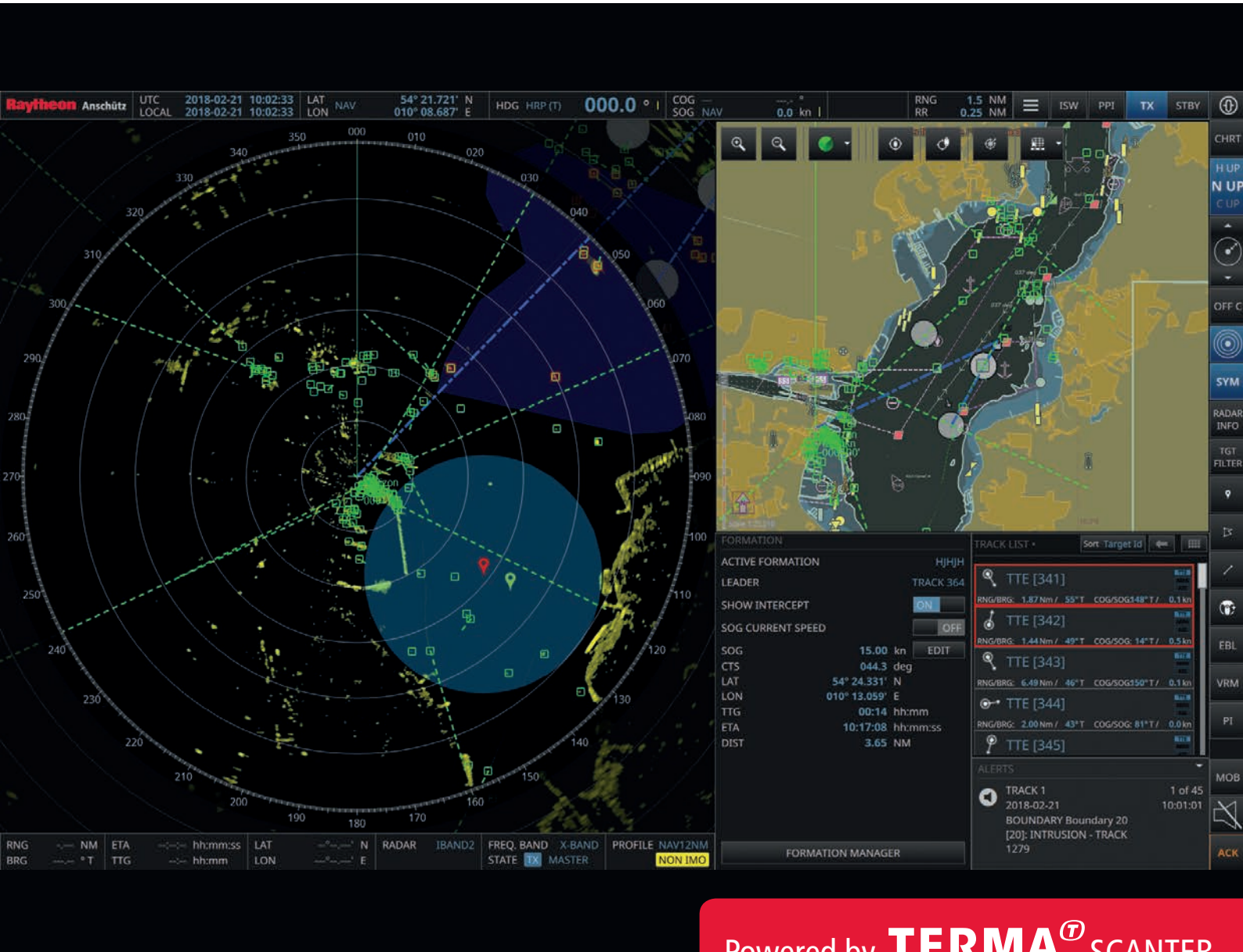


Naval Radar NX with Surveillance Radars

Safe Navigation and Advanced Naval Operation



Naval Radar NX with Terma Surveillance Radars

Raytheon Anschutz and Terma integrate world leading 2D radars with the most advanced radar software to offer one solution for safe navigation, tactical operation, and surveillance.

BENEFITS AT A GLANCE

- High resolution 360° navigation and situation awareness radar: save space, cost and training effort
- World-leading surveillance radar sensors for outstanding performance (e.g. in severe weather operation, small target detection, and helicopter guidance) at low lifecycle cost
- User-defined software (with intuitive workflows and a clear structured user interface) is easy to operate, requires less time for training and familiarization
- Modular software design and a multitude of features offers flexibility through lifetime (easier updates / upgrades)
- Platform capabilities can significantly increase through simultaneous navigation, situation awareness, and helicopter guidance
- Single responsible supplier for entire navigation /surveillance radar system
- Low risk and compliant without NREs: type approved for navigation, already proven in European navies

Raytheon Anschutz' new Synapsis Naval Radar NX is a modular software, based on a core radar display, with software extensions in order to support special tasks and missions. Naval Radar NX is type-approved with solid-state surveillance radars of Terma's SCANTER series by DNV/GL according to IMO Resolution 192(79) Performance Standard for radar equipment and IEC 62388 Ed. 2.0 Test Standard for shipborne radar.

The SCANTER surveillance radars are recognized for high reliability and best performance in severe weather operation, small target detection, and helicopter guidance (even simultaneously).

The combined solution of Terma SCANTER radars and Raytheon Naval Radar NX software enables customers to operate any radar related task from navigation to missions such as SAR, policing, surveillance, and more. Within the solution, Naval Radar NX serves as an effective application for the various tasks, with a multitude of features realized within a single user interface with a common, innovative operational concept. Customers can easily upgrade their systems with additional functionality as needed for their respective mission.





NAVIGATIONAL AND TACTICAL FEATURES IMPROVE PLATFORM CAPABILITIES

The design of the Naval Radar NX software has strictly concentrated on “user needs” and “human element”. The result is a revolutionary new user experience, with a clear structured display with a large PPI and intuitive operation of any key function.

Radar Video Merge (option)

- Real-time raw radar data merge for best tracking performances
- Parallax correction incl. own ship motion compensation
- Patented algorithms
- Merging of several individual transceivers simultaneously for continuous 360 degree view

Helicopter guidance including helo-trackfiltering possibility

Enables the operator to guide the helo-crew with software aids to the ships landing pad and shore based landing areas.

- Freely configurable landing pattern
- Grid relative to own-ship and geo-stationary to support onshore operations
- Quick-Helo-Filter for a clear tactical picture with focus on the tracked helo

Stationing-Manager (incl. station keeping guidance)

Enables the operator to define formation grids up to 100 ship relative in range and bearing to each other.

- Freely definable formations, free definable guide, desired own ship position
- Configurable alert when ship enters or leaves a station
- Calculated course to steer and calculated time to intercept the specified formation point
- Graphical overlay shows the course to steer as well as the intercept point on the map

The software offers a high-resolution display of radar video, based on a core IMO radar display. In order to support special tasks and missions, Raytheon Anschutz has implemented tactical and advanced naval features into the navigation radar software.

Advanced functions (“Integrated Navigation System”)

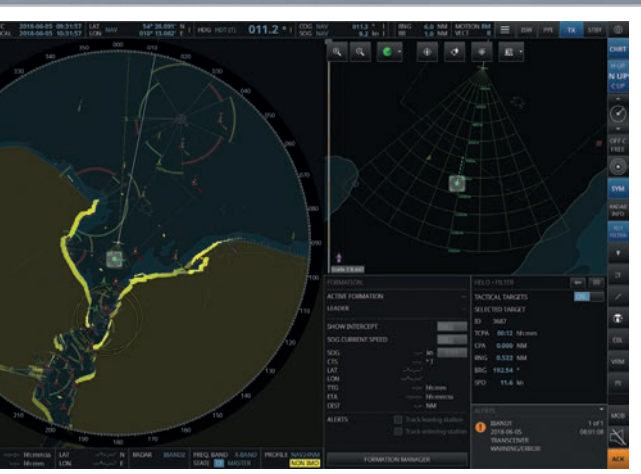
Naval Radar NX is built upon Raytheon Anschutz’ smart system architecture for Synapsis NX, what enables customers to benefit from advanced functions:

- Consistent Common Reference System: sensor data is checked for integrity, validity and plausibility
- Corrupted / manipulated data is detected and excluded automatically
- Use of consistent data and target designations at any connected workstation
- Health monitoring and redundancy management
- Intelligent alert management reduces beeping and blinking and directs attention to real critical alerts

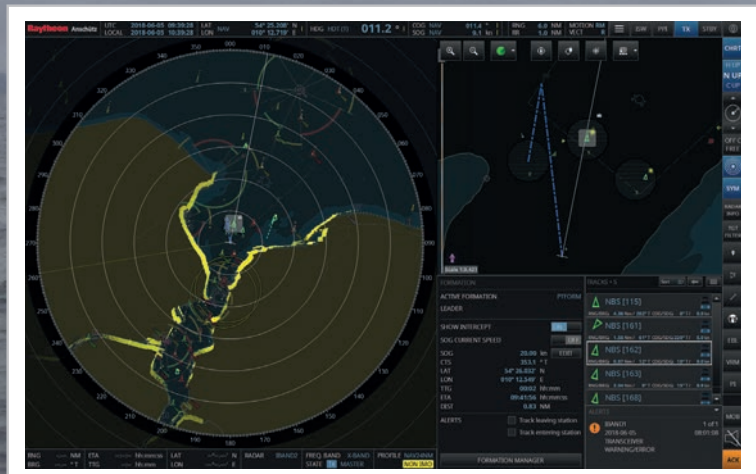
And more...

- Alert and guard zones
- Intercept point and course to steer
- Tactical target management
- Advanced EBL/VRM
- AIS integration
- User defined dynamic blanking sectors
- Distance measurement tool
- Presentation tactical targets
- Track labeling and filtering
- Track list
- Follow on track
- Chartradar
- Radar overlay on chartwindow

Naval Radar NX helicopter guidance



Naval Radar NX stationing manager



SURVEILLANCE RADAR SENSOR

The Terma SCANTER radar is the only radar sensor providing simultaneous small target detection and helicopter guidance.

SCANTER is a complete radar sensor system with proven small target detection capability to assist authorities in efficiently monitoring illegal activities such as drug trafficking, smuggling, illegal immigrants, piracy, illicit fishing, terrorism, etc. It is perfectly suited for high-definition sea surface surveillance and short-range air surveillance for helicopter control and ship navigation.

The SCANTER radar systems comply with the operational requirements on board naval vessels to:

- Assist on-board tactical task functions
- Helicopter landing control
- Perform sea and short-range air surveillance with automatic target tracking
- Provide safe navigation for year-round operation.

Compared to systems with higher transmitter output power, the increased sensitivity and high dynamic range of the SCANTER radar system is advantageous, especially considering:

- The need to minimize radar emission while optimizing target range detection
- The avoidance of receiver saturation in case of jamming

Terma's SCANTER naval radar sensors are operational in navies worldwide.

SYSTEM COMPONENTS

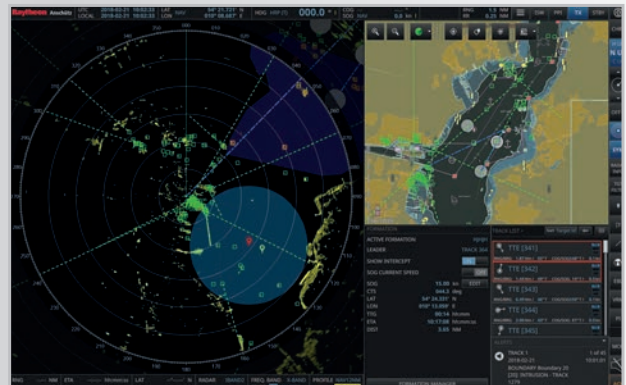
Raytheon Anschutz and Terma can provide the radar system as a standardized, type-approved solution for navigation, surveillance and tactical operations.

The system includes:

- Terma surveillance radars SCANTER 6002 or SCANTER 2602 – market leading surveillance radar, superior at detecting and tracking small targets
- Naval Radar NX – new navigational radar software, loaded with tactical functions
- Small Marine Computer – powerful standard hardware for the radar software, enables upgrades to multifunctional workstations including (W)ECDIS
- Console – off-the-shelf, engineered for military use



SCANTER Radar



Naval Radar NX

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