

Office of the NJ State Climatologist

ONJSC Mission

The Office of the New Jersey State Climatologist serves as a focal point for activities pertaining to the climate of New Jersey. The ONJSC mission foci include:

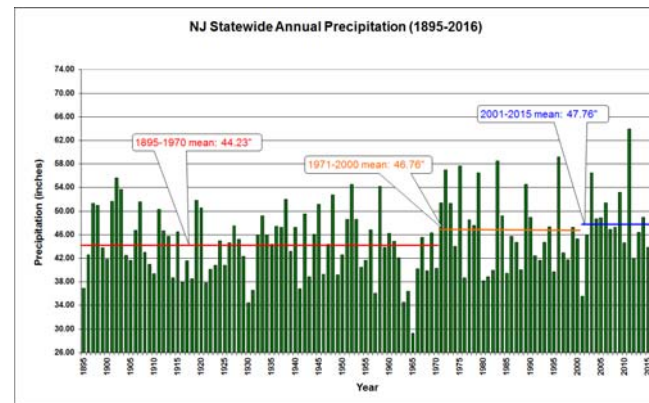
- 1) **Data:** gather and archive data on NJ climate conditions, including the NJ Weather Network, or NJWxNet (wx = weather).
- 2) **Research:** conduct and foster research concerning the climate of New Jersey.
- 3) **Outreach:** educate and inform the citizens of New Jersey on matters related to climate.

<http://njclimate.org>



ONJSC Activities

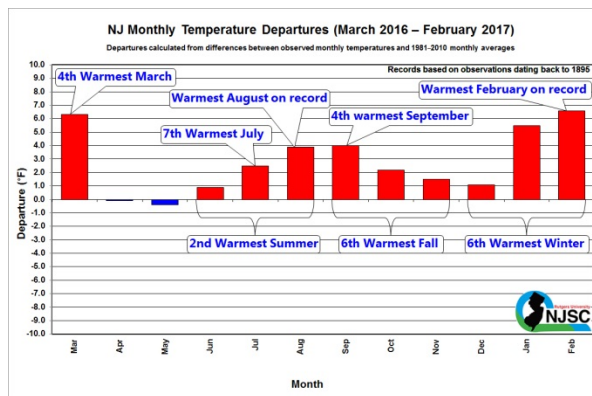
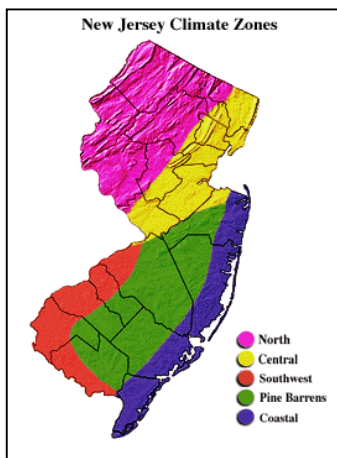
- Maintaining a comprehensive web site with current and historic weather and climate data, station documentation, case studies, real-time hourly maps and tables, and links to state, national, and global sources.



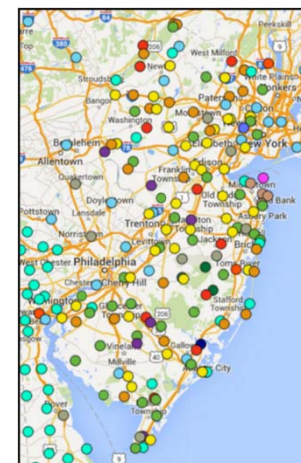
NJ's Diverse Climate

New Jersey's diverse climate, with five distinct climate zones from High Point to Cape May, coupled with a blend of urban and rural environments, provides a wealth of challenges when it comes to monitoring and predicting the area's weather and climate.

By providing resources ranging from classroom presentations to a free, online weather network, the ONJSC helps keep New Jersey's nearly nine million citizens one step ahead of their ever-changing environment.



- NJ Weather Network, which serves to inform NJ citizens, businesses, and agencies of both past and current atmospheric conditions throughout the state. Data from a number of NJ weather networks are combined into one common source to create the NJWxNet. Over 150 stations contribute to the NJWxNet, close to 70 of them operated by the ONJSC



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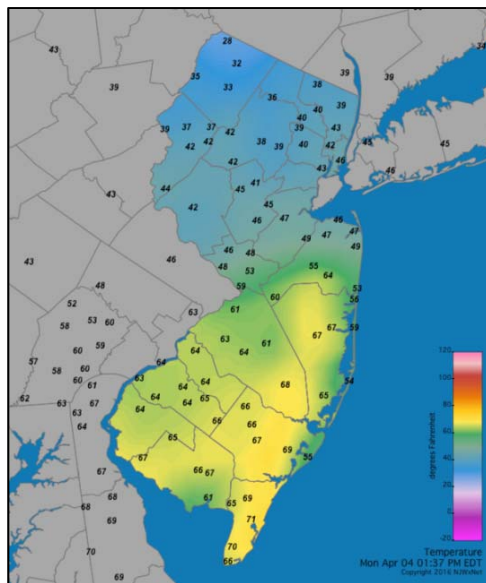
New Jersey Agricultural Experiment Station

- Hundreds of data requests, media interviews, and professional and classroom presentations each year.
 - Research projects related to temperature variability, urban heat islands, storm analyses, Atlantic sea surface temperature, and other regional climate issues.

The NJWxNet

The New Jersey Weather Network (NJWxNet) serves as a comprehensive information resource for NJ weather and climate monitoring, weather forecasting, and weather/climate-related decision making. It is a unique “network of networks”, arguably the densest mesonet in the nation, here in the most densely populated state. At the ONJSC, raw data are processed into a common database, with data and derived products made available in colorful maps, graphs, and tables via the newly improved NJWxNet website (<http://njweather.org>) within minutes of the observation.

The NJWxNet is comprised of more than a 150 weather stations from a number of networks, including the Mesonet and SafetyNet networks (ONJSC), ASOS (National Weather Service), RWIS (NJ DOT), RAWS and USFS (US Forest Service), and USGS networks. The close to 70 stations operated by the ONJSC constituted the backbone of the NJWxNet. These high-quality stations are polled ever 5 minutes, providing near real-time monitoring of temperature, precipitation, wind and a number of other weather conditions across NJ.



A more than 40 degree range in temperatures spanning NJ at 1:35 PM, April 4, 2016



ONJSC station in Pittstown

Purpose

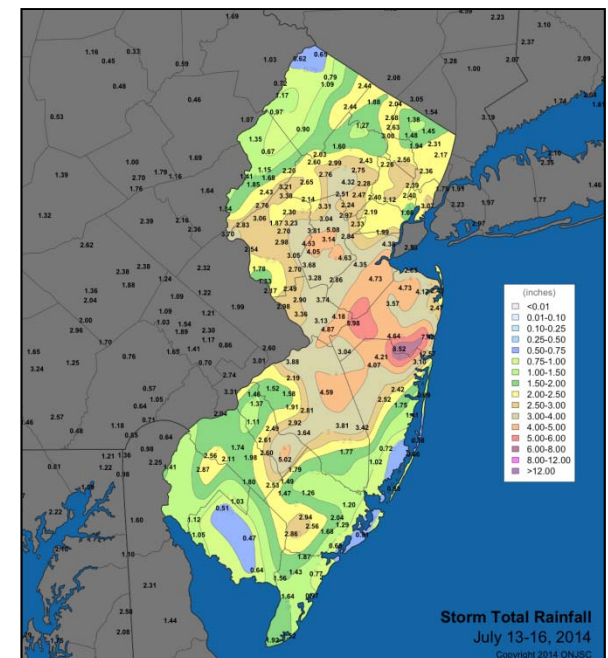
Observations from the NJWxNet and CoCoRaHS are used by a wide variety of organizations and individuals. These include Rutgers scientists, National Weather Service forecasters, private meteorologists, hydrologists, emergency managers, city utility personnel (water supply, water conservation, storm water), insurance adjusters, engineers, mosquito control officials, farmers, teachers, students, and neighbors.



CoCoRaHS

The Community Collaborative Rain, Hail, and Snow network (CoCoRaHS) is a nationwide volunteer precipitation-observing network that welcomed New Jersey into the program in early 2008. The NJ chapter of CoCoRaHS is continually looking to enlist volunteers to take a few minutes each day to report the amount of rain or snow that has fallen in their backyards. All that is required to participate is a 4" diameter plastic rain gauge, a ruler to measure snow, an internet-connected computer, and most importantly, the desire to watch and report weather conditions.

CoCoRaHS volunteers are asked to read their rain gauge and measure any snow at the same time each day (preferably between 5 and 9 AM). Measurements are then uploaded by the observer to the CoCoRaHS website (<http://www.cocorahs.org>), where they can be viewed in tables and maps. Training is provided through online training modules and in occasional group training sessions that are held throughout the state.



Storm Total Rainfall July 13-16, 2014 Copyright 2014 ONJSC