



NESDIS in the Northeast Region

Eric Kihn and Ellen Mecray
NOAA's National Centers for Environmental Information

July 17, 2018

NOAA Satellite and Information Service | National Centers for Environmental Information



Rising Demand for Information with Regional Perspectives

NOAA's Societal Challenge Areas



COASTS
Community Resilience



CLIMATE
Extremes



WATER
Drought and
Flooding



S2S?
Icing, wind, heat

Application of NOAA's Information by Sector



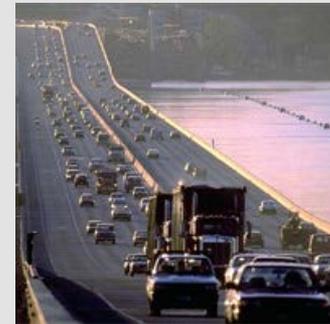
Agriculture



Energy



Health



Transportation



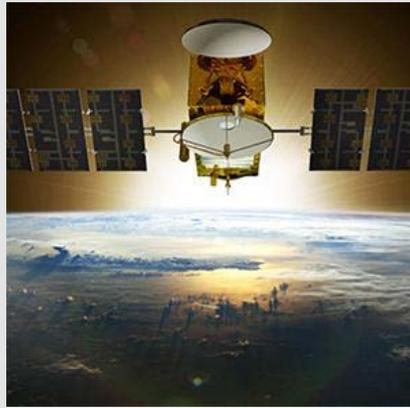
Sustainability of Marine
Ecosystems



NCEI Stewards the Nation's Largest Archive of Environmental Data



Coastal Water
Temperature Guide



Satellite Data Services



Ocean Drilling Data



Space Weather
Data



Weather Balloon Data



Hourly Precipitation Data



Argo Profiling Float
Data



Paleoclimatology Data

Purpose and Approach

NCEI is investing in improving our capacity to engage with our users/customers across all programs and activities...

Understand Customers & Requirements

- ✓ Enable capabilities in customer analytics
- ✓ Document, prioritize and address requirements from customer and engagement interactions
- ✓ Inform NCEI science, research and data priorities
- ✓ Continuously improve how we serve and interact with our customers

Improve Sectoral / Regional Engagement

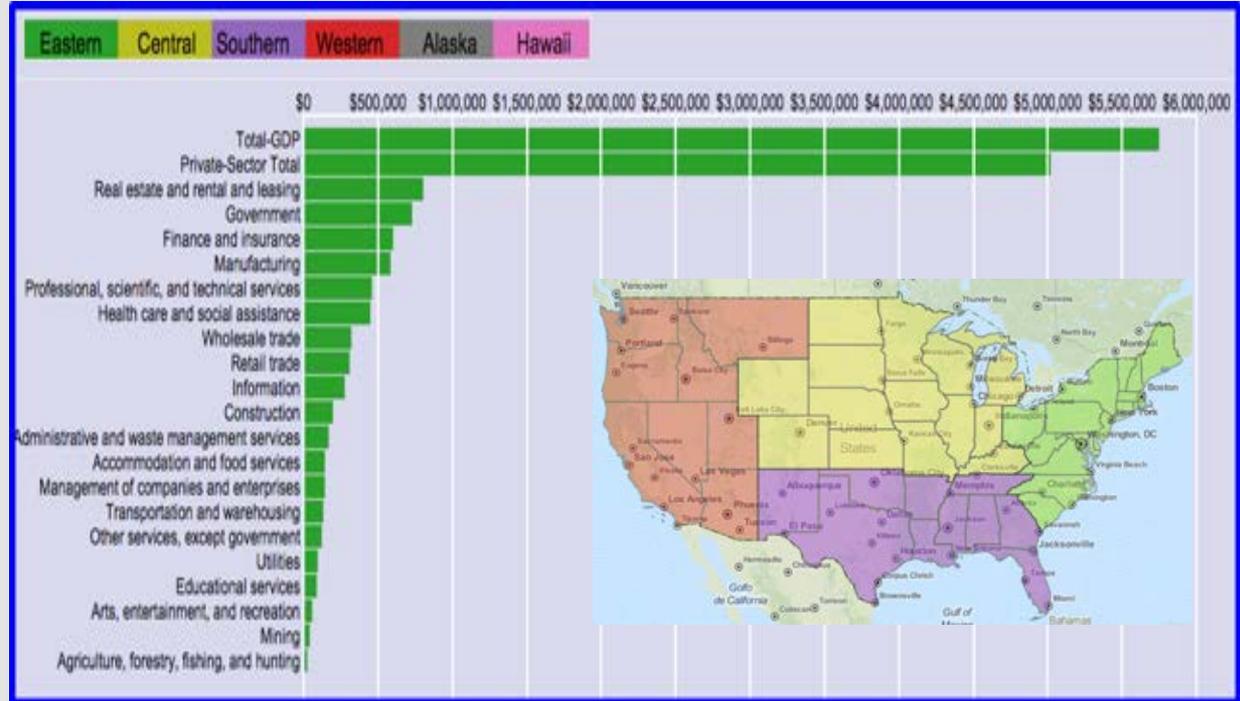
- ✓ Serve our customers better through targeted regional- and sector-based interaction
- ✓ Strategically focus on engagement activities in select sectors, nationally and regionally
- ✓ Enhance our capability to tie environment information to economic sectors

Sector-Based Strategy



Census Bureau North American Industry Classification System

- Agriculture, Forestry, Fishing, Hunting
- Mining, Quarrying, and Oil and Gas
- Utilities
- Construction
- Manufacturing
- Wholesale Trade
- Retail Trade
- Transportation and Warehousing
- Finance and Insurance
- Real Estate and Rental and Lease
- Professional, Science, Tech Services
- Management of Company/Enterprise
- Waste Management & Remediation
- Educational Service
- Health Care and Social Assistance
- Arts, Entertainment, and Recreation
- Accommodation and Food Services
- Other Services (except Public Admin)
- Public Administration



Center for Weather & Climate, Customer Service Representatives Top Customer Economic Sectors

- | | |
|-----------------|-----------------------------|
| 1. Attorneys | 6. Engineer |
| 2. Individuals | 7. Consultant |
| 3. Business | 8. Consulting Meteorologist |
| 4. Insurance | 9. University |
| 5. Construction | 10. State/local government |

BLUE: NCEI/NCDC Historical Sectors

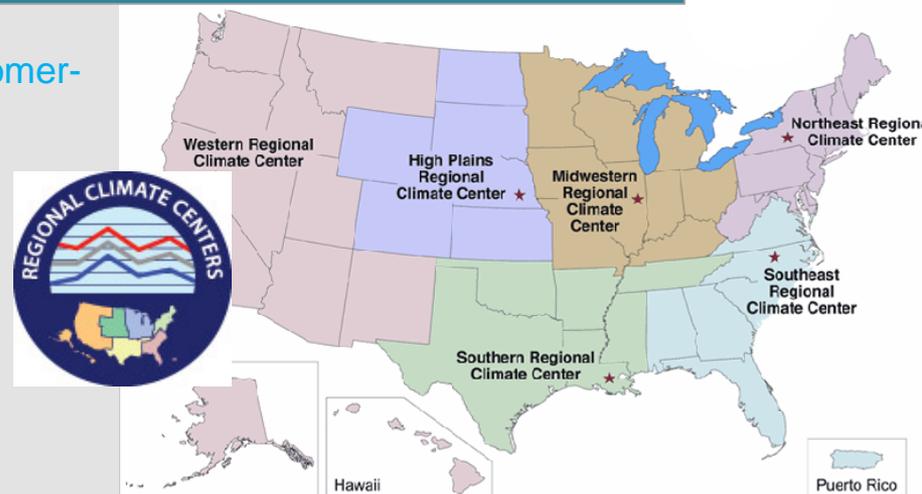
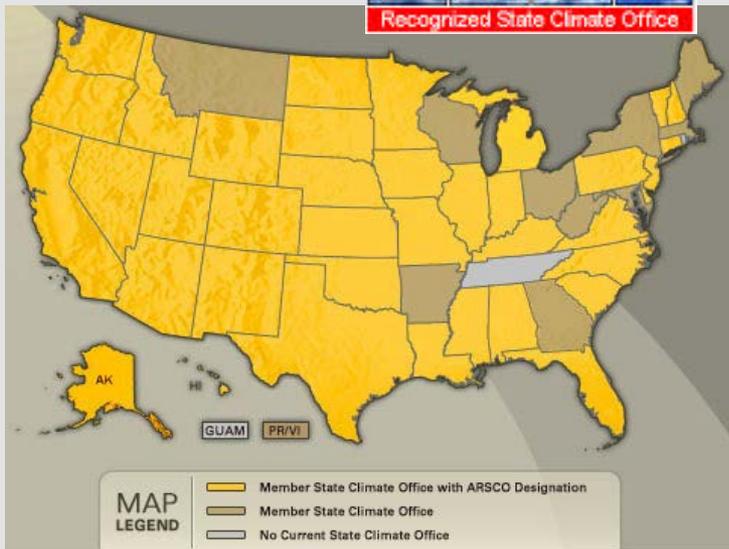


NOAA's Regional Climate Services

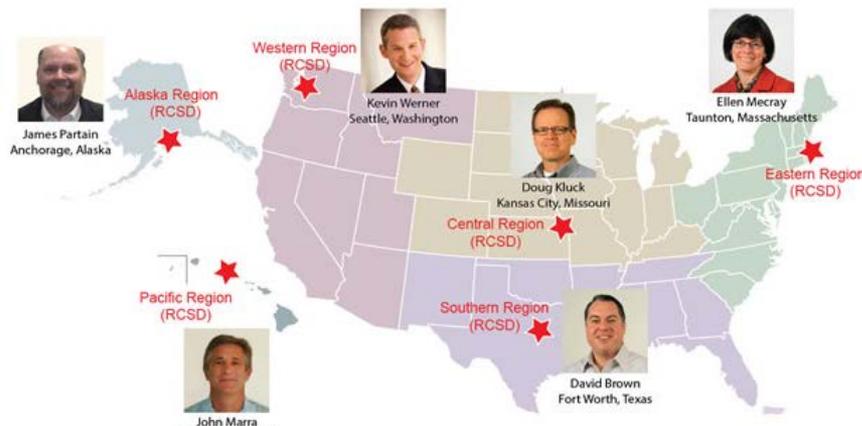
Developing and Delivering Products and Services

State Climatologists: <http://stateclimate.org/>
Regional Climate Centers: <http://www.ncdc.noaa.gov/customer-support/partnerships/regional-climate-centers>
Regional Climate Services Directors: <http://www.ncdc.noaa.gov/rcsd>

Federal
State
Academia
NGOs
Tribes



NOAA's Regional Climate Services Directors





Our Key Services

Generate, Transmit, Transform, Translate

- **Monitoring** – value add, trends, anomalies
- **Data** – instrumentation, collection, database
- **Prediction** – interpretation, place/sector based
- **Outreach** – informing decisions, accessibility
- **Education** – capacity building for understanding
- **Research** – applied, useable
- **Networks** – awareness, linkages, sharing

Key Lesson: *Share information*, including lessons learned from customer engagements, with all of NOAA and our close partners via structured mechanisms



Key Regional Products

- Quarterly Climate Summaries/Outlooks (2 page Summaries): <http://www.drought.gov/drought/content/resources/reports>
- Monthly Webinars: <http://www.nrcc.cornell.edu/services/webinars/2017/08/index.html>
- Sectoral Information Dashboards: Gulf of Maine, Water, Energy, Health, Fisheries, Coasts

U.S. Climate Resilience Toolkit

Steps to Resilience Case Studies Tools Expertise Regions Topics

Topics > Water > Water Resources Dashboard

Water Resources Dashboard

SHARE Water resource managers and urban planners can use this dashboard to access maps and data that help them monitor the potential for extreme precipitation and drought in their regions. The [Acknowledgments](#) page lists the individuals who helped select our initial offerings.

TWEET

PRINT

Note that this is a dynamic page: the scope and content of dashboard entries are driven by input from users. We welcome your suggestions and additions to improve its usefulness. Please [email us](#) with your suggestions.

Forecasts & Outlooks



Northeast Regional Climate Center

Hurricane Season & Outlook

Home

Weather Station Data

State & Regional Analyses

Analyses for Industry

Climate Resources

Publications & Services

Blog

Monthly Webinars

2017

Hurricane Season & Outlook

Climate Models & Downscaling

Severe Weather Climatology

Heat & Health

Individual presentations (p) [August Conditions \(Samantha Borisov\)](#)

Quarterly Climate Impacts and Outlook Eastern Region September 2014

National - Significant Events for June-August 2014

Significant Events for August and Summer 2014

Highlights for the East

Regional - Climate Overview for June-August 2014

Temperature and Precipitation Anomalies

August Extreme Rainfall

The average summer temperature for the Eastern Region was 70.2°F, 0.6°F cooler than normal. Fourteen of the sixteen states saw below-normal temperatures. Maine, however, had its 12th warmest summer on record. June was warmer than normal for all states, with the region 1.0°F above normal. Ten states were cooler than normal during July, with the region 1.7°F below normal. Ohio and West Virginia had their lowest July months on record.

The Eastern Region picked up 100% of normal rainfall during summer. Of the nine wet states, three led the season among their top 20 wettest. South Carolina had its 20th driest summer on record. Ten states were drier than normal in June, but the region ended the month at 100% of normal. Delaware had its 39th driest June on record, while Ohio had its 18th wettest in July; the region saw 107% of normal rainfall.

The DOE Partnership for Energy Sector Climate Resilience

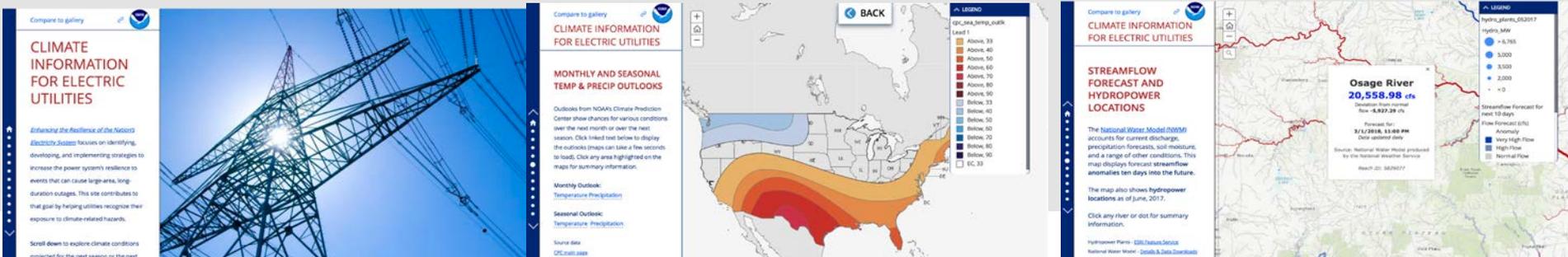
NOAA is working in a government to government relationship to offer weather and climate information to meet the requirements of DOE and its core partners

Mission Interests- Grid Sustainability and Critical Infrastructure Security

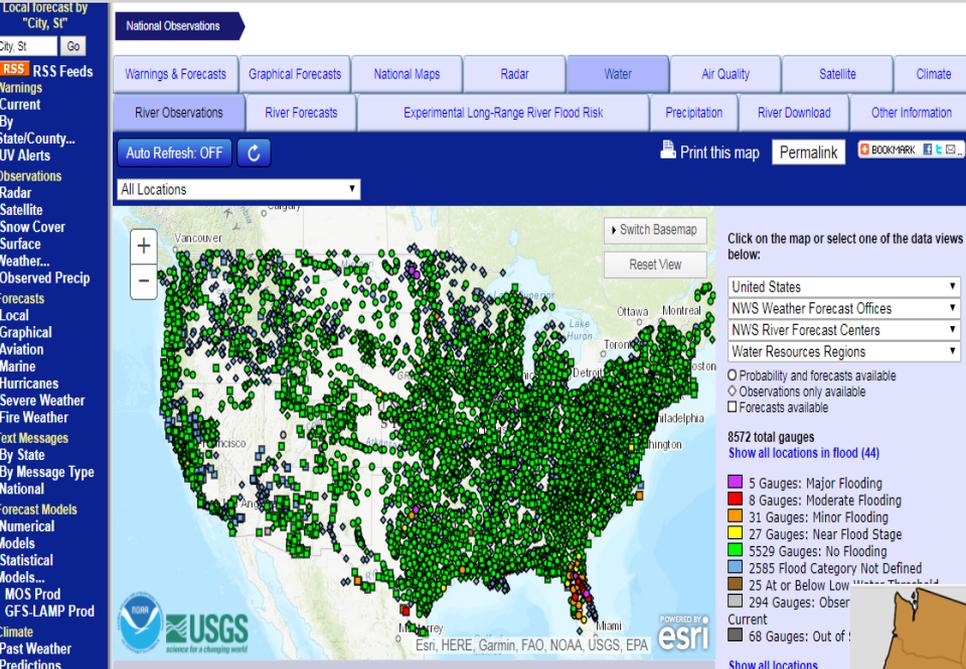
Weather and Climate Information Requirements:

- Icing events,
- temperature extremes,
- Wet bulb temperatures,
- Wind speed and duration
- Water availability (drought impacts)
- Sea level rise

Sample frames from the Story Map - <http://arcg.is/1jOLCb>



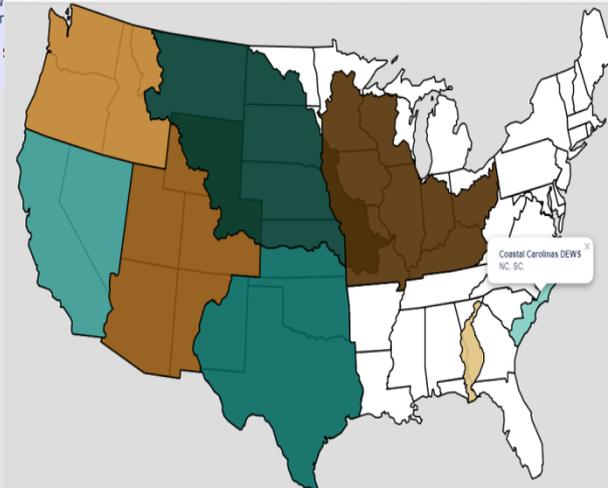
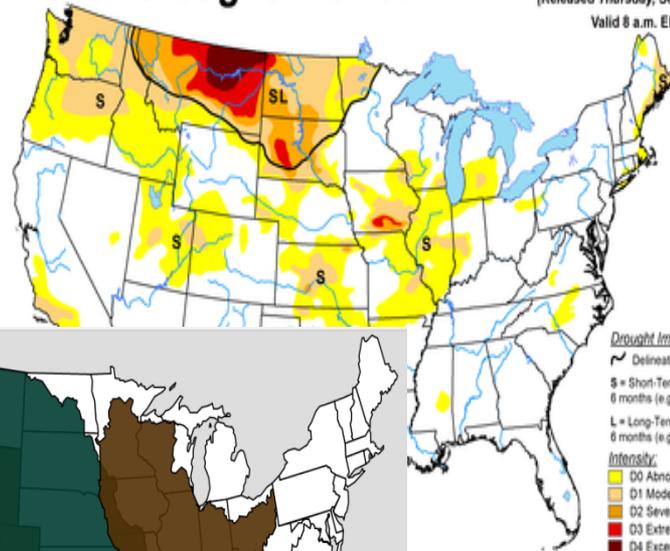
Water Resources- too much and too little



The U.S. Drought Monitor is a weekly map based on measurements of climatic, hydrologic and soil conditions as well as reported impacts and observations from more than 350 contributors around the U.S.

U.S. Drought Monitor

September 19, 2017
(Released Thursday, Sep. 21, 2017)
Valid 8 a.m. EDT



<https://water.weather.gov/ahps/>

River observation and forecast information:

<https://water.weather.gov/ahps>

Snow Information: <https://www.nohrsc.noaa.gov>

Precipitation Frequency

Estimates: <http://www.nws.noaa.gov/oh/hdsc>

<https://www.drought.gov/drought/>

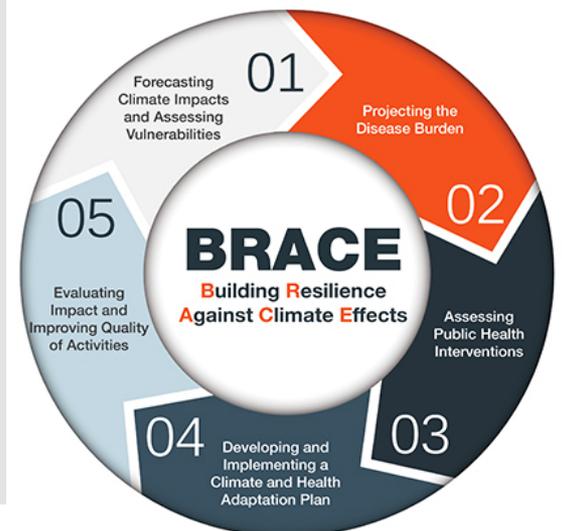


Health



NATIONAL INTEGRATED HEAT HEALTH INFORMATION SYSTEM

Building Resilience Against Climate Effects



CDC Home
CDC Centers for Disease Control and Prevention
 CDC 24/7: Saving Lives. Protecting People.™

Tracking A-Z Index | Centers for Disease Control and Prevention - Your Online Source for Credible Health Information | Glossary A-Z | CDC A-Z | Tracking A-Z

Climate Change

Home > Environments > Climate Change

National Environmental Public Health Tracking

- Climate Change
- Tracking Climate Change
- Related Links
- Climate Change Indicators
- Climate Change Communication Tools
- Search Climate Change Data

Tracking Success Stories

- California
- Minnesota
- Missouri
- New York City
- A Link Between Heat

Tracking Links | Environments | Health Effects | Population Health | Info by Location



Quick Links

- Climate Change and Health
- Climate Change Monitoring in the U.S.
- Extreme Heat

Climate change is any major change that has been occurring for at least 10 years in the temperature, precipitation, wind, and other weather patterns that we measure. Across the planet in general, temperatures are rising and rainfall is increasing, but changes are not occurring everywhere. In some places temperatures may stay the same or drop, while other places may have far less rainfall. As a result of the changing climate, serious weather events such as heat waves, droughts, floods, and tropical cyclones happen more often. Some types of air pollution may also increase. These changes have the potential to affect human health in several direct and indirect ways, some of them severe.



Quick Links

- Home
- About Tracking Program
- State & Local Tracking Networks
- Success Stories
- Indicators & Data
- Print Page
- Bookmark and Share
- CDC on Facebook
- CDC on Twitter

Tracking Hot Topics

- Hand Washing Awareness
- Keep Your Child's Holiday Toy Time Safe!
- December is National Safe Toys and Gifts Month
- View our Tracking Success

<http://toolkit.climate.gov/nihhis/>

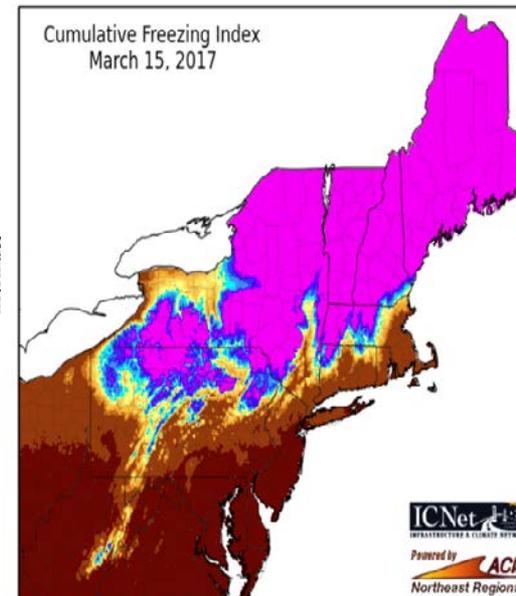
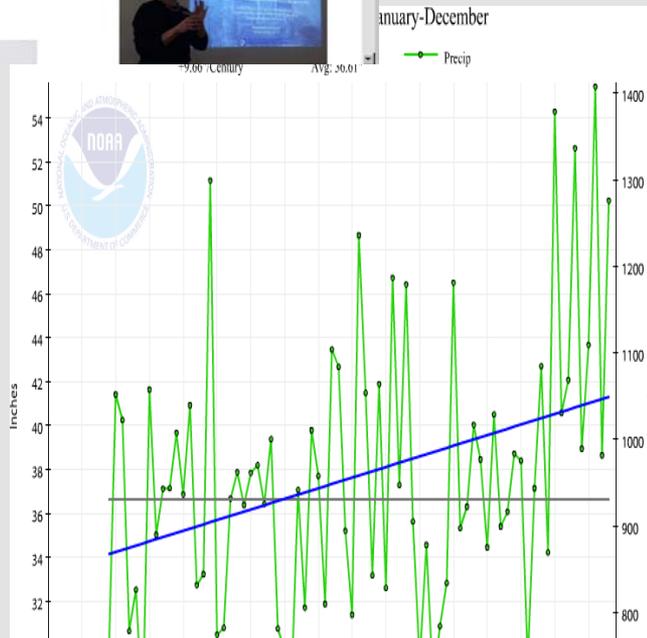
- Climate Variables
- Temperature extremes
- Public health warnings on heat index
- Mapping overlays w vulnerable populations
- Messaging to local health offices



Transportation

- Climate Variables
- Precipitation frequency
- Temperature projections
- Accounting for extremes
- Seasonal road posting
- Research on wind and other variables

Infrastructure and Climate Network:
<http://theicnet.org/>

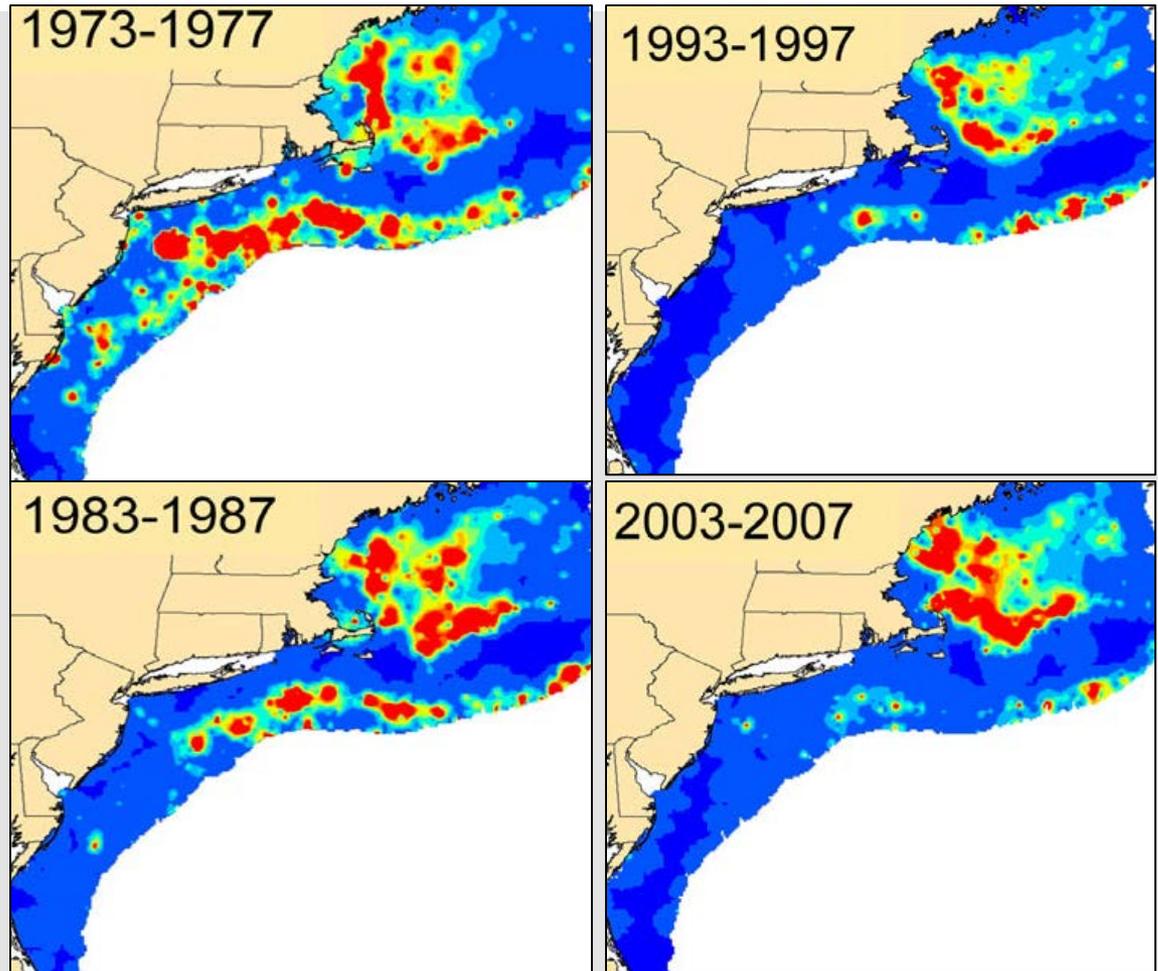


Northeast Fisheries and Climate Change Observations and Projections

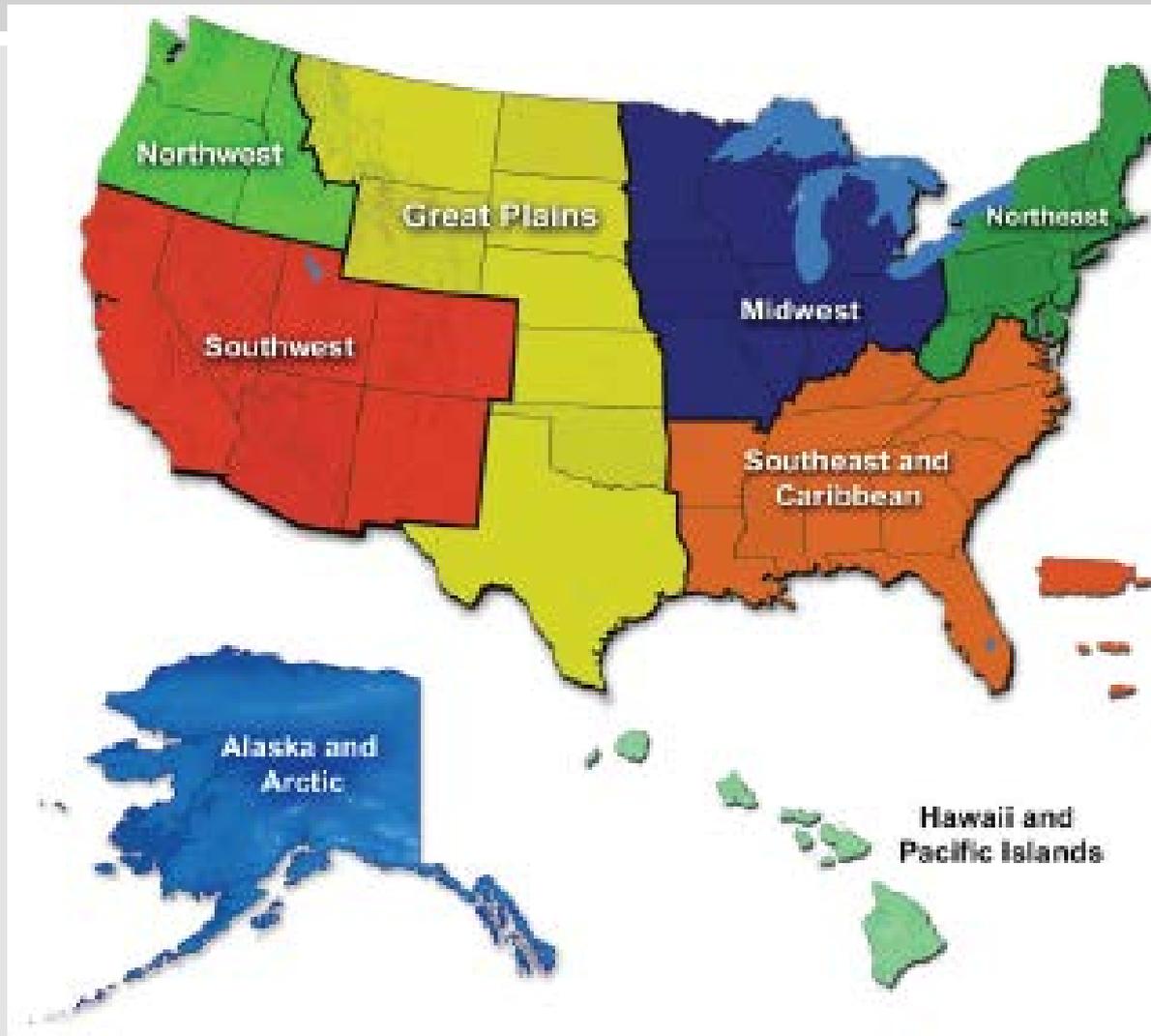
Altered Water Temperature Regimes

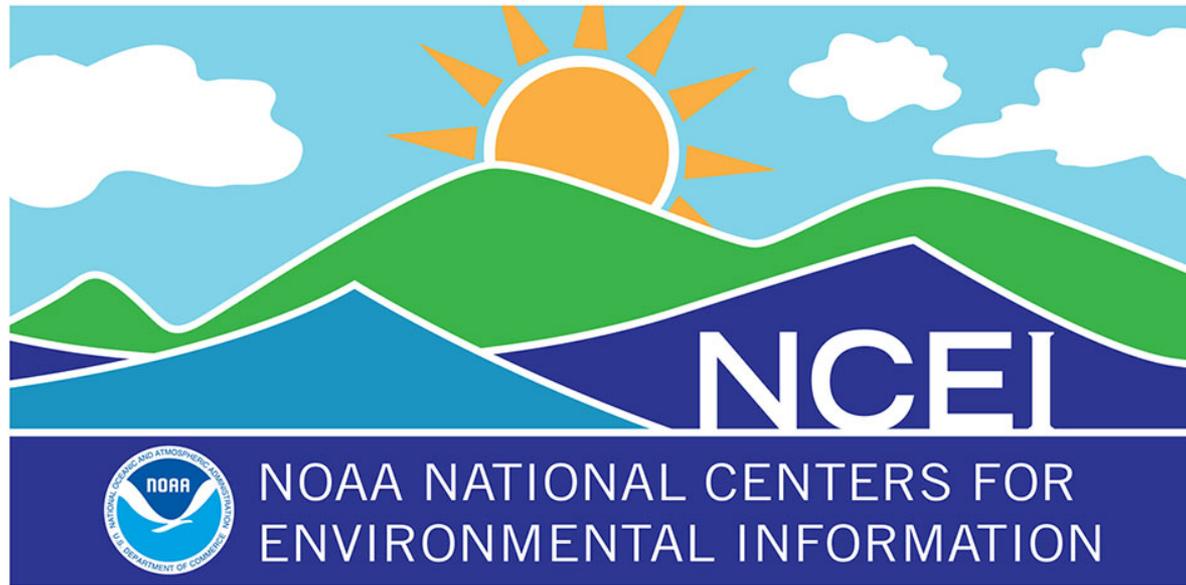
Poleward shifts in biomass and increases in depth distribution have been correlated with large-scale warming and climatic conditions for 24 of the 36 stocks examined in the Northeast (Nye et al. 2009)

Example: red hake (northern and southern stocks combined)



Regions of the US National Climate Assessment





www.ncei.noaa.gov
www.climate.gov



NCEI Climate Facebook: <http://www.facebook.com/NOAANCElclimate>

NCEI Ocean & Geophysics Facebook: <http://www.facebook.com/NOAANCEloceangeo>

NCEI Climate Twitter (@NOAANCElclimate): <http://www.twitter.com/NOAANCElclimate>

NCEI Ocean & Geophysics Twitter (@NOAANCElocngeo): <http://www.twitter.com/NOAANCElocngeo>





Backup



Regional Resources- Other Partners

- Infrastructure and Climate Network: <http://theicnet.org/>
- CDC Climate and Health Tracker and BRACE: <http://ephtracking.cdc.gov/showClimateChangeLanding.actions>
- CINAR Fisheries Dashboard: under development



A screenshot of a web browser displaying the CDC Climate Change website. The page features the CDC logo and navigation tabs for "Tracking A-Z", "Glossary A-Z", "CDC A-Z", and "Tracking A-Z". The main content area is titled "Climate Change" and includes sections for "Tracking Links", "Quick Links", and "Tracking Success Stories". A large image of a hurricane is visible on the left side of the page.



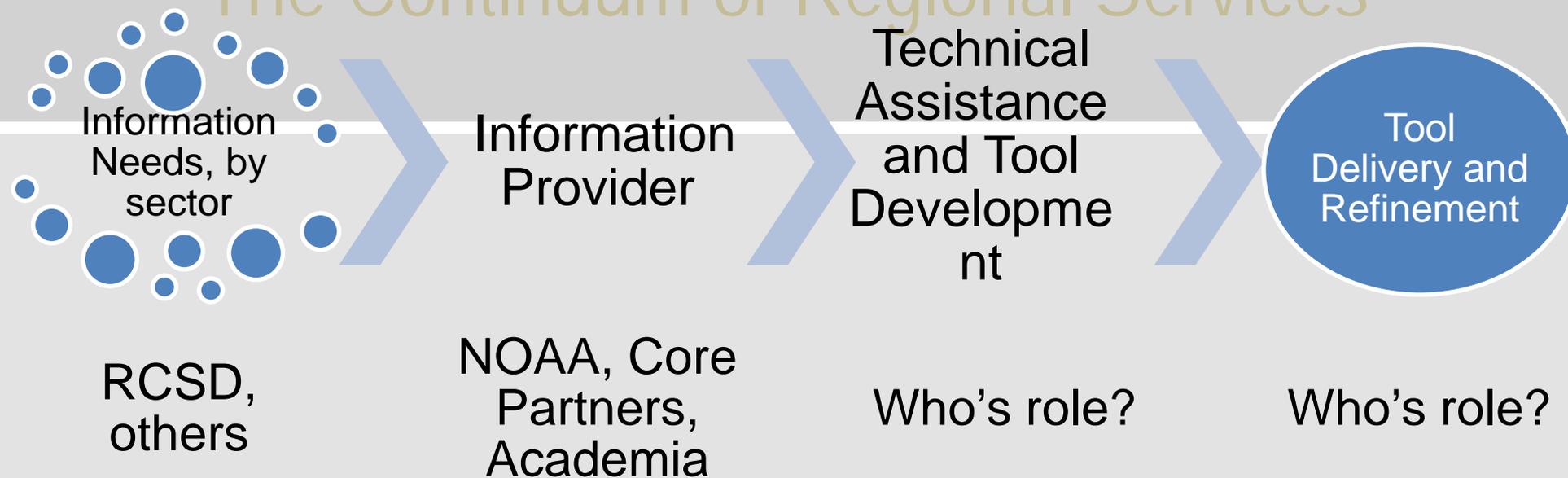
A screenshot of a web browser displaying the ICNet website. The page features the ICNet logo and navigation tabs for "Home", "About the ICNet", "Outreach", "Research", "Tools and Resources", "Contact", and "Log-in". The main content area is titled "The ICNet" and includes a navigation menu.



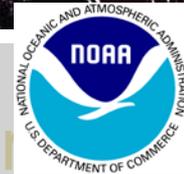
The Infrastructure & Climate Network (ICNet) is a network of over 60 academics, students, and practitioners who are dedicated to accelerating climate science and engineering research in the Northeastern United States. The ICNet focuses on climate change and sea level rise impacts and adaptation for sustainable bridges, roads, and transportation networks. The ICNet was established in October 2012 with support from the National Science Foundation.



The Continuum of Regional Services



- Provision of information is highly dependent on the customer.
 - Government to government- technical assistance, user engagement, refinement of information products
 - Private sector enterprise- tailored tool development



NOAA Seamless Suite of Forecast Products Spanning Climate/Weather/Water

