



Climate Program Office Review

May 24-26, 2022

Overview of Activity Area 4:
Integrated Information Systems,
Risk Areas Initiative, Assessments

Ben DeAngelo, Deputy Director
CPO

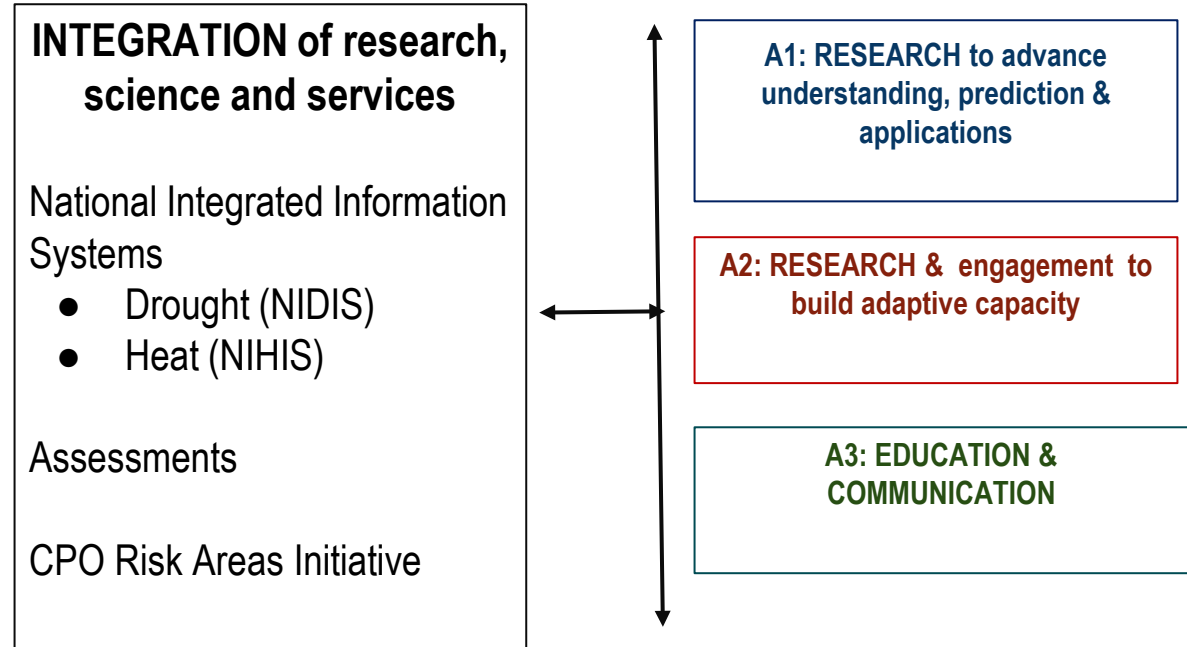
Purpose

Set the Stage for Interactive Discussion Session that Follows



- Overview of Activity Area
- Staff Introductions
- Overview of Pre-Recorded Presentations
- Current State-of-Play and Drivers Affecting Activity Area
- Key Questions/Issues/Challenges

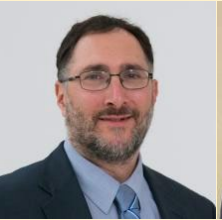
- Integration & synthesis
- Problem-driven
- Interdisciplinary
- Interagency
- Service-oriented



Staff Introductions



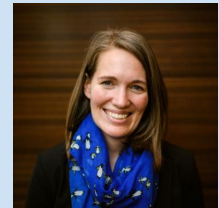
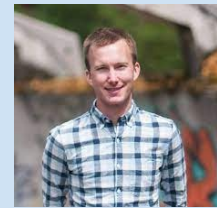
National Integrated
Drought Information
System (NIDIS)



National Integrated Heat Health
Information System (NIHHIS)



Assessments



Risk Areas Initiative

Overview of Activity Area and Pre-Recorded Presentations



- National Integrated Drought Information System (NIDIS) Program
 - NIDIS U.S. Drought Portal ([Drought.gov](https://drought.gov))
- National Integrated Heat Health Information System (NIHHIS)
- CPO Risk Areas Initiative
- Assessments Overview

Integrated Information Systems (IIS)



"If I go to a product such as the National Integrated Drought Information System (NIDIS), I would argue that **this is an example of how we can work with stakeholders, figure out what the products and services are that we need to develop, and iterate on that.** ..Lets take what works in NIDIS, for example, expand on that, bring in the social scientists, work with a broader set of users and stakeholders.."

- Dr. Richard Spinrad, Administrator, NOAA
- March 8, 2022; [Senate Hearing](#) on Federal Climate Adaptation and Resilience for the 21st Century

"I'm not sure if it's the structure of NIDIS or the people involved - but it's **incredibly effective at interacting with stakeholders and getting people the information they need.**"

"We should try to replicate the NIDIS model across other weather/climate phenomena."

- Fern Gibbons, U.S. Senate, Committee on Commerce, Science, & Transportation
- January 26, 2022, AMS Annual Meeting, Panel Discussion: A New Climate: How the New Administration and New Congress Are Engaging with the Weather, Water, and Climate Enterprise



Integrated Information Systems (IIS)



"In all aspects of our climate work, **partnerships are crucial to success...** For instance, **NOAA's National Integrated Heat Health Information System (NIHHIS) program is co-leading the National Climate Task Force's (NCTF) Extreme Heat Resilience Interagency Working Group to build a coordinated whole-of-government policy and response** to extreme heat impacts which are projected to increase due to climate change."

- Dr. Richard Spinrad, Administrator, NOAA
- March 8, 2022; [Senate Hearing](#) on Federal Climate Adaptation and Resilience for the 21st Century

"Decision-makers must engage with communities to understand who heat affects the most, why and how best to deal with it. A good example is from the US National Integrated Heat Health Information System (NIHHIS)...National governments should support similar initiatives."

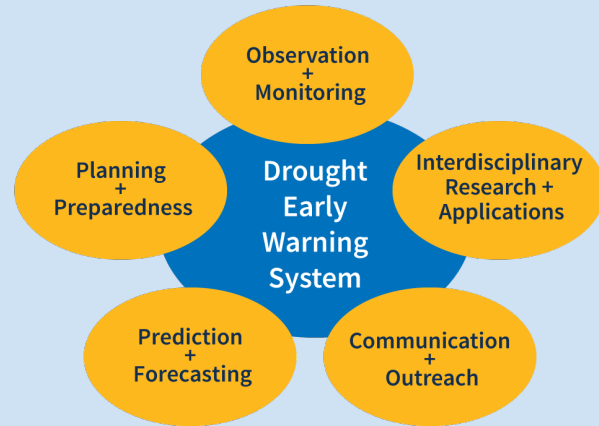
- Keith, L., Meerow, S., Hondula, D. M., Turner, V. K., & Arnott, J. C. (2021). Deploy heat officers, policies and metrics. *Nature*, 598(7879), 29–31. <https://doi.org/10.1038/d41586-021-02677-2>

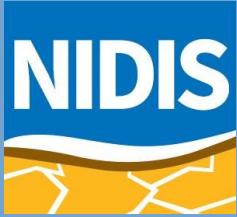


National Integrated Drought Information System (NIDIS)

- The National Integrated Drought Information System ([NIDIS](#)), established by Public Law with strong bipartisan support.
 - Improving drought observations, prediction, planning, and communication to strengthen early warning across the nation.
 - Delivering the best-available drought information for informed decision-making and public awareness.
 - Coordinating and leading research initiatives that address key scientific and societal needs in different regions.

Accountability is a key priority the NIDIS Program.





New Perspectives 2006-2022



2022

Towards a National Drought Early Warning System

2014

Multi-regional, Multi-hazard Drought Information

2006

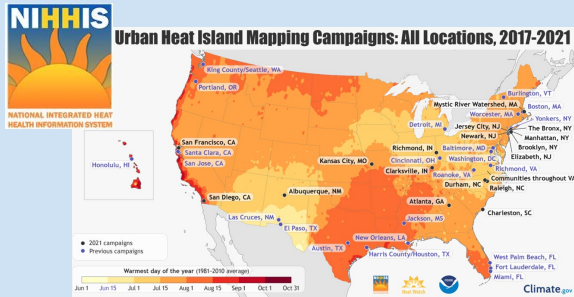
Regional Stakeholder-led Ground-Up Approach



National Integrated Heat Health Information Systems (NIHHIS)

- The National Integrated Heat Health Information System ([NIHHIS](#)) provides an integrated framework for developing and delivering science and services that reduce the health risks of extreme heat

- seeks to improve Federal, state and local planning, preparedness and response across time scales
- has [mapped Urban Heat Islands](#) in over 50 communities across the country, and will map 16 more in the U.S. and in Sierra Leone and Brazil in 2022
- released, with new HHS Office of Climate Change and Health Equity, the [first ever U.S. Climate and Health outlook for Heat in May 2022](#). It was built upon the NOAA & CDC Heat and Health Tracker



Climate Risk Areas Initiative



Goal: advance climate science and reduce impacts in key societal climate risk areas for which NOAA's mission is well aligned.

CPO's climate risk areas are currently:

- Coastal Inundation
- Marine Ecosystems
- Water Resources, and
- Extreme Heat

Motivations:

- increase cohesion across CPO
- strengthen partnerships inside and outside of NOAA



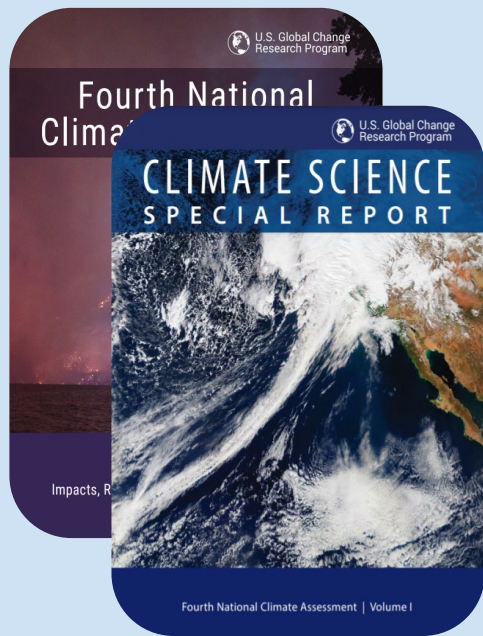
Assessments



The Assessments Program aims to improve our ability to understand, assess, anticipate, and respond to the impacts and vulnerabilities associated with environmental and climate change, primarily in the United States.

Funding from the Assessments Program supports the development of National Climate Assessments providing support for the NCA's Technical Support Unit, Sustained Assessment Coordinators, Indicators, and engagement opportunities.

The quadrennial National Climate Assessment is mandated by the 1990 Global Change Research Act





- Acceleration of climate change and extremes (western drought, heat events, flooding, etc.)
- More opportunities and appetite for cross-agency coordination and collaboration than ever before, and we are at the table (drought, heat, coastal inundation, flooding, etc.)
- Access and utilization of 'Big Data' and AI
- CPO's intersection with NOAA's emerging *Climate Ready Nation* effort

Looking Ahead: NIDIS

- Resources to implement NIDIS 2022-2026 Strategic Plan
 - Advancing science on nationally important issues with social-economic impacts (wildfire, public health, ecosystem)
 - Improving drought prediction across all time scales
 - Expanding the regional DEWS network across the entire U.S.
 - Maximizing the use of timely, localized, and authoritative information
- Drought Crisis in the Western U.S.
- Drought and Aridification
- NIDIS Reauthorization Expires at end of FY23

Looking Ahead: NIHHIS



- NIHHIS National Conference and outcomes:
 - Regular NIHHIS National meetings
 - Numerous actionable needs identified (e.g., reduce urban heat risk, protect outdoor workers, heat-safe housing, maternal and child health, sensors)
 - Further develop Climate & Health Outlook
- NIHHIS Strategic Plan (forthcoming)
- FEMA-led National Level Exercises to include or focus on heat
- Heat.gov launch (~mid June, pending approval of domain)



Looking Ahead: Risk Areas Initiative

- Our view is CPO focus on climate-related societal risk areas needs to be sustained, but we have several strategic and tactical questions to consider. Should we continue the Risk Areas Initiative in its current form?
- When/how do we transition to other Risk Areas?
- Should funding be focused on grants, directed activities or some combination?
- Do we continue the formal cross-CPO team approach or consider other approaches such as linking our programs to the NOAA Climate Ready Nation impact areas/teams?
- Do we continue to centrally fund the Risk Area Projects, possibly reducing Program budgets?

Looking Ahead: Assessments

- Deepen OAR laboratory involvement and engagement
- Provide opportunities for early career staff at NOAA
- Stabilize and grow support for Sustained Assessment Coordinators
- Argue for budget increase to keep pace with inflation and enable new initiatives and approaches
- Evolve NCA structure and delivery while still meeting Congressional mandate
- Build on TSU capability for other climate change-oriented products and services
- Continue and grow integration with our user-friendly decision-support tools, Climate Resilience Toolkit/Climate Explorer

Key Questions/Issues/Challenges/Opportunities

Cross-cutting the Activity Area



- Better understanding the intersection of climate change and extremes
- Better understanding and linking the human dimension
- How to best pursue integrative, cross-disciplinary approaches across the Office/OAR/NOAA/externally
- Vulnerable communities / EJ
- Science and solutions for multi-hazards and cascading effects, rather than single-hazards
- Demand is greater than resources



Thank you!