



EX5000 MFD with Cell/Strike Mode.

### THE TWX670 TACTICAL WEATHER DETECTION SYSTEM

Avidyne's new TWX670 is a third-generation lightning-based weather detection system that provides a simple and intuitive color-contoured display with an instantaneous picture of surrounding weather.

### GREAT ACCURACY MEANS TRULY TACTICAL WEATHER DETECTION

The TWX670 is the first and only lightning-based, real time, tactical, color weather avoidance solution. It accurately detects and clearly displays electrical discharges—the primary indicator of thunderstorms—in real time, regardless of aircraft maneuvering. With its significantly-improved accuracy over previous-generation lightning detection systems, the TWX670 provides true tactical weather avoidance in the critical 0 – 25nm range, making it a perfect complement to the strategic benefits of satellite-based datalink weather.

### COMPLETING THE PICTURE

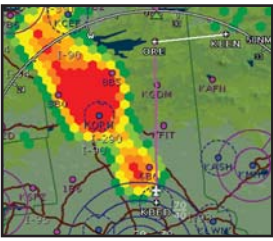
Lightning is one of the first physical properties of a storm cell that can be detected, and unlike precipitation, lightning is the best determinant of dangerous thunderstorm activity. Storm cells and their intensities are displayed in color contours eliminating the guess-work associated with interpreting legacy weather displays. Providing a color-contoured map of a thunderstorm's electrical activity over time, the TWX670 easily allows the pilot to determine the areas of greatest intensity, and clearly identify areas with potential for convective wind shear, turbulence, microbursts, hail and icing.

*The TWX670 brings a whole new level of weather avoidance technology to the general aviation flight deck.*



*The TWX670's advanced signal processing, calibration, and noise immunity minimizes radial spread and allows for the display of close-range strikes from 0nm-25nm for true Tactical Weather Detection.*

# TRULY TACTICAL WEATHER



## TWxCELL MODE™

With the TWX670's color-contoured TWxCell Mode, each cell grid is displayed as a hexagonal array of cell weights (colors). Color-filled hexagons highlight the most intense regions of thunderstorm activity, presenting a visually contoured color display with dynamic sectors. TWxCell Mode permits the pilot to quickly identify the most intense regions of thunderstorm activity.

The TWX670 combines the data of all lightning activity occurring over a running three-minute period, regardless of the number of strikes. This provides a meaningful dynamic map of the lightning discharge rate and density for immediate visual acquisition of critical information. With the TWX670, there's no need to spend time observing discrete events to determine the level of thunderstorm activity.



## STRIKE MODE

In Strike Mode, up to 1024 strikes are displayed for up to 3 minutes. Each transmitted strike includes range, bearing, and weight (color). Regional activity, not age, determines the strike color. Strikes that are more recent but further away cannot "drown out" flashes that are closer and less recent. This provides a level of comfort to pilots transitioning from less capable systems. Color enhancement helps to identify areas of high intensity while still providing a view of the discrete events.



## VERSATILE MHD300

Avidyne's MHD300 can display TWX670 Lightning, traffic when interfaced with the TAS600-Series TAS, and TAWS when interfaced with a Honeywell EGPWS system. Its standard 3-ATI form factor allows for easy installation in virtually any fixed-wing or rotorcraft panel. NVG-compatible versions are also available.



## COMPATIBILITY MODE

The TWX670 is capable of displaying monochromatic lightning strikes on many popular 3rd-party displays including the Garmin® 430/530 as well as G1000 systems. The TWX670 benefits of increased accuracy, tactical weather avoidance in the 0 - 25nm range, and audio callouts are still available with Compatibility Mode.

## PRODUCT FEATURES

- Close-range lightning detection (0nm-25nm and up to 200nm)
- Geo-stabilized lightning
- Audible callouts
- High degree of noise immunity
- Clear and Restore capability
- Built-in test capability
- Built-in skin mapping and noise analysis

## SPECIFICATIONS

### TWX670 Sensor

TSO-C110a Airborne Passive Thunderstorm Detection

### Dimensions:

- Width: 2.5" (64mm)
- Height: 4.0" (102mm)
- Depth: 7.9" (201mm)

**Weight:** 1.4 lbs (0.64 kg)

### Power:

- 10-30 VDC, 0.4 A @ 28 VDC

### Display Options:

- 7ea RS-232 Outputs to drive:
  - Avidyne MHD300 (TWxCell & Color Strike Modes)
  - Avidyne EX500/EX5000 MFD
  - Many popular 3rd-party Lightning Displays (Compatibility Mode)

### ANT67 Antenna

#### Dimensions:

- Width: 5.0" (127mm)
- Height: 1.3" (33mm)
- Length: 9.5" (241mm)

**Weight:** 1.7 lbs (0.77 kg)

### MHD300 Multi-Hazard Display

#### Dimensions:

- Width: 3.18" (80.8mm)
- Height: 3.18" (80.8mm)
- Depth: 7.36" (186.9mm)

**Weight:** 1.88 lbs (0.85 kg)

- TSO-C110a Airborne Passive Thunderstorm Detection
- TSO-C113 Multi Purpose Display
- TSO-C118 TCAS I
- TSO-C147 Traffic Advisory System (TAS)
- NVG compatible
- Available in gray or black bezel



55 Old Bedford Road  
Lincoln, MA 01773

Ph 781.402.7400 800 AVIDYNE

Fax 781.402.7597

www.avidyne.com

*Avionics installations require special skills and test equipment. Avidyne's limited warranty is valid only for equipment installed by an Authorized Avidyne Distributor. Avidyne reserves the right to make changes to product specifications and design features without notice.*

*Some products may require additional hardware for full feature capability.*