

Meteomatics Launches Weather Model with 9x Higher Resolution Than Nation's Leading Solution

Following Success in Europe, Weather Intelligence Company Introduces Street-Level Weather Model With 1km Resolution—Rivaling the Current U.S. Standard

EXTON, PA, UNITED STATES, February 4, 2025 /EINPresswire.com/ -- Companies across energy, insurance, aviation, agriculture and other industries can now detect weather events down to street level to forecast how weather affects their real-time operations, as a result of a new high-resolution weather model from [Meteomatics](#). The weather intelligence and technology company that Tesla, CVS Health, NASA, Swiss Re, Lockheed Martin and UK Power Networks rely on for weather data, today announced the result of a years' long project to bring its Europe-tested 1 km model to the U.S. The technology now covers the contiguous U.S. at a resolution of 1 kilometer, or 0.6 miles, powering highly accurate forecasts of even the smallest meteorological events. Meteomatics' new U.S. model identifies local weather patterns within an area of 1 square kilometer, rivaling the country's current leading weather solutions which cover a broader, less detailed 9 square kilometer scope.

As extreme weather events become more volatile—between intensifying hurricanes and floods and extreme heat and widespread wildfires—their impact on businesses is becoming more severe. Extreme weather events are now considered one of the [most significant risks](#) for businesses over the next two years. The ability for companies to accurately predict both these extreme weather events and everyday weather conditions to understand how they affect business offerings and/or operations, can make or break their success. However, even with technological advances, current government and commercial weather observation technologies still lack the granularity and frequency needed to effectively plan operational processes and weather responses.

Meteomatics is the only weather model in the country that covers the contiguous U.S. and Gulf of Mexico at a resolution of 1 km and updates every hour. This is a resolution that far exceeds the standard for global weather models of 20 kilometers that update 3-4 times daily. With its weather model, Meteomatics now offers U.S. businesses a resolution fine enough to accurately detect hyper-local weather events, such as fog, precipitation, wind, hail, storms and fluctuating temperatures, in real-time.

The high-resolution weather model, dubbed "US1k", offers U.S. companies across

industries—including energy, insurance, aviation and agriculture—real-time insights into localized weather patterns that directly affect their business. This provides them with highly accurate forecasts that they can use to better navigate the weather’s increasing impact on their operations.

Industry applications of Meteomatics’ weather model include:

- Predict renewable energy production: Wind and solar farm operators can accurately predict energy generation, ensuring efficient scheduling and maximizing output. Precise weather forecasting is crucial for maximizing revenue and ensuring grid stability.
- Make informed energy trading decisions: With accurate forecasts for both intraday and day-ahead trading, energy traders can make informed decisions and capitalize on market opportunities. By anticipating weather-related fluctuations in energy demand and supply, traders can optimize their trading strategies and maximize profits.
- Assess insurance risk and verify claims: By analyzing historical weather patterns and real-time forecasts, insurance providers can accurately measure and price risk, ensuring fairness and transparency for policyholders.
- Manage successful crop production. Farmers can monitor precipitation, wind, temperature, and soil conditions to better manage irrigation systems, prepare for field workability, and schedule field fertilization and pesticide application.
- Minimize airline delays and disruptions: Accurate weather forecasts are essential for ensuring safe and efficient flight operations, particularly in complex weather conditions.

“Meteomatics has set a new standard for the accuracy and timeliness of hyperlocal weather forecasts with our 1km model in Europe, and as extreme weather events and everyday shifts in weather conditions become a growing risk to businesses, we’re bringing our high-resolution model to the U.S.,” said Martin Fengler, CEO of Meteomatics. “Our expertise and technology goes beyond providing businesses with weather data; we’re empowering them to navigate the complexities of weather confidently.”

Meteomatics’ U.S. weather model integrates weather data from 110+ sources, including aircrafts, ground stations, drones, radars and satellites. Included in these sources is the company’s proprietary Meteodrones—weather drones capable of flying up to 6 km, or 19,500 feet, above mean sea level. The company’s model is recalculated hourly, downscaling for conditions like temperature to improve the forecasts further. The data is visually displayed on topographical maps showing terrain, in addition to charts, tables and animations for easy analysis by companies.

The launch of Meteomatics’ US1k model follows the company’s recent close of its \$22M Series C funding round.

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About Meteomatics

Meteomatics is a weather intelligence and technology company that enables precision forecasts of the weather's impact on businesses anywhere in the world at any time. More than 600 companies, including Tesla, CVS Health, Swiss Re, McCain, NASA, Honda, Airbus, Stellantis and UK Power Networks rely on Meteomatics for weather data that can significantly impact everything from energy savings, logistics, and process automation to risk management and product design. The company's robust approach to weather data collection, modeling, visualization, and delivery rivals even the most sophisticated government and commercial services. Its autonomous Meteodrone, paired with high-resolution weather models, enables granular visibility (down to a single square km) into weather phenomena that traditional weather sensing technology does not regularly or accurately observe. Meteomatics is headquartered in Switzerland, with local operations in the U.S., the UK, Germany, Norway and Spain.

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