



State of the Services FY 2023 Report

October 2022 - September 2023

Engagement Events Highlights

Regional Climate and Equity Heat Health Pilot

Multi-State | January - March 2023

- NCEI led cross-cutting engagements focused on heat health equity in four cities including Phoenix, Las Vegas, Charleston, and Miami. These projects followed on the NOAA Regional Collaboration Network climate equity listening sessions, and served to help these cities identify short- and long-term adaptation measures to high heat extremes.
- NCEI's regional staff are subject-matter experts for climate scenarios, and continue to work with the National Integrated Heat Health Information System to develop engagements at local scales in the regions.



OCEANS 2023 Gulf Coast

Biloxi, MS | September 25-28

- NCEI served on the Local Organizing Committee for the *OCEANS 2023 Gulf Coast* conference and presented on the updated *Marine Microplastics Web Portal*, and co-chaired a technical session on the role of information technology in ocean science, covering topics such as deep learning, digital pipelines, and workforce training to support technology integration.
- NCEI also led a metadata training seminar and co-chaired a technical session on climate change, covering the environmental impacts and the potential social and technical mitigation of climate impacts.



Product and Services Highlights



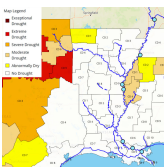
Marine Microplastics: Frequently Asked Questions Videos

Throughout the month of July, Esri, a prominent geographic information system software company, released videos on their YouTube channel and social media platforms featuring NCEI staff answering frequently asked questions about marine microplastics. Building off the World Ocean Day LinkedIn live stream interview of Esri's Chief Scientist, these videos help educate the public about marine microplastics and what NCEI is doing to help monitor concentrations of microplastics in oceans around the globe.



Global Tsunami Sources Map Publication

A *Tsunami Sources* poster with dates 1610 B.C. to A.D. 2022 for Earthquakes, Volcanic Eruptions, Landslides, and Other Causes, was produced by NCEI, and was published in Volume 38 of Esri's Map Book, which was handed out to about 15,000 attendees at this year's Esri User Conference in San Diego. The map was selected as the background image for the foreword by Esri's founder and CEO.



Waterway and Drought Tool

The Southern Regional Climate Center has developed a new product for tracking the low water conditions along the Mississippi River and its impact on the Inland Water Transportation industry. The Waterway and Drought tool provides drought and precipitation conditions, river level conditions and forecasts, and vessel traffic information for the past 30 days. The tool also provides comparative statistics with the previous year and prior intensive drought years.



Billion-Dollar Disasters Update

Through the first eight months of 2023, the U.S. has experienced 24 weather and climate events that have exceeded \$1 Billion, which represents the highest number of events experienced in any year since record-keeping began in 1980. The previous record was 22 events set in 2020. The majority of the 2023 events have been Severe Storms, with Drought, Wildfire, Flooding, Winter Storms, and Tropical Storms also impacting the U.S. The accumulated losses this year have exceeded \$67 Billion.

Stakeholder Highlights



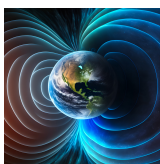
September 2023 marked the 40th anniversary of NOAA's Regional Climate Center (RCC) Program providing climate services to the nation and extending the reach of NCEI into communities. To commemorate the anniversary, the RCCs and NCEI released a four-part series of news stories and social media posts throughout the summer, highlighting various aspects of the program.



NCEI staff joined the biannual Southeast Regional Partnership for Planning and Sustainability (SERPPAS) Steering Team as a NOAA member and presented contextual information about NOAA Climate Products and Services to inform SERPPAS working group actions on Longleaf Pine Restoration, Energy Siting, Sentinel Landscapes, Endangered Species, and Coastal Resilience. SERPPAS was established in 2005 to serve as a forum to build effective working relationships between the U.S. Department of Defense and civilian federal, state, and industry partners in a six-state region.



NCEI has led NOAA's collaboration with the Electric Power Research Institute's (EPRI) Climate READi program, as they work to ensure the electric grid reliability for future energy demands. NCEI has contributed to EPRI training materials, keynoted and participated in EPRI meetings, and is an active partner in the READi teams. NCEI will continue to collaborate as EPRI supports electric utilities in addressing Federal Energy Regulatory Commission requirements and looks to further develop training materials and apply downscaled authoritative climate model and projections data.



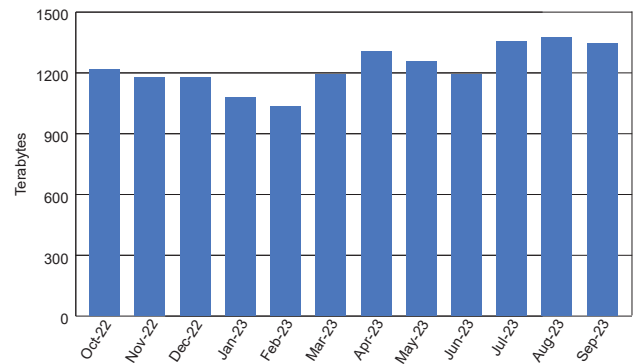
NCEI held a World Magnetic Model (WMM) Annual Review Meeting that gathered WMM scientists, sponsors and stakeholders from NCEI, the British Geological Survey, the National Geospatial-Intelligence Agency, the U.K. Hydrographic Office, and the British Ministry of Defence. The goals of this meeting included reviewing the performance and usage of the WMM2020, the status of the preparation of WMM2025, the status of the overall WMM program, including the MagQuest competition, and discussing ongoing and future NCEI research studies in support of the WMM program.

Upcoming Engagements	
American Geophysical Union Conference	Dec. 11-15, 2023
American Meteorological Society Annual Meeting	Jan. 28 - Feb. 1, 2024
Reinsurance Association of America Annual Catastrophe Modeling Conference	Feb. 26-29, 2024

Customer Reach

NCEI Makes Data Accessible

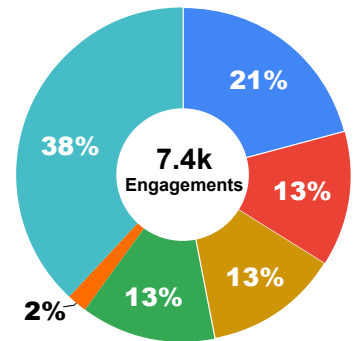
- 3 billion web hits and 14.7k TBs of data delivered online*



*Analytics include model & satellite data; data statistics may not be comprehensive across NCEI (e.g. CLASS)

NCEI Serves Every U.S. Sector in FY2023

- Top Sectors
 - Professional, Scientific, and Technical Services
 - Other Services (except Public Administration)
 - Educational Services
 - Public Administration
 - All Others (Combined)
 - Finance and Insurance



Unique Customer Requests

East Palestine, Ohio Disaster Impact Study

A scientist studying the train derailment disaster in East Palestine, Ohio in February 2023 contacted NCEI for information that would help them understand the associated distribution of harmful dioxins throughout the area. NCEI provided daily precipitation data from local weather stations to help determine the dispersion of dioxin into local streams during flash flooding events. These streams flow directly through town and widely distribute the toxins during heavy precipitation events.

Media Frenzy: Record Breaking Ocean Temps.

The ocean surface temperature has been continuously setting warmth records since March 2023, when an extended La Niña phase rapidly switched into the recent El Niño phase. NCEI scientists have been interviewed by over 15 media groups regarding these observations, including a live TV news segment. NCEI's Sea Surface Temperature dataset has been used by climate monitoring communities and public media as the trusted, authoritative source for those reports.

Fans



121.3k



64.8k



11.2k

