



State of the Services FY 2021 Report

October 2020 - September 2021

Engagement Events Highlights

U.S. Drought Monitor Workshop

Virtual | Mar 16 & 18, 2021

NCEI brought the leadership of the USDM together in an effort to better serve the country's need for authoritative drought information. The workshop was the first step in increasing transparency, establishing new guidelines for dataset inclusion, and preparing a one-stop shop for data feeds to produce the U.S. Drought Monitor.



Artificial Intelligence Workshop

Virtual | Sep 13-17, 2021

NCEI and NOAA Center for AI hosted the 3rd NOAA Workshop on Leveraging AI in Environmental Sciences with a focus on "Transforming Weather, Climate Services, and Blue Economy with Artificial Intelligence." NCAI is an emerging conduit for artificial intelligence and machine learning to advance mission science initiatives. 1,325 people attended from 35 countries.



GEO-XO Sector Workshops

Virtual | Fall 2020

NCEI supported NESDIS GEO-XO efforts to understand user needs for, and capabilities necessary in, the next generation of geostationary satellites which will launch in a decade. NCEI helped bring users to engagements with the ocean, agriculture, fire, health, and weather communities to provide needs to the program.



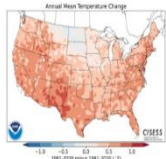
Global Oceans 2020

Virtual | Oct 5-14, 2020

NCEI held the NOAA Town Hall, Toward An Unmanned Systems Strategic Data Enterprise, as a part of Global Oceans 2020, gathering user requirements to establish a functional and adequately resourced data enterprise that moves large volumes of quality-controlled data generated by unmanned systems.



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-informed decisions.



2021 Billion-Dollar Disasters

The Billion-Dollar Weather and Climate Disaster dataset added 10 additional events to the 2021 totals. This brings the year-to-date total to 18 events which is four events shy of the 2020 record for the most disasters on record in a calendar year. The U.S. disaster costs for the first nine months of 2021 are \$104.8 billion, already surpassing the disaster costs for all of 2020 (\$100.2 billion, inflation-adjusted).



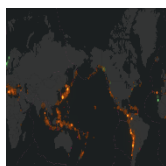
Microplastics Website and Database Launched

NCEI released this first-of-its-kind global microplastics database which collates microplastic data from across the globe, giving scientists and researchers a better understanding of microplastics impacts on human and marine health and the economy. The microplastic database, along with other datasets currently archived at NCEI such as ocean currents, will help create a unified understanding of the global microplastic problem.



Regional Climate Services Program

Three RCSDs were competitively selected and will begin in FY22 Q1 & Q2. These positions join the three existing RCSDs to bring the RCSD Program to full federal employee strength. The Regional Climate Center (RCC) contract was successfully re-competed and implemented in FY21 Q3. Two RCCs changed location in this re-compete with Texas A&M and Purdue Universities joining the program in the South and Midwest.



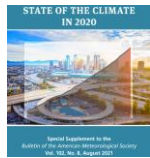
New Interactive Tsunami Animation

NCEI-CIRES scientists have developed a new interactive Tsunami Events Time-lapse Animation. The product serves as an introduction to tsunami data while providing access to larger tsunami patterns and historical timing. It was developed in consultation with NOAA National Weather Service and UNESCO/IOC.

Stakeholder Highlights



The Eastern RCSD co-lead a [project](#) with the OAR/CPO to convene a series of 5 webinars focused on extreme precipitation as a follow-on topic requested from FY20 engagements with small to medium-size water utilities across the US. Over 2,200 participants registered for the 5-part series.



In FY21, NCEI released 26 Monitoring Reports, authored 14 US Drought Monitor Reports, and conducted 11 webinars to document the State of the Climate and assist users with their understanding and application of climate and its impacts.



NCEI partnered with the American Association of State Climatologists (AASC) to conduct state climate summits in 7 states. These summits focused on collecting uses and user needs for climate information. The AASC also provided two studies highlighting the importance of climate information to issues in Alabama and South Carolina.



NCEI's Regional Climate Services Directors worked with NOAA Regional Collaboration Teams to host a series of Regional Climate Equity Roundtables. These were designed to engage underserved communities to better understand how climate impacts them.



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.



The University of Southern Mississippi, in conjunction with partner organizations including NOAA, launched the Gulf Blue Innovation Center and Accelerator Program. Gulf Blue is planned to further develop the Gulf Coast region into a global leader in blue economy-related technologies.

Upcoming Engagements

AGU Fall Meeting	December 2021
AMS Annual Meeting	January 2022
Ocean Sciences 2022	February 2022

Fans:



+57k



+58k



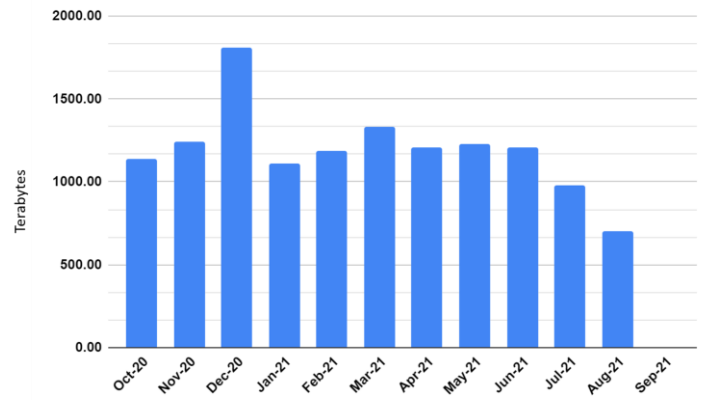
+3k



Customer Reach

NCEI Makes Data Accessible

7.1B web hits and 13.1 PB of data delivered online*

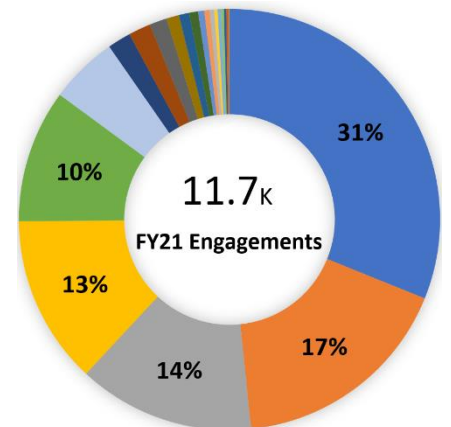


*Data for September 2021 not yet available
Note: Analytics include model & satellite data; data statistics may not be comprehensive across NCEI (e.g. CLASS)

NCEI Served Every U.S. Sector in FY21

Top 5 Sectors:

- Professional, Science and Technology
- Other Services
- Educational Services
- Public Administration
- Foreign



Unique Customer Requests

General Bathymetric Chart of the Oceans (GEBCO) Data Used by Monterey Bay Aquarium

Monterey Bay Aquarium is developing an upcoming exhibit on the deep sea. They are using GEBCO bathymetry data to create a world map of the ocean. Their graphic designer wrote NCEI to ask for guidance in making a color scale to go with this map for visitors to better understand the depths.

COVID-19 Transmission and Climate Impacts

Through the course of the pandemic, NCEI worked with and provided information and data to 62 universities and public agencies as they studied COVID-19 and its transmission. One example is the National Biodefense Analysis and Countermeasures Center (NBACC), part of the Department of Homeland Security. NBACC was interested in determining how weather and climate impacted the spread of COVID-19. Using NCEI data and information to set parameters in their laboratory testing, NBACC examined whether the weather and climate had a limiting or exacerbating impact on the transmission of COVID-19 across the U.S.