

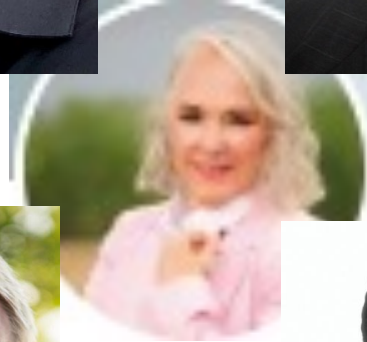
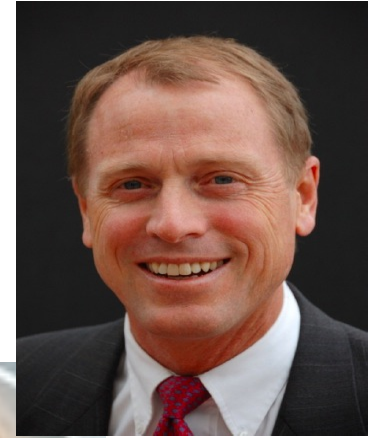


# CIRA Science Review

July 26, 2023

# The Science Review Team

- **Betsy Weatherhead**, U. Colorado (retired) and Jupiter Intelligence
- **Eduardo Araujo-Pradere**, Professor, Miami Dade College
- **Bill Gail**, past President American Meteorological Society
- **Tara Jensen**, NCAR and Developmental Testbed Center
- **Maria J. Molina**, Assistant Professor, U. Maryland – College Park



# CIRA and NOAA Leadership

- **Steve Miller**  
CIRA Director



- **Renate Brummer**  
CIRA Associate Director



- **Jennifer Mahoney**  
NOAA CI Technical  
Program Manager



- **Melissa Petty**  
NOAA GSL  
Associate Director





# Process

- Betsy Weatherhead assigned in 2022
- Coordination with NOAA and CIRA in early 2023
- Review Panel in place by March
- Preliminary webinars on April 10 & 24, 2023
- Briefing Book, April 30, 2023
- On-site review May 23 & 24, 2023
- Final Report submission July 12, 2023

- **Particularly valuable aspects of the process:**

Coordination across CIRA, NOAA and Review Panel

Briefing Book

In person interactions: prior, during

Prior reports

Individual voices of panel members

- **Challenges**

Welcome change to CIAO guidance

Time



## *Mission and Vision (Abridged)*

*CIRA's Mission—connecting academia and other partners to the basic-to-applied research needs of NOAA for societal benefit*

*CIRA's Vision—a trusted partner and reservoir of corporate scientific knowledge, enabling NOAA to integrate high-risk/high-reward research into its operational pipeline*

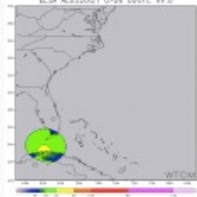
**AWC/Kansas City**



**NCWCP/College Park**



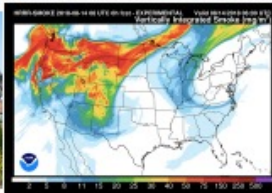
**Colorado State University  
RAMMB/Ft. Collins**



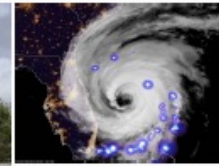
**CIRA Staffing By Location**

Location	Research	Admin	Total FTE
Boulder	40.2	1.1	41.3
College Park	9.0	0.2	9.2
Fort Collins	57.8	10.2	68.0
Kansas City	14.0	1.2	15.2
Miami	2.1	0	2.1
Silver Spring	11.0	0	11.0
<b>Total</b>	<b>134.1</b>	<b>12.7</b>	<b>146.8</b>

**GSL/Boulder**



**NHC/Miami**



# Primary Conclusions:

- CIRA has unique, very impressive capabilities with developing useful software/tools which enable science broadly—often working across disciplines to achieve these results.
- CIRA has taken impressive and thoughtful first strides with Diversity, Equity and Inclusion.
- CIRA has many unsung strengths that are very useful to NOAA’s mission, national priorities and science, more generally, including its use of AI and its application of social sciences.

CIRA could work to codify their approaches and testing of new tools, with a “Beta” sandbox, for engaging the broad community. --Perhaps developing something similar to Technology Readiness Levels as well as a testing space.

CIRA should develop metrics to track DEI and work on testing whether their activities are resulting in intended outcomes and expand its current activities as appropriate.

CIRA can develop approaches to “get the word out” on what it does well to assure its strengths are incorporated into NOAA’s planning as well as expanding its partnerships to include more agencies (national and international) as well as private sector engagements.

# A few over-riding themes

- Cooperative Institutes are incredible resources for moving NOAA's mission forward.

However, metrics for describing their contributions are limited.

- NOAA's mission is rapidly changing as priorities evolve.

Diversity Equity and Inclusion

Artificial Intelligence

Appropriate incorporation of Social Sciences

CI's can respond quickly and effectively

- The NOAA—CI relationships are stressed by a few factors that perhaps could be addressed.

Funding cycles

Personnel supervision

- Close relationships between Cooperative institutes and their host universities can make incredible differences to success.

CIRA has an outstanding relationship with CSU.



# The Science Review Team Concluding Comments

The Review Team unanimously agreed that, based on the information presented to them, CIRA deserves an “Outstanding” rating due to the excellence of the science, the clarity of the Leadership Team’s vision, and the values presented and exhibited by the full CIRA community.

The Review Team members indicated their appreciation for getting to know both CIRA and NOAA better through this process. Each member is particularly wishing CIRA continued success in a broad range of issues.

