



# State of the Services FY 2021 Q3 Report

April - June 2021

## Engagement Events Highlights

### 1991-2020 U.S. Climate Normals Webinar

Virtual | Jun 8, 2021

- The National Centers for Environmental Information (NCEI) hosted a webinar for energy and agriculture sectors, targeting known user communities.
- Expert speakers from NCEI, the Electric Power Research Institute, and DTN/Progressive Farmer provided an overview of the updated U.S. Climate Normals, and applications of the U.S. Climate Normals to the energy and agriculture sectors, respectively.



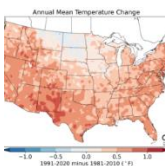
### American Planning Association (APA) Annual Meeting

Virtual | May 7, 2021

- NCEI led a session at the virtual APA annual meeting titled, *Water too much, Water too little: Building resilient cities in a changing climate.*
- Starting on Jan 1, 2022, all 17k+ certified planners in the U.S. will be required to take course work in Sustainability and Resilience to maintain their certifications. As part of this, NCEI is working with the APA to integrate science from the Weather, Water, and Climate enterprise into the course work that APA is building for Planners.

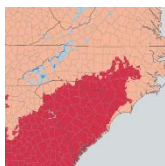


## Product and Services Highlights



### 1991-2020 U.S. Climate Normals Release

NCEI released the 1991-2020 U.S. Climate Normals in May 2021. The new U.S. Climate Normals give the public, weather forecasters, and businesses a standard way to compare today's conditions to 30-year averages. Temperature and precipitation averages and statistics are calculated every decade so we can put today's weather into proper context and make better climate-related decisions.



### RCC Support for the Climate Normals

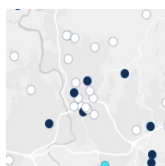
[Custom Climatology Tool](#): Developed by the High Plains RCC, this tool allows users to create temperature averages for various time periods of interest.

[Gridded Normals Mapper](#): Developed by the Northeast RCC, advanced image settings were added to the interface, including toggling of state and/or county outlines off/on, ability to set specific contour levels for the maps, and provision of a large number of color palettes to choose from.



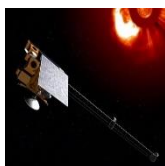
### NCEI Water Column Sonar Data (WCSD) Archive Migrated to NOAA Big Data Program

The NCEI WCSD archive was accepted into the Amazon Web Services (AWS) Public Dataset Program in December 2019. Since then, nearly 120 Terabytes of archived WCSD have been made freely available on AWS. NCEI transitioned to an AWS bucket under the umbrella of the NOAA Big Data Program (BDP). Under the BDP, this dataset will have greater longevity and scale to support the growing archive and future data products.



### Past Weather App

NCEI wanted to make it easier for customers to retrieve local weather information via a simple and intuitive user interface. This [app](#) allows a customer to select a station of interest and investigate daily observations of temperature and precipitation for a specific location and day without having to learn a web service API.



### Space Weather Follow-On (SWFO) Product Generation and Distribution Systems

The SWFO program passed the Systems Requirement Review for the Product Generation and Distribution element, part of the SWFO Ground Segment. NCEI is responsible for algorithm development, retrospective product generation, archive, stewardship, and the SWFO Science Center for user access.

# Stakeholder Highlights



The State Climate Extremes Committee, a partnership between NCEI, RCCs, the National Weather Service, and the American Association of State Climatologists (AASC), adjudicated the following state climate extremes: [Pennsylvania 24-Hours Snowfall](#) and [Texas Hailstone](#).



In partnership with Regional Climate Services Program Staff, AASC held the following virtual State Climate Summits: Tennessee May 25-26 and Indiana June 2-3.



U.S. Environmental Protection Agency (EPA) partners compiled a set of indicators related to the causes and effects of climate change. NCEI's Sea Surface Temperature and

Global Surface Temperature datasets are used as Climate Change Indicators in terms of sea surface temperature and global surface temperature.



NCEI joined forces with NOAA Oceanic and Atmospheric Research to meet with the Naval Meteorology and Oceanography Command Deputy Technical Director and the Naval

Undersea Warfare Center to discuss opportunities for collaboration on data standards with the Navy Commander, Submarine Forces.



NCEI is partnering with the USDA, NIDIS, Illinois State Water Survey, the National Aeronautics and Space Administration (NASA), and the Cooperative Institute for Satellite Earth System

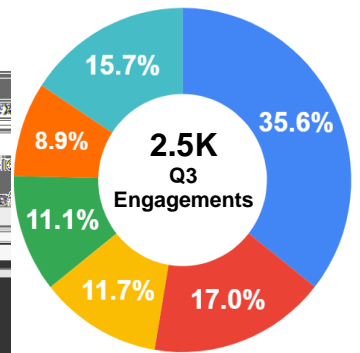
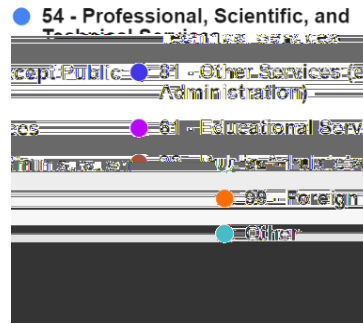
Studies, to advise and mentor students via the NASA Develop program. The goal is to investigate whether a remotely sensed series of observations can help monitor and thus predict soil moisture for decision support.

## Upcoming Engagements

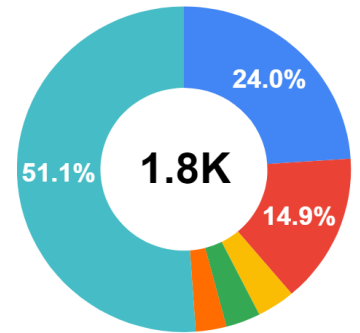
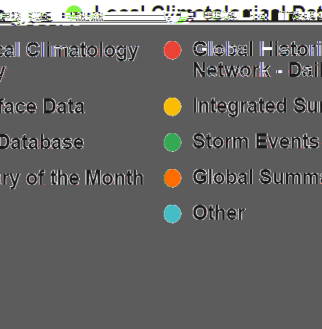
NOAA Environmental Data Workshop	Aug. 2021
Iowa State Climate Summit	Aug. 2021
Minnesota State Climate Summit	Aug. 2021
Oceans in Action/ANTX	Aug. 2021
Alaska State Climate Summit	Sept. 2021
Global OCEANS 2021 San Diego - Porto	Sept. 2021

# Customer Reach

## U.S. Sectors Served



## Top Product Questions



# Unique Customer Requests

## Energy Star

The EPA's ENERGY STAR program is developing a model that uses rainfall in manufacturing plant efficiency applications, much like existing heating and cooling degree data are currently used in energy efficiency calculations. EPA desires cumulative monthly rainfall data for all U.S. zip codes in order to develop this application. NCEI provided gridded monthly precipitation data from the nClimGrid database in support of this effort.

## Tropical Cyclone Trend Analysis

A paper published in the American Geophysical Union's Geophysical Research Letters used NCEI's Extended Reconstructed Sea Surface Temperature data, together with atmospheric fields from model results, to study the abnormally active tropical cyclone season in 2019 over the Korean Peninsula. They found that the cold Maritime Continent-warm West North Pacific sea surface temperature (SST) was a major factor. This study suggests that the SST gradient-induced change in the circulation over the Maritime Continent is a main factor causing the tropical cyclones to approach the Korean Peninsula.

Fans



56k



62k



2.5k

