



2023 Space Weather Enterprise Forum (SWEF): PROSWIFT Progress – Update from NSF

Alexandra Isern

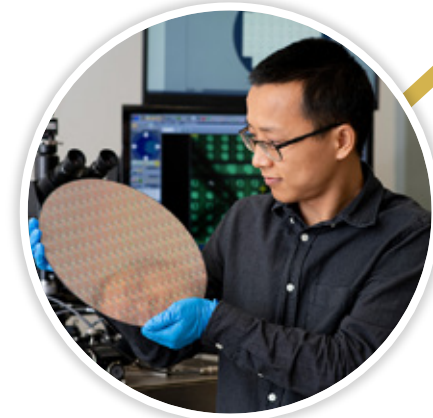
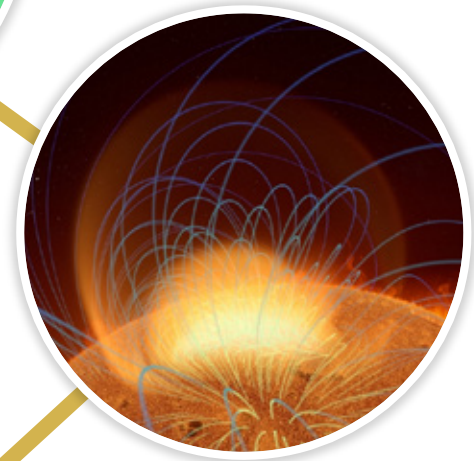
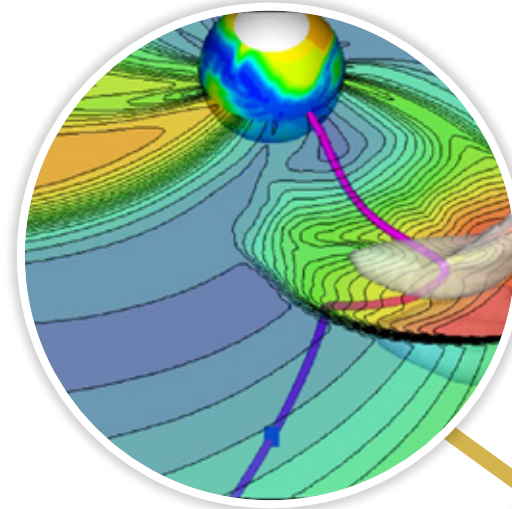
Assistant Director

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National Science Foundation

NSF Space Weather Priorities

1. Advance basic and use-inspired research on space and solar physics, geospace science, and space weather
2. Maintain and improve ground-based observations of the Sun and near-Earth space
3. Ensure data availability for public and operational users
4. Facilitate the transition of NSF-funded research and sensors and networks to operations
5. Facilitate the development of the next generation space weather workforce
6. Enhance partnerships



Research



Space Weather Research – **ANSWERS Awards**

- 7 projects FY22-26, \$11.8M
- Universities, research institutes, and private companies across the country
- Workforce training and public engagement
- Topics range from forecasting solar energetic particles to impacts of terrestrial processes on space weather



Research Infrastructure



Research Infrastructure to Understand Space Weather

- Radars, lidars, magnetometers, neutron monitors, radio receivers, aurora and airglow imagers, spectrometers, interferometers, and solar observatories



- Data centers & publicly available data



GONG



Millstone Hill Observatory

Interagency R2O2R MOA

- NSF has signed!
- Cycle of research and operations
- Includes space weather techniques/technologies and models



Workforce



Faculty Development in geoSpace Science (FDSS)

Goal: Integrate topics in geospace science into natural sciences or engineering or related departments at U.S. institutions

- Salary, benefits, and training for newly recruited tenure-track FDSS faculty; up to five years and \$1,500,000
- Track to support minority-serving institutions and emerging research institutions



NSF Build a Resilient Planet Initiative



**Response of
Earth's systems
to changing
climate**



**Adaptation
and resilience**



**Clean energy
technologies**



**Nature-based
solutions**



**Greenhouse gas
measurements
and removal**

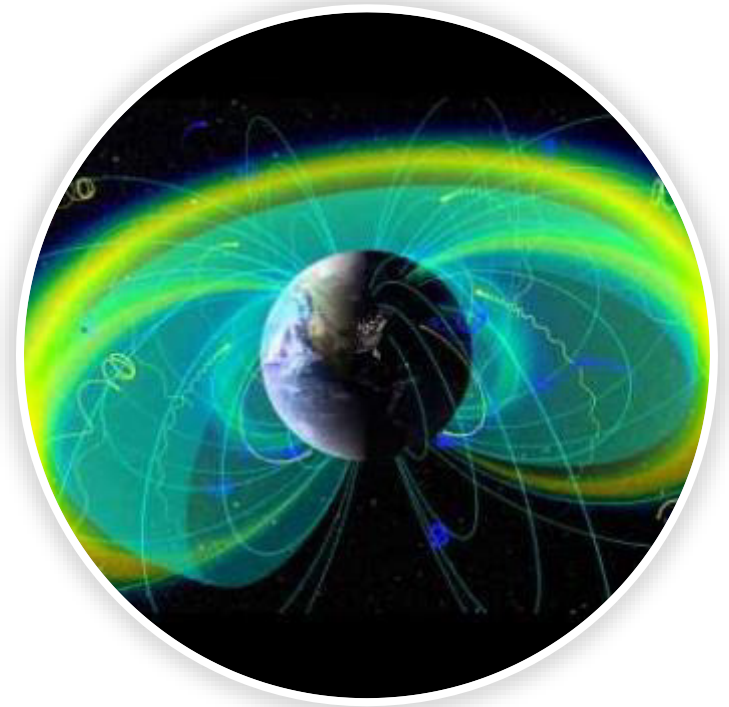
Community Input



NASEM Decadal Survey
for Solar and Space
Physics 2024-2033



NASEM Space
Weather Roundtable



Space Weather
Advisory Group



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