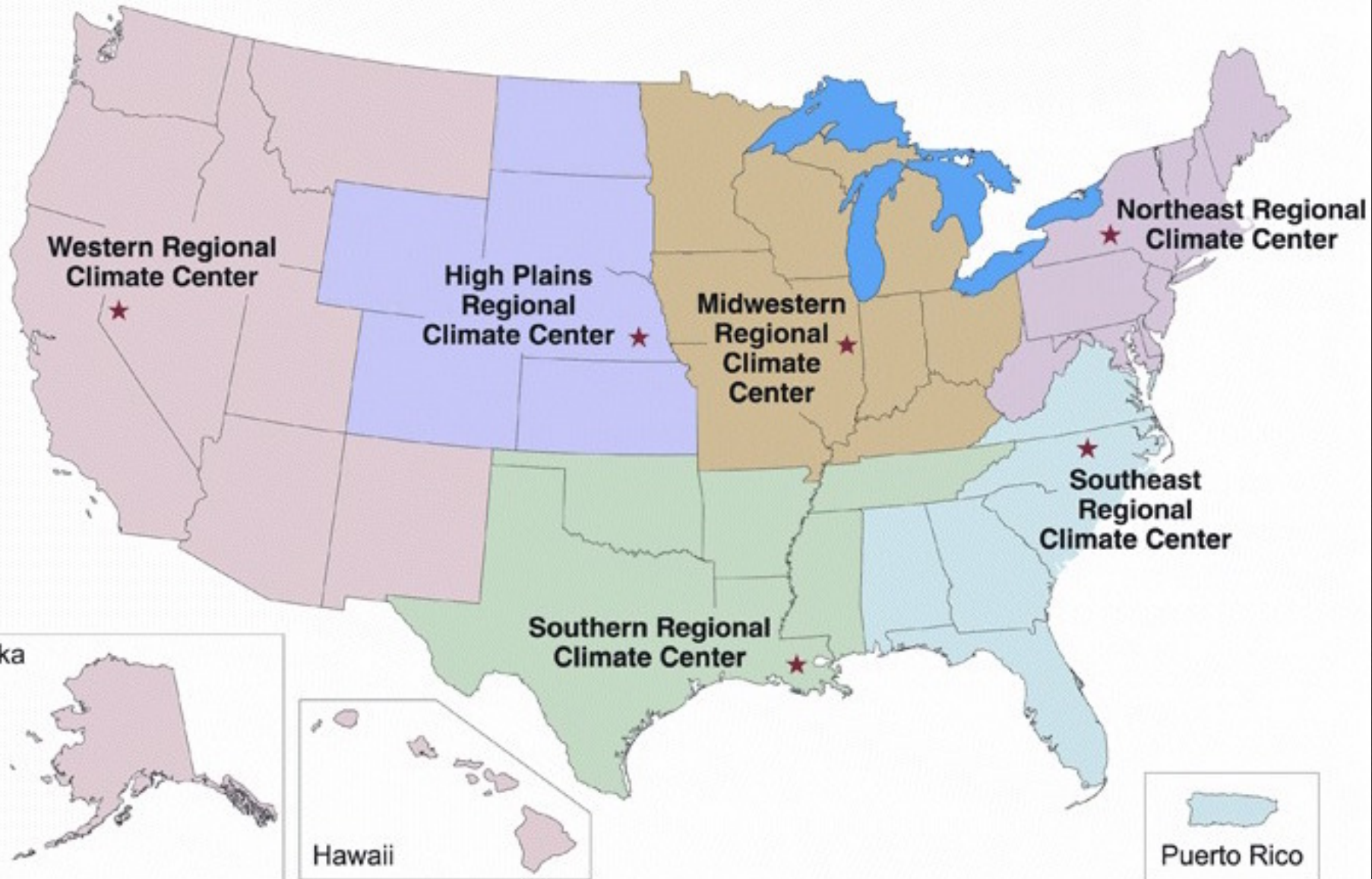


# NOAA Regional Climate Center Program

*Lessons Learned Over 25  
Years Working With NOAA*

Kevin Robbins, Director  
Southern Regional Climate Center  
Louisiana State University

# Regional Climate Centers Across the U.S.



# RCC Contract Requirements

- ⦿ Provide user services to regional partners and constituents
- ⦿ Promote and added value to NOAA data through applied climate research and data-product development
- ⦿ Engage regional climate data-users in data and product development
- ⦿ Provide a regional perspective to NOAA national and international products
- ⦿ Assist NOAA in data stewardship activities to improve data quality

# Additional Responsibilities

- ⦿ Support climate-related activities of Federal Agencies
  - ⦿ NOAA Regional Integrated Sciences and Assessments
  - ⦿ NOAA / National Weather Service
  - ⦿ USGS Climate Science Centers
  - ⦿ USDA Climate Hubs and NRCS Water and Climate Center
  - ⦿ NOAA Sea Grant Program
  - ⦿ USFS Fire Weather Program
- ⦿ Satisfy the research demands of our Research-I Universities





- ❶ ACIS provides an operational climate data-store, synchronized with NOAA research-grade data archives
- ❷ ACIS links NOAA datasets to provide decision-support products for constituents
- ❸ ACIS developed for time-series observations at fixed points
- ❹ ACIS was expanded to handle geospatial gridded data
- ❺ ACIS computational routines work across all data sets
- ❻ ACIS is operated at all RCC locations (synchronized)
- ❼ ACIS is based on Open-Source technologies

# RCC Successes in NOAA

- ❶ NWS product development - NRCC

- ❶ xmACIS

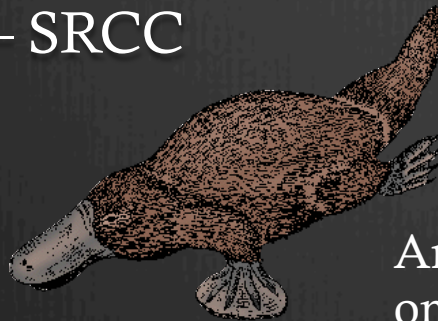
- ❶ NOWdata



- ❶ WxCoder – WRCC



- ❶ Datzilla – SRCC



Am I an outlier, or an extreme  
on the tail of an observed distribution?

# Nationally Unified, Regionally Distinct

- ❁ RCCs operate a collaborative program with common goals
- ❁ RCCs operate programs that satisfy regional constituents
- ❁ Each RCC has been assigned regional priority objectives
  - ❁ WRCC – water resources; Pacific Ocean communities; fire weather
  - ❁ HPRCC - water resources; agriculture
  - ❁ MRCC - water resources; agriculture
  - ❁ NRCC - water resources; urban climate
  - ❁ SERCC - water resources; climate and human health
  - ❁ SRCC - water resources; Gulf of Mexico communities

# NOAA Data Center Merger

- ⦿ NCEI was created to unify NOAA data managed by the:
  - ⦿ National Climatic Data Center
    - ⦿ *Weather and Climate*
  - ⦿ National Oceanographic Data Center
    - ⦿ *Coasts and Ocean*
  - ⦿ National Geophysical Data Center
    - ⦿ *Geophysics*
- ⦿ NCEI gives the RCCs an organization foothold into the entirety of NOAA data holdings



# spACIouS

- ⊗ Further expansion of ACIS geospatial capabilities
  - ⊗ Satellite observations
  - ⊗ Gridded Weather Model Reanalysis and gridded climate data
  - ⊗ SST, ocean winds and currents, viirs, MODIS, and others
  - ⊗ Global climate models and downscaling
- ⊗ And, increased fixed location data
  - ⊗ Ocean buoys and C-man stations
  - ⊗ USGS streamflow and reservoir data
- ⊗ Proposal submitted to LA BoR for computational and storage facilities connected by multiple 40Gbps connections a 100Gbps Internet2 gateway for RCC development and operations as an RCC resource

# Lessons Learned

- ⊗ Define objectives of projects
- ⊗ When developing projects for constituent interests, involve them in the design and development process
- ⊗ Considered how data and observations from disparate sources interact to produce useful information
- ⊗ Recognize the limitations of your data and information
- ⊗ Include social science experts in projects with societal impact
- ⊗ How you present information is critical to its acceptance
- ⊗ Science-based information should *support* user decisions