

ENcast: Pinpoint Forecasts for Any Point, Anywhere on the Globe

The research is clear: Infusing localized, real-time weather information into numerical weather prediction improves the accuracy of short-term forecasts, as does utilizing the highest-resolution models, eliminating model bias, and updating the forecast frequently with the latest observations. ENcast solves the biggest industry forecast problems and sets a new standard for accurate hourly weather forecasts from 0 to 15 days.

Earth Networks Weather Network

World's Largest Weather Network With Over 35,000 Locations

Earth Networks Total Lightning Network

World's Largest Lightning Sensor Network for Cloud-to-Ground and In-Cloud Lightning

High-Resolution Models

Best-Performing Set of Global Models Including the High-Resolution ECMWF

Hourly Updates

Forecasts Re-Run Every Hour Using Latest Sensor Observations.

Unmatched Forecast Accuracy

The combination of real-time, neighborhood-level weather and lightning observations, the best-performing set of global models including the ECMWF (the highest-resolution global model), and hourly updates beats the accuracy of individual models, ensemble models and any single proprietary model.

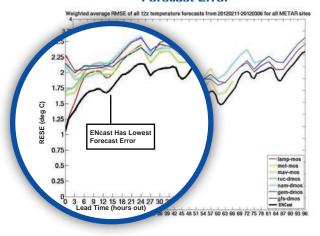
Hyper-Local Nowcast Advantage

The Earth Networks Weather Network consists of more than 35,000 locations worldwide, including more than 10,000 stations that are exclusive to Earth Networks and update with live data every two seconds. Tuning the forecast with real-time weather and lightning observations enables pinpoint accuracy in the 0-18 hour range.

Model inputs include:

- Temperature
- Wind speed and direction
- Dew point
- Lightning

Forecast Error



Lightning Data Improves Thunderstorm Forecasts

	PROBABILITY OF THUNDERSTORM		
FORECAST LEAD TIME	Forecast w/o lightning data	Forecast w/ lightning data	Observed
0	20.37%	100%	YES
1	15.00%	71.67%	YES
2	5.19%	36.79%	YES



Hourly Updates

All ENcast forecast feeds can be upgraded to hourly update service supported by Earth Networks' high-speed computing power. Hourly forecast re-runs are tuned with the latest sensor observations and produce the most accurate hourly forecasts out to 144 hours (6 days).



ENcast Forecast Feeds: Know Before to Make Timely Decisions



Sensor Forecast

Pinpoint-accurate forecasts of temperature, wind, precipitation probabilities and more can be produced for any sensor location that transmits reliable data, including Earth Networks Weather Stations, sensors part of a client's proprietary network, government METAR observations and even ocean buoys.

- Statistically and bias-corrected forecasts using sensor data
- 0-15 day hourly forecast updated twice per day
- Optional premium upgrade to <u>hourly update service</u> for 0-6 days
- Turnkey solution: Place a sensor where the need for an accurate forecast is greatest



Location Forecast

Highly accurate forecasts can be provided for any latitude/ longitude, with or without a sensor. Forecasts are intelligently interpolated using observations from the Earth Networks Weather Network.

- Delivered as a dataset of pre-specified locations via lat/lon request
- 0-15 day hourly forecast updated twice per day
- **Optional premium upgrade** to <u>hourly update service</u> for 0-6 days



City Forecast

Custom forecasts for consumer audiences are generated for 50,000+ cities around the world with forecast accuracy enhanced by observations from the Earth Networks Weather Network.

- Delivered as a dataset of pre-specified locations from a city list
- 0-10 day day/night forecast updated twice per day
- Optional premium upgrade to hourly forecast with hourly update service for 0-6 days

ENcast Forecast Variables

Temperature

24hr High Temperature

24hr Low Temperature

Wind Direction

Wind Speed

Dew Point
Cloud Cover

Thunderstorm Probability

1hr Precipitation Probability

1hr Accumulated Precipitation*

Fog Probability*

Visibility*

Rain Probability*

Ice Probability*

Snow Probability*

Surface Pressure*

Mean Sea Level Pressure*

Surface Insolation*

^{*}Sensor and Location Forecast Only