



# Real-Time Actionable Weather Forecasting Technology

## Providing a Better Prepared, More Efficient and Safer Offshore Environment

In today's offshore energy business, access to real-time actionable and reliable weather data can help reduce lost time and money related to demobilizing staff and shutting down rig operations. Yet current weather forecasting accuracy is inadequate to make actionable business and safety decisions with confidence.

Most universally recognized weather services are still utilizing 70-year-old balloon technology to gather atmospheric data. Innovative technology developed within Panasonic has provided a new field-tested solution available now for state-of-the-art atmospheric data acquisition.

### Atmospheric Data Acquisition

#### Outdated Forecasting

- 70-year-old weather balloon technology
- 92 locations within the U.S.
- 2x daily soundings (12 hours apart)
- High-latency reporting (2-4 hours)
- Inaccurate position data
- 184 daily soundings

vs.

#### Panasonic Avionics' Proprietary Weather Sensor

- TAMDAR (Tropospheric Airborne Meteorological Data Reporting)
- Equipped on 250+ commercial aircraft and expanding
- Continuous soundings
- Real-time reporting (no latency)
- GPS-based date/time/position data
- ~2,500 daily soundings

#### A Better Weather Forecast

- ✓ Highest Value Data
- ✓ Unmatched Data QC
- ✓ Custom Modeling
- ✓ Expert Meteorologists

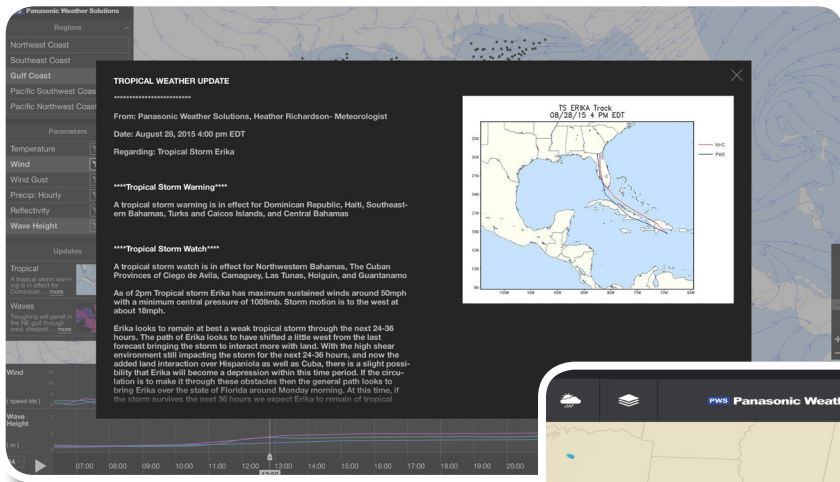
Panasonic leads the industry in each of these requirements and the combination results in superior weather forecasting. Today, Panasonic is the only private entity in the world that develops and runs custom global weather models.

## Weather Alert System Capabilities

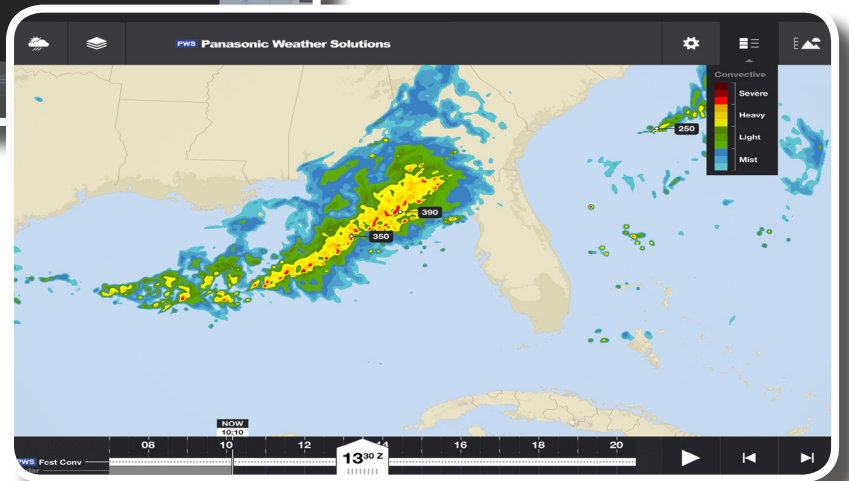
Preparedness is key to mitigating the risks associated with severe weather. Panasonic's real-time weather data and superior forecasting technology can enable a better prepared, more efficient and safer offshore environment.

### Detailed Forecasting on Demand

- Tropical Storm/Hurricane: Predicted path with detailed description of timing and intensity
- Automated weather forecast accessed via web portal
- Updated 4x daily (can be tailored for desired frequency)
- Hourly information increments
- Precipitation: % chance, 1-hour and total precipitation, forecasted radar images, etc.
- Wind: Sustained speed, direction, gust potential and related surf data



Extreme Weather Forecasting Services



4D Weather Forecasting: Time & Location

