NN3D V2.13 Software 1/2015

*Fixed: Requires a heading input to display AIS targets on a radar only display

NN3D V2.12 Software 1/2015

*New: BBWX3 compatibility

*New: Blue Force Tracking (BFT) compatibility
 NMEA0183 EIVDM sentence required; AIS symbols will appear in blue for BFT targets

*Updated: Sirius marine zones are updated to the latest 2014 edition

*Improved: AIS-SART reception. Version 2.11 software ignored AIS-SART symbols that were missing the COG sentence. V2.12 will display an AIS-SART target without COG

*Improved: Timeout period for a heading lost alarm changed from 1 second to 5

*Improved: Auto power setting for DFF1-UHD added

*Fixed: Windows ID duplication error message for MFDBB units with DUX motherboard

*Fixed: Garbled S52 symbols under night mode for MFD8/12

NN3D V2.11 Software 9/2013

*New: DFF1-UHD compatibility. DFF1-UHD can now be connected to NN3D units

*New: Zeus mode added. At the end of a route, Zeus drives need to receive a null (", ,") in the RMB XTE field. Zeus drive's route navigation is automatically deactivated after reaching the final destination. Settings for Zeus mode are in the "Installation Wizard"

*New: (MFDBB only) H.264 video input (MFDBB with current "DUX" style motherboard only, not for MFD8/12 or MFDBB with original "Kontron" motherboard. For IP camera inputs on MFD8/12 use Motion-JPEG, for older MFDBB use MPEG-4

*New: Compatibility with AIS-SART. Instead of a generic AIS triangle icon, SART icon is displayed. AIS –SART symbols are now displayed on NN3D MFD8/12 and MFDBB

*Improved: AIS target symbol points to the "Course over Ground" (COG) when heading data is not available. Previous when heading was not available, AIS target would point North up

*Improved: Connection with FAR2XX7 v3.06. Previously, only X7 version 2.50 or 2.51 could be used with NN3D

*Improved: Sirius Weather. The latest database is applied to the NN3D system

*Improved: Corrected for momentarily high XTE when boat changes course in route navigation

*Improved: TTM position output

*Improved: (MFDBB only) Stabilizes displayed video when multiple analog video cameras are connected. Resolution of camera image is changed to 320 X240.

*Fixed: Nuisance HDD warning message related to the HDD running time is no longer displayed

*Fixed: (MFDBB only) Echo trails stay set to user setting. Does not revert to relative mode when power is removed

*Fixed: Tide and Current icons are automatically turned off after approximately 20 minutes

*Fixed: (MFD8/12 only) Rotokey would not work when the cursor is over the grayed out section of the menu

*Fixed: (MFDBB) When four IP cameras are used, the image my freeze after several hours

*Fixed: (MFDBB only) If multiple analog video cameras are used for a long period of time, camera images may freeze

*Fixed: Zone Forecast for areas such as Lake Michigan are not displayed

*Fixed: Sirius storm track terms are changed from "Wind Speed" and "Time" to "Speed" and "Time of Observation"

*Fixed: Sirius Buoy/C-MAN stations lacking some information. Also "Wind Gust Speed" shows incorrect values

*Fixed: Sirius Buoy/C-MAN stations on MFD8/12 display different information than what is on MFDBB

*Fixed: Fax-30 display will be dimmed when NN3D MFD is set to night mode

*Fixed: Antenna height setting in "Installation Wizard" will be processed correctly. Previously would process antenna height with X10 value

*Fixed: Offset values of True Wind are not reflected properly

NN3D V2.08 Software 2/2012
This version was only used in the current MFDBB units with a later style motherboard (DUX motherboard). Serial numbers of this MFDBB are 4350-3067 and higher. Dealers can reference service advisory #06-12T, dated April 30, 2012 for more information about the changes and differences between the earlier MFDBBs and the later, current version of MFDBBs.
Software features are identical to V2.07 software. Only changes made were for the new style of mother and video boards.

NN3D V2.07 Software 2/2011

* New: DSC function with "Buddy List" feature.

* New: TTM output (Target Tracking Message) available (using NMEA0183) in True, not relative.
Note: When TTM is selected as an output sentence, any other sentences are turned OFF for the same port

* New: User can choose the size of the points displayed on the screen

* New: New pop up information when the cursor is placed over on an Active Route point (giving ETA and Time to Go)

* New: User can choose heading or COG for the boat icon orientation

* New: 3D Highway Mode RotoKey allows you to display the chart in 3D and automatically match the range to the cross track error limit.

* Improved [MFD8, MFD12]: Support for SDHC SD-Card allowing using SD-Card up to 32GB

* Improved: A graphic boundary circle is displayed when the Anchor Watch Alarm is activated

* Improved: User can set Gain and filters (AC Rain & AC Sea) directly from the Chart Plotter display (when the Radar Overlay is enabled)

* Improved: The Radar Overlay Range Link has been improved to not limit panning and zooming when the Radar is not transmitted or when the Radar Overlay is turned OFF

* Improved: The default Data Source selection and the NMEA200 Port Monitor have been improved in the Installation Wizard

* Improved: Support for up to three fuel rate sensors

* Improved: The Go To button allows making a Go to by Cursor or a Got To by manual Lat/long entry

* Improved: The Active Window frame and the Heading Line have been redesigned to improve visibility

* Improved [MFD8, MFD12]: Analog Video input resolution has been improved (from interlaced to progressive)

* Fixed: Reduced NMEA2000 bandwidth (due to high product request information)

* Fixed: Erroneous True Wind Calculation when source is set to STW without speed sensor

* Fixed: Automatic Transmission of the Radar when the MFD is started on the Radar Page (after pressing the agreement)

Outstanding Items to be updated:
- The "Tides" and "Currents" overlay, in plotter mode, might cause the MFD8 or MFD12 display to freeze if they are left ON for a long period of time (12 to 72Hours). If this issue occurs hold down the "Power" button until the unit turns off and then restart the unit.

Until a fix is provided, we recommend turning OFF the "Tides" and "Current" overlay when not in use.

NN3D V2.05 Software 4/2010

* New: Compatibility with C-MAP by Jeppesen Charts

* New: The Vector chart rendering on the screen has been improved, offering better contrast and improved representation of lines and objects

* New: Vector Chart Color Themes available and selection for "S52" or "International" representation for buoy and objects

* New: Depth soundings displayed in red above a configurable depth value

* New: Data Boxes can be displayed using transparency (configurable)

* New: An SD-Card can be used to automatically enter chart Unlock Code(s). Users can login to the www.navnet.com website, click on "Chart Order History" and download a file (containing all their unlock codes) to copy on the SD-Card.

＊Improved: The Worldwide Base Map Vector Charts for S57 and "Datacore by Navionics" have been improved (place names added)

＊Improved: The NMEA 0183 APB refresh rate has been increased to improve compatibility with some Pilot (such as Simrad AP50)

＊Improved: Base Map is now available in "Fishing mode"

* Fixed: Faulty NMEA2000 PGN output to bus on multiple MFDs system when a PB200 or GP330B is used.

NN3D V2.02 Software 7/2009

* New: "Fishing Chart" RotoKey Selection– This new RotoKey (found under "Charts") allows the user to display the new free Fishing Charts on the NN3D Display in either two or three dimensions (after they have been properly installed in the internal memory). This feature is only available for new dedicated hi-resolution Fishing Charts on the U.S. East Coast and U.S. West Coast (isolines at 15 foot intervals).

＊Improved: The Worldwide Base Map Vector Charts have been improved (higher coastline details)

＊Improved: A Key Beep now sounds when the RotoKey is depressed for acknowledgement (if the corresponding option is enabled in the Menu)

* Fixed [MFD8, MFD12]: Proper Time Frames are now utilized in the Animation mode to display SIRIUS Now-Rad Weather Radar ("real-time mode").

* Fixed [MFD8, MFD12]: Intermittent problem with the Radar Overlay RotoKey selection that prevents the Radar Overlay from appearing after a system start up has been corrected

* Fixed [MFD8, MFD12]: The position of the Cross Track error arrow (in the steering display instrument) has been corrected.

* Fixed [MFD8, MFD12]: $GPGGA String validity field is now correctly transmitted when no position fix is detected.

* Fixed [MFD8, MFD12]: The position of the Water Temperature needle (in the Engine display instrument) has been corrected.

* Fixed: The "Seabed" selection in the "Chart > Vector" menu is now functional

NN3D V2.01 Software 4/2009

* New: Individual MFD "Sleep" Selection – This new Rotokey selection allows the operator to put any MFD into Sleep Mode individually. The unit can then be awakened with a touch of the power button.

* New: FAR-2xx7 Connectivity - One Furuno FAR-2xx7 Commercial Radar System (X Band or S Band) can now be easily connected and controlled by any networked MFD via Ethernet (one 2xx7 and one DRS maximum per network). *Specific FAR-2xx7 software version required*

* New: FCV-1150 Connection - One Furuno FCV-1150 Hi-Performance Digital Echo Sounder can be connected and controlled by any NN3D network as one of the Echo Sounder Sources via Ethernet. (Maximum of two Ethernet Echo Sounder Sources per network) *Specific FCV-1150 software version required*

* New: TLL output available when briefly pressing SAVE/MOB Button

* New: NMEA2000 Port Monitor - The Installation Wizard has a new NMEA2000 Port Monitor that allows the Technician to analyze instruments connected to the NMEA2000 port of the MFD

* New: VMG, CMG and Fuel Consumption Databox Selections added. (Proper Received NMEA2000 PGNs Required)

* New: User can choose between SOG and STW for calculation of TWA and TWS.

* New: FA30 and FA50 Setup Capability - Furuno FA-30 AIS receiver and FA-50 Class B AIS Transponder can be setup and programmed using any MFD.

* New: Echo Averaging is now available for the DRS (Great for Improved Bird and Weak Target Detection – compass required)

* New: Drive Space Optimization - Three more memory slots have been added in the internal MFD Chart Memory (for a total of 15) due to a new memory optimization update.

* New [MFDBB]: High Speed USB Port Chart Transfer – The MFDBB USB ports can be used to transfer charts rapidly. Any USB Jump drive or USB to SD-Card adapter can be used to dramatically reduce the loading time on the BB. *A typical 2 Gig Sat Photo can now be transferred in less than 5 min.*

*Improved: Sirius Weather Sea Surface Temperature (SST) and NowRAD Radar Rain Presentation Improved: Smoothing Algorithm changed to provide more precise and defined temperature breaks. Displayed Sea Surface Temp is the full received resolution data from NOAA and much higher than XM systems.

* Improved [MFD8, MFD12]: The MFD8/12 SD-Card transfer speed has been improved on the MFD12 and MFD8. *A typical 2 Gig Sat Photo can now be transferred in about 10 min.*

* Improved: The NN3D Installation Wizard has been improved to avoid accidental MFD Reconfiguration and correct various related malfunctions

* Improved [MFDBB]: The four Analog Video Inputs are now compatible with both NTSC and PAL Video formats. *Previously only NTSC was supported*

* Improved: Vector Chart Rendering

* Improved: Radar Continuous trail and Single color are now available

* Improved: Underwater Mode (automatic range selection greatly improves utility)

* Improved [MFD8, MFD12]: Four IP cameras (instead of two) can be selected as sources on MFD8/12.

* Improved: Track recording intervals can be setup in either Time or Distance

* Improved: The unique Flyover Feature is now available in both Demo Mode and Nav Modes

* Improved: Full MFD Mouse Control - Full Mouse Control Operation has been implemented.   Major features added:
-It is now possible to zoom in/out using the wheel (after a left click on the Range Databox)
-Chart Panning by dragging the mouse
-Accessing the Disp and Menu page by right clicking on the "NavNet3D" logo

* Fixed: SystemID "Not Reliable" error

* Fixed [MFDBB]: BB Keyboard linking problem

* Fixed: Draft offset value reset after rebooting

* Fixed: Some items were too bright in night mode

* Fixed: False track line (straight line linking some track point)

NN3D V1.11 Software 8/2008

* New: Compatible with the IP camera model AXIS211 (YUV422 format)

* New: Reduced size of own ship icon by 80% on the full screen mode and by 65% on the 1/2 & 1/4 screen mode

* Fixed: Incompatibility with specific ID data of AIS Class-B. System may stop when receiving the data.

* Fixed: Error on FAX-30 operation. When pressing the "right-click" button on FAX30 and selecting "print", system may stop.

* Fixed: Improvement of RMB sentence output when activating GOTO. When GOTO is activated, QP1 and QP2 are output in RMB sentence alternately.

* Fixed: Sirius Weather error with Storm Tracks. When receiving the data of "multiple" Storm Tracks" from Sirius WX receiver, the system may stop.

* Fixed: No info on GPS Status Screen with GP330B.

* Fixed: [Only MFD8/12] Error when editing waypoint name/position. System may stop when editing name or position of waypoint.

NN3D V1.10 Software 8/2008

* New [MFD8, MFD12]: View angle menu selection has been added. Selection of viewing angle is adjustable in global menu. Select menu setting for best visibility, depending on viewing angle.

* Fixed [MFD8, MFD12, and MFDBB] Offset of ZDA with GP-320B is corrected.

NN3D V1.09 Software 7/2008

* New [MFD8, MFD12, MFDBB with BBWGPS]: GPS Status Windows is now available by clicking on the GPS Status Icon (Top Right).

* New [MFD8, MFD12, MFDBB]: A Zooming Cursor position will appear in the center of the screen when the Chart Plotter is Panned/Zoomed. This will provide visual reference to the zooming point.

* New [MFD8, MFD12, MFDBB with BBWX1]: NN3D can now display and control Sirius Radio functions. The Satellite Radio control page can be accessed using the RotoKey or by holding the DATA key

* Improved: [MFD8, MFD12, MFDBB]: NMEA0183 $HDM sentence can now be used as a valid heading data source

* Improved: [MFD8, MFD12, and MFDBB]: Power Synchronization has been improved

* Improved: [MFD8, MFD12, MFDBB]: Waypoint and Route data sharing across the network

* Improved: [MFD8, MFD12, MFDBB]: Installation Wizard is improved (NMEA Port Monitoring, IP Camera Detection, Data Backup, others)
* Improved: [MFD8, MFD12, MFDBB]: AIS Target will show name (if available) on the Chart Plotter instead of MMSI number

* Improved: [MFD8, MFD12, and MFDBB]: AIS data input from third party receiver

* Improved: [MFD8, MFD12, and MFDBB]: Boat Icon appropriately scaled when zoomed in

* Fixed: [MFD8, MFD12, MFDBB with BBWGPS]: WAAS now available from BBWGPS

* Fixed: [MFD8, MFD12, MFDBB]: COG value available when Bearing Readout is set to Magnetic

* Fixed: [MFD8, MFD12, MFDBB]: Elevation shown correctly when switching from 2D view to 3D view

* Fixed: [MFDBB]: Instability in Extended Mode when pressing the MENU Key

* Fixed: [MFD8, MFD12, MFDBB]: Pilot Steering command using NMEA2000

* Fixed: [MFD8, MFD12, MFDBB with BBFF3]: STW value error

* Fixed: [MFD8, MFD12, and MFDBB]: Cursor Bearing Data Box value corrected

* Fixed: [MFD8, MFD12, MFDBB]: Watchman ON/OFF settings

* Fixed: [MFD8, MFD12]: XTE Alarm error

* Fixed: [MFD8, MFD12, and MFDBB with BBWX1]: US NowRad Data Box value corrected

* Fixed: [MFDBB]: Analog (Picture in Picture) video input detection improved

* Fixed: [MFD8, MFD12]: Light Sector Display on Vector Charts

* Updated: [MFD8, MFD12, and MFDBB with BBWX1]: Weather Marine Zone updated

NN3D V1.08 Software 7/2008

* Fixed: [MFD8, MFD12, MFDBB]: XTE calculation value

* Fixed: [MFD8, MFD12]: Radar Course Up mode