



THE GEOSPACE SECTION
MARCH 2017

**RESPONSE TO:
PORTFOLIO REVIEW & NAS ASSESSMENT**

THE PEOPLE



**THERESE MORETTO
JORGENSEN, HEAD**

**JOHN MERIWETHER
FACILITIES**

**RUTH LIEBERMAN
AERONOMY**

**LARISSA PETRELLA
PROGRAM SPECIALIST**

**CARRIE BLACK
PROGRAM DIRECTOR**



**ILIA ROUSSEV
SOLAR-TERRESTRIAL**

**SUNANDA BASU
EXPERT**

**JANET KOZYRA
MAGNETOSPHERE**

THE PEOPLE



**SECTION HEAD
SELECTION ONGOING**

**JOHN MERIWETHER
FACILITIES**

**RUTH LIEBERMAN
AERONOMY**

**LARISSA PETRELLA
PROGRAM SPECIALIST**

**CARRIE BLACK
PROGRAM DIRECTOR**



**IRFAN AZEEM (APRIL 6)
SPACE WEATHER**

**MIKE WILTBERGER
MAGNETOSPHERE**

**ILIA ROUSSEV
SOLAR-TERRESTRIAL**

**SUNANDA BASU
EXPERT**



New Head of Geoscience Directorate June 2017

**WILLIAM E. EASTERLING
PENN STATE**



COMMENTS ON THE GEOSPACE
PORTFOLIO REVIEW &
NAS ASSESSMENT REPORTS

CONTEXT & WHAT'S NEXT



What's
the
plan?

FROM REPORTS TO PLANS

**Create strategic vision based
on recommendations &
engage with community on
implementation**

**Recurring portfolio reviews
every 3–4 years**



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FACILITIES



ARECIBO

- ▶ **AST & AGS JOINT MANAGEMENT**
 - ▶ **DRAFT ENVIRONMENTAL IMPACT STATEMENT RELEASED OCTOBER**
 - ▶ **FEIS AND RECORD OF DECISION EXPECTED SUMMER 2017**
 - ▶ **DECISION ON AUXILIARY INSTRUMENTATION WHEN FUTURE SHAPE OF AO IS KNOWN**
-
- ▶ **SOLICITATION (17-538) FOR PARTNERSHIP**
 - ▶ **PROPOSALS DUE APRIL 25, 2017**
 - ▶ **BUDGET PROFILE FOLLOWS PORTFOLIO REVIEW RECOMMENDATION OF \$1.1M (AGS) BY 2020**



SONDRESTROM

- ▶ **INVESTIGATING DIVESTMENT SCENARIOS**
 - ▶ **CONTACT WITH GREENLAND HOME-RULE GOVERNMENT**
 - ▶ **PLAN TO EXPLORE PARTNERSHIP OPTIONS**
-
- ▶ **SITE-VISIT PANEL JULY 2017**
 - ▶ **SCIENCE VALUE OF AUXILIARY INSTRUMENTATION**
 - ▶ **COMPARISON WITH EISCAT INSTRUMENTS FACILITY AT SVALBARD**



AMISR

- ▶ RECOMPETING - 10 YEARS SINCE START OF OPERATION
 - ▶ SOLICITATION (17-539) FOR SEPARATE PROPOSALS FOR PFISR & RISR
 - ▶ PRELIMINARY PROPOSALS MAY 1, 2017
-
- ▶ ALLOWS FOR THE OPTION TO RELOCATE PFISR TO OTHER LOCATION OF GEOPHYSICAL INTEREST



CRRL

- ▶ NOT BEING RENEWED AS A FACILITY
 - ▶ 3 SEPARATE PROPOSALS RECEIVED IN THE AERONOMY PROGRAM FOR SODIUM RESONANCE LIDAR SYSTEMS LOCATED IN CHILE, UTAH, AND ALASKA
-
- ▶ PANEL REVIEW MARCH 2017



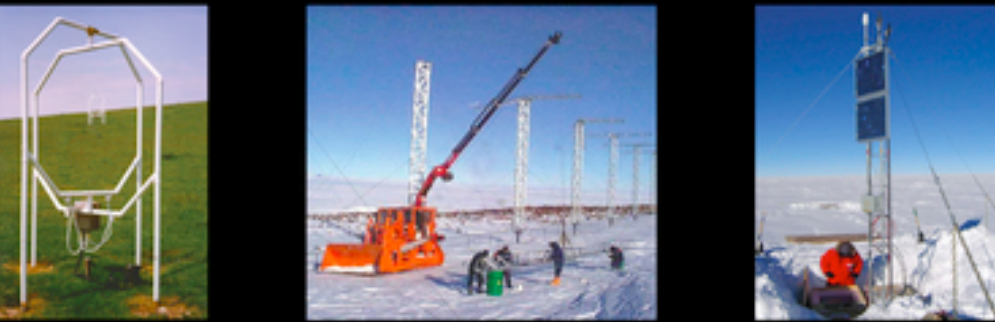
COMMENTS ON THE GEOSPACE
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EVOLUTION OF FACILITIES

DASI

**Distributed Arrays of Small Instruments
for Solar-Terrestrial Research**

A WORKSHOP REPORT



NEW FACILITY INVESTMENTS

EISCAT

I&V Program

DASI

**Both needs further definition,
e.g. through community
workshops**

Mid-scale and MREFC

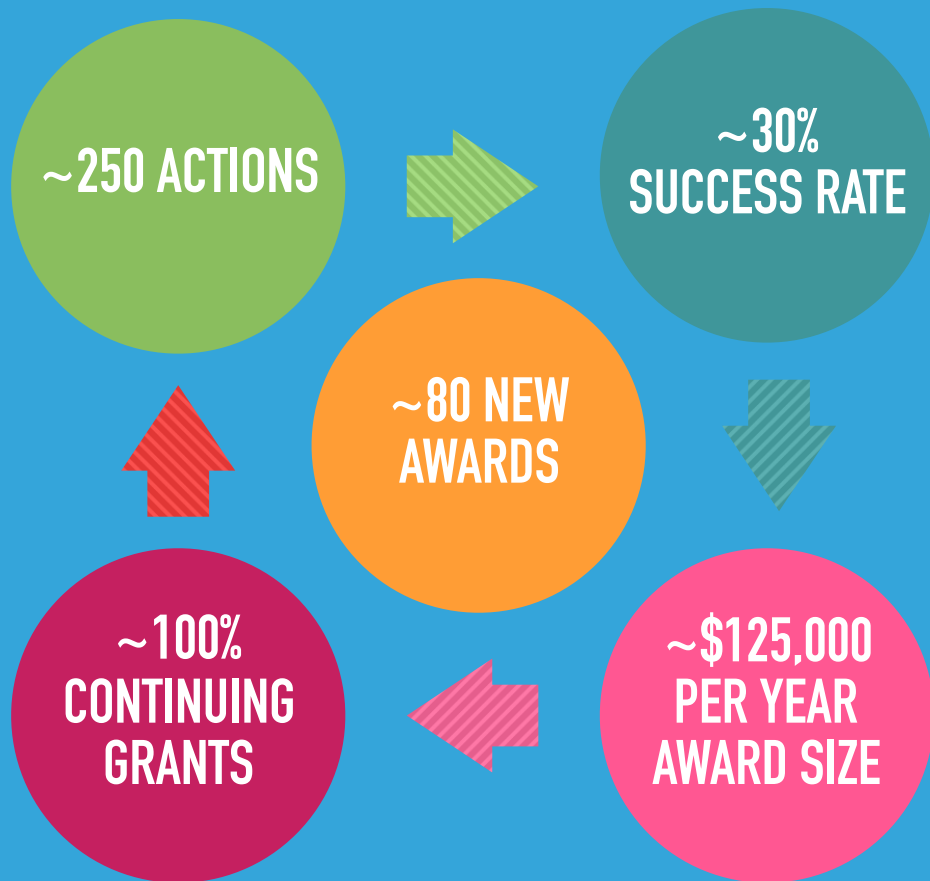


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GRANTS PROGRAMS

GRANTS PROGRAMS

FY 2016



MORTGAGE PROBLEM: 2/3 OF ANNUAL BUDGET PRE-COMMITTED

THE RESULT OF MANY YEARS OF
FLAT BUDGETS & STRONG
PROPOSAL PRESSURE

SEVERELY LIMITS FLEXIBILITY
VIOLATES NSF POLICY

REDUCE OUT-YEAR EXPENSES
IN THE PROGRAMS

BELT-TIGHTENING FOR A FEW
YEARS: FEWER OR SMALLER
AWARDS

BETTER FLEXIBILITY IN BUDGET
ALLOCATIONS FOR PROGRAMS

CEDAR

GEM

SHINE

**INTEGRATIVE
GEOSPACE
SCIENCE**



**ELIMINATE DEADLINES
FOCUS SOLICITATIONS**

**COLLABORATIVE SPACE
WEATHER MODELING
SPACE WEATHER PILOT
GRAND CHALLENGE
PROJECTS / HSC**



COMMENTS ON THE GEOSPACE
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**WORKFORCE DEVELOPMENT &
DIVERSITY**

WORKFORCE DEVELOPMENT & DIVERSITY

- ▶ **Data gathering on diversity and human development outcomes from investments**
 - Policy concerns
- ▶ **Encourage PIs to recruit graduate students & postdocs at national meetings, such as:**
 - National Society of Black Physicists, the National Society of Hispanic Physicists, the American Physical Society Conferences for Undergraduate Women in Physics
- ▶ **Information on diversity related programs and activities**
 - Redesigned AGS website
 - Report selections in community newsletters
 - New NSF-INCLUDES program: Inclusion across the Nation of Communities of Learners of Underrepresented Discoverers in Engineering and Science

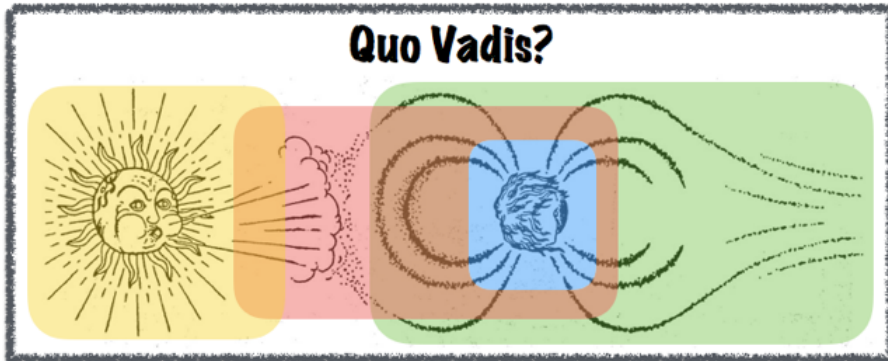


COMMENTS ON THE GEOSPACE PORTFOLIO REVIEW & NAS ASSESSMENT REPORTS

PARTNERSHIPS & OPPORTUNITIES

PARTNERSHIPS & OPPORTUNITIES

MAJOR RESEARCH EQUIPMENT AND FACILITIES CONSTRUCTION (MREFC)



- ▶ New lower limit of \$70M for MREFC projects
- ▶ Workshop: Exploring the Geospace Frontiers (Quo Vadis?) in 2016
- ▶ Follow-up activities to define and design potential new MREFC project
- ▶ Consider M&O costs and ways to streamline and minimize as much as possible

PARTNERSHIPS & OPPORTUNITIES

CUBESATS



- ▶ **Next solicitation this summer**
- ▶ **Will solicit broad participation from science, engineering, and education directorates across NSF**
- ▶ **Will continue and enhance inter-agency collaboration and partnerships**

OTHER PARTNERSHIPS & OPPORTUNITIES

ACROSS NFS

NSF-DOE PLASMA PARTNERSHIP

**Celebrated 20 years anniversary
January 2017**

PREEVENTS

First competition for Track II 2017

EARTHCUBE

Future/ follow-up under consideration

MRI

Continuing instrument program

INSPIRE – RAISE

New proposal type in 2017 PAPPG

STRENGTHENING THE PARTNERSHIP WITH NASA

NEW OPPORTUNITIES

NEW MOU

Under review

**PILOT ON SW
MODELING**

Collaboration with NSF MPS

ICON & GOLD

Joint competition 2018

CCMC

Continued co-sponsorship

**GRAND CHALLENGE PROJECTS =
STRATEGIC CAPABILITIES /
HELIOPHYSICS SCIENCE CENTERS**

**Exploring possibilities for
joint competition(s)**

PARTNERSHIPS AND OPPORTUNITIES

SPACE WEATHER

**SPACE WEATHER
OPERATIONS, RESEARCH,
AND MITIGATION
(SWORM):
NSTC SUBCOMMITTEE**

**NATIONAL SPACE WEATHER
ACTION PLAN 2015 &
EXECUTIVE ORDER
2016**

- ▶ **NSF participates in SWORM & NSWAP**
- ▶ **Fulfills a crucial need for basic research in support of space weather**
- ▶ **Will continue and enhance inter-agency collaboration and partnerships**