

National Aeronautics and
Space Administration



Heliophysics Division IDEA Efforts

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HPAC Meeting
November 15, 2023



Agenda

- NASA's Equity Action Plan
- NASA Science Mission Directorate's IDEA efforts
- ROSES DAPR
- HBY and Eclipse efforts

Breaking Down Barriers and Opening Doors

NASA Equity Action Plan 2022

Focus Area 1: Equity in Procurement

Increase integration and utilization of contractors and businesses from underserved communities to expand equity in NASA's procurement process

Lead Office: Office of Procurement and Office of Small Business Programs

Focus Area 2: Equity in Grants/Cooperative Agreements

Enhance grants and cooperative agreements to advance opportunities, access and representation for underserved communities

Lead Offices: Office of the Chief Financial Officer and SMD

Focus Area 3: Equity in Climate Data Accessibility and Environmental Justice

Leverage Earth science and socioeconomic data to help mitigate environmental challenges in underserved communities

Lead Office: SMD

Focus Area 4: Equity in Civil Rights Compliance and Accessibility to Limited- English Populations

Advance external civil rights compliance and expand access to Limited English Proficient (LEP) populations within underserved communities

Lead Offices: Offices of Diversity and Equal Opportunity & Communications



SMD IDEA STRATEGIC PRIORITIES 2022-2023

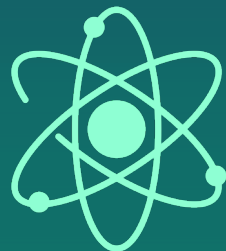
INCLUSION, DIVERSITY, EQUITY, AND ACCESSIBILITY IN SCIENCE

INSIDE SMD

1. Expand entry pipelines, career advancement, and leadership access. Transform from the inside out.



2. Develop a robust internal infrastructure to ensure synergy and alignment in IDEA implementation.



3. Ensure that all team members can meet the demands of their work and raise challenges safely. Commit to accessibility in all applications



4. Bring the community in to SMD to ensure NASA's goal of building a science team reflecting the nation.



5. Strengthen and forge symbiotic relationships with underrepresented communities.



WITH COMMUNITY

Heliophysics IDEA Efforts

- Established a Heliophysics Division IDEA Working Group
- Incorporate IDEA into the Heliophysics Division mission, vision, and strategy, resulting in a Division-wide commitment to lasting and specific IDEA goals and objectives

Funded Ongoing and Exploratory Efforts

- Sponsoring and incentivizing enhanced and innovative outreach activities with IDEA as a major focus
 - **PUNCH, IMAP, GLIDE, EZIE, Newly selected DRIVE Centers**
- Establishing a community-wide early- and mid-career support network pilot in partnership with other SMD Divisions, professional and scientific societies with a focus on providing mentors and mentees training and resources that consider the “whole” STEM individual
- NASA HEAT mission is to increase heliophysics literacy and deepen public understanding about NASA Science by uniting existing NASA SMD assets with educators, learners of all ages, and communities across the country
 - Examples: Developing a culturally responsive curriculum, creating resources in Spanish, engaging urban and rural communities

Additional Heliophysics Activities

- Employing best practices for IDEA recruitment efforts, including hiring panels, reviewer panels and advisory boards
- Adopted inclusive R&A practices (e.g., code of conduct, dual-anonymous reviews)
- Coordinating with SciAct to expand engagement opportunities
- Actively soliciting community input at all meetings: AGU, GEM, CEDAR, SHINE, etc.

2023 IDEA Efforts and Preparation for 2024

- 2023 Efforts
 - All 3 DSCs committed and contribute to IDEA developments through workshops, communications and research projects in broad range of heliophysics (Solar Interior, Heliosphere and Geo-Space)
 - IMAP/Student Collaboration successfully passed instrument CDR in October 2023
- 2024
 - *Continue Early Career Investigator Program (ECIP), 2024*
 - New AI/ML program- H-ARD, offered for the first time in 2022. Designed to support *historically excluded communities*

Activities Internal to NASA/SMD

Diverse Leadership – Career Growth group led by Heliophysics Program Scientist Katya Verner

- Established internal mentor-mentee network, and running shadowing and mentorship opportunities within NASA/SMD
- Mentor Day in preparation for early 2024: *Engaging historically excluded communities through a day of mentoring, panels, speed networking and tour of NASA HQ.*

Supporting Inclusion in ROSES

Dual Anonymous Peer
Review (DAPR) Expansion

Bridge Program

Continue Flexible Due
Date Pilots

Expansion of
Inclusion Plans

Virtual Reviews

Expand Support for
MSIs/PUIs

Transform to Open
Science (TOPS) Program

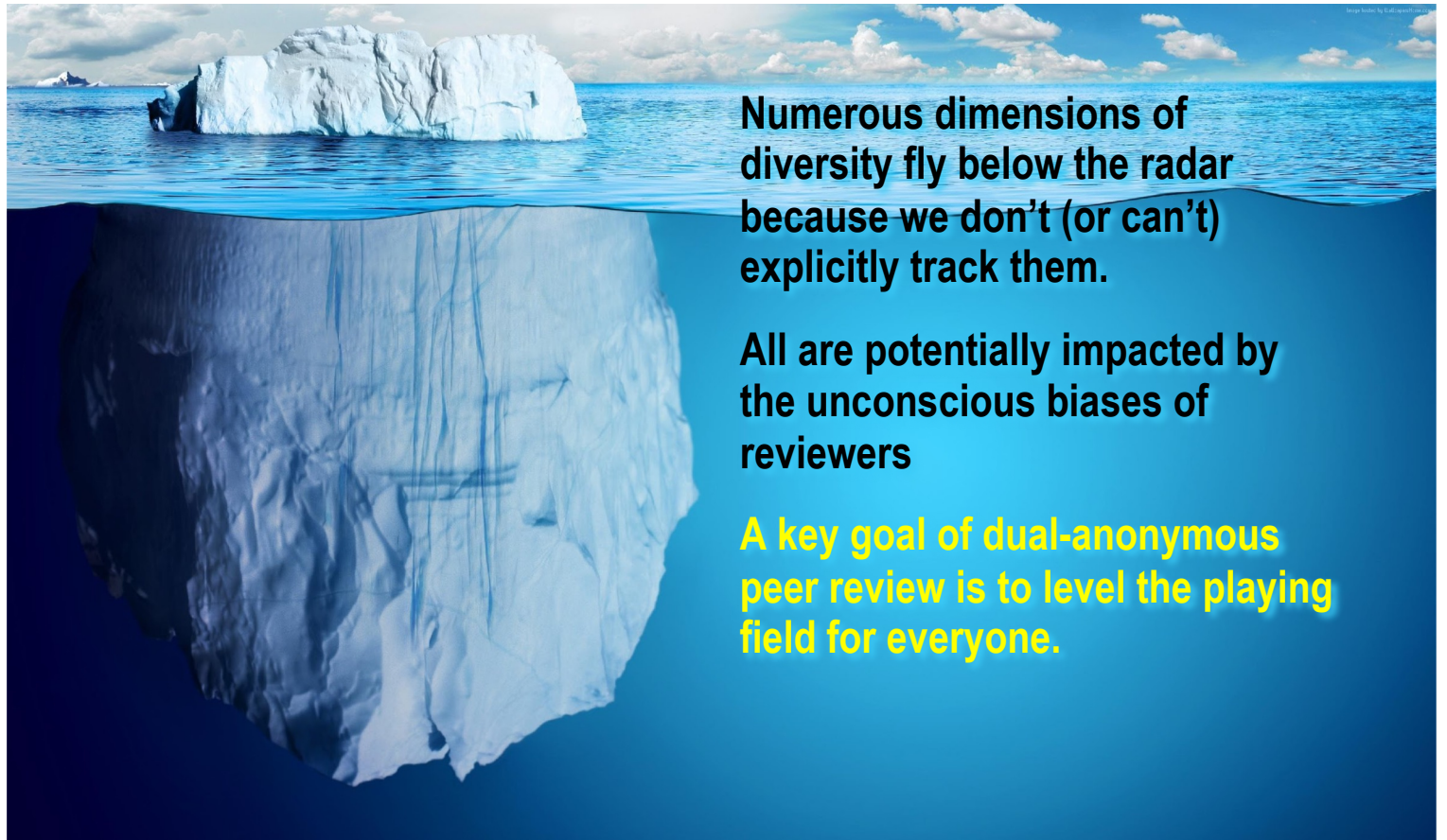
Commercial
Suborbital



Dual Anonymous Peer Review

DEIA Implications

- Expectations or stereotypes that influence our judgements of others (regardless of our own group).
- Unconscious bias is
 - NOT discrimination
 - NOT prejudice
- Mitigation through
 - Awareness
 - Policies
 - Practices (DAPR)
 - Accountability



Numerous dimensions of diversity fly below the radar because we don't (or can't) explicitly track them.

All are potentially impacted by the unconscious biases of reviewers

A key goal of dual-anonymous peer review is to level the playing field for everyone.

Expertise and Resources (E&R)

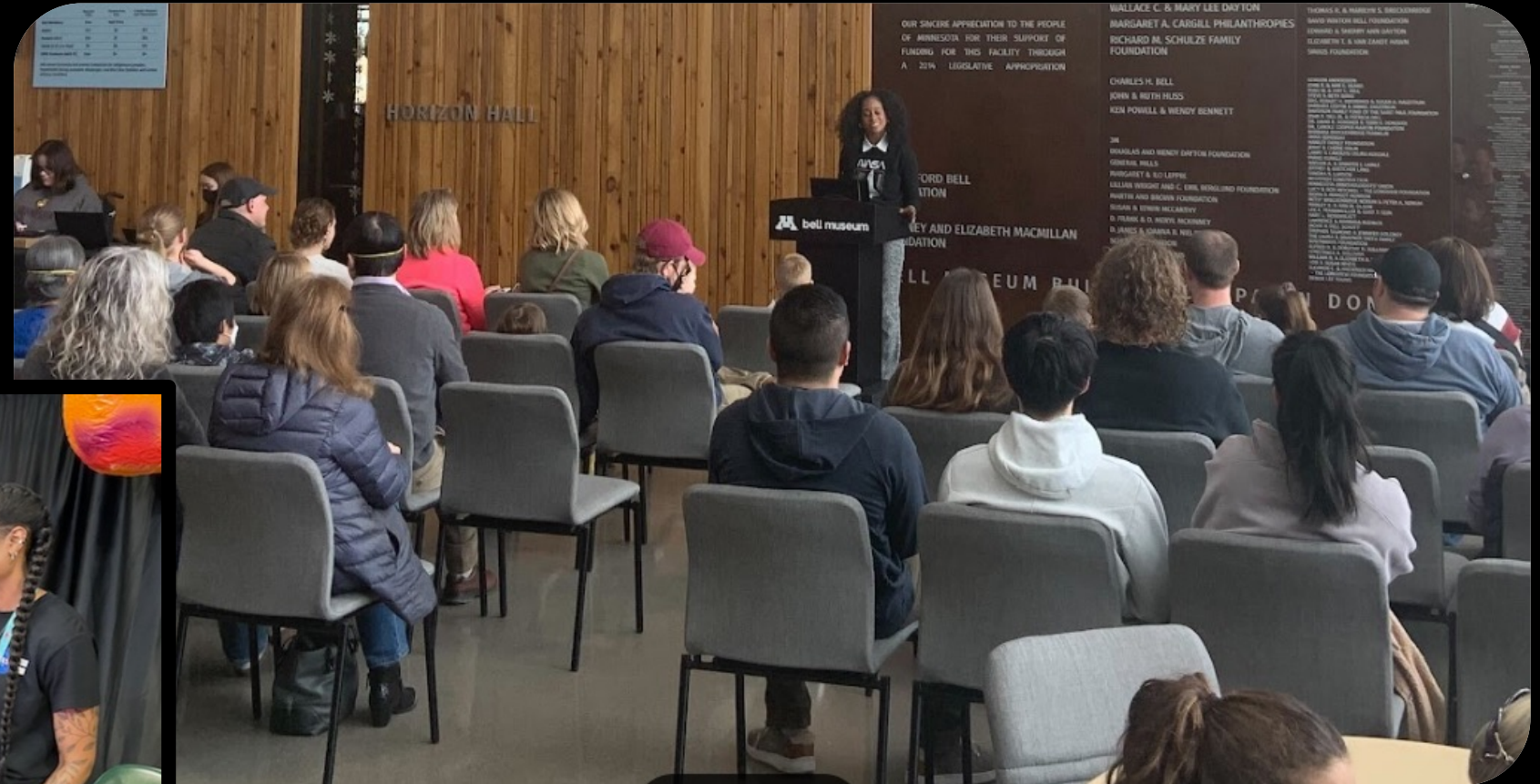
DEIA Implications

- **Proposers submit additional non-anonymized appendix. Competitive proposals undergo “E&R reveal phase”.**
- **Assessment of E&R does not change score or impact the scientific evaluation.**
- **Assessment determines whether the availability of expertise and resources are as promised in the proposal text.**
- **Pre-DAPR: HPD best practice was to have panels provide comments about expertise or qualifications of proposing team in “Notes to NASA”.**

Heliophysics Outreach & Engagement



Maker Faire



Bell Museum Space Fest

Heliophysics Outreach & Engagement



Accenture Learn to Lead Program



Girl Scouts Convention

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Mars New Year



Wallops STEM Day

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International Observe the Moon Night



Heliophysics Outreach & Engagement

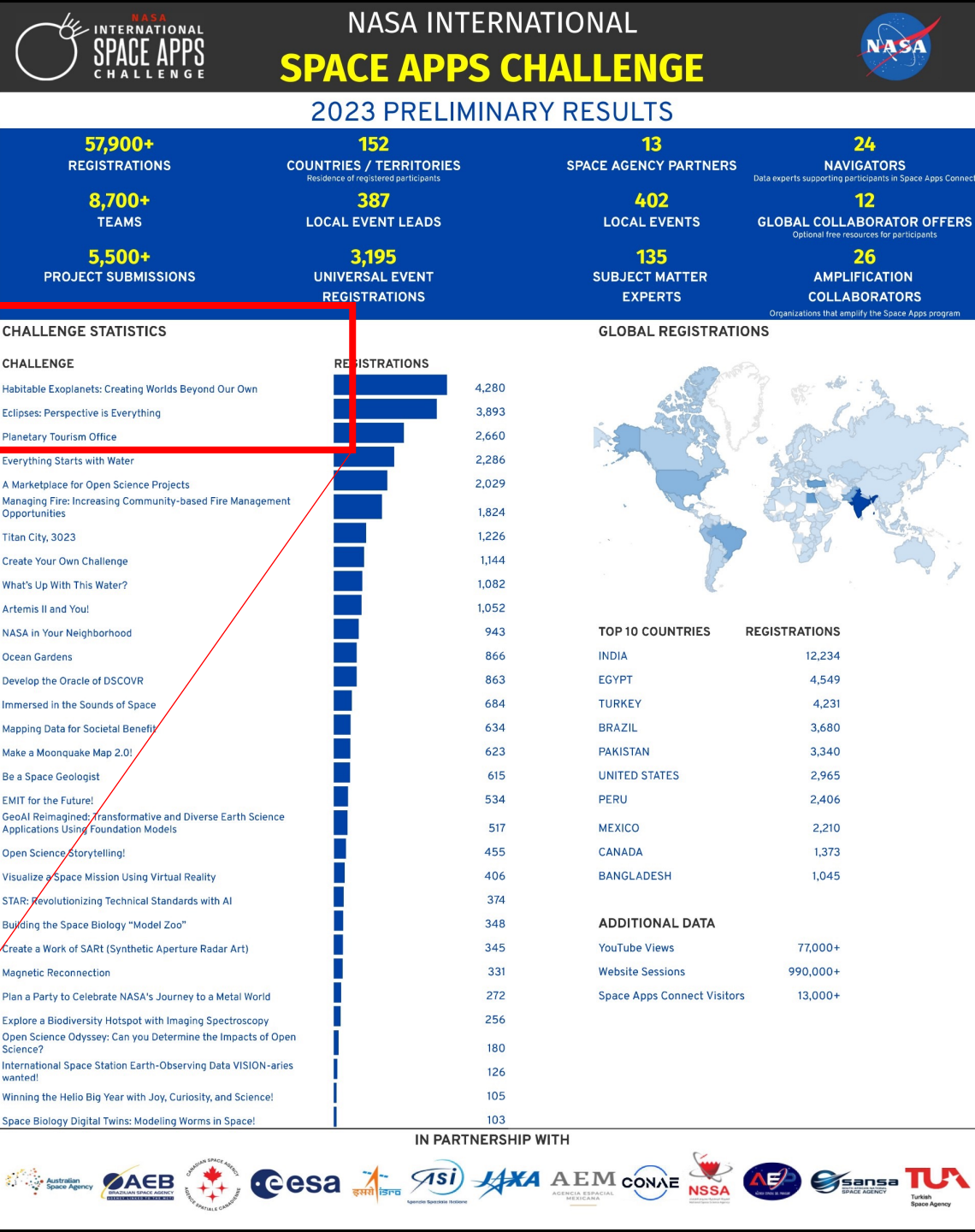
CHALLENGE STATISTICS

CHALLENGE

Habitable Exoplanets: Creating Worlds Beyond Our Own

Eclipses: Perspective is Everything

Planetary Tourism Office



HBY & Eclipse Engagements

The NASA Eclipse Engagements are based on the goal to promote a sense of inspiration and belonging to the public as they safely view these celestial events.

This is also echoed in all the HBY Theme of "The Sun Touches Everything". It is inclusive of all under on sky.



Some examples of inclusive practices are

- Braille books for the eclipse
- Eclipse products produced in multiple languages
- Citizen Science projects that include those with low vision
- Choice of wide range of engagement sites



The background of the image is a cosmic scene featuring two prominent nebulae. The upper nebula is a vibrant blue, with wispy, ethereal structures and several bright, star-like points of light. The lower nebula is a warm orange or yellow, also with wispy textures and numerous smaller, glowing points. A solid dark blue horizontal band runs across the middle of the image, serving as a backdrop for the text.

#HelioRocks!