



HELLO, SPACE WEATHER COUNCIL !

FROM THE HELIOPHYSICS ADVISORY COMMITTEE (HPAC)

COMMENTS FROM MIKE LIEMOHN, HPAC CHAIR

TO THE 24 AUGUST 2022 SWC MEETING

FIRST THINGS FIRST

- I am deeply saddened by the news of the passing of Patricia Doherty
- I am sorry for your loss



SWC AND HPAC

- SWC is a subcommittee of HPAC
 - Specifically advising the SMD Heliophysics Division on space weather policy, practices, and actions
- At the HPAC meeting in May:
 - We spent some time discussing what we would like to see from SWC
 - We agreed on 4 recommendations for you
 - These do not limit your advisory scope, but provides emphasis and direction
 - HPAC would like to hear regular updates on these topics from SWC
- Next HPAC Meeting:
 - September 20-21, 2022 (4 weeks away)
 - We look forward to hearing your report

SWC, SWORM, AND SWAG

- There are two other space weather advisory groups
 - SWORM: Space Weather Operations, Research and Mitigation Subcommittee
 - Under OTSP, interagency coordination group for government space weather activities
 - SWAG: Space Weather Advisory Group
 - Created in 2021 by the PROSWIFT Act to get community input for SWORM
 - From academia, commercial space weather sector, and space weather end users
- **It is important for this group to define its role in support of NASA HPD interests and to determine how best to complement the activities of the SWORM and SWAG**

RECOMMENDATION #1

SWC is advised to research the activities of SWARM and SWAG, identify overlaps and gaps, and **determine how SWC can complement and leverage ongoing efforts**, with specific relevance to the interests of the NASA Heliophysics Division. This may include researching reports on the committee websites; attending their public meetings; organizing a meeting of committee chairs and staff; and defining how the role of the SWC can complement the work of these existing committees.

RECOMMENDATION #2

Of specific interest to the HPD and HPAC is an **analysis of the gaps in space weather fundamental science, modeling and impacts**. Gap analysis studies have been performed by different agencies within the last decade, and a summary review of this material is of importance for HPD future plans. Specifically, the HPD supports development of a range of instruments at different technology readiness levels. Up-to-date understanding of knowledge gaps will assure that HPD can make an informed decision in prioritizing development of certain technologies, instruments, and models.

RECOMMENDATION #3

The SWC is advised to **address the NASA's ARTEMIS and space biology programs** to determine the potential to extend our knowledge with lunar focused space weather measurements and studies.

RECOMMENDATION #4

The SWC is advised to work on the development of specific **suggestions for interagency NASA-NOAA-NSF-DoD cooperation** in order to maximize return on investment in research infrastructure supported by agencies. Specific examples include development of suggestions about better coordination between NASA and NOAA supported space-based instruments and NSF-supported ground-based infrastructure, data fusion from multiple instruments, data assimilation efforts, etc.

THE SUMMARY SLIDE

- Bulletized recommendations from HPAC to SWC:
 - Look into what SWORM and SWAG are doing
 - Conduct (or commission) a gap analysis of space weather science
 - Look for synergies with NASA's ARTEMIS and space biology efforts
 - Look for interagency cooperation opportunities
- HPAC wishes SWC well in your conversations
 - We look forward to working with you