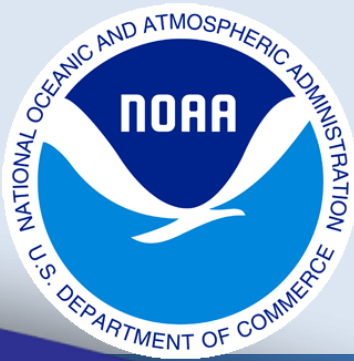




# Climate Data and Business Information Needs



**Michael D. Tanner**  
Deputy Director  
National Climatic Data Center

# Rising Demand for Climate Information



Sustainability of Marine Ecosystems



Coasts and Climate Resilience



Climate Impacts on Water Resources



Changes in Extremes of Weather and Climate



Agriculture



Energy



Health



Transportation



# Wide Range of Customers

Federal Government  
State/Local Government  
Consulting Meteorologist  
Agriculture  
Contractor  
Utilities  
Research  
Media  
University  
Insurance  
Engineering  
Individual  
Legal  
Business Sector

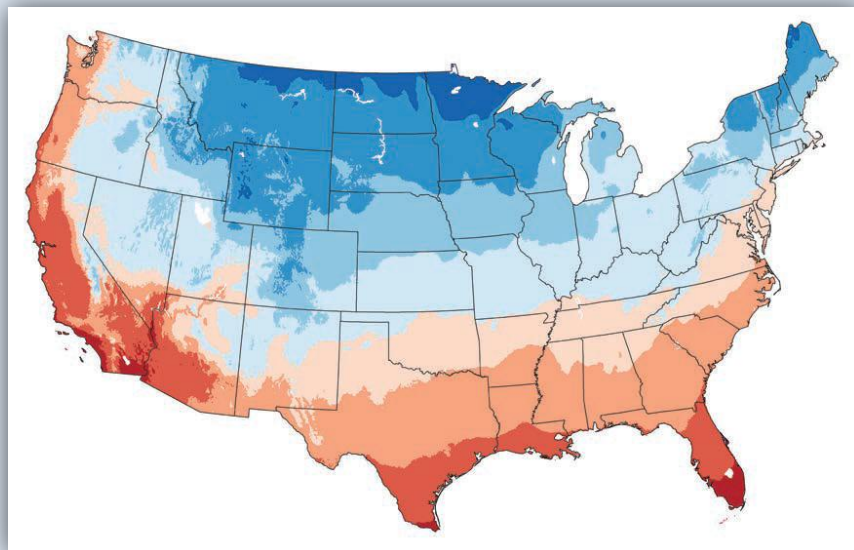


# Product Development: Climate Normals

Why: Non-scientist decision-makers need understandable analysis of climate data  
Benefit: Easily-applied products and services

## Climate-Related Planting Zones

Based on new 1981–2010 climate normals

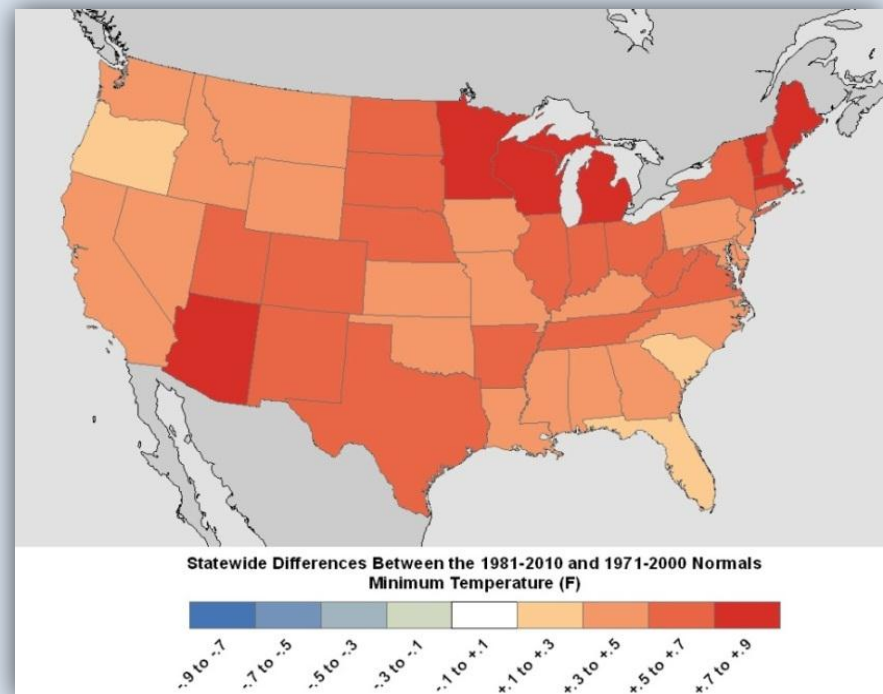


### Average Annual Minimum Temperature by Climate-Related Planting Zone



## 1981-2010 Climate Normals

Traditional, dynamic, and optimal normals

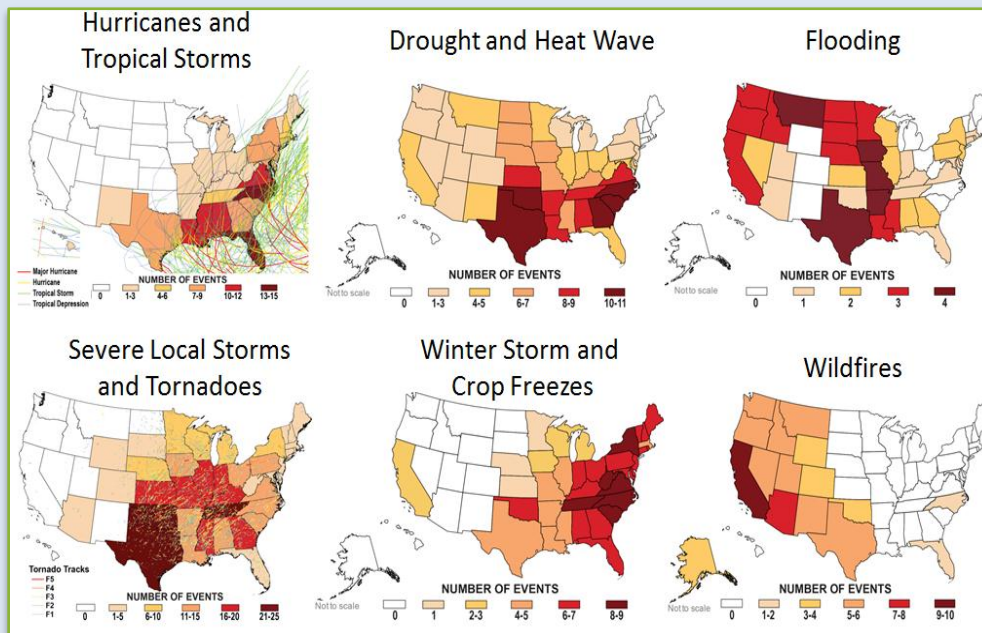


# Operational Products: Climate Extremes

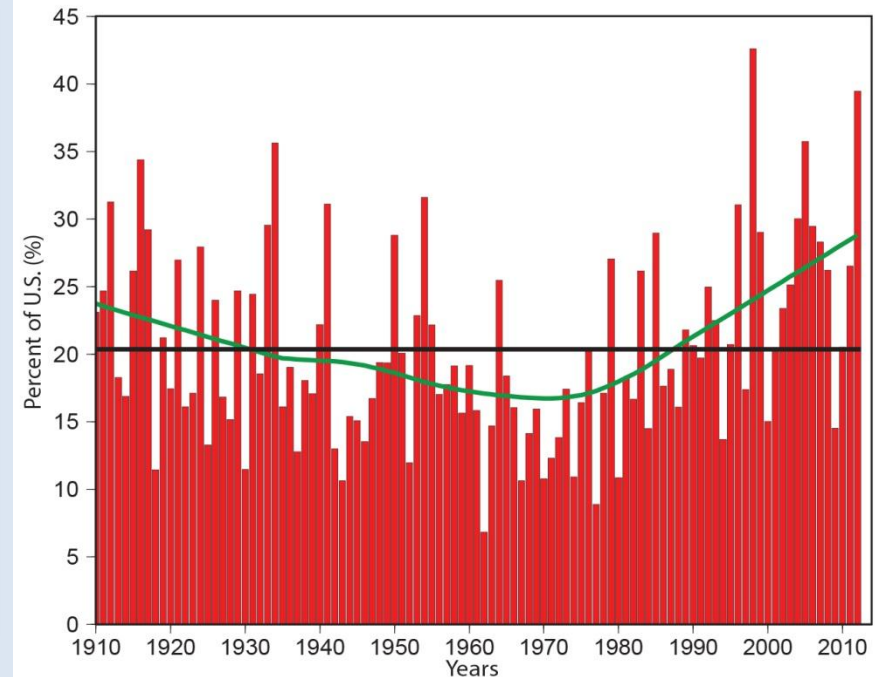
Why: Decision makers need to know how climate extremes have behaved in the past and what to expect in the future

Benefit: Informing decisions on responding to current and future climate extremes

*Billion-Dollar Disasters*



*U.S. Climate Extremes Index*



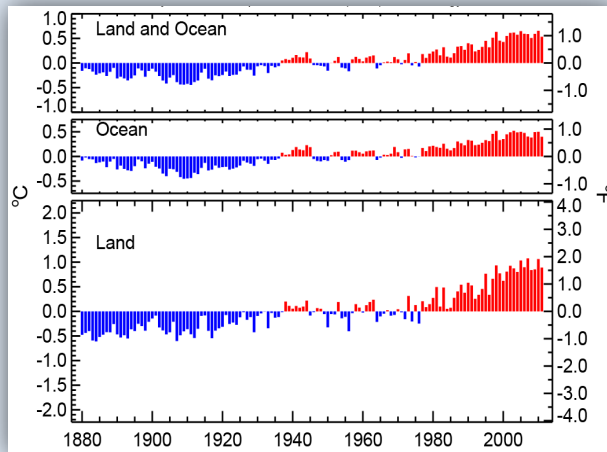


# Operational Products: Climate Monitoring

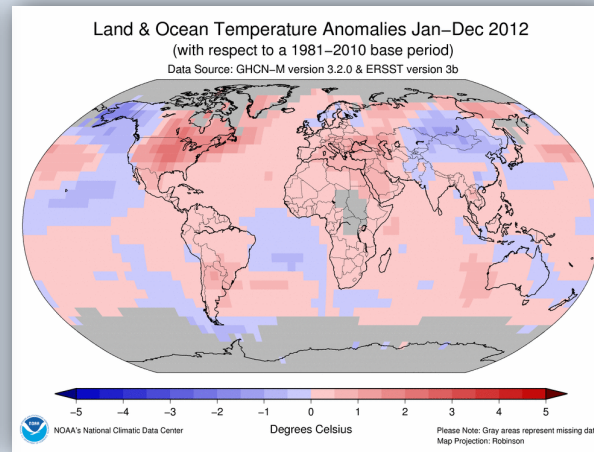
Why: Describing the climate is an NCDC mandate

Benefit: Fulfills Congressional mandate

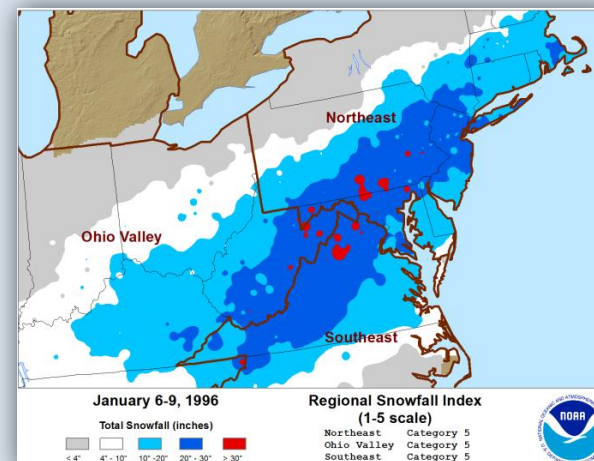
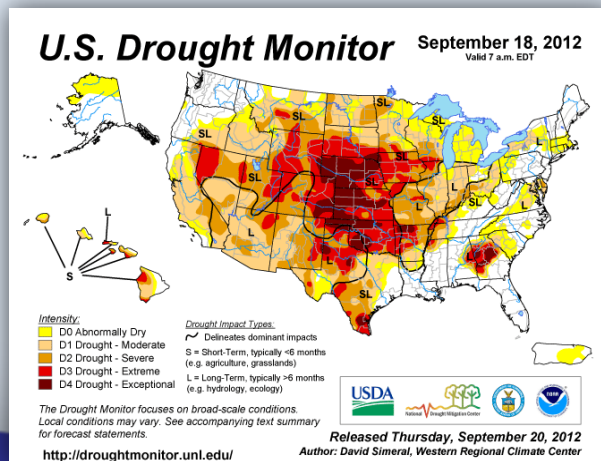
## Global Temperature Anomalies



U.S. Drought Monitor



Regional Snowfall Index



# NOAA Engagement Strategy

- **Establish innovative partnerships with the private sector and universities**
- **Develop long-term engagement with partners and stakeholders:**
  - Build trust and credibility
  - Understand information needs and inform product development
  - Identify gaps and opportunities to guide future investments in observations, research, modeling, prediction/projection, assessment, and services



# Private Sector Engagement

- **NOAA Role**

- Provide the public authoritative climate information for decision making
- Provide easy and full access to all data and information
- Ensure full transparency in practices and methods
- Foster growth of a private-sector climate industry
  - To meet specialized business and public sector needs

- **Private-Sector Role**

- Invest in capacity to support private-sector market development and growth
- Support climate information and decision support tools customized to meet specific user needs
- Invest in research, observations, and modeling to meet specific user needs
- Develop long-term dialogue with the public sector
- Work to develop mechanism for sharing proprietary information

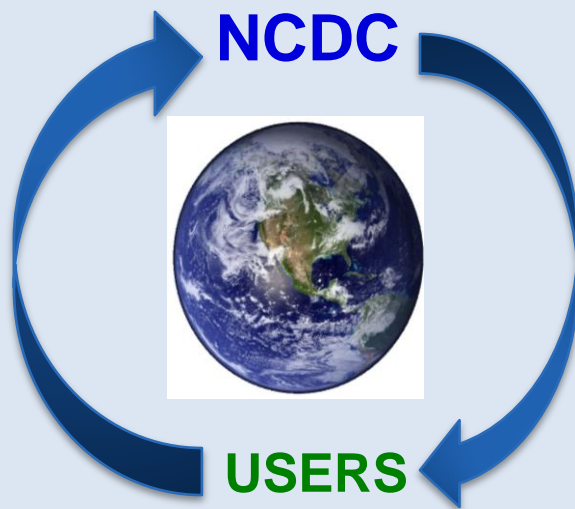


# Identifying Emerging Business Needs

*NCDC is the reliable source of climate information*

## **Customer → Stakeholder Priority**

- Targeted and strategic approach to customer engagement
- Strengthen customer relationships
- Provide clear, accessible climate data/information
- Respond to customer needs



## **END GOALS**

- Strengthen the users ability to engage with NCDC
- Improved systems and processes to engage with users

## **Climate Adaptation / Resilience Priority**

- Improved understanding of climate risk & opportunities
- Greater utilization of climate data/information for business operations

# Next Steps for Engagement

- Prioritize a focused group of sectors.
  - Identify and target select businesses within the industries
  - Identify the Standards / Regulatory Groups / Associations
  - Flexible and nimble to incorporate ad hoc, one-off engagement discussion
  - Engage in conversations directly with customers to explore needs & opportunities
- .....

- Understand and determine needs from the industry for climate data and information
- .....

- Where and when to attend strategic meetings for that sector
  - When to attend association-specific discussions
- .....

- Develop framework for **monitoring the success** of the engagement
  - Summarizing and synthesizing information
  - Document the information, synthesized and analyzed (e.g. database)
- .....

- Identify key champions to cultivate the relationship in the sector and demonstrate institutional leadership



# Climate Data and Business Information Needs

## Thank You!

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