The OnPoint Advantage

It's not a coincidence that many Weather Source products and services begin with the prefix "OnPoint." The phrase is the foundation of our products and services as our data is precisely that - OnPoint - to your precise locations of interest.

Weather Source recognizes that weather information that is not "OnPoint" - that is, hyperlocal to your locations of interest - is not meaningful for analytics and business intelligence. Weather Source is committed to providing analytics-grade, hyper-local weather and climate data that is "OnPoint" for your precise business locations. This commitment is the main characteristic that distinguishes Weather Source from its competitors.

The Weather Source Process

Weather Source gathers its data using more precise methods. When you choose our products, you can expect:

- A combined 400 years of meteorology and climatology expertise.
- A variety of reliable inputs, including airport observation station, satellite (GOES 16 & 17, POES, TRMM), radar, IoT and local sensor data.
- The use of meteorological algorithms and models to process incoming data at scale.
- Extensive quality control measures.
- A high-resolution gridded system of globally uniform data.
- A deep, historical database.
- Globally uniform, statistically consistent, analytics-grade data.
- A continuum of data from the year 2000 to present and with a forecast of up to 42 days.
- Ease of integration with data analytics platforms such as Google Cloud Platform, Looker, Microsoft Azure & Power BI, Qlik, Snowflake, and Tableau.

Not All Weather Data Providers Are Created Equal

To understand the power of Weather Source data you must first understand how traditional weather data is gathered and delivered. Many of our competitors rely solely on data from singular inputs such as airport observation stations, a method that is flawed for several reasons:

- Airport observation stations are often too far - up to hundreds of miles - from your location to provide meaningful insight.
- Up to 25% of airport observation stations routinely report gaps and errors in their data.
- A meteorological background or significant experience working with weather sensor data is required to decode and prepare airport observation station data for analytics and modeling.
- Many airport observation stations are located adjacent to an urban center or a large body of water, which can directly affect reported weather. For example, Boston's Logan International Airport is at sea level, subject to onshore ocean breezes, and located next to a significant urban center, all of which can result in markedly different weather than locations that are not immediately adjacent to the airport observation station.

A Single Source of Truth

The OnPoint® Weather and OnPoint® Climatology datasets are homogeneous across space and time and all of our data share a common schema, common headers and header definitions. Further, with our continuum of global data from the past to the present and into the future ensures you always have access to the highest quality data regardless of your business location.

Weather Source spent more than a decade perfecting its data quality processes to ensure your data is error-free, gap-free, and instantly usable. We continuously ingest and process data from thousands of U.S. and international inputs then monitor and correct for errors.

Ease of Delivery

All Weather Source data is seamlessly delivered via our OnPoint API, CSV files, or major business intelligence platforms such as Google Cloud Platform, Looker, and Snowflake. In addition to tabular form, all of our data is also available as shape files for easy visualization or conversion to graphics.

The standard OnPoint forecast is based on the National Centers for Environmental Prediction (NCEP) Global Forecast System (GFS). The GFS forecast is processed by Weather Source and staged on our OnPoint Grid to be statistically consistent with OnPoint Weather and Climatology data. The GFS-based OnPoint forecast currently provides a forward view in either 10 days of hourly format or 15 days of daily format, both refreshed every six hours.

Weather Source also offers forecasts derived from the European Centre for Medium-Range Weather Forecasts (ECMWF). This includes the ECMWF 10-day forecast, and an extended range ECMWF forecast with a forward view of up to 42 days.

Additionally, we provide outlooks from other NCEP models such as the North American Mesoscale (NAM) forecast, the Rapid Refresh (RAP) forecast, and the High-Resolution Rapid Refresh (HRRR) forecast. These forecasts are available via the native NCEP grids, Weather Source's OnPoint Grid, and our OnPoint API.