FEATURE GUIDE: TECDIS 4.8.3.7

The release of TECDIS 4.8.3.7 adds Bow Crossing and a range of other smaller features to TECDIS. For a complete list of changes, see the release history on https://telko.no. Here you will also find Feature Guides for previous releases.

Get access to all new features with TELCARE

TELCARE is our Software as a Service solution for TECDIS. With a subscription to TELCARE, you get access to all new software functions developed for TECDIS.

In TECDIS 4.8.3.3, 4.8.3.4 and 4.8.3.6 we added great features such as TotalTide integration, Rendevous and drag'n'drop editing of route lane and turn radius, Curved EBL, EMRI autopilot interface to Curved EBL, Speed To Go (STG) Calculator, Improved route monitoring and support for Scandinavian Micro Systems Optical Bearing Device (OBD) to the list of TELCARE features.

In TECDIS 4.8.3.7 we are adding Bow Crossing calculation to TELCARE as well as other smaller features.

Go to https://telko.no to order TELCARE for your vessels.

Previous release major improvement: Alert handling

The previous TECDIS release 4.8.3.6 added a full rework of alert handling in TECDIS, providing full compliance with the latest bridge alert monitoring standards (BAM) as well as many alert-related quality of life improvements. For a full description of the updated alert features, a full update to the TECDIS documentation for alert handling is provided in the end of this feature guide. Highlights include:

Audible alert reduction

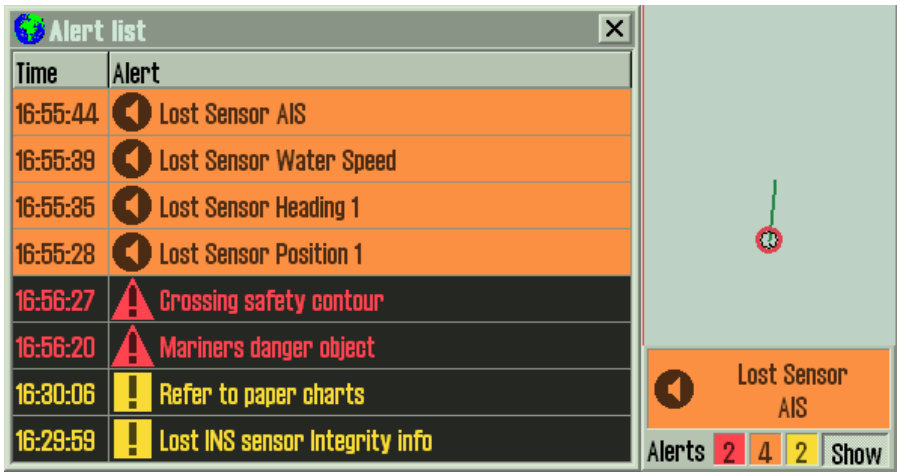
Previously, all alarms and warnings have resulted in audible alerts that have continued to sound until the alert is acknowledged by the operator.

Starting with TECDIS 4.8.3.6, alarms and warnings will only result in audible alerts as long as the underlying cause remains present. Audible alerting stops as soon as the cause is rectified, even when the alert is not yet acknowledged.

For example, this means that the 'Crossing Safety Contour' alert will no longer continue to sound when the look-ahead sector no longer crosses the safety contour, even if the alert has not been acknowledged yet.

Alert Icons

All alerts are now presented using the standardized alert icons in both the alert field and the list of alerts, making it much easier to distinguish between alerts that are active, rectified, silenced, etc.

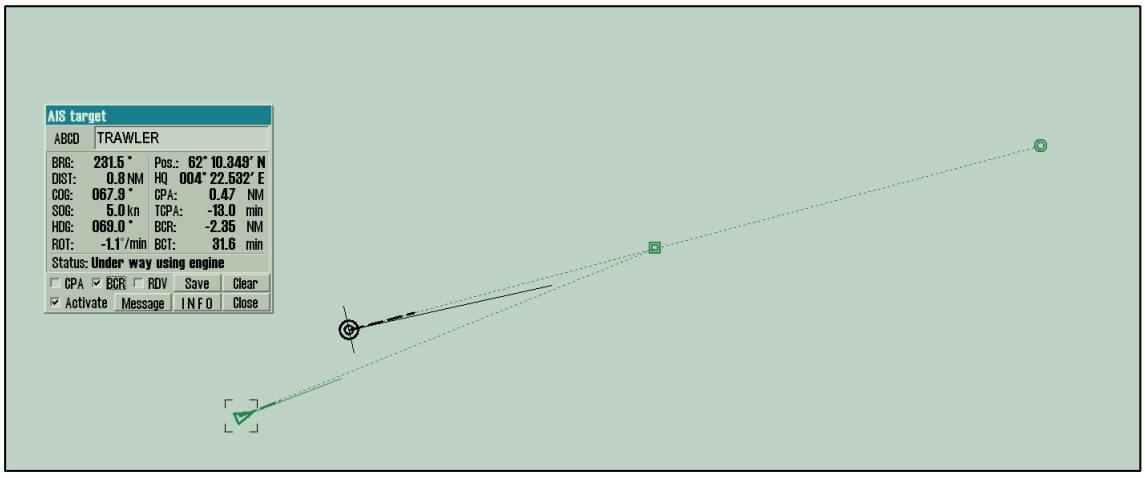


Alarm sound improvement

The audible indication for alarms still consists of 3 beeps as before, but the interval between repetitions has been increased from 8 to 10 seconds, and the length of the beeps has been shortened, resulting in an alarm sound that is less intrusive.

Note to technicians: All new TECDIS installations will use new standardized alert identifiers in interfacing with BAM. Also note that alert identifiers will remain unchanged when updating existing installations but may be changed via configuration settings. Please request the updated TECDIS list of Alerts from support@telko.no for details if needed.

New TELCARE feature: Bow Crossing calulation, presentation and chart display



Bow crossing range (BCR) and bow crossing time (BCT) is now added to TECDIS. This includes:

- Calculation of BCR and BCT when CPA is calculated.
- Presentation of BCR and BCT values in the target dialog.
- Graphical presentation of bow crossing for one target in the chart.

BCR and BCT values are added to the AIS Target dialog, and a checkbox to enable display of the BCR situation graphically in manner similar to the existing CPA feature.

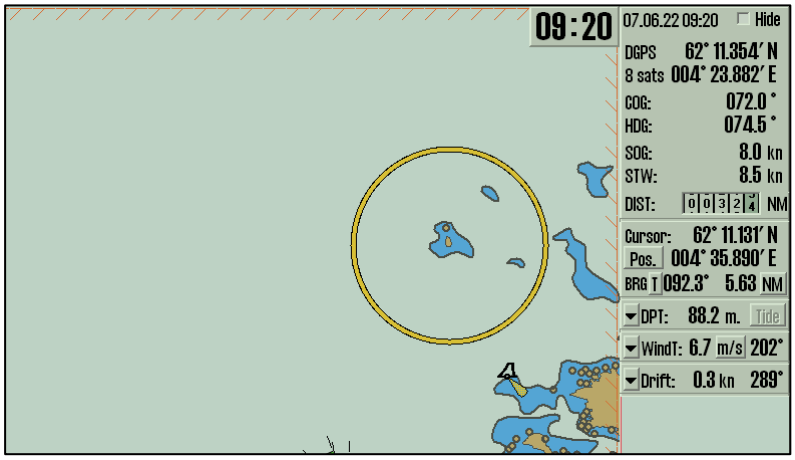
New TELCARE feature: Option for red land colours in S52 night palette

It is now possible to configure TECDIS to show land areas with red colour when the night palette is in use. The feature is activated by setting TELchart.ini [Options] value ”red_s52_night=1”.

While the red night colours are shown, a ”Non-standard presentation mode” notice is shown in the upper middle part of the chart display. Clicking this notice changes colours to standard night colours. This change persist until the next palette change.

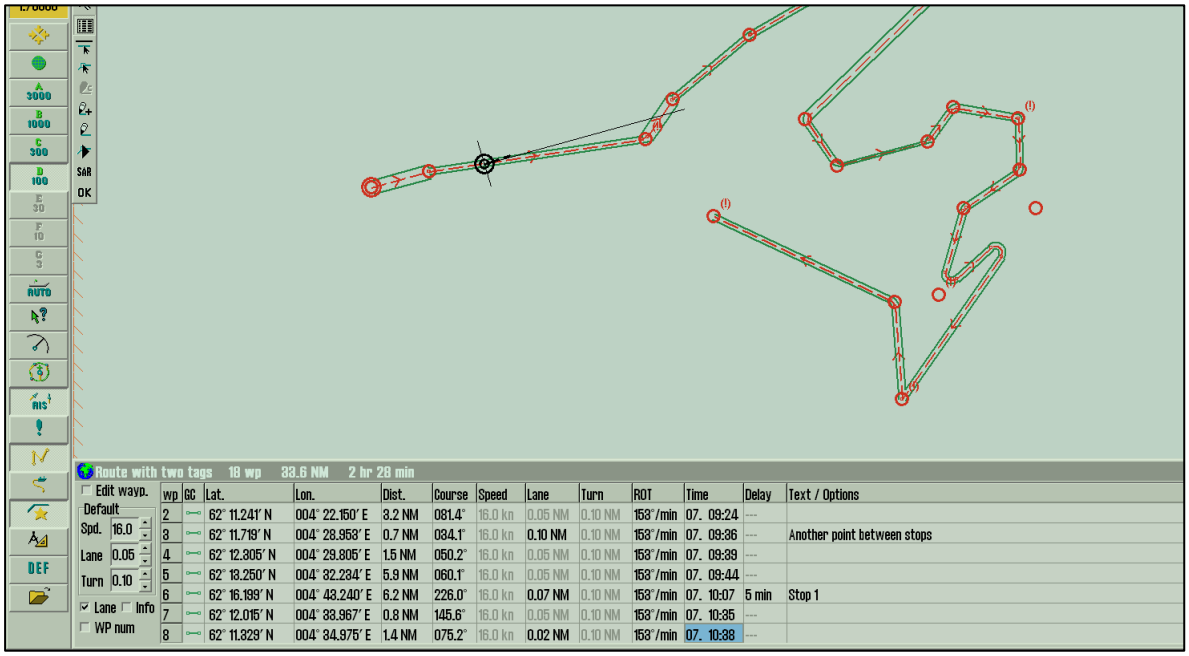
If needed, the red land colours may be adjusted by modyfing the TELchart.ini [Options] value ”red_s52_reduce_blue”.

New TELCARE feature: Larger time display



This version introduces an option for displaying the current time in a larger, more readable form. Click the current date or time in the upper right corner to toggle display of a larger clock panel in the upper right corner of the chart display.

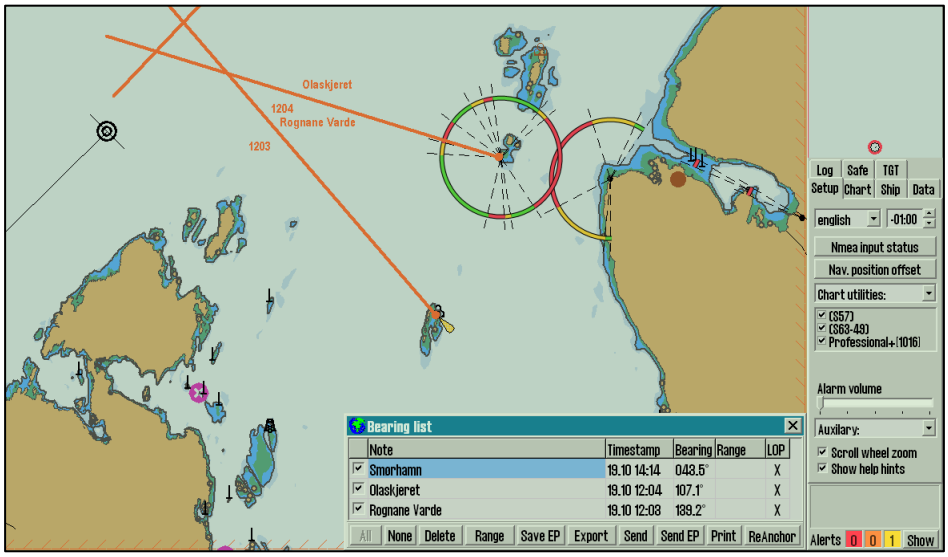
New TELCARE feature: Option for controlling of display of waypoint numbers



A requested feature to be able to control whether waypoint number texts are displayed in the chart or not is added.

In the waypoint dialog, a checkbox for toggling display of route waypoint numbers is shown instead of the route time zone controls when TELchart.ini [Options) value ”route_show_num_control” is set to 1.

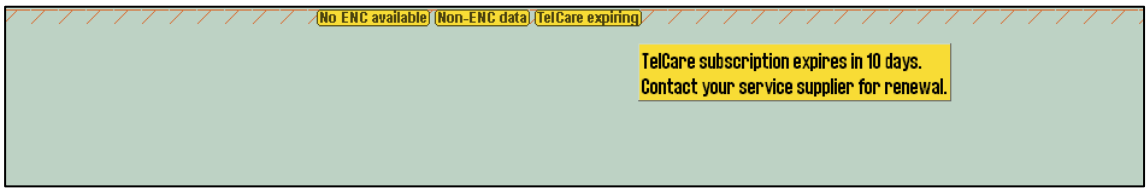
New TELCARE feature: Bearing list output to TelScope



When TECDIS is used in combination with TelScope, it is now possible to transfer bearings and position fixes to TelScope viw two buttons that have been added to the Bearing List:

- **Send**: Sends the selected observations out to TelScope.
- **Send EP**: Sends the selected observations and an estimated position out to TelScope.

New TELCARE feature: TELCARE expiry warning



When 14 or less days remain of the TELCARE subscription, a yellow notice is displayed in the upper middle part of the chart display with a hint text showing the number of days and to contact support service provider.

When the TELCARE subscription has expired, the notice is shown noting that TELCARE has expired and to contact support service provider until more than 30 days have passed since expiry.

New feature: Option for showing AIS meteo wind speed in m/s

An option for having wind speed in AIS AtoN meteo data to be shown in m/s has been implemented. To make use of this, add a TELchart.ini [Options] value ”ais_met_wind_ms”. When set to 1, AIS meteo wind speed is shown in m/s.

New feature: Option for 30 second water speed sensor

Some vessels have regularly water speed outages in some configurations. It is now possible to increase the water speed sensor timeout from 10 to 30 seconds via a TELchart.ini option. To do this, set ”long_water_speed_timeout=1” in TELchart.ini.

New feature: New output TCP/IP port 7000 for forwarding AIS messages

It is now possible to configure TECDIS to forward all received AIS messages on a TCP/IP server available on port 7000.

When TELchart.ini [options] value ”enable_ais_port_7000=1” is set, it is possible to connect to TECDIS IP adress TCP port 7000. When connected, all AIS messages received by TECDIS will be forwareded to the connected client.

Improvement: Video switching in harbour mode

When using a keypad with an alarm indicator (such as FK2020), it is now possible to make use of video switching while the harbour mode feature is activated.

Other fixes and improvements

TECDIS 4.8.3.7 also contains several other fixes and improvements.

- **Fix for route lengths shown in route list for long routes**
  An issue has been fixed where the length of routes longer than 6500 NM was not displayed correctly in the route selection window.
- **Option for monitor address for monitor RS-422/485 communication**
  An issue has been fixed where TECDIS monitor communication over RS-422/485 previously resulted in monitor communication alarms. Starting with this version, monitor communication may be configured via RS-422/485. In order to use such a port for monitor communication, configure the new option “monitor_adress” in TELchart.ini section[Setup] with the identification number configured in the ECDIS monitor (1-254).
- **Monitor forwarding improvements**
  Improvements have been made to the monitor forwarding port feature of TECDIS, often used for centralized dimming control. The improvements extend the compatibility of TECDIS with such solutions.
- **Improved route crictical point acknowledge behaviour**
  An issue has been fixed when using the acknowledge button on FK2020 after a route critical point alert did not work as intended.

TECDIS USER GUIDE AMENDMENT ALERTS

TECDIS is equipped with an advanced alert system compliant with the latest standards for bridge alert management. TECDIS version 4.8.3.6 introduced several changes to this alert system, and this user guide amendment describes the current alert features in TECDIS.

This amendment supersedes all information related to alerts in TECDIS User Guide 1.00 section 4 and TECDIS Reference Manual 4.00 section 4.5.

Alerts and icons

Alerts in TECDIS follow the principles of maritime alert management, and they are divided into categories and priorities.

TECDIS presents alerts with standardized icons showing the priority and state of each alert. These icons are also explained in this section.

Categories

Alerts are divided into categories A, B and C.

Category	Description
A	Alerts where information at a task station directly assigned to the function generating the alert is necessary, as decision support for the evaluation of the alert-related condition.
B	Alerts where no additional information for decision support is necessary besides the information which can be presented at centra alert management (CAM) user interfaces.
C	Alerts that cannot be acknowledged on the bridge but for which information is required about the status and treatment of the alerts

All alerts presented in TECDIS belong to category A or B.

Priorities

Alerts are divided into three priorities:

Priority	Icon	Description
Alarm		Conditions requiring immediate attention and action by the bridge team to avoid any kind of hazardous situation and to maintain the safe operation of the ship; and Escalation required as alarm from an unacknowledged warning Alarms are presented with **red** color and **triangle** shaped icons.
Warning		Conditions or situations which require immediate attention for precautionary reasons, to make the bridge team aware of conditions which are not immediately hazardous but may become so. Warnings are presented with **orange** color and **circle** shaped icons.
Caution		Awareness of a condition which still requires attention out of the ordinary consideration of the situation or of given information. Cautions are presented with **yellow** color and **square** shaped icons.

States

Once an alert condition occurs in TECDIS, the corresponding alert is raised and presented. The alert remains presented as long as the alert condition is present. When the alert condition is no longer present, alarms and warnings continue to be presented until the alert has been acknowledged by an operator, either on TECDIS or via a CAM user interface. Cautions require no acknowledgement and are only shown as long as the condition for the caution is present. Only alerts in the Active Unacknowledged state are sounded.

While the alerts are presented, they may have the following states.

Priority	Icons	Description
Active Unacknowledged	 **Flashing**	The alert condition is present, and the alert has not been acknowledged. **Alarms** in this state are sounded with **3 short beeps every 10 seconds**. **Warnings** in this state are sounded with **2 short beeps every 60 seconds or 4.8 minutes** (configurable in the 'Safe' menu)
Active Silenced	 **Flashing**	The alert condition is present, and the alert has not been acknowledged. The alert has been silenced from a CAM user interface.
Rectified Unacknowledged	 **Flashing**	The alert condition is no longer present, but the alert has not yet been acknowledged.

Active Acknowledged		The alert condition is still present, but the alert has been acknowledged by an operator.
Active Responsibility transferred		The alert condition is still present, but other bridge alert management equipment with additional system knowledge has taken over (see below).

Responsibility transfer

The latest standards for bridge alert management have introduced measures for reduction of the number of high-priority alerts presented on the bridge. The standards recognize that a system may have knowledge about the context of some alert(s) of another system (e.g., that a back-up option has been automatically engaged to mitigate the problem). Such a system may want to tell other equipment to cease its priority request for operator attention and raise an alert with a lower priority instead. In that case, it may apply the "responsibility transfer" option to inform the alerting system that the alert is replaced by a more suitable alert to the operator, warranting a request to change the associated alert state to "active – responsibility transferred", which essentially embodies an auto-acknowledge (with safeguard).

The result of responsibility transfer has the following aspects:

- it causes a more appropriate (lower) level of operator distraction (no immediate action required), reflecting the system's ability in assisting the operator automatically;
- it causes an alert message with better guidance to the operator ("back-up in use", instead of persistent presentation of a problem that has already been mitigated); and
- it prevents, using the insignificant delay of alerts of which the responsibility could be transferred, unnecessary announcement of the original alert.

TECDIS permits responsibility transfer for all alarms and warnings.

When an alarm or warning is raised, the alert is communicated to connected BAM-compliant equipment immediately. The presentation of the alert in TECDIS is delayed by 3-5 seconds, giving the connected equipment time to evaluate whether it should take responsibility for the alert. If responsibility transfer takes place, the alert is presented in TECDIS with the state Active – Responsibility Transferred.

If contact with the external equipment is lost before the alert condition is rectified, the alert will return to the state Active – Unacknowledged within 2 minutes.

Alert presentation and controls

Alerts are presented in three main ways, all in the lower right part of the TECDIS display:

1. Alert counters
2. Alert field
3. Alert list

Alert counters

The number of alerts that currently have been raised (or have not yet been acknowledged) are shown as separate counts of alarms, warnings and cautions in the bottom right corner of the display at all times.

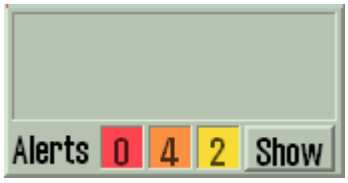
Alert field

The alert field is located immediately above the alert counters. This field presents the alert that currently has the highest display priority (see below). The alert field display text for the alert is shown, along with the icon showing both the alert priority and state (see above). Alarms are presented with red color, warnings with orange color, and cautions with yellow color. If the alert has not yet been acknowledged, the alert icon will flash.

The alert shown here is the next alert that will be acknowledged (see below).

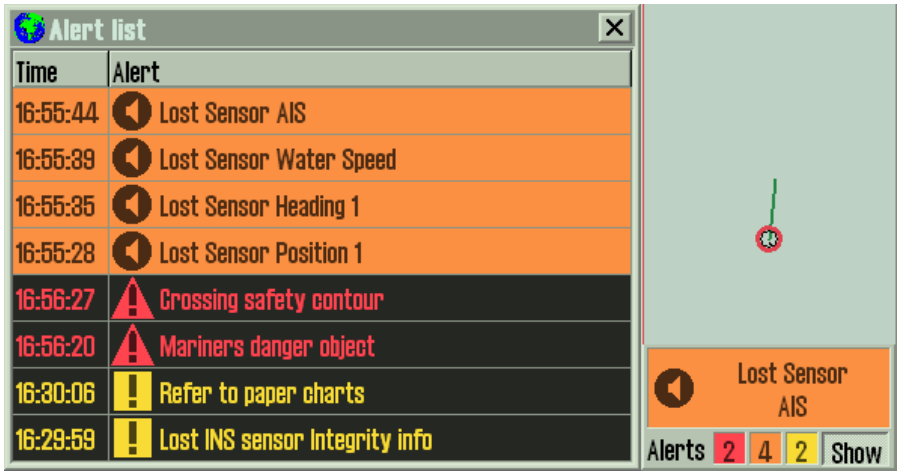
If there are no alerts, the alert field is displayed as empty with gray (day palette) or black (other palettes) background.

Also note, that if all alerts have been acknowledged, and the highest display priority alert is a warning or caution, the alert field will display the highest priority alert 30 seconds after each change to the alert. If none of the warnings or cautions have changed for 30 seconds, the alert field is cleared.



Alert list

The alert list is displayed by pressing the ‘Show’ button next to the alert counters, in the bottom right corner of the display.

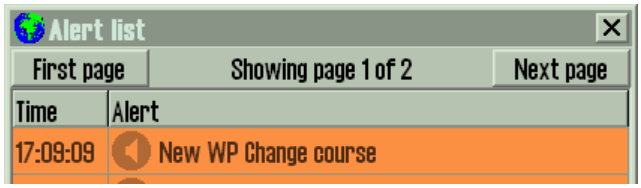


When acknowledging multiple alerts, the alert list may also be automatically displayed.

The alert list shows the up to 20 of the present alerts at one time, in order of alert display priority. For each, the time of last change, the alert icon and the alert description is shown.

Any alerts that have not yet been acknowledged are shown with a colored background in the alert list (red for alarms, orange for warnings), while cautions and acknowledged alerts are presented with a black background.

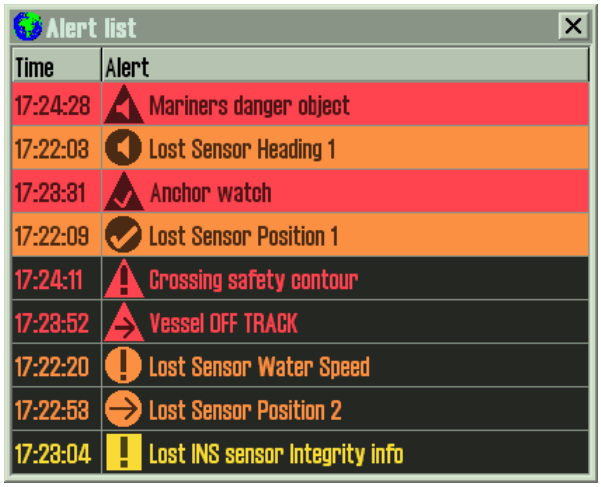
If more than 20 alerts are present, the alert list is split into pages. The following controls are shown above the alert list, allowing inspection of the following page(s) of alerts or return to the start with a single click.



Alert display priority

Alerts are presented in both the alert list and the alert field in the following order (highest priority first):

1. Active unacknowledged and silenced alarms
2. Active unacknowledged and silenced warnings
3. Rectified unacknowledged alarms
4. Rectified unacknowledged warnings
5. Active acknowledged alarms
6. Active responsibility transferred alarms
7. Active acknowledged warnings
8. Active responsibility transferred warnings
9. Active cautions



Within each of these categories, the alerts are sorted with the most recently changed alerts on top.

Acknowledging alerts

Alerts can be acknowledged in several ways:

- Clicking the alert field will acknowledge the highest priority alert (i.e., the alert displayed there).
- Pressing space bar on the keyboard, or the alert acknowledge key on the function keypad also acknowledges the highest priority alert.
- Category B alerts may be acknowledged on a connected CAM user interface.
- Left clicking in the chart display when a single alert is unacknowledged will acknowledge this alert.
- Left clicking in the chart display when multiple unacknowledged alerts are present will bring up the alert list. When the alert list is visible, each following click will acknowledge the topmost alert on the list. Once all alerts have been acknowledged, the next click closes the alert list again.

List of alerts

This section lists all alerts that may be presented by TECDIS. For each alert, the list includes the priority, category, alert field display, alert list description text if different, reasons for the alert, any special behavior of the alert, and applicable advice.

TECDIS permits responsibility transfer for all the listed alarms and warnings.

With one exception (Anchor watch), all the listed warnings are repeated as warnings after either 60 seconds or 4.8 minutes, depending on configuration in the 'Safe' menu.

Alarms

Anchor Watch		Priority:	Alarm	Category:	A
Reasons:	The anchor watch feature is active, part of the ship outline has been outside the anchor watch limit and the warning raised for this was not acknowledged within 2 minutes while the ship outline remained outside the limit.				
Special behavior:	If the anchor watch feature is switched off, the alarm is removed immediately.				
Advice:	Attend to the anchor watch feature and assess the situation. Adjust anchor watch settings if needed.				
Crossing Safety Contour		Priority:	Alarm	Category:	A
Reasons:	Chart objects shallower than the Safety Contour setting inside the look-ahead area.				
Advice:	Attend to charts at the ships position and assess the situation. While the alert is active and acknowledged, ensure that other means are used for grounding avoidance.				
Mariners Danger Object		Priority:	Alarm	Category:	A
Reasons:	Mariner entered danger objects inside the look-ahead area.				
Advice:	Attend to the mariner entered objects at the ships position and assess the situation.				
Vessel OFF TRACK		Priority:	Alarm	Category:	A
Reasons:	Route monitoring is active, and the vessel has moved outside the planned cross-track limits.				
Special behavior:	If route monitoring is switched off, the alarm is removed immediately.				
Advice:	Attend to the monitored route at the ships position and assess the situation.				

Warnings

Anchor Watch		Priority:	Warning	Category:	A
Reasons:	The anchor watch feature is active, part of the vessel outline has been outside the anchor watch limit				
Special behavior:	Escalates to alarm after 2 minutes if not acknowledged and the ships outline remains outside the anchor watch limit.				
Advice:	Attend to the anchor watch feature and assess the situation. Adjust anchor watch settings if needed.				
Antigrounding off Updating charts		Priority:	Warning	Category:	B
Reasons:	A chart database selected for display is being updated and is not monitored for chart dangers.				
Advice:	Attend to the chart display and other means used for grounding avoidance. Abort the chart updating process if needed.				
Area with special conditions		Priority:	Warning or Caution	Category:	A
Alert list text:	Chart area: <chart object class name>				
Reasons:	The look-ahead area has intersected with the boundary of a chart area for which special conditions exists.				
Special behavior:	Priority is warning if configured in the 'Safe' menu, 'Caution' otherwise.				
Advice:	Attend to the chart area for which the alert was raised (click the alert in alert list).				
Critical Route Point		Priority:	Warning	Category:	A
Alert list text:	Critical point at WP x				
Reasons:	The ship has moved closer to a waypoint configured as a critical route point than the configured limits for the critical point.				
Special behavior:	If route monitoring is switched off, the warning is removed immediately.				
Advice:	Attend to route monitoring and the critical point for which the alert was raised.				

Final WP Passed		Priority:	Warning	Category:	A
Reasons:	Waypoint alerts are activated in the 'Safe' menu, and the ship has moved past the final waypoint of a route being monitored.				
Special behavior:	If route monitoring is switched off, the warning is removed immediately. This alert is optional (configured in the 'Safe' menu).				
Advice:	Attend to the chart display at the ships position.				
Invalid datum Position 1		Priority:	Warning	Category:	B
Reasons:	The position sensor configured as primary is reporting a datum other than WGS84 for the position provided.				
Advice:	Attend to the position sensor and reconfigure for WGS84 datum if possible. Switch to secondary position source if available.				
Invalid datum Position 2		Priority:	Warning	Category:	B
Reasons:	The position sensor configured as secondary is reporting a datum other than WGS84 for the position provided.				
Advice:	Attend to the position sensor and reconfigure for WGS84 datum if possible. Switch to primary position source if available.				
Lost chart synchronization link		Priority:	Warning	Category:	B
Reasons:	The link used by TECDIS to transfer chart updates applied on one system to the other(s) on board is not operational.				
Advice:	Apply chart updates to all TECDIS units on board. Check the connections between the TECDIS units. Refer to troubleshooting documentation and contact your TECDIS supplier for assistance if needed.				
Lost Monitor and buzzer		Priority:	Warning	Category:	B
Alert list text:	Lost monitor control and alert buzzer				
Reasons:	The TECDIS unit is not receiving feedback from the connected monitor over the control link.				
Advice:	Refer to troubleshooting documentation. Check the connections between the TECDIS processing unit and the monitor. Verify whether audible signals are given by alerts or not. Ensure that attention to TECDIS alerts is maintained at an elevated level if no audible signals are given. Contact your TECDIS supplier for assistance if needed.				
Lost network link to other ECDIS		Priority:	Warning	Category:	B
Reasons:	The link used by TECDIS to exchange sensor data, routes and mariner notes is not operational.				
Advice:	Refer to troubleshooting documentation. Check the connections between the TECDIS units. Use alternate means for exchanging routes and mariner notes between the TECDIS units. Contact your TECDIS supplier for assistance if needed.				
Lost sensor AIS		Priority:	Warning	Category:	B
Reasons:	TECDIS is no longer receiving data from the AIS unit.				
Advice:	Check the AIS unit and the connection between TECDIS and the AIS. Refer to troubleshooting documentation. Ensure that attention to targets is maintained via other systems. Contact your service supplier for assistance if needed.				
Lost sensor Heading 1		Priority:	Warning or Caution	Category:	B
Reasons:	TECDIS is no longer receiving sensor data from the primary heading sensor.				
Special behavior:	Priority is Caution if the other heading sensor is operational, and Warning if no other heading sensor is available.				
Advice:	Check the heading sensor and the connection between the TECDIS and the heading sensor. Refer to troubleshooting documentation. Contact your service supplier for assistance if needed.				
Lost sensor Heading 2		Priority:	Warning or Caution	Category:	B
Reasons:	TECDIS is no longer receiving sensor data from the secondary heading sensor.				
Special behavior:	Priority is Caution if the other heading sensor is operational, and Warning if no other heading sensor is available.				
Advice:	Check the heading sensor and the connection between the TECDIS and the heading sensor. Refer to troubleshooting documentation. Contact your service supplier for assistance if needed.				
Lost sensor Position 1		Priority:	Warning	Category:	B
Reasons:	TECDIS is no longer receiving sensor data from the primary position sensor.				
Advice:	Check the position sensor and the connection between the TECDIS and the position sensor. If none of the position sensors are operational, ensure that other means such as Lines of Position (LOP) is used to maintain position monitoring. Refer to troubleshooting documentation and contact your service supplier if needed.				
Lost sensor Position 2		Priority:	Warning	Category:	B

Reasons:	TECDIS is no longer receiving sensor data from the secondary position sensor.				
Advice:	Check the position sensor and the connection between the TECDIS and the position sensor. If none of the position sensors are operational, ensure that other means such as Lines of Position (LOP) is used to maintain position monitoring. Refer to troubleshooting documentation and contact your service supplier if needed.				
Lost sensor Water Speed		Priority:		Category:	
Reasons:	TECDIS is no longer receiving sensor data from the water speed sensor.				
Advice:	Check the water speed sensor and the connection between the TECDIS unit and the water speed sensor. Refer to troubleshooting documentation and contact your service supplier if needed.				
Navigational Hazard		Priority:	Warning or Caution	Category:	A
Alert list text:	Navigational hazard. see danger list.				
Reasons:	One or more navigational hazards are present within the look-ahead area.				
Special behavior:	Priority is warning if configured in the 'Safe' menu, 'Caution' otherwise.				
Advice:	Attend to the list of dangers and chart highlighting of dangers within the look-ahead area.				
New WP Change Course		Priority:	Warning	Category:	A
Reasons:	The wheel over line for a waypoint in the route being monitored has been passed.				
Special behavior:	If route monitoring is switched off, the warning is removed immediately. This alert is optional (configured in the 'Safe' menu).				
Advice:	Attend to the route being monitored and change course as needed.				
Sounder Position Mismatch		Priority:	Warning	Category:	B
Alert list text:	Sounder position mismatch in Setup/Sounder				
Reasons:	The offset from keel configured in TECDIS Setup is different from the offset reported by the sounder sensor.				
Advice:	Check the sounder and TECDIS Setup configuration and correct the discrepancy. Contact your service supplier if needed.				
System Watchdog Offline		Priority:	Warning	Category:	B
Alert list text:	System watchdog is offline				
Reasons:	The independent watchdog process on the TECDIS system is not communicating with the TECDIS software.				
Advice:	Restart the TECDIS system. Refer to troubleshooting documentation. Contact your TECDIS supplier if needed.				
Target Buffer Full		Priority:	Warning	Category:	A
Alert list text:	Target buffer full reduce AIS range				
Reasons:	TECDIS is receiving a higher number of targets from radars and/or AIS than the TECDIS system can monitor.				
Advice:	Reduce the 'Active range' setting in the 'TGT' menu. Set the 'Hide sleeping AIS' filter in the 'TGT' menu to a lower range.				

Cautions

Heading difference limit exceeded		Priority:	Caution	Category:	B
Reasons:	The difference between the headings reported by the primary and the secondary heading sensor exceeds the configured limit.				
Special behavior:	Optional alert, configured in TECDIS Setup.				
Advice:	Check the heading sensors. Refer to troubleshooting documentation. Contact your service supplier if needed.				
Lost INS sensor Integrity Info		Priority:	Caution	Category:	B
Reasons:	TECDIS is no longer receiving sensor integrity information from the INS via the INS or position sensor connection (NSR sentence).				
Advice:	Check the INS system and/or the position sensors. Refer to troubleshooting documentation. Contact your service supplier if needed.				
Lost VDR Screenshot link		Priority:	Caution	Category:	B
Reasons:	The VDR is not confirming reception of screenshots from the TECDIS unit.				
Advice:	Check the VDR and the connection between TECDIS and the VDR. Refer to troubleshooting documentation. Contact your service supplier if needed.				
Refer to Navtex window		Priority:	Caution	Category:	B
Alert list text:	Refer to Navtex window for full message list.				

Reasons:	Navtex messages with identifiable position information are shown in the chart display. The alert reminds the navigator that only the Navtex message list contains the complete list of received messages.				
Advice:	Refer to the Navtex message list regularly to ensure that all received Navtex messages are attended to.				
Refer to paper charts		Priority:	Caution	Category:	B
Reasons:	Non-official chart(s) are present in the chart display.				
Advice:	Ensure that paper charts are used for navigation where official ENCs are not available.				
Refer to paper charts or S52		Priority:	Caution	Category:	B
Alert list text:	Refer to paper charts or S52 presentation				
Reasons:	TECDIS is configured to display charts with a non-official presentation.				
Advice:	Switch to official presentation ('S52' button in the 'Chart' menu) or ensure that paper charts are used for navigation.				
Sleeping AIS class B filter is active		Priority:	Caution	Category:	B
Alert list text:	Sleeping AIS class B hidden (DIST above x NM)				
Reasons:	The filter removing sleeping AIS class B targets from display is set to the range shown in the alert description.				
Advice:	Maintain awareness that sleeping AIS class B targets with distance above the specified range are not displayed. Adjust the filter in the 'TGT' menu if needed.				
Sleeping AIS target filter is active		Priority:	Caution	Category:	B
Alert list text:	Sleeping AIS targets hidden (DIST above x NM)				
Reasons:	The filter removing sleeping AIS targets from display is				
Advice:	Maintain awareness that sleeping AIS targets with distance above the specified range are not displayed. Adjust the filter in the 'TGT' menu if needed.				
Target buffer Near full		Priority:	Caution	Category:	B
Alert list text:	Target buffer use > 95% Reduce AIS range				
Reasons:	TECDIS is receiving close to the highest number of targets from radars and/or AIS that the TECDIS system can monitor.				
Advice:	Reduce the 'Active range' setting in the 'TGT' menu. Set the 'Hide sleeping AIS' filter in the 'TGT' menu to a lower range.				