

NAVI-SAILOR 4000 MFD WHATS NEW

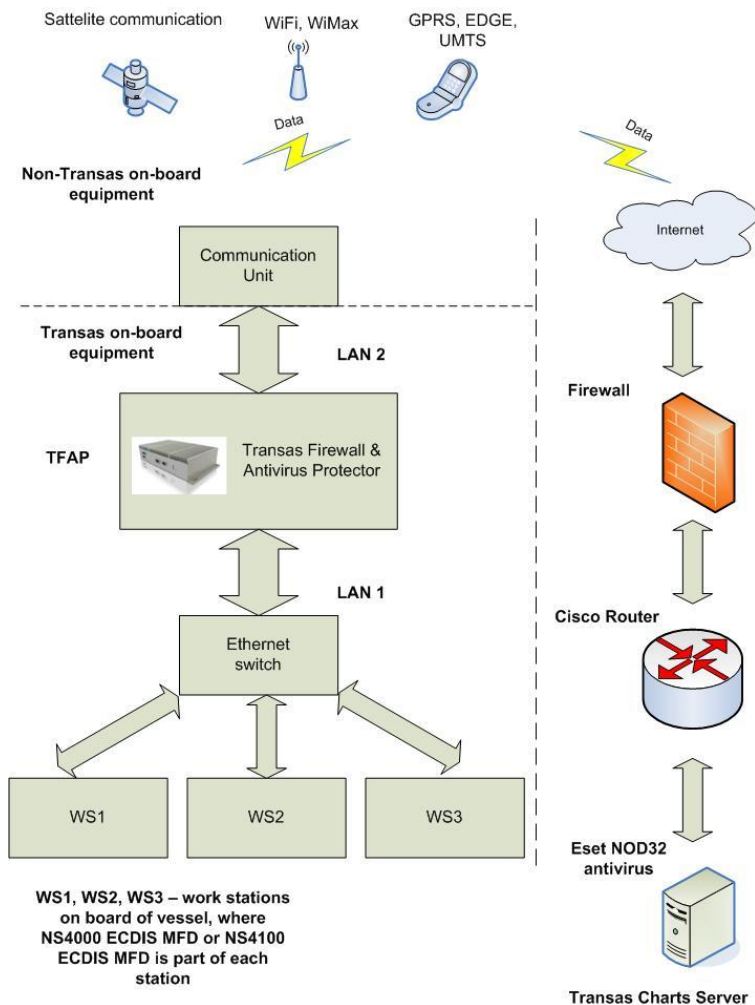
The differences between NS4000 MFD v.2.00.011 (MNS30) and NS4000 MFD v.2.00.010 (MNS29)

1. Transas Firewall and Antivirus Protector (TFAP)

TFAP is based on IEC60945 hardware with Firewall & Antivirus software inside.

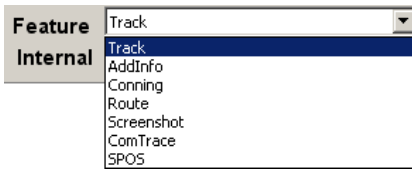
It's intended to be used as NS/MFD charts updating process protection and should be installed between Transas system and on-board communication equipment.

It will be stated in revised Annex of ECDIS certificate that NS4000/4100 ECDIS MFD may be optionally connected to internet for downloading charts and chart updates from the Transas Chart Server provided the Firewall & Antivirus Protector (TFAP) is installed. DNV Certificate Annex re-issue is on the way.



2. Modified "Data Tool" utility

Data Tool GUI was modified to enable the sorting of items by Features.



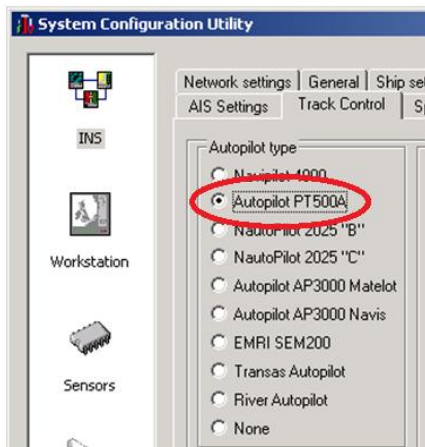
3. EMRI TCS interface implementation

EMRI SEM200 Autopilot was certified as Track Control "Class C" for use with NS4000 with TCS Option enabled. TCS4000 Certificate renewal is pending.



4. Yokogawa TCS interface restore

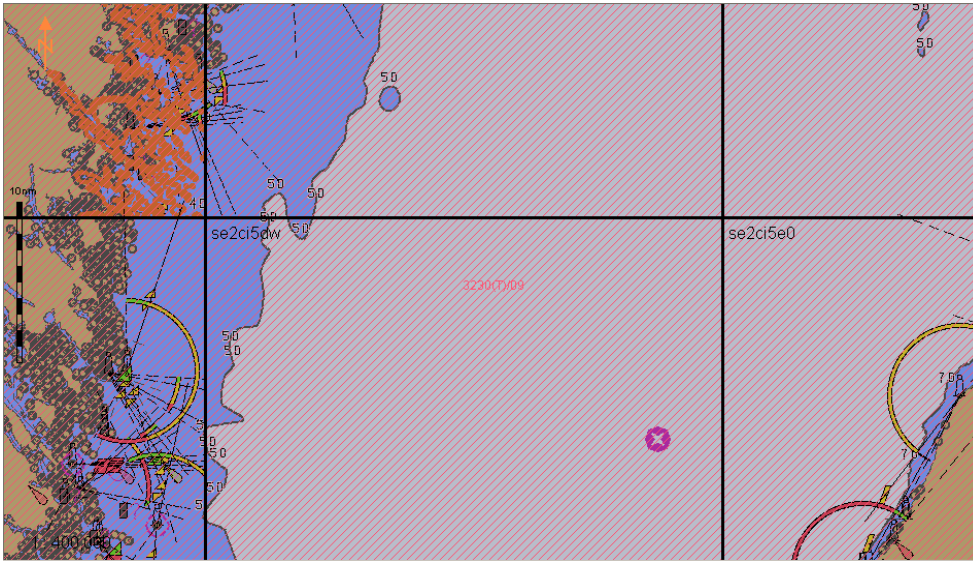
Yokogawa PT500A Autopilot was certified as Track Control "Class C" for use with NS4000 with TCS Option enabled. TCS4000 Certificate renewal is pending. This Autopilot was in NS3000 TCS certificate and now is the part of NS4000 TCS to simplify upgrades on some of the vessels and to fulfill new Customer requests.



5. Admiralty Information Overlay (AIO) charts

The Admiralty Information Overlay (AIO) is intended for use in combination with ENC data as a way of drawing attention to the Temporary and Preliminary (**T&P**) Notices to Mariners published by the UKHO that are relevant to the ENC cells being viewed. It is designed to be displayed as an overlay on top of the ENC data such that the AIO can be toggled on and off.

AIO contains only area objects (no point or line objects) with attributes including references to text and picture files which contain information about Temporary and Preliminary Notices to Mariners



AIO charts are installed by using the "Chart Assistant" utility and displayed in the "AIO Charts" panel.

Name	Edition	Issue date	Expiration date	Last correction date	Show AIO
gb800001	1	9-2009	31-12-2009		<input type="checkbox"/>

Chart details are represented in the "Info" panel.

GB800001 : S57Ed3_ADAL Chart
se2ci9tw : S-57 ed 3.1.1 Chart

GB800001 : S57Ed3_ADAL Chart [to top](#)

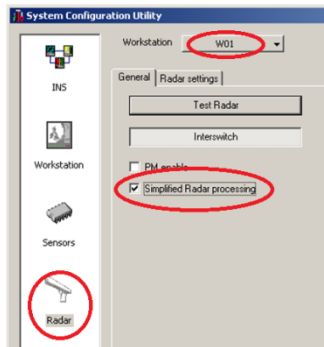
General Chart Information
Area on ENC where UKHO has published a Temporary Notice to Mariners (tempnm), area

General Chart Information [to top](#)

Chart format: S57Ed3_ADAL
original_name: GB800001
start_version: 0
end_version: 0
data_state: 0
Latitude of south chart boundary: 90° S
Latitude of north chart boundary: 90° N
Longitude of west chart boundary: 180° W
Longitude of east chart boundary: 180° E
scale: 1000000

6. NS4000 Lightweight overlay

Simplified radar signal processing for usage with low performance workstations (e.g. based on Celeron processors).



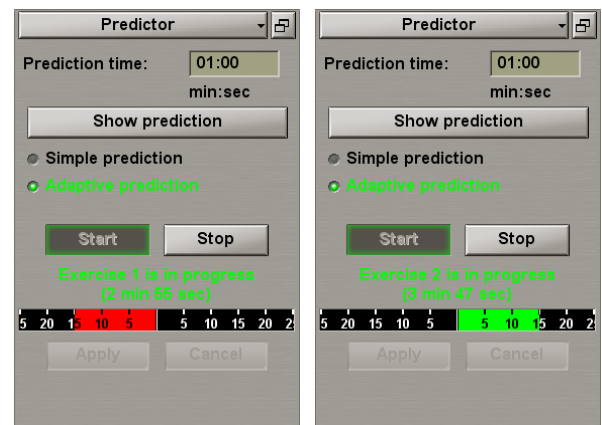
7. Adaptive predictor – Option Precise Navigation Tools

A prediction using information from Rudder and RPM NMEA sensors.

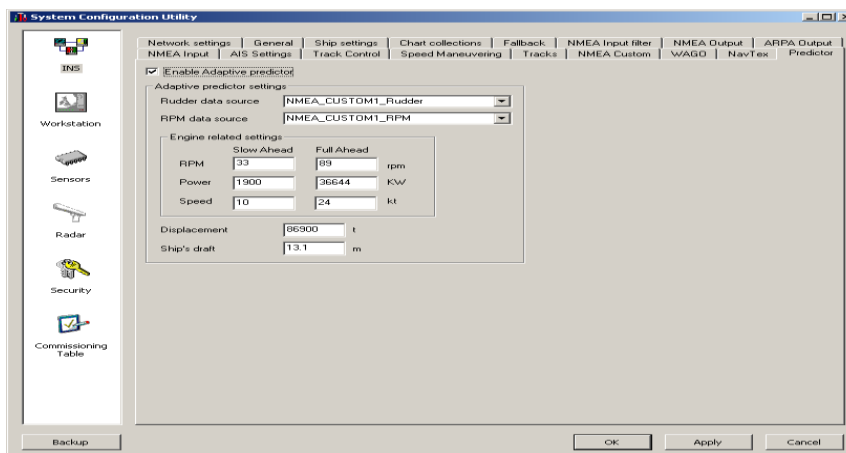
Following information is used for calculations:

- Heading
- ROT - if it is absence it recalculated from heading altering as for current Predictor function
- LOG
- COG and SOG
- Rudder - from NMEA Custom
- RPM - from NMEA Custom

If any of this information absence or doubtful the result of prediction could be inaccurate. Adaptive predictor aimed for single rudder vessels only.



Settings in the system configuration are clear and logic – everything that is needed is to set everything accurate and do port/starboard circulation while at sea for system adaptive adjustments.



8. Double ended vessel stern ahead mode

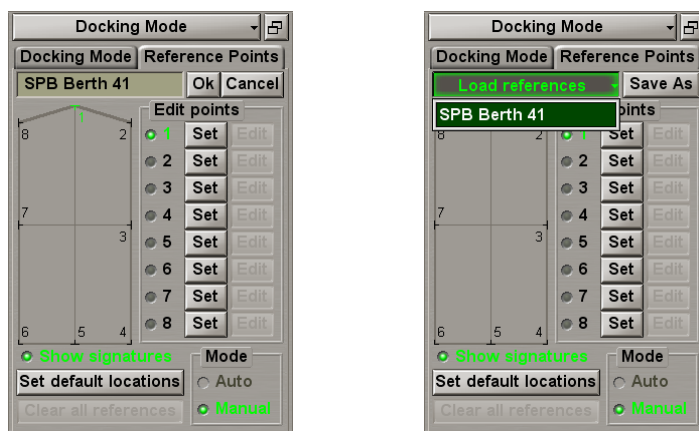
Additional settings in System Configuration for every workstation that gives possibility to define the navigation bridge location fore/ stern and moving direction:

- Inverted Heading (+180)
- LOG in absolute magnitude (modulo value)

“Stern Ahead” indication on all workstations when stern bridge is Navigation Master.

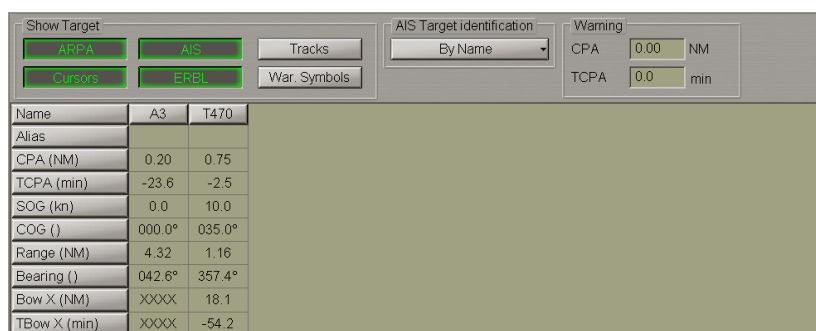
9. Docking Mode including reference points

To save the reference points and fastening points configuration a **Save As** button has been implemented



10. Turning On/Off External ARPA Tools

The **Cursor** and **ERBL** buttons in the **Show Target** group have been implemented to turn on the display of tools on the Chart panel. External ARPA ERBL cursor can be switched on and off (RSD message processing restored).



11. Up to 4 External ARPA connection to ECDIS MFD

Starting from MNS30, ECDIS MFD is able to support up to 4 RIB6 connected to External ARPA within the network, just with some restrictions:

- In case of one station MFD –only 2 radars may be connected.
- In case of multi-stations configuration- network switch shall be used.

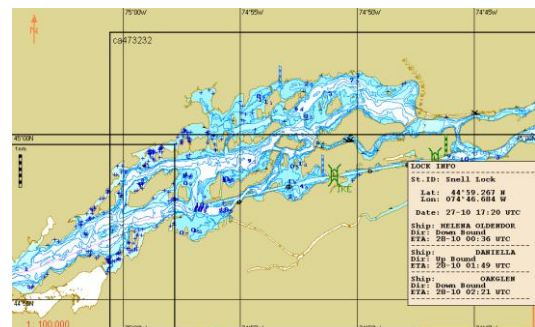
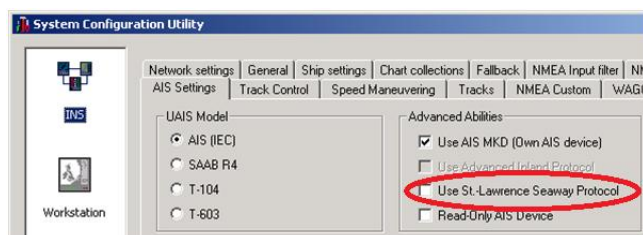
12. Multi-Units Refactoring for Runtime

Possibility to change Units of measure for main parameters real-time was implemented to the product.



13. St. Lawrence Seaway AIS binary protocol

In the navigation in the Great Lakes Area, information received by the transponder is processed in the NS 4000 MFD in accordance with "St. Lawrence Seaway AIS Data Messaging Formats and Specifications. Revision 4.0" document. Messages are based on international ITU-R M. 1371, IEC 61993-2 Annex B standards.



The following messages are received and processed:

- Weather station message;
- Wind information message;
- Water level message;
- Water flow message;
- Lockage order message;
- Estimated lock times message.

The Seaway Traffic Management System defines an interval in the transmission of each message. The transmission rate, however, can be increased by the coastal services as required.

Binary messages containing information on the object position use systems of coordinates based on WGS-84 datum.

In the Chart panel, symbols whose related information has never been viewed by the user, are shown in the green colour. The blue colour is used for the symbols whose information has been viewed by the user via one of the available procedures. Symbols automatically turn green as a respective new message containing the same coordinates is received.