

# Synapsis Naval Radar NX

The next level in safe navigation and tactical operation



# Synapsis Naval Radar NX

Our new state of the art Synapsis Naval Radar NX software has been enhanced with advanced naval features that make it an effective application for both safe navigation and tactical operation. The single user interface allows for a common and innovative operational concept, and the high-resolution radar video display is based on a core IMO application.

Modular software extensions are available to support special tasks and missions and these modules enable our customers to upgrade their systems with additional functionalities based on their respective requirements.

## HUMAN-CENTERED DESIGN

Naval Radar NX software has been designed with the philosophy that the customer is the most important asset. We concentrated on things like “users needs” and “the human element” to create the first user defined radar software on the market. We continuously asked our customers about their requirements via user participation and user workshops. We listened and incorporated the latest insights on bridge ergonomics and operations.

Naval Radar NX has been designed with the “user” in mind and the result is a revolutionary new user experience. With a clearly structured display that includes PPI and an intuitive operation of any key function our human centred design concept supports the interpretation of the situational picture, improves decision making and reduces the risk of human error.

Whether it be from patrol boats to large combatants Naval Radar NX’s flexibility, scalability, as well as ease of use, make it the perfect solution for any type of naval ship.

## BENEFITS AT A GLANCE

- High resolution 360° navigation and situation awareness radar, which helps to save space, cost and training effort for the customer
- Wide range of type-approved radar sensors (navigation and surveillance radars) available, which supports operational considerations as well as fleet-wide logistics
- Modern, user-defined software (with intuitive workflows and a clearly structured user interface) simplifies operation and reduces risk of human error
- Less need for training, quick familiarization of crews
- Modular software design (easier updates / upgrades) offers flexibility through lifetime and benefits with regard to maintenance and cost
- Perfect for newbuild and retrofit projects thanks to simplified installation with IP based communication
- No risk: IMO type approved basis software, already integrated and proven in European navies

## EXPERIENCE THE NEW NAVAL RADAR NX



Please visit our new product website  
[www.raytheon-anschuetz.com/naval-radar](http://www.raytheon-anschuetz.com/naval-radar)

On the webpage you can experience the modern design, the intuitive operation concept, and key functionality of Naval Radar NX.





## NAVIGATIONAL AND TACTICAL FEATURES IMPROVE PLATFORM CAPABILITIES

### Helicopter guidance incl. helo-trackfiltering possibility

Enables the operator to guide the helo-crew with software aids to the ship's 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 (option)

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

- Freely definable formations, freely definable guide, desired own ship position
- Calculated stationing course and estimated time of arrival to station
- Configurable alert when ship enters or leaves a station

### Intercept Point and Course to Steer

- Calculated course to steer and calculated time to intercept a chosen target.
- Graphical overlay shows the course to steer as well as the intercept point on the map

### Radar Video Merge (option)

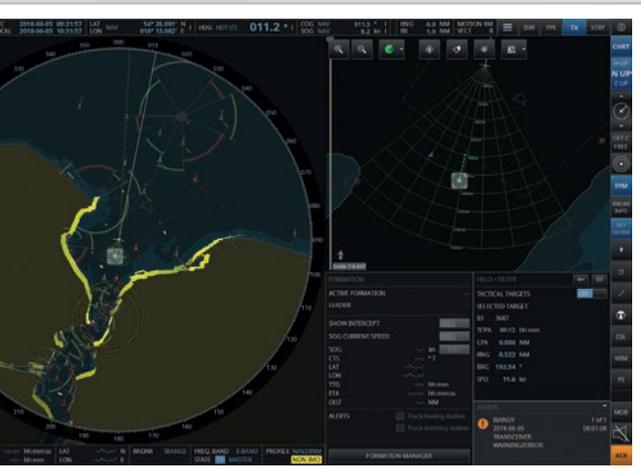
- Real-time raw radar data merge for best tracking performances
- Parallax correction incl. own ship motion compensation
- Patented algorithms
- Merging of several individual transceivers simultaneously for continuous 360 degree view

### And more...

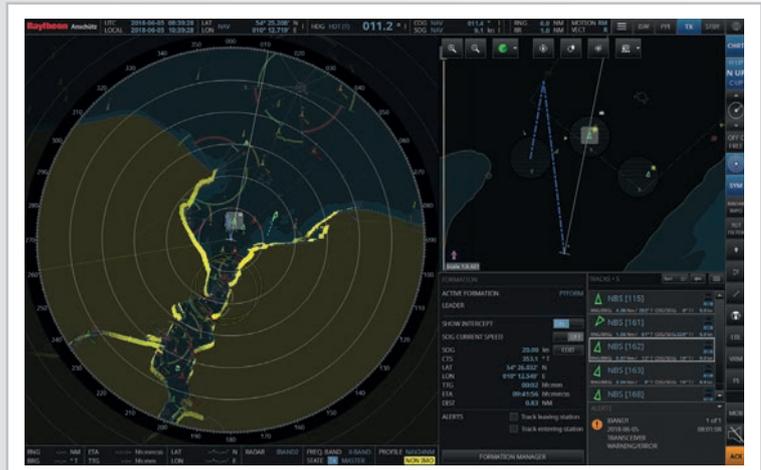
- Alert and guard zones
- Tactical target management
- Target classification/affiliation
- Advanced EBL/VRM
- AIS integration
- EOS integration and control (option)
- SAR overlays and calculation according to IMSAR (option)
- Mission data recording and replay (option)



Naval Radar NX helicopter guidance



Naval Radar NX stationing manager



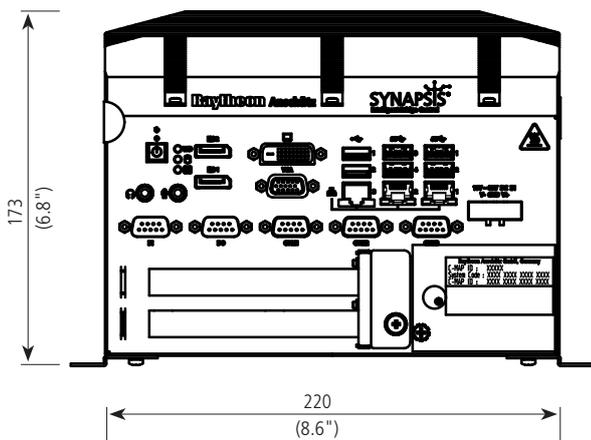
## NAVAL RADAR NX WORKSTATION

The Naval Radar NX workstation is based on standardized COTS hardware that can be delivered as a complete console, which has been engineered for military use. The standardized “Small Marine Computer” is an ultra-compact, powerful solid-state PC and our customers benefit from its easy installation and simplified logistics. The workstation functionality is defined through software modules and can easily be upgraded with (W)ECDIS and Conning functions to create a multi-functional workstation.

Naval Radar NX is built upon Raytheon Anschutz’s smart system architecture for Synapsis Integrated Navigation Systems (INS) and customers benefit from advanced INS in the following ways:

- 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 with automated console switch-over.
- Intelligent alert management that reduces beeping and blinking and directs attention to real critical alerts.

### Small Marine Computer



## NAUTOSCAN NX NETWORK RADARS

The NautoScan NX (NSX) network radar transceivers are state-of-the-art, high performance IMO navigation radars and they are the first IMO radars to distribute high fidelity radar raw video via Gigabit LAN to bridge radar workstations. The NSX radars offer the best economical value and are the optimal choice for collision avoidance performance and flexibility in system design.



For more information, please see to the NautoScan NX brochure.



## TYPE-APPROVED WITH SURVEILLANCE RADAR

As a unique feature, Naval Radar NX is type approved for safe navigation with solid-state Terma AS SCANTER series surveillance radars. Thus, it is capable of providing a high-end surveillance bridge and navigation radar which is cost efficient and space saving. By utilizing only one radar transceiver for navigation and surveillance, this configuration improves tasks like target detection, collision avoidance, or helicopter guidance and as an added benefit, it is designed for simple, and effective integration of different radar sensors.

Please contact us if you would like information regarding the integration with other manufacturer’s surveillance radars.

*Subject to change due to technical developments without notice.*

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