



# NAV Series

## NAVDAT/NAVTEX MW

PRELIMINARY

**NAUTEL**, the world's largest supplier of NAVTEXT system, has been addressing coastal challenges, improving geographic coverage, modernizing outdated and unreliable systems, and meeting the safety demands arising from coastal border migration since 1969. With the introduction of the NAV Series transmitters, Nautel expands its capabilities to support both NAVTEX and NAVDAT, offering a comprehensive solution that significantly enhances the safety and effectiveness of coastal communications.

## WHY NAVDAT?

NAVDAT provides several key advantages over NAVTEX. It offers enhanced range and reliability, enabling greater transmission reach and consistent communication. With a higher data capacity, NAVDAT can deliver more comprehensive safety messages, including text, images, and potentially video, enhancing clarity and understanding. Additionally, NAVDAT's flexibility allows it to operate across various frequency bands and integrate smoothly with existing maritime communication systems, making it a versatile and future-proof solution.



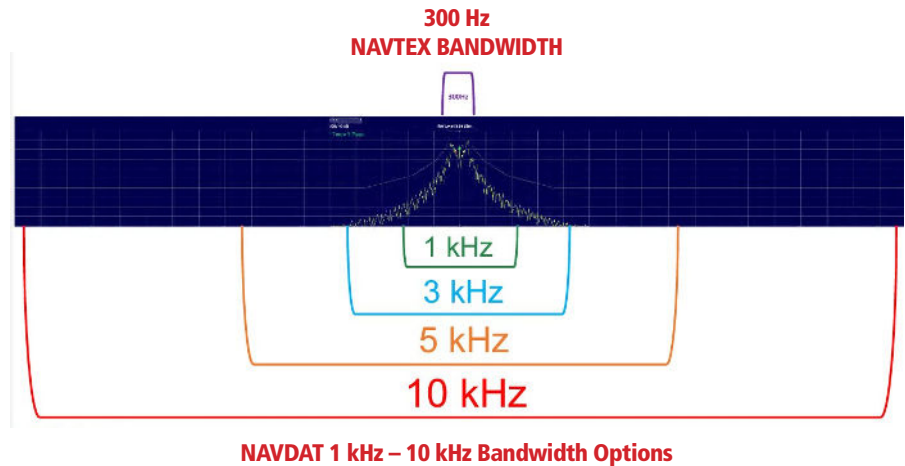
## NAVDAT/NAVTEX CAPABLE TRANSMITTERS

The NAV Series transmitters are engineered to meet the higher power demands of NAVDAT, making them ideal for Coastal Authorities seeking to upgrade their NAVTEX infrastructure with a future-ready path to NAVDAT transmission or to test NAVDAT signal propagation. Whether transmitting precise navigational alerts and meteorological warnings via NAVTEX, or delivering high-bandwidth, visually intuitive weather forecasts and safety updates via NAVDAT, the NAV Series transmitters are built to handle both with exceptional reliability.

- **Hot-Pluggable RF Modules**
- **On-Air Serviceability**
- **Robust, Field-proven Design**
- **Digital Pre-Correction**
- **Outstanding AC-in to RF-out Efficiency**

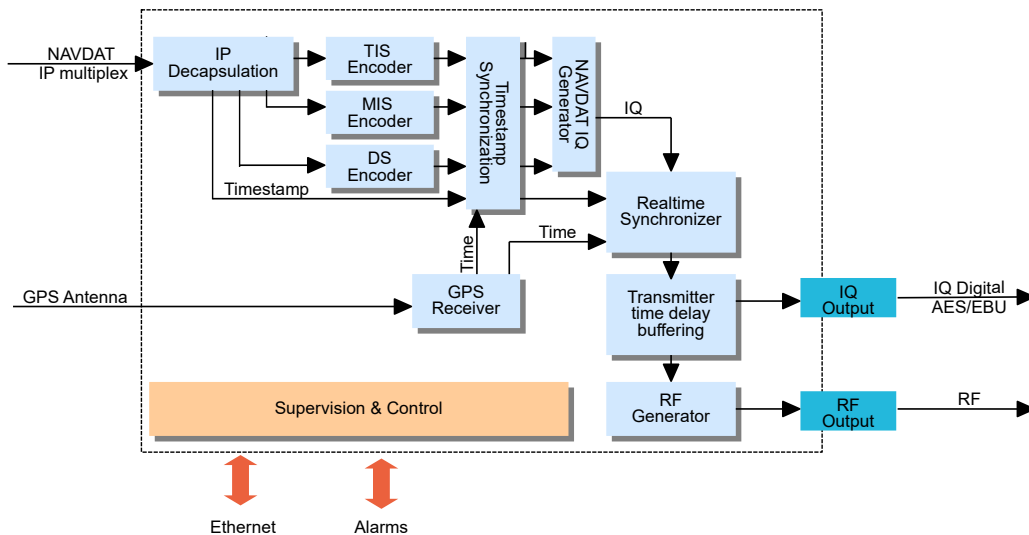
# WHY POWER IS KEY TO NAVDAT?

NAVDAT's complex digital signal and wider bandwidth offer superior data transmission capacity but generate a signal with higher power peaks and a need linear power over a wider bandwidth than the simple narrow band NAVTEX signal. Designed specifically for digital broadcasting, the NAV Series transmitters utilize their high peak power capabilities to deliver safety and navigational information at higher frequencies with enhanced visual detail. This ensures vessels receive accurate and comprehensive data, maintaining reliable performance even under challenging conditions.



# NAVDAT MODULATOR

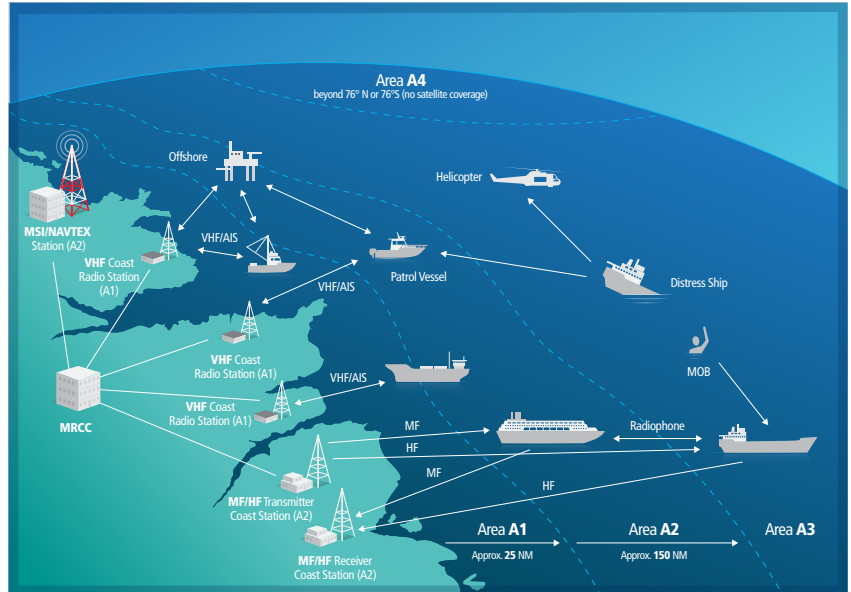
The NAVDAT modulator is engineered to meet ITU standards (R-REC-M.2010 / R-REC-M.2058), ensuring high reliability in maritime communications. It supports various QAM modes (TIS: 4-QAM, 16-QAM; DS: 4-QAM, 16-QAM, 64-QAM) and operates across modes A, B, and C. With support of multiple NAVDAT channel bandwidths (1, 3, 5, 10 kHz) and dynamic reconfiguration capabilities, the modulator adapts seamlessly to different operational requirements. Additionally, it features a web interface for remote management, DCP over IP input, and SNMPv2 monitoring, providing efficient and effective control.



**PRELIMINARY**

# NAUTEL: COMBINING DECADES OF MARITIME EXPERTISE

Nautel is a leading manufacturer of sonar amplifiers, sonar transducers, navigational beacons, eLORAN, NAVTEX, weather radio, and broadcast transmitters. Nautel's Kenta GMDSS expertise and solutions address Telephony or Voice, DSC, AIS, NAVTEX applications as well as complete solutions for MF, HF and VHF systems (transmitters and receivers). Both coastal stations and MRCC software (Server, VoIP, and DSC operator console, NAVTEX operator console etc.) can be provided as a complete project from the coverage study to the supply and the installation of Turnkey Radio Communication Projects.



More than 20,000 customers in 177 countries rely on Nautel solutions. See [www.nautelnav.com](http://www.nautelnav.com)

## NAV25 QUICK SPECS

### Frequency Range

NAVDAT 500 kHz (NAVDAT)  
490 kHz and 518 kHz (NAVTEX)

### Weight

261 kg (573 lbs)

### Dimensions

184.2 cm H x 58.7 cm W x 86.4 cm D  
(72.5" H x 23.1" W x 34" D)

### RF output power:

25 kW Peak Power, Ideal for NAVDAT  
>3 kW Average Power

### Voltage

208 Vac or 380 Vac nominal, 3-phase, 50/60 Hz

### RF output connection

7/8" EIA or 1-5/8" EIA, at top of transmitter

### RF power modules (2) each with:

- Digital optimized linear design
- Integrated RF amplifier/modulator
- Microcontroller for protection and monitoring
- Short circuit protection
- Hot pluggable

### Control and monitoring

- Local LCD Display
- Module level monitoring

### Efficiency

86%

\* Specifications subject to change



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