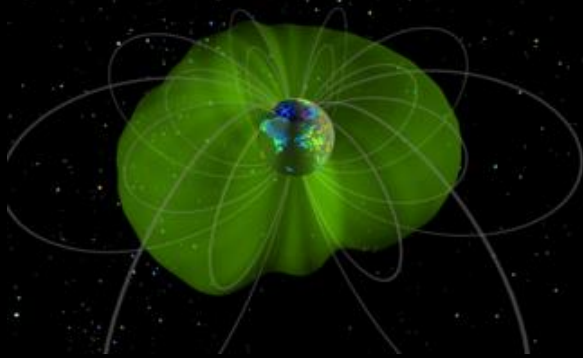




What's Up at (with) NSF?

Therese Moretto Jorgensen
Carrie Black
Janet Kozyra
Ruth Lieberman
John Meriwether





Geospace Programs FY 2016

AERONOMY

Ruth Lieberman

\$9.3M

MAGNETOSPHERE

Janet Kozyra

\$7.1M

SOLAR-TERRESTRIAL

Illia Roussev

\$7.8M

SPACE WEATHER

Vacant

\$6.2M

FACILITIES

John Meriwether

\$14.3M

\$45.2M

Up 4% over FY 2015

John Meriwether
Program Director/Geospace Facilities
National Science Foundation



The Geospace Facilities Program -- Advancing Understanding through better Observations

- Six incoherent scatter radar sites, Lidar Consortium (six institutions)



- **Portfolio Review Panel Recommendations relating to Facilities**
 - *Reduce funding for Arecibo ISR by $\frac{3}{4}$ by 2020*
 - *Terminate funding for Sondrestrom ISR by 2020;*
 - Implementation of these would free up ~5 M

The Geospace Facilities Program -- Arecibo

- AGS Portfolio Review has recommended reduction in support.
- DCL letter was released to the community late last fall requesting new operational concepts RE: management of AO.
- White papers have been received and these are being evaluated. In the meantime an EIS (Environmental Impact Statement) assessment is underway.
- AO current CA funding expires in September 2016.
- NSF is anticipating that SRI will submit a supplemental proposal at current funding support.
- If/when received, this supplemental proposal will be peer reviewed. If award is recommended, then this supplement could extend the CA for 18 months to 31 March 2018 and provide funding for the first 9 months of the extension.

NATIONAL SCIENCE FOUNDATION

Notice of Intent To Prepare an Environmental Impact Statement and Initiate Section 106 Consultation for Proposed Changes to Arecibo Observatory Operations, Arecibo, Puerto Rico and Notice of Public Scoping Meetings and Comment Period

AGENCY: National Science Foundation.

ACTION: Notice of intent to prepare an Environmental Impact Statement and initiate Section 106 consultation for proposed changes to Arecibo Observatory operations, Arecibo, Puerto Rico and notice of public scoping meetings and comment period.

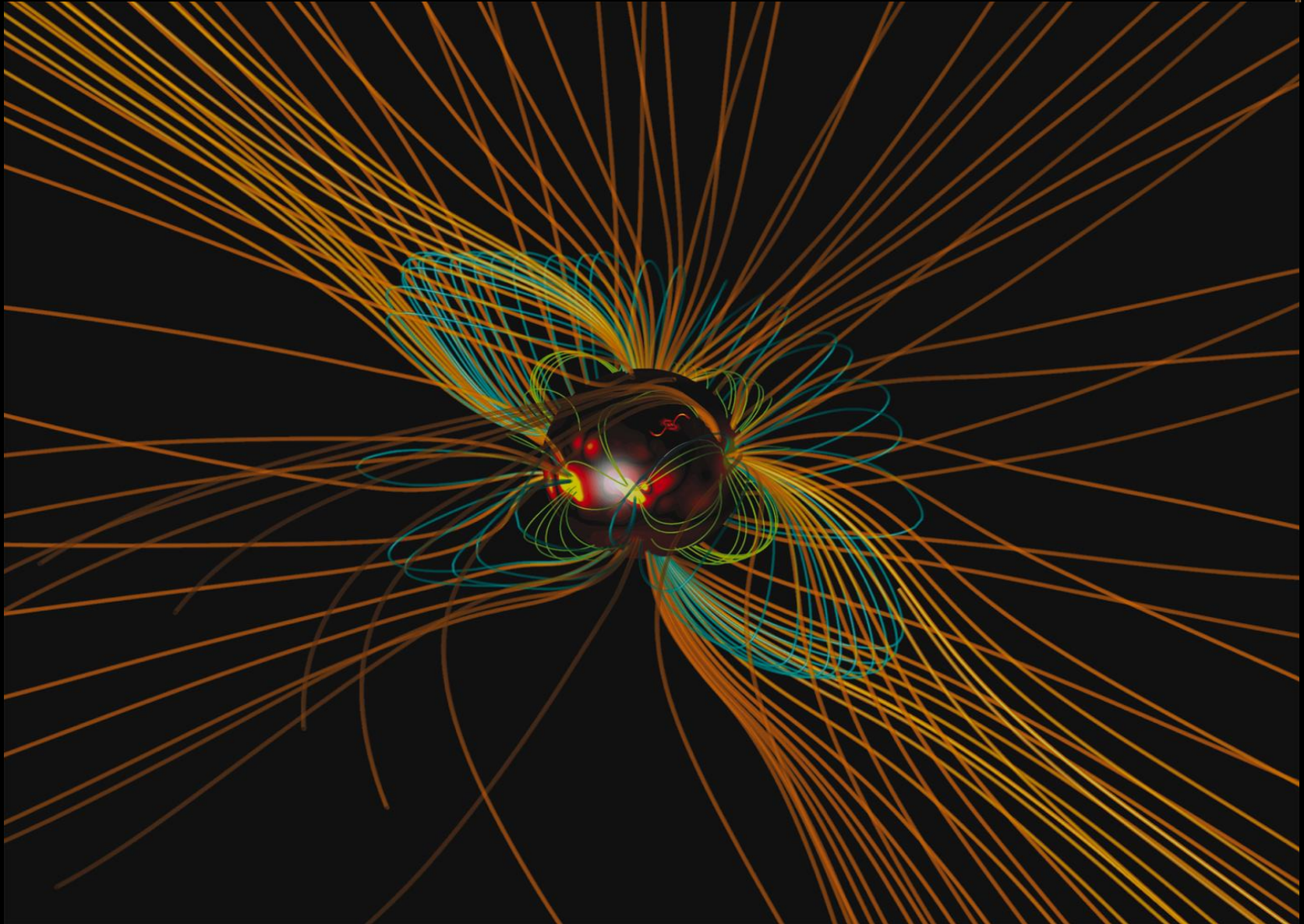
- Continued NSF investment for science-focused operations (No-Action Alternative)
- Collaboration with interested parties for continued science-focused operations
- Collaboration with interested parties for transition to education-focused operations
- Mothballing of facilities (suspension of operations in a manner such that operations could resume efficiently at some future date)
- Deconstruction and site restoration

To make any changes at all
at AO, an EIS is required.

Expected Timeline

- Draft of EIS out this fall
- Comment period
- Final Draft spring 2017
- Record of decision - summer 2017

Carrie Black
Associate Program Officer / Geospace



NSF Participation in OSTPs SWAP

- **Goal 1 Benchmarks (all have timelines of 6,12, and 24 months for each sub-action)**
 - All of Goal 1,
 - **Phase 1: Initial benchmarks based on existing studies (6 months)**
 - Timeline met. Executive Summaries and Technical Documents submitted to OSTP
 - **Phase 2: Development of scientifically and statistically rigorous benchmarks (12 months)**
- **Goal 4 Improve Assessment, Modeling, and Prediction of Impacts on Critical Infrastructure**
 - Supporting role in 4.2.6 (12mo), 4.2.2 (36 mo)
- **Goal 5 Improve Space Weather Services through Advancing Understanding and Forecasting**
 - (5.3, 5.4, 5.5 -**5.5.1 NSF led 12 mo deadline**, 5.6)
 - **5.5.1 Document R&D priorities**
 - This is where basic research comes in to play
 - 5.6.1 / 5.6.2 activity
 - **Strengthening ties with NASA through new MOUs**
 - Participating as co-conveners of an O2R workshop led by NOAA
- **Goal 6 Increase International Cooperation**
 - (6.2, 6.4)
 - Work has begun

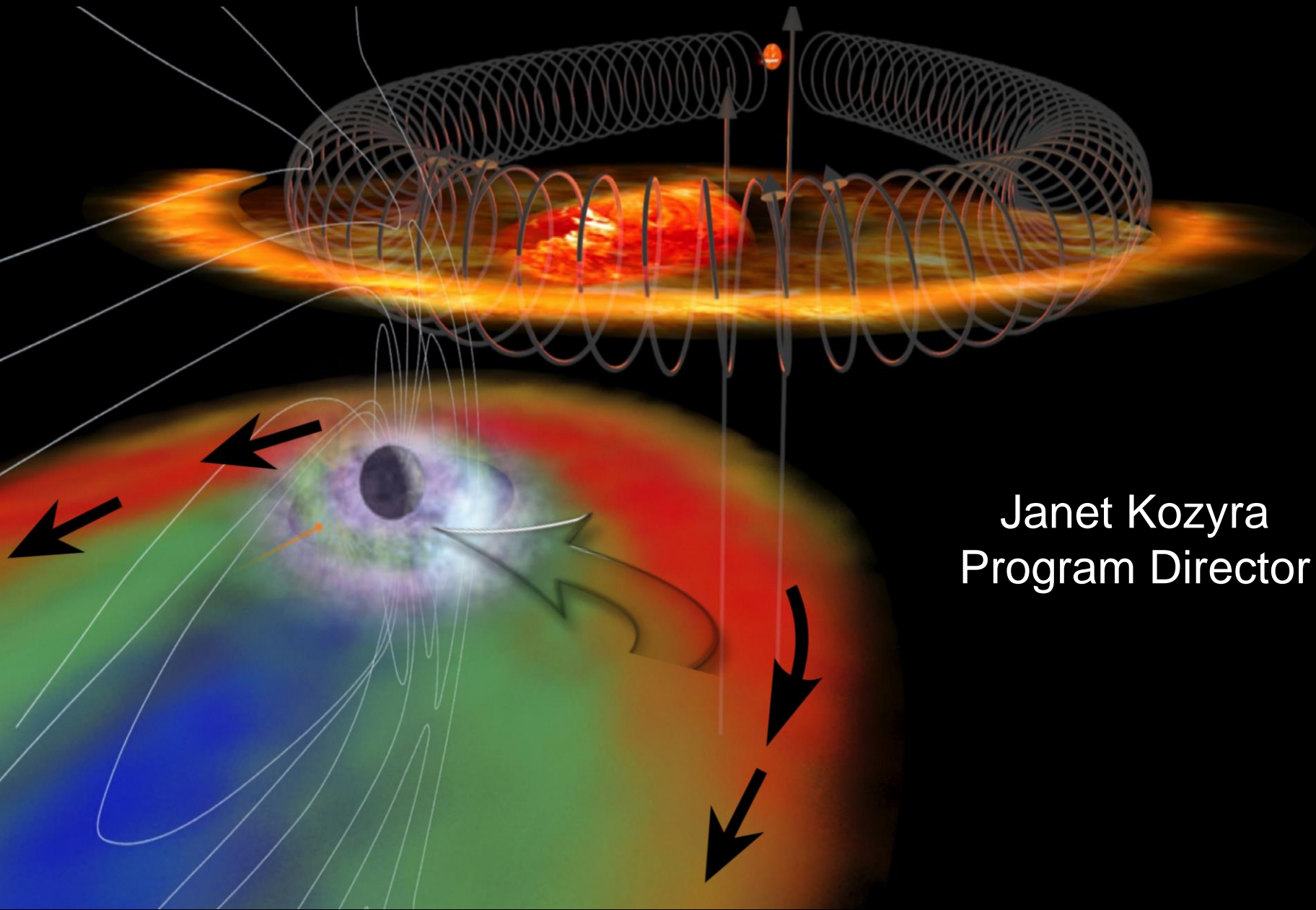
NSF and Your Science Already Support the SWAP

- **CEDAR, GEM, and SHINE Programs**
 - Facilitate research collaboration on coupling and interaction
- **NASA/NSF Collaborative Space Weather Modeling**
 - Large-scale modeling efforts that require community teamwork
- **NASA/NSF Community Coordinated Modeling Center, Goddard**
 - Development of models for transition to operational use
- **AMPERE, SuperDARN and SuperMAG**
 - Global networks of space weather relevant observations
- **Neutron Monitor network**
 - Community Workshop to assess current state and future potential Oct 2015; Report expected soon
- **NSF's National Solar Observatory** and its contributions to space weather observations (5.3), forecasting improvement (5.4), and enhancing fundamental understanding of space weather (5.5)
- **Participating as co-conveners of an O2R workshop led by NOAA August 16 and 17, 2016**
Community Participation is key here.

Community Engagement

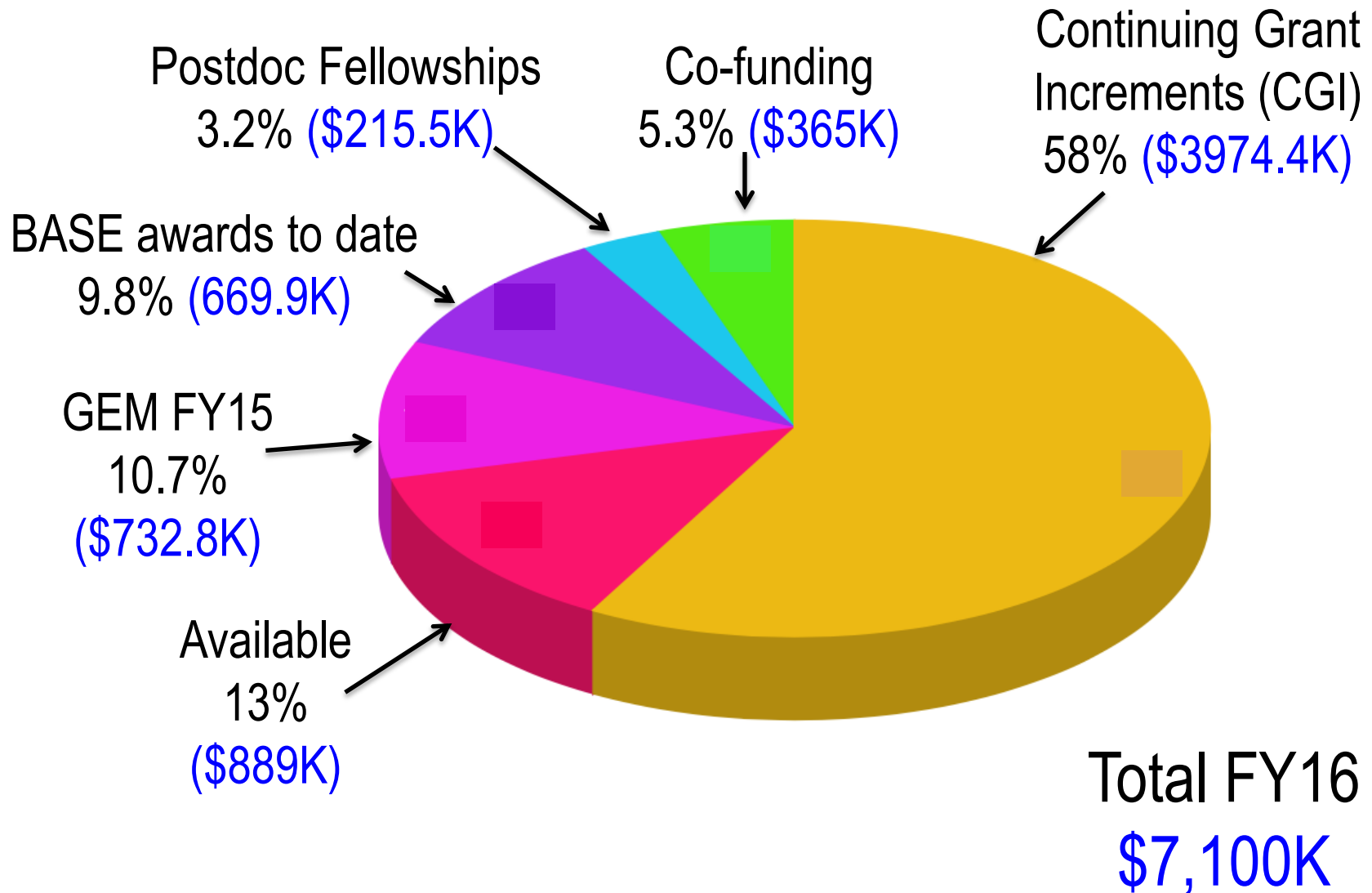
- Please communicate with your Program Officers
- Early Career / student participation is key for the Foundation and for the community
- PRF Program – please apply
 - We make quite a few awards.
- Please contact me with any questions regarding process, solicitations, interesting science, etc.
- cblack@nsf.gov (703)292-8518

Magnetospheric Physics Program



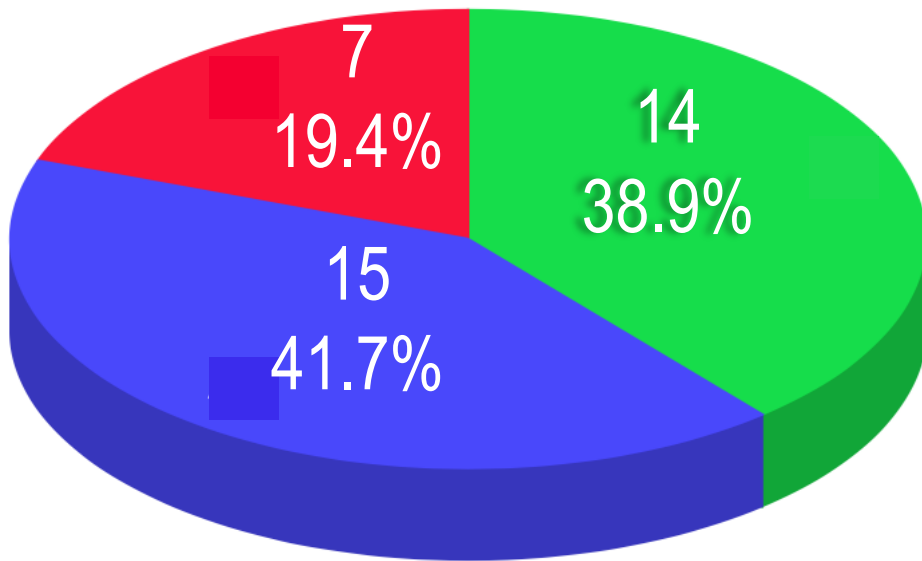
Janet Kozyra
Program Director

What types of awards are supported in FY16 by Magnetospheres?

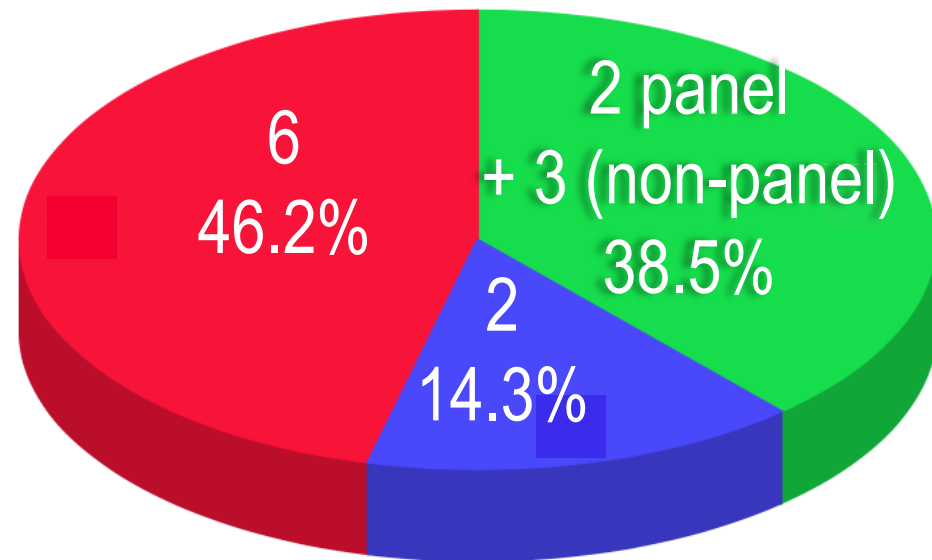


How Were Newly Submitted MAG Proposals Rated by 4 Virtual Panels?

GEM 38 Projects
(45 proposals)
\$4.45M



Base 13 Projects
(13 proposals)
\$1.61M



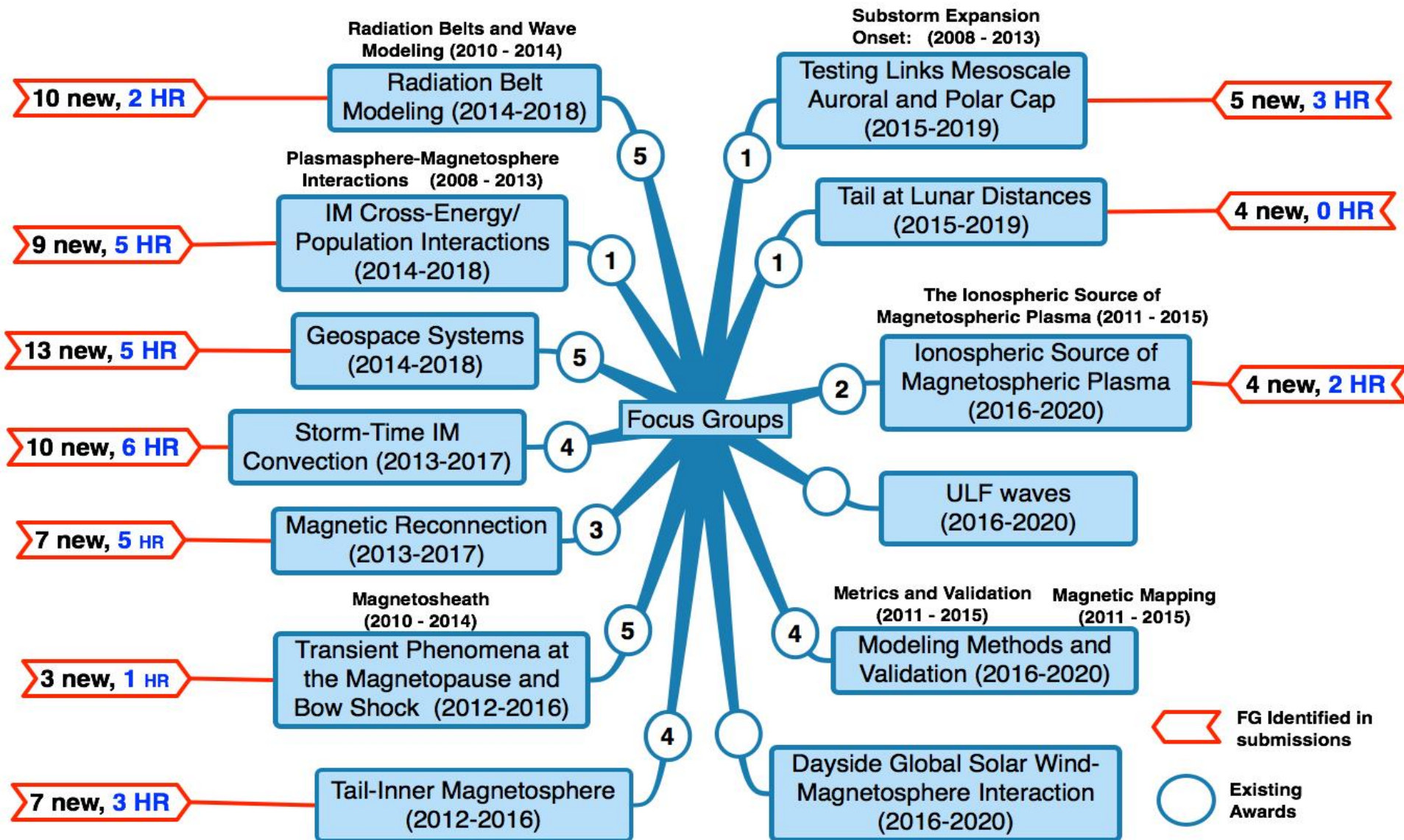
■ Highly Recommended
■ Recommended
■ Not Recommended

FUND:	FY16	FY17	Success
GEM:	7 HR	4 HR	29%
BASE:	4 HR	1 HR	38%

Unfunded Collaborators. Something to Consider

- Be aware that unfunded collaborators at NSF are treated differently than at NASA.
- Funding is not the issue. The consideration is whether they contribute intellectually to the scientific work on the proposal. If so they are equivalent to Co-Is.
- If collaborators are supplying observations/models in the standard way, listing them as unfunded collaborators creates unnecessary problems with Conflicts of Interest.
- Letters from unfunded collaborators are not required. Letters of support are not allowed at NSF

How are GEM Proposals Distributed Among Focus Groups?



The NSF Aeronomy Program

Ruth Lieberman

NSF



Budget and Structure

Total budget: ~\$9.3M/year.

CEDAR: approx. \$1M/year in new starts

Priorities defined by the CEDAR strategic plan.

Interfaces w/ MAG, AS, geospace facilities, space weather, physics, astronomy, interdisciplinary programs, etc.

What is my chance of getting an award?

2016 Aeronomy program success rate: 30%

Average award size: \$126,130

2016 CEDAR: success rate: 45%.

45 proposals submitted (33 separate projects)

11 HR, all funded

14 R, 5 funded.

Proposal Strategies

- Intellectual merit.
- Importance of education and training
- Be bold.
- Be interdisciplinary.
- Participate in the review process.
- Clearly indicate collaborations, to help expedite the review process.
- Proposal resubmission – must be revised or it may be returned without review

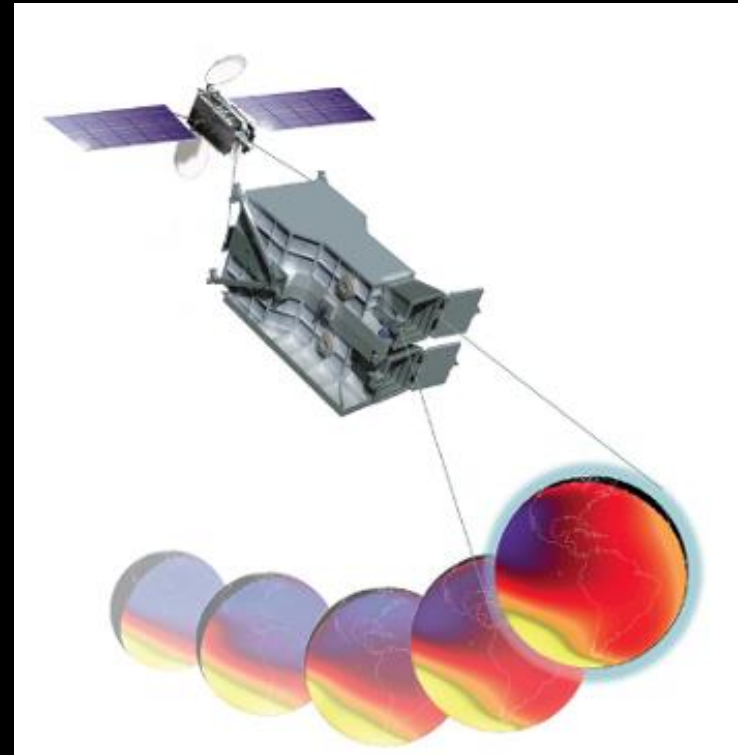
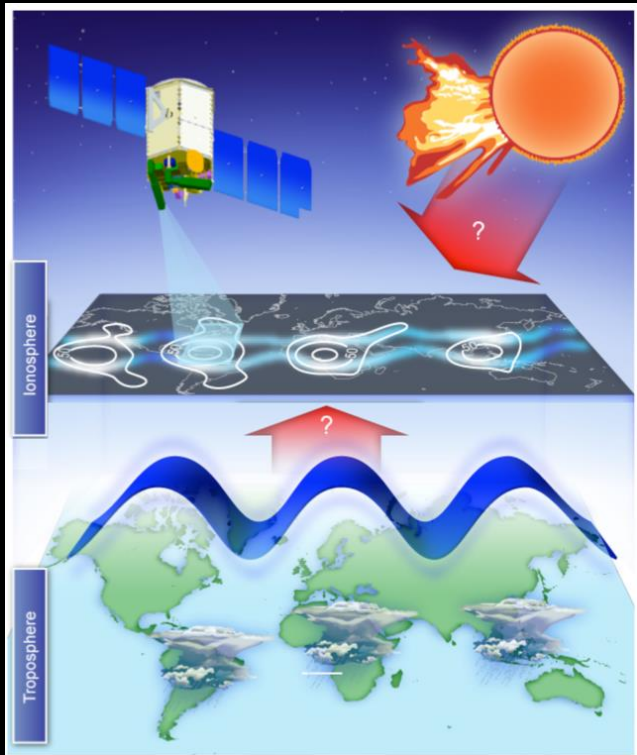
Proposal Strategies

Look for other NSF opportunities:

- **MRI (Major Research Instrumentation)**
- **Interdisciplinary Research and Education(INSPIRE).**
- **New GEO Hazards program : PREEVENTS**
- **International opportunities**
- **Earthcube**



Collaborate with NASA on Science with ICON & GOLD



- Community workshop to identify science questions & ground- & space-based collaborations
- September 27-28, 2016 at HAO