# Synoptic.

# Commercial Data
# National Mesonet Program

## Public-Private-Academic Partnership

The National Mesonet Program (NMP), the National Oceanic and Atmospheric Administration's (NOAA) preeminent public-private- academic partnership, grew from a National Academy of Sciences report that established the need for a nationwide "network of networks" for a Weather-Ready Nation. This report focused on the need to acquire high resolution, low latency data from all available observational datasets, both federal and non-federal. This led to the program as it exists today, providing the National Weather Service (NWS) with real-time observations from 55+ partners nationwide from the public, private, and academic sectors.
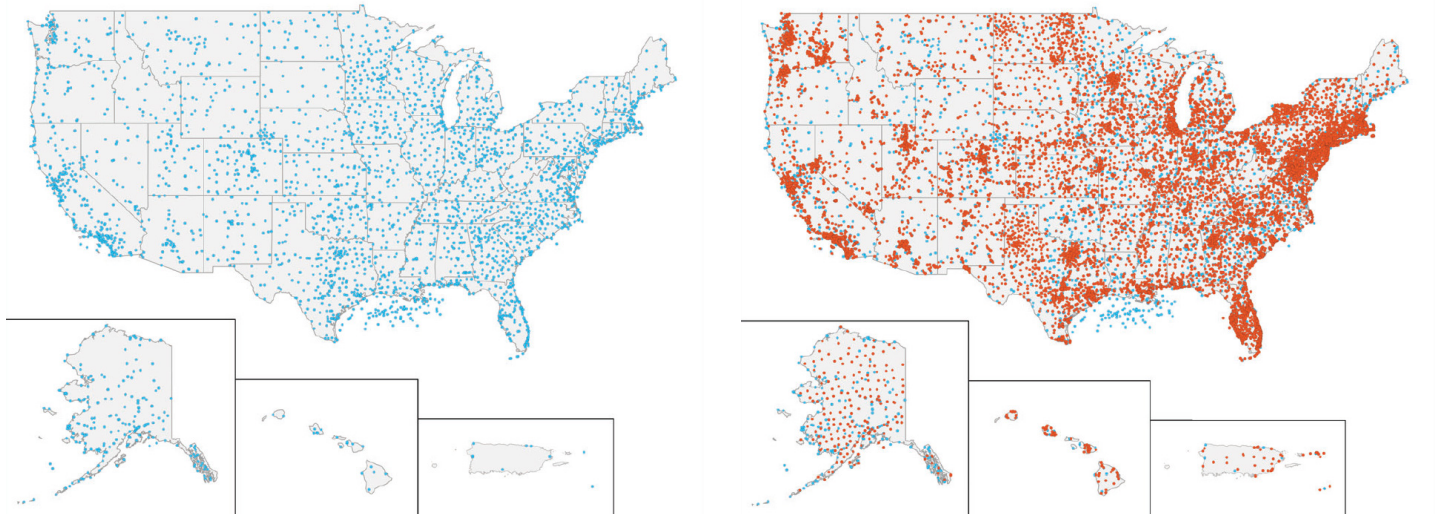
The NMP leverages established networks to fill vast temporal and spatial data gaps across the country for a fraction of the cost of federally owned and operated assets and technologies. The NMP is a foundational program that improves the NWS's ability to meet its mission of providing accurate and timely forecasts and warnings for the protection of life and property and the enhancement of the national economy.

## Program Leadership

Synoptic Data is an experienced technology leader, handling the day-to-day program management, data ingest, aggregation, quality control, and delivery of partner data both direct to NOAA/NWS operational systems and the general public. The data provided includes surface, upper air, radar, and mobile platforms such as aircraft balloons, buoys, and ships. With our real-time weather data platform, Synoptic is helping advance weather forecasting and situational awareness by enabling a seamless flow of essential environmental data that bolsters the NWS's mission and provides high-quality data for numerical weather prediction modeling.
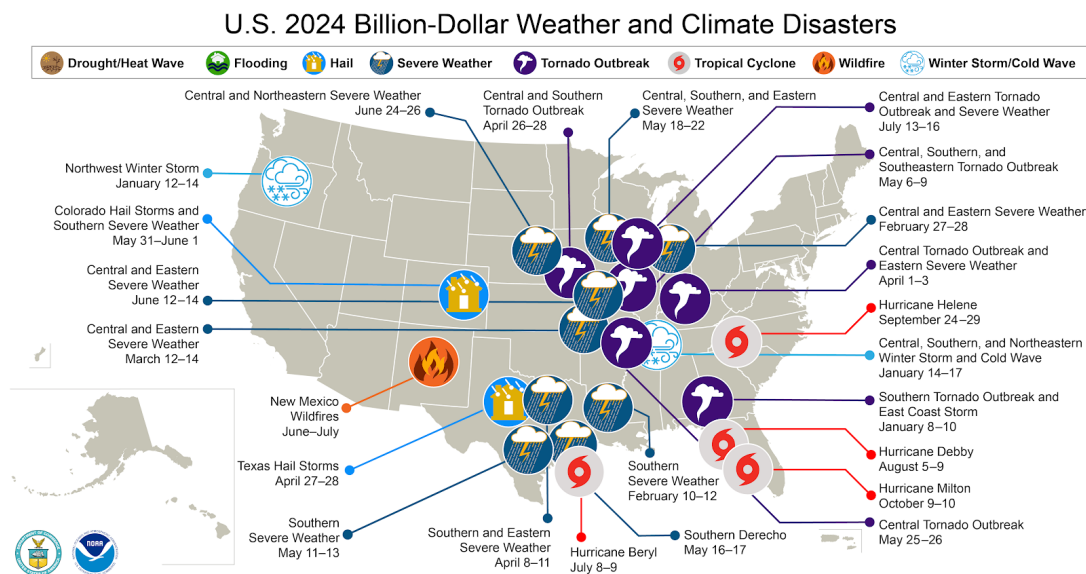
# Advantage of Comprehensive Data



The left image shows only ASOS/AWOS stations, and the map on the right displays both ASOS/AWOS and the addition of the NMP stations, providing more information for operational forecasters.

## Weather by the Numbers

Severe weather events have become more prevalent, deadly, and costly over the past few decades, especially as the population grows in urban and coastal areas and the climate changes. To keep up with our ever-changing world, it is imperative to continue investing in new and innovative technologies as well as supplement the current federal network with high quality, dense data from the National Mesonet Program.

- **24:** Number of billion-dollar disasters impacting the U.S. in 2024 (through October).
- **400:** Total number of billion-dollar disasters impacting the U.S. since 1980.
  - **$2,790 trillion:** Total economic impact due to the above 400 events.

### U.S. 2024 Billion-Dollar Weather and Climate Disasters



This map denotes the approximate location for each of the **24 separate billion-dollar weather and climate disasters that impacted the United States through October 2024.**

https://www.ncei.noaa.gov/access/billions/

**Websites:** synopticdata.com | viewer.synopticdata.com          **Email:** info@synopticdata.com