a warning in the Safe menu
60 second warning interval	You can set the interval of warning sounds, either at 4.8 minutes between audible signals or 60 seconds.
Waypoint alarm	Now warnings.
Final waypoint passed	

Improvement: Manual chart corrections

We have made a number of changes to the manual chart corrections functionality in TELchart ECS. The most important are:

- You can see the changes you previously made directly in the chart, displayed with thin symbol lines, when the update review window is open. The update review window is the tool you use to review the automatic chart updates.
- Manual corrections can now be added with start and stop-dates, including periodic start and stop.
- Existing chart objects (objects that are not added manually) can now be deleted from the manual corrections tool.
- Manual corrections can now be hidden from the chart, by selecting them and pressing the **Hide** button in the chart correction tool. They will still appear in the chart corrections tool, where you can make them visible again by pressing the **Show** button.
- The manual correction you are placing in the chart is now displayed in the chart view as you create it. You can also manipulate the shape the same way you manipulate routes:
    - **click on the middle of a line** in the object to add an anchor point
    - **right click** an anchor point to remove it from the object
    - **left click** in the chart to add an anchor point(added after the last)
    - You have to use **Save** or **Cancel** to exit the edit mode.
- If the object inspector/cursor pick report is open when a manual update is performed, the results in the object inspector will automatically update itself while you edit/add manual corrections.
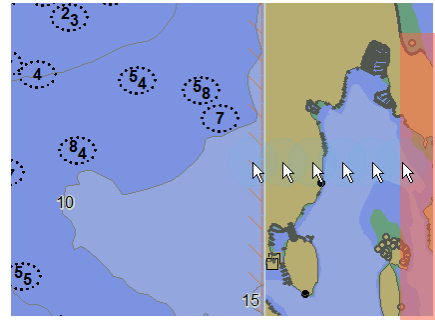
New feature: Easy access to menus

This is a feature we had in a different form a few years ago, that we now have simplified and improved on.

The default way to access the menus is by pressing the menu button on the main toolbar. This still works as before.

Now, to get **easy access** to the menus, you can move the cursor to the right edge of the antigrounding chart. Then the menus will automatically appear.
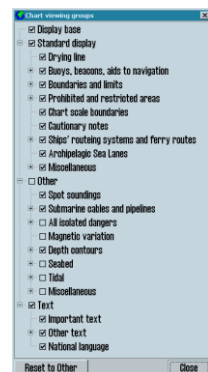

To close the menus, press the **menu** button on the main toolbar.

Improvement: Support for all viewing groups

With the support of viewing groups in TELchart ECS since version 3.7.x.32, it has been possible to finetune the chart display based on *IHO's standardized Viewing Groups*.

In this release, we have improved this by adding support for **all viewing groups defined by IHO**. The main improvement of this is the addition of many text subgroups.

This allows you to really finetune your chart display in very high detail. The function is still available from the **More** button in the chart menu.

New feature: DEF button (default settings)

DEF This is a new button, with two new single click functions to change TECDIS settings to default values:

•	**Left click** (Ctrl+D)	Resets the chart display to the Standardized default settings **(Standard DEF)**
•	**Right click**	Opens a window where you can: 1. Save the listed user definable settings as a User DEF 2. Activate a saved *user made default setting* **(User DEF)**

List of settings that can be added to **the User DEF** function:

Toolbar	**Display orientation** (north up, course up, Radar 1/2 up, etc)
	Whether or not **AIS, Radar 1/2**, **Tracks**, and **Symbol** functions are activated (buttons pressed down or not)
Function windows	Default **Symbol** and **Track** display settings (except specific date limitations)
	Status of the **Lane** and **Info** checkboxes in **Voyage planner**
Chart menu	**All settings**
Setup menu	Selected **language**, and checkboxes for **scroll wheel zoom**, **show help hints** and **display both primary and secondary position**(in *NMEA Data input*)
Ship menu	**All settings** except **Wheelover**
Safe menu	Check time/ check width, highlight settings, all alert checkboxes, except Harbour Mode. **Note that safety contour, safety depth and draught can't be saved to the default setting.**
TGT menu	**All settings**

The default settings can be saved and exported, so you can import your own default values each time you start your offshore period.

To save the current settings to make a new default, right click the DEF button.

New feature: Move LOP observations without selecting them in the chart

Based on user feedback we have remade the way you move LOP observations. In the minimized LOP window you still use the ReAnchor button and select the LOP in the chart. After that the LOP sticks to your cursor, and when you press the **left mouse button** you place the LOP in its new location. This is a space-effective solution.

But when you use the Maximized LOP window, you now press the Move button besides the LOP observation you want to move. After that the LOP sticks to your cursor just as before.

The best part comes when you have repositioned that LOP. Because now TELchart ECS automatically attaches the next LOP in the list to your cursor, making it easier to manage multiple LOP observations in a row.

You can abort/stop moving LOP observations any time by pressing the **right mouse button**.

New feature: Adding LOP bearing and range observations from radar cursor

This is another user requested feature – and it simplifies and improves the LOP tool for users with Radar Cursor integration.

Before, when adding LOP observations from a radar echo, you always had to insert the bearing and distance separately. This is a hassle if the LOP is given from the radar cursor, as it can do both simultaneously.

So now you simply do the following:

1. Move the radar cursor to the echo.
2. With the LOP window open, place the TECDIS cursor on top of the radar cursor and press the middle mouse button.
3. You can now:
    a. With a **Maximized LOP window**, press the **Move** button besides the bearing in the list, and place the bearing on the echo(radar cursor). Left click twice. This moves both the bearing and the distance to the same location.
    b. With a **Minimized LOP window**, press the **ReAnchor** Button, place the bearing on the echo and left click. **Repeat** for the distance observation.
4. Press **Auto DR.**
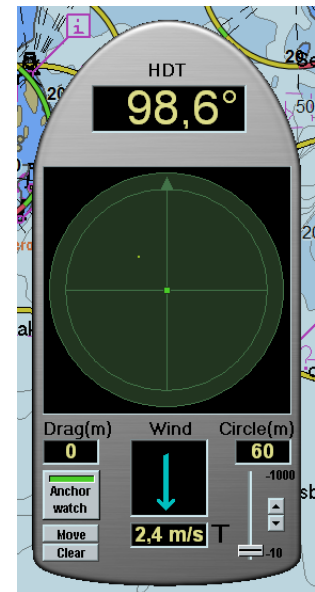
Improvement: Anchor watch

The Anchor watch function in TELchart ECS has been updated to comply with the new IEC 61174 edition 4 standard. Now, there is **only one anchor watch mode**, where there previously were 3. *You simply switch anchor watch on or off!*

We have also added finetuning of the anchor watch circle diameter with 10 meter steps, and you can use a slider or up/down buttons to set the diameter.

The anchor history plot now shows where the historical positions of the anchor are, not the bow.

We have also made several smaller tweaks to the anchor watch function:

- a new anchor watch symbol in the chart
- graphical updates
- new value labels

Note that the anchor watch feature now gives a warning when the ship is outside the turning radius of the anchor watch zone. This warning will be escalated to an alarm within 2 minutes if not acknowledged.
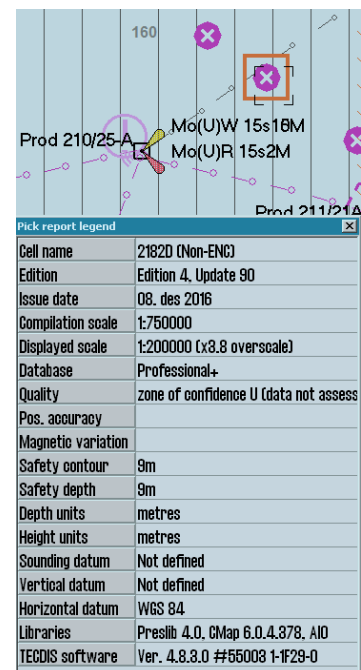**The alarm is removed if the anchor watch function is closed.**
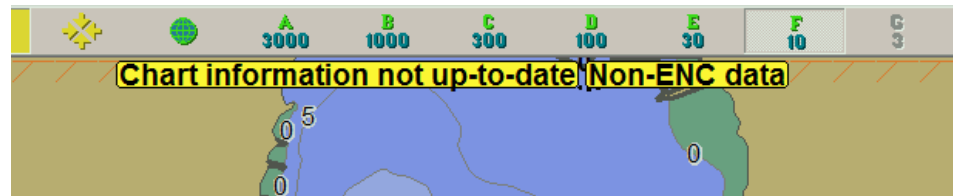
Improvement: Chart Legend

The chart Legend has also been given an overhaul, and the most notable change is the new sorting of information. The software version number and 5-digit system ID is now at the bottom row in the chart legend.

Now the title of the window also tells you where the information is referenced from. If the Window title displays "**at centre**" this means that the legend is valid for the centre point in the chart view. Additional reference points are

- At own ship (if the chart is in Auto Mode)
- Graphical index (if more cells are displayed on screen)
- Pick Report (if the reference point is selected with the cursor pick tool)

Pick report legend	
Cell name	2182D (Non-ENC)
Edition	Edition 4, Update 90
Issue date	08. des 2016
Compilation scale	1:750000
Displayed scale	1:200000 (x3.8 overscale)
Database	Professional+
Quality	zone of confidence U (data not assess
Pos. accuracy	
Magnetic variation	
Safety contour	9m
Safety depth	9m
Depth units	metres
Height units	metres
Sounding datum	Not defined
Vertical datum	Not defined
Horizontal datum	WGS 84
Libraries	Preslib 4.0, CMap 6.0.4.878, AIO
TECDIS software	Ver. 4.8.3.0 #55003 1-1F29-0

Improvement: Chart notices

TELchart ECS has for many years displayed chart notices on the top of the chart view. With this release we are improving the display of these chart notices, and adding some clever functionality to them.

Instead of only showing the most important chart notice, we have updated the system to:

- Show several notices simultaneously
- Show additional information about the notices when you hover over them (same as for any existing button or function in TELchart ECS)
- **Add "click-to-fix" function:** you can now fix the issue causing the notice simply by clicking on the notice.

Improvement: Chart loading

The chart loading in TELchart ECS has been improved with the following new functionality:

1. TELchart ECS will now perform a full S-58 verification when you are loading S57/S63-charts. This happens before the actual loading, and you will no longer be prompted to take action for each issue – the system will determine actions by itself, and present a much more detailed error/warning list.

   Note that this will cause the chart loading to be much slower! You can avoid this by having "*Ignore S-57 Import Errors/Warnings*" selected in the chart loading tool (Load charts or S63 Chart Loader).

2. Improved chart loading summary for S57/S63 chart loading

3. New chart notices for out of date charts (see explanation above)

4. If you are using charts from C-Map, TELchart ECS will now perform a signature check of the chart before loading. This prevents the system from loading charts from a bad DVD.

Improvement: Invalid turn

In this release we are improving how invalid turns in routes are handled. From now, you cannot activate a route with one or more invalid turns. Also, when you create an invalid turn while planning the route, a notice will appear on the bottom of the screen, alerting you of the erroneous turn.

Improvement: Area object fill

We have replaced the hatched fill of user-made area objects, with a transparent fill. The transparent color is the same as the object outline color. This makes it much easier to read the information covered by the area object.

Note that yellow fill is not available any more; this is replaced with orange fill.

Improvement: AIS activation zone

We have made two improvements to the **AIS activation zone** (*Active range* in TGT menu); A green circle in the chart to indicate the *limit of the AIS activation zone*, and a new option *to turn off the AIS activation zone*(no AIS targets are displayed as active in the chart).

Beyond the green circle, no AIS targets will be displayed as active without being specifically selected. This means that they are displayed as minimalistic as they can in the chart, without key information such as a course vector.

Improvement: Dead Reckoning source indication

To improve the indication of position sources that do not give continuous position updates (in short, this means Dead Reckoning), we have added a yellow background to the position label in the information panel when DR is the active position sensor.

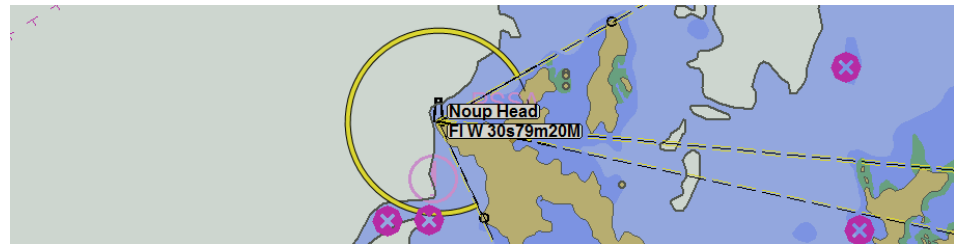## Improvement: How the system handles a full target buffer

With a target buffer of 2000 targets (AIS and radar combined) TELchart ECS handles a lot of targets simultaneously. Most likely, you will never experience that many targets at once. But, if you do, we have improved how the system handles that situation.

1500 slots in the buffer are now reserved for targets that are visible when they are received. The remaining 500 slots are free for all targets. When you change settings for target visibility, the 1500 slots are reset, allowing new targets to be handled.

Improvement: 1:200 000 chart scale added

A small change in this release is the addition of a new chart scale level, **1:200 000**. It is not available as a separate button on the main toolbar, but when using the **cursor** or **zoom**-buttons to change scale, it will be included.

Improvement: Lights

In this release we have made several smaller improvements to the display of lights:

- The light description when you hover the cursor over the light itself is updated, with full descriptions according to S-52 edition 4
- The light color when the lights sector is stretched out full (with right click on the light) is now magenta for lights with blue, amber, violet or multiple (alternating) colors. This is done to reflect the light symbols in the chart itself.
- When multiple lights are coming from one point, the description you see when the cursor is hovered over it, will list them all.

Improvement: Display of AIS SAR Aircraft is added

In this release we have also added support for AIS SAR Aircraft. When received, this is displayed with an aircraft symbol in the chart. Track for the SAR Aircraft is only displayed when it is selected as a target. The symbol is displayed without heading indication and course vector, but it is oriented at its COG.

Document revision history

| 1.0 | 14.09.2017 | Initial release | Cato Haugland |