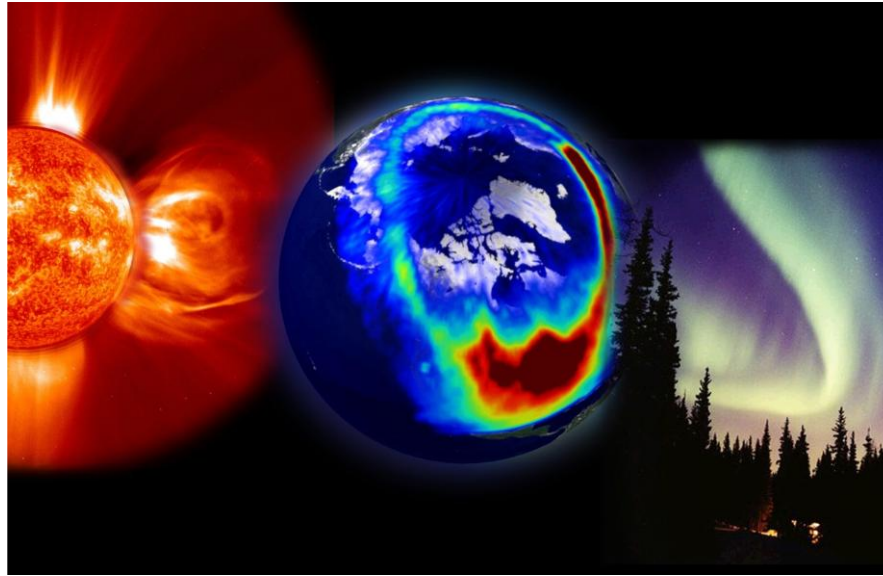


Aeronomy and Geospace Facilities Update



Anne-Marie Schmoltner

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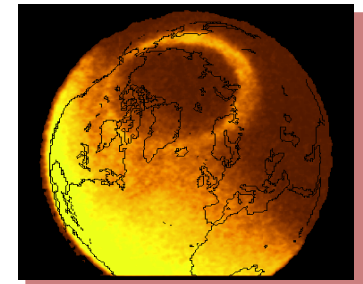
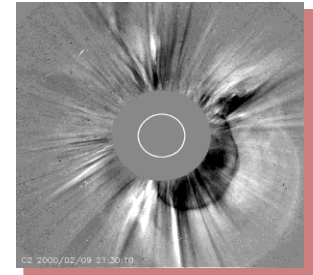
Bob Robinson

CEDAR 2013



The Five Geospace Programs

- Solar Physics – *Iliia Roussev*
- Magnetospheric Physics – *Ray Walker*
- Aeronomy – *Anne-Marie Schmoltner*
- Geospace Facilities – *Bob Robinson*
- Space Weather and Instrumentation --
Therese Moretto



Aeronomy Program News

- **CEDAR 2012**
- **Aeronomy “core” program:
panel in July**
- **CEDAR 2013**
- **Deepwave**

Requests

- Reviewers and panelists – our heroes!
- GS Strategic Plan

Other NSF Opportunities

- **MRI**
- **AGS Postdoc program**
- **FESD (Frontiers in Earth System Dynamics)**
- **Hazard SEES**
- **EarthCube**
- **INSPIRE**
- **International engagement**

Questions:

Anne-Marie Schmoltner

aschmolt@nsf.gov

The Geospace Facilities Program (GS)

Program Director – Bob Robinson

- Six incoherent scatter radar sites (five awards: ~\$12M)
- Lidar Consortium (six institutions: ~\$1M)



Space Weather Research and Instrumentation

New GS program for FY13

Program Director – Therese Moretto

Cubesats (~\$1.5M/y) 8 current projects funded; 4 in orbit; 2 launching in 2013

Community Coordinated Modeling Center, Goddard Space Flight Center (~\$500k/y)

Faculty Development in the Space Sciences (up to \$1.5M/y)

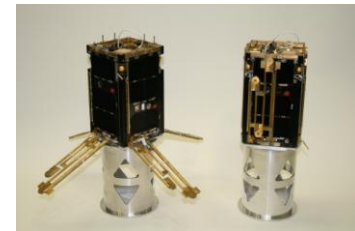
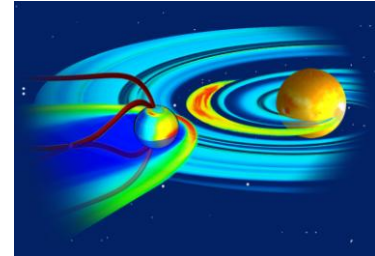
- **New annual solicitation soon; Deadline ~April 2013**
- **1 new award/year (~\$300k/year for 5 years)**

AMPERE, SuperDARN and SuperMAG

Cubesat program (~\$1.5M/y)

- **8 current projects funded; 4 in orbit; 2 launching in 2013**

NASA/NSF Partnership: Collaborative Space Weather Modeling (\$1.5M/y)



NSF-NASA Joint Modelling Program

- 1: Integrated Global-Sun model of magnetic flux emergence and transport:**
(PI Nagi Mansour, NASA Ames)
- 2: The Coronal Global Evolutionary Model (CGEM):** (PI George Fisher, Berkeley)
- 3: Modular capability for community modelling of flares/CMEs and interplanetary impacts:** (PI: Spiro Antiochos, NASA GSFC)
- 4: Coronal Solar Wind Energetic Particle Acceleration Modules (C-SWEPA):**
(PI: Nathan Schwadron, UNH)
- 5: Integrated Real-Time Modelling System for Heliospheric Space Weather Forecasting:** (PI: Dusan Odstrcil, George Mason)
- 6: Integration of Extended MHD and Kinetic Effects in Global Magnetospheric Models:** (PI: Amitava Bhattacharjee, Princeton)
- 7: Medium-range thermosphere ionosphere storm forecasts.** (PI: Tony Manucci, NASA JPL/Caltech)
- 8: Ensemble modelling of the ionosphere and thermosphere with data assimilation models** (PI: Bob Schunk, Utah State University)

Geospace Facility News

- **Plans are on-going for AMISR relocations that will provide new observing capabilities without sacrificing existing capabilities**
- **The Arecibo heating facility will be operational by the end of 2013**
- **The last of four new SuperDARN mid-latitude sites is being constructed in the Azores**
- **Efforts are being made to save the HAARP facility from closure**
- **The ISR Summer School will continue on an annual basis; next one is at Haystack Observatory in August 2013**

New activities in NSF large facility oversight

- **The National Science Board is looking at the process by which new projects are brought forward for funding under the Major Research Equipment and Facility Construction budget line.**
- **The Geosciences Directorate is considering mechanisms to support the construction of mid-scale facilities.**
- **NSF is examining its management and oversight of multi-user facilities; roles of NSB, NSF Director, Directorates, and Budget Office to be more clearly defined and articulated.**