



HELIOPHYSICS ADVISORY COMMITTEE (HPAC)

REPORT TO NASA HQ HELIOPHYSICS DIVISION

FROM THE SEPTEMBER 20-21 2022 HPAC MEETING

SUMMARY OF THE SEPTEMBER 20-21 HPAC MEETING

- Convened virtually on Wednesday and Thursday, September 20-21, 2022
- All HPAC members were present (see next slide for membership list)
- Designated Federal Officers (DFO), of NASA-HPD
 - Dr. Janet Kozyra (and Dr. Kelly Korreck, soon to be confirmed)
- Presentations to HPAC:
 - Division Update, Dr. Nicola Fox
 - R&A Program Trends, Dr. Pat Koehn
 - Heliophysics Big Year, Ms. Ha-Hao Hamano and Dr. Liz MacDonald
 - HPD IDEA WG, Ms. Denise Hill and Dr. Kelly Korreck
 - Open Data and Open Software, Matt McClure and Stephen Crawford
 - Space Weather Council update, Dr. Angelos Vourlidas, Space Weather Council Interim Chair
- HPAC thanks all of the speakers for their time and effort preparing material for this meeting
- We welcome any requests from NASA Heliophysics Division for clarification or elaboration on our findings and recommendations.

HPAC MEMBERS PRESENT

- All members of HPAC were present
 - Aroh Barjatya (Embry-Riddle Aeronautical University)
 - Rebecca Bishop (The Aerospace Corporation)
 - Paul Cassak (West Virginia University)
 - Matina Gkioulidou (Johns Hopkins University Applied Physics Laboratory)
 - Larisa Goncharenko (Massachusetts Institute of Technology Haystack Observatory)
 - James Klimchuk (NASA Goddard Space Flight Center)
 - Therese Moretto Jorgensen (NASA Ames Research Center, vice chair)
 - Michael Liemohn (University of Michigan, chair)
- Mari Paz Miralles (Smithsonian Astrophysical Observatory)
- Cora Randall (University of Colorado, Boulder)
- Kristin Simunac (St. Petersburg College)

SUMMARY OF FINDINGS AND RECOMMENDATIONS

- Finding and Recommendation on Trends in Research and Analysis Funding
- Finding on Heliophysics Big Year
- Finding and Recommendation on the HPD IDEA Working Group
- Finding and Recommendation on Open Data and Open Software
- Finding on Space Weather Council report

FINDING AND RECOMMENDATION ON TRENDS IN RESEARCH AND ANALYSIS FUNDING

- **Finding:**

- We commend HPD for compiling 5+ years of R&A funding trends. We are especially pleased to see the upward trend in R&A funding over the past 5 years. The two tables of overall funding and selection rates per grouping were particularly informative.

- **Recommendation:**

- HPAC recommends that this data be continuously amended with new annual numbers and reported to HPAC and the Heliophysics community at least once per year. HPAC would also like to see the programs compiled by small, medium, and large award size.
- HPAC recommends that HPD confer with general counsel to find a way to release individual program element budgets.

FINDING ON HELIOPHYSICS BIG YEAR

- We commend HPD for supporting efforts towards public awareness and engagement with respect to the upcoming North American eclipses and the final closest approach of Parker Solar Probe (to occur from late 2023 to late 2024). HPAC looks forward to continued updates on these activities and encourages the solar and space physics research community to fully participate in these activities.

FINDING AND RECOMMENDATION ON THE HPD IDEA WORKING GROUP

■ **Finding:**

- HPAC congratulates HPD and the IDEA Working Group for their great start to their activities and initiatives. We look forward to hearing more about the actions of this working group.

■ **Recommendation:**

- HPAC recommends the WG to assess the process of how to roll out inclusion plans in ROSES. Some HPAC members are concerned about proposers feeling overwhelmed with extra requirements, especially those without explicit financial support, while others think that HPD needs an even more assertive approach on IDEA requirements for grants through HPD (and SMD). We encourage HPD to find the right balance on this.
- HPAC recommends that HPD provide clarity on outreach versus inclusion and consider how to expand to all of IDEA.
- HPAC recommends that NASA solicitations include a listing of NASA resources into which proposers can connect, should they be selected.
- HPAC encourages the IDEA WG to keep seeking to connect with colleges and smaller universities and those not in the top tier of research expenditures.
- Finally, HPAC would like to see statistics on DAPR and other preliminary results from DMP and Inclusion plans, as well as hear HPD's assessment of how these programs are going.

FINDING AND RECOMMENDATION ON OPEN DATA AND OPEN SOFTWARE PROCESS

- **Finding:**
- HPAC congratulates HPD and SMD in general on the plan for open data and open science. Members of the committee are especially looking forward to the release of the handbook on this issue, mentioned in the report.
- **Recommendation:**
- We encourage HPD to carefully consider how to roll out open data and open software requirements on small grants funded by ROSES program elements.

FINDING ON SPACE WEATHER COUNCIL REPORT

- HPAC is truly saddened by the news of the passing of the SWC chair, Patricia Doherty, this summer. She will be missed by all.
- HPAC congratulates SWC for their long list of activities and progress, especially towards our action-charge given to SWC in our last report. We look forward to the next update from the Space Weather Council, and to continued interaction with you on this topic.