



Partnerships: Expanding Our Community

Thoughts, ideas and strategies to create partnerships and expand our approach to engagement



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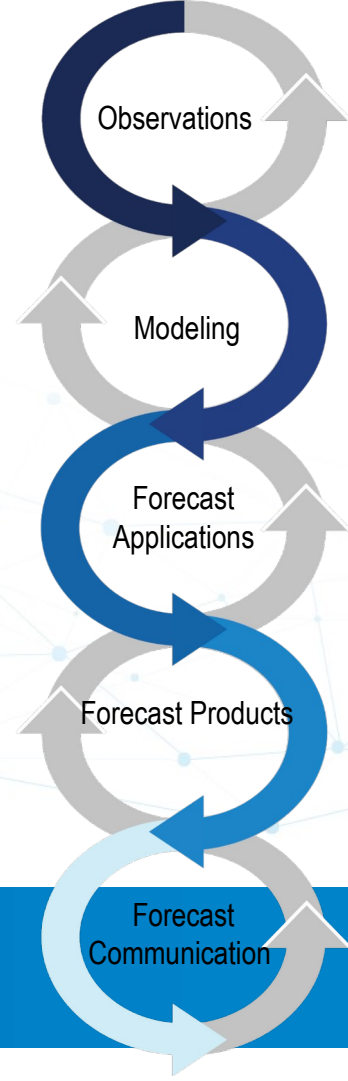
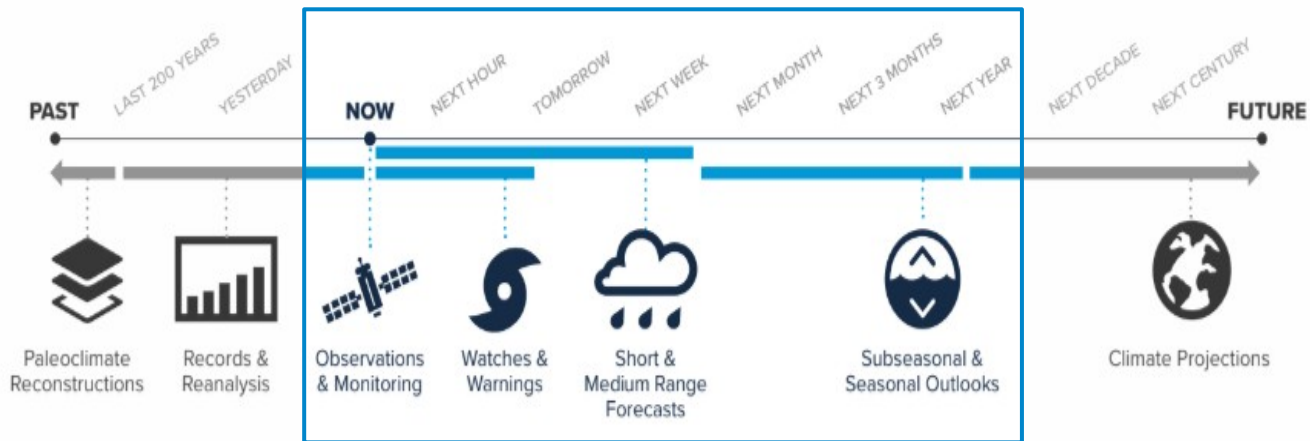


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NOAA WEATHER RESEARCH



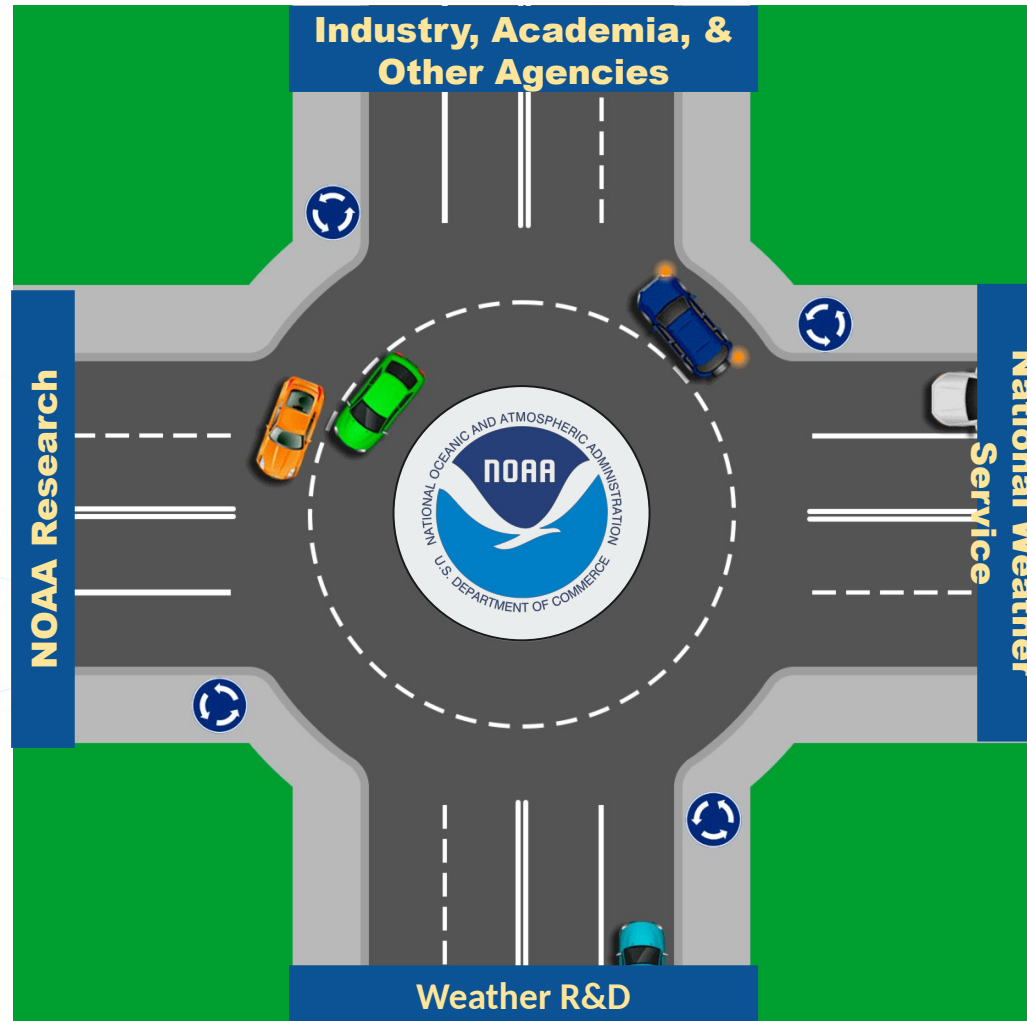
Weather research spans the forecast value chain.

COORDINATING CONNECTIONS

Strategic Partnerships are the bedrock underpinning weather research at NOAA.

NOAA facilitates R&D through partnerships with the Weather Enterprise, and shepherds that research through the R2O transition process including earth system modeling development.

The Unified Forecast System (UFS) is a **community-based coupled Earth modeling system**, designed to support the Weather Enterprise to enable the most accurate and reliable operational numerical forecast model in the world.



SETTING THE TABLE

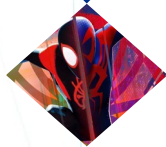
Now Generation Workforce

Expanding the search for diverse individuals



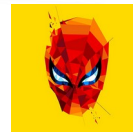
Insights into Inclusion

Learning and addressing barriers across the Weather Enterprise



Innovative Trailblazers

Stimulating creative thinking and nurturing innovative ideas



Champions for Change

Embracing new approaches to old challenges



“Strength lies in differences, not similarities” - Stephen R. Covey



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THE NEED FOR PARTNERSHIPS..

INCLUSION



Unified Forecast System

NOAA CIs vs. CSCs



Cooperative Institutes (since 1967)

A NOAA-supported, non-Federal, academic, and/or non-profit institution, ***that has an established, outstanding research program in one or more areas relevant to NOAA's mission:***

- Established degree programs in NOAA-related sciences;
- Engages in research directly related to NOAA's long-term mission needs that require substantial involvement of one or more research units within the research institution(s), as well as one or more NOAA programs.
- Provides significant coordination of resources among all non-government partners and promotes the involvement of students and postdoctoral scientists in NOAA-funded research.

Cooperative Science Centers (since 2001)

A consortium of academic institutions led by an MSI (minority serving institution), ***that have demonstrated education and research performance in NOAA-mission sciences:***

- Trains students in core NOAA mission fields (atmospheric sciences and meteorology; earth system sciences and remote sensing technology; coastal and marine ecosystems; and living marine resources)
- Supports increasing number of post-secondary grads with STEM degrees; creating new opportunities for underrepresented populations to be introduced to career paths within NOAA.

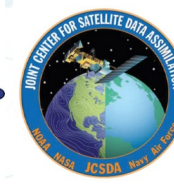
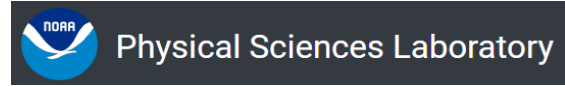
STRATEGIES FOR PARTNERSHIPS..



COLLABORATION



PARTNERS: A SNAPSHOT



WMO



AGU



FINDING THE NEXT GENERATION WORKFORCE

What we need:

- Data Assimilation
- Atmospheric Physics
- Systems Architecture (coupling, workflow, continuous integration and development)
- Machine Learning/Artificial Intelligence
- Software Engineering
- Atmospheric Dynamics
- Verification and Validation (post-processing)
- Air Chemistry

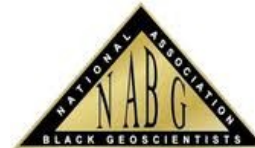
Where we've been searching:



Strategy: Expand the search grid and criteria:



IEEE



FINDING THE NEXT GENERATION WORKFORCE

- Society for Advancement of Chicanos/Hispanics and Native Americans in Science (SACNAS)
- National Society for Black Engineers (NSBE)
- National Association of Black Geoscientists (NABG)
- National Society of Black Physicists (NSBP)
- American Society of Civil Engineers
- American Institute of Chemical Engineers (AIChE)
- Women of Color (WoC) in STEM
- Association for Computing Machinery (ACM)
- Institute of Electrical and Electronics Engineers (IEEE)



Opening Session, NSBE 49th Annual Convention, Kansas, City, MO (March 22, 2023)

**#NSBE49 (March 2023)
registered over 13,000
attendees!**



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EXPANDING THE COMMUNITY...

INNOVATION

Strategy: Level the playing field:

- Use social media and virtual connections, to meet the community where they are
- Reach out directly to HBCUs, HSIs, TCUs, and other MSIs, for ground-level engagement
- Integrate and mentor new talent in the workforce, earlier in the process
- Expand opportunities to court non-atmospheric science majors



FORMER WPO INTERNS

Knauss



Pathways



AAAS



Lapenta



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STUDENT & ROTATION OPPORTUNITIES

Opportunity	Career level	Duration	Former Students
Lapenta Scholars	Undergraduate and Graduate	Summer	Jackie Sepulveda Stephen Wegmann Ashley Stagnari Donald Long Mike Michaud Sam Ephraim
Knauss Fellowship	Graduate	1 year	Renee Richardson (WPO contractor) Alison Agather (WPO contractor) Christine Bassett (WPO contractor) Melissa Pratt-Zossoungbo (WPO fed)
Pathways - Internship Program - Recent Graduate Program - Presidential Management Fellowship Program	High School, Undergraduate, Graduate, Post-Graduate	Varies	Leah Dubots (Pathways - OAR CFO) Ayesha Wilkinson (Pathways) Alexus Moore (Pathways) John Ten Hoeve (PMF)
Hollings / Educational Partnership Program	Undergraduate	Summer-9 weeks	
AAAS Fellowship	Early Career	12-24 months	Steve Elliott Alice Grossman
LANTERN and LCDP	Various	3-6 months	

CURRENT WPO INTERNS



Alekyia Srinivasan
Lapenta Intern
EPIC Program



Emily Glenn
Lapenta Intern
ACES/Policy



Laura Dailey
Lapenta Intern
Innovations



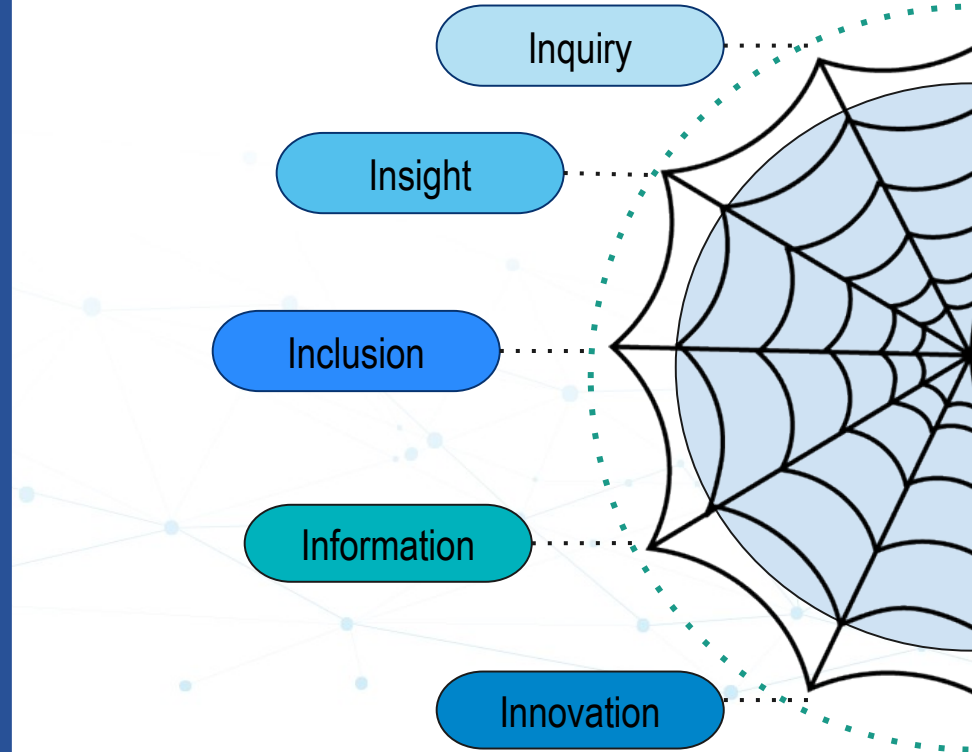
Anthony David Jr.
Lapenta Intern
Social & Behavioral
Science Program



Cameron Bennett
EPP/MSI Intern
WPO and AOML

EXPANDING THE WEB

- Broaden Earth System Community Modeling under UFS and EPIC
- Establish new collaborations with non-traditional partners
- Reinforce integration of social science into UFS applications
- Provide equitable resources and access for partners and new collaborators
- Leverage future opportunities, while promoting innovative high/risk high/reward approaches
- Create, develop, and sustain mechanisms to develop the next generation workforce
- Expand DEIJA efforts for UFS and its partners





NOAA
WEATHER
PROGRAM OFFICE

THANK YOU



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