

Surface Observations

Surface observations of weather-related parameters make a vital complement to satellite observations and model forecasts. StormGeo provides quality controlled observations in real time from a growing network of observation stations both onshore and offshore.

“Real Data”

Surface observations are essential to weather forecasting by providing the initial conditions to the models, and for validation of their performance. At StormGeo our trained meteorologists also use the latest observations to manually adjust in real time the provided numerical forecast. The observations are available to customers who need to keep up to date on the present weather conditions in their regions of interest or operation, or who want an analysis of the local climatological conditions.

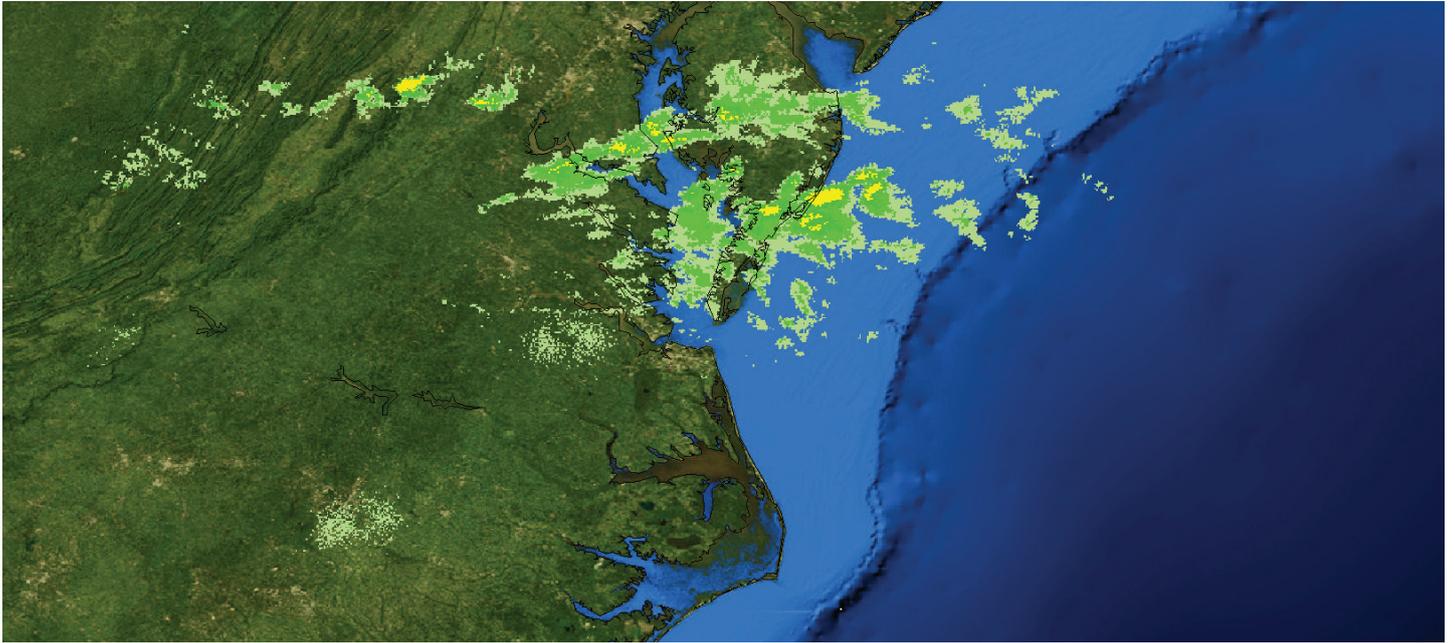
The surface observation stations are providing parameters such as:

- Wind speed and direction
- Air temperature and humidity
- Air pressure and tendency
- Shortwave and longwave radiative fluxes

with additional parameters provided by offshore stations/buoys:

- Wave height, period and direction
- Ocean surface currents
- Ocean surface temperature

We acquire observational data from the global network of national stations as coordinated by the World Meteorological Organization (WMO), in addition to a number of complementary stations. We collect the data in various formats (e.g. SYNOP, METAR and BUFR), and provide tailored output products to our customers.



Weather Radars

Complementary to conventional point observations, a growing global network of surface based weather radars are providing real-time quantitative measurements of precipitation and corresponding motion vectors with high spatial and temporal resolution. For nowcasting purposes (up to a few hours from present), extrapolation of these time series can provide the most accurate prediction of local precipitation patterns.

