AGS APRIL 2017

RESPONSE TO THE GEOSPACE PORTFOLIO REVIEW & NAS ASSESSMENT REPORTS

CONTEXT & WHAT'S NEXT

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sion Director

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John Meriwether
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Space Weather Research

Carrie Black
Assoc. Program Director
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Sunanda Basu
Expert

d Grant
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dinator

Avallone
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Program Support Manager

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Program Specialist

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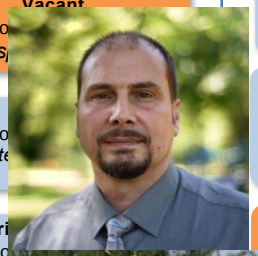
Shaun Young
Program Assistant

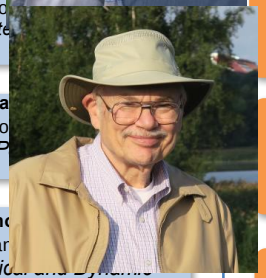
Detra Blow
Program Assistant

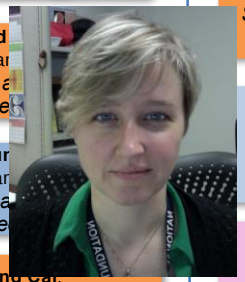
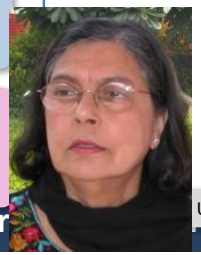
Helena Fountain
Program Specialist

Pei-Chiung (Anne) H
Operations Specia



Key

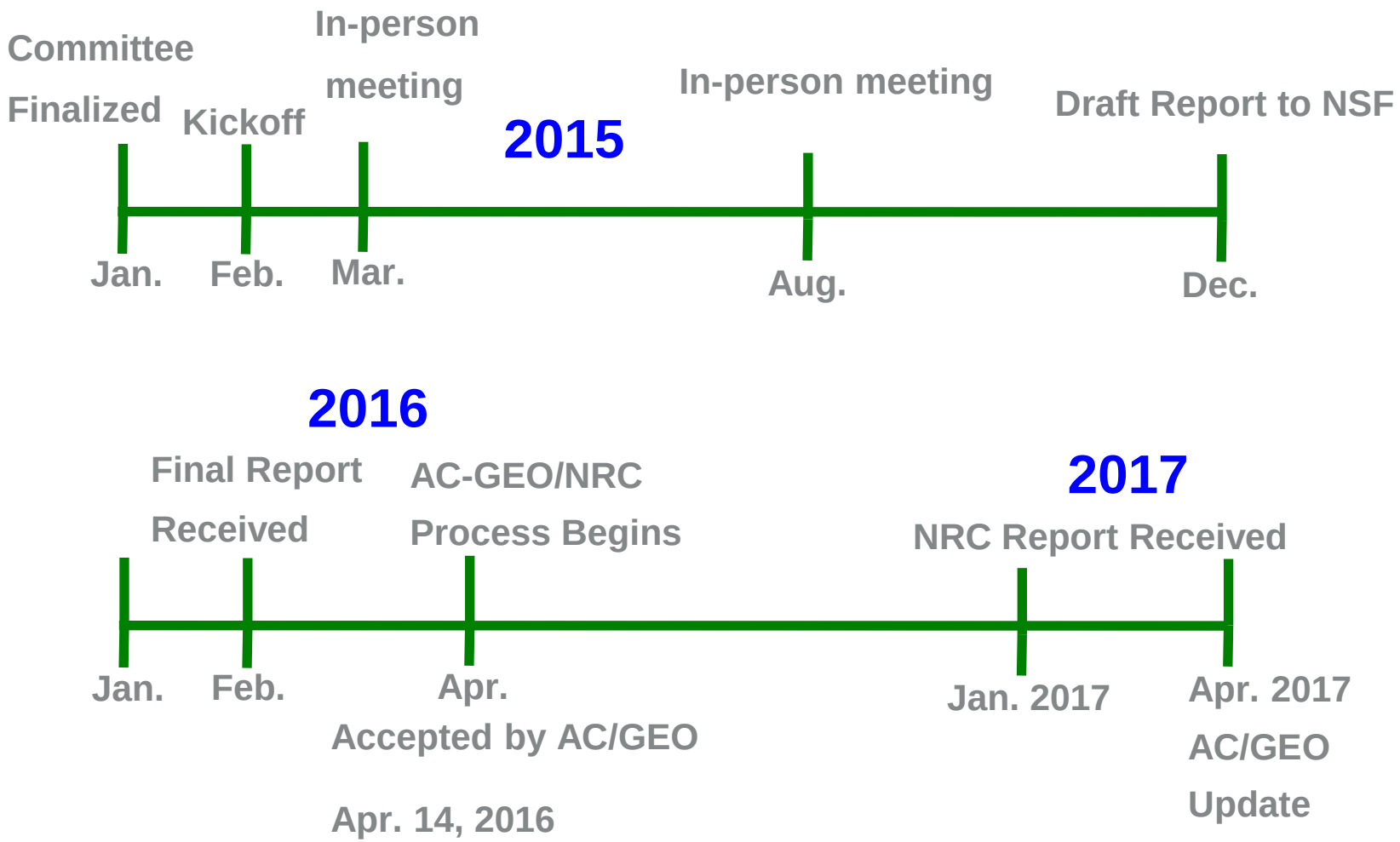
Fed Temp

Expert

Permanent

IPA

PR TIMELINE

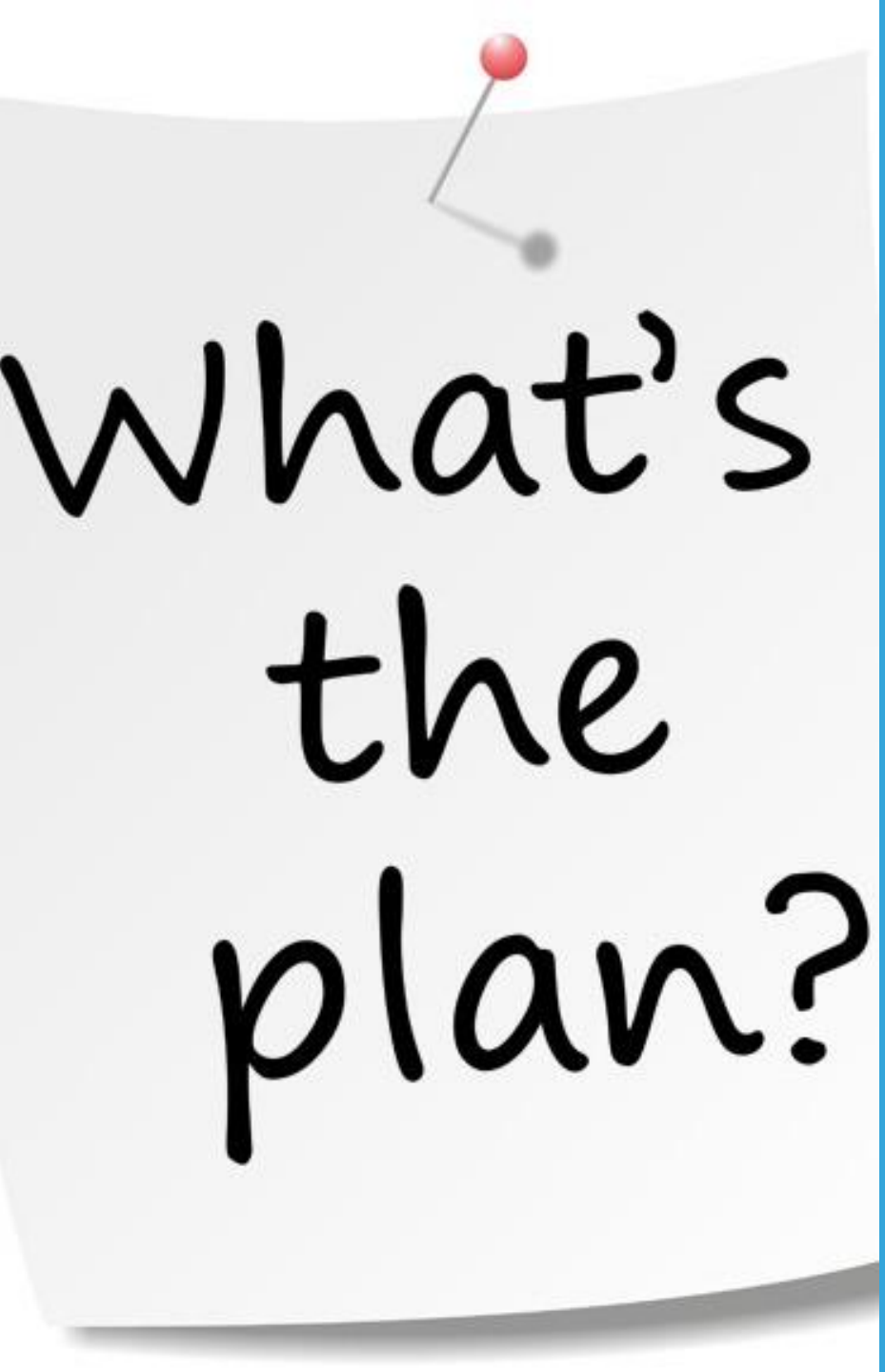

Committee Finalized
Kickoff
In-person meeting
2015
In-person meeting
Draft Report to NSF
Jan.
Feb.
Mar.
Aug.
Dec.
2016
Final Report Received
AC-GEO/NRC Process Begins
2017
NRC Report Received
Jan.
Feb.
Apr.
Jan. 2017
Apr. 2017
Accepted by AC/GEO
Apr. 14, 2016
AC/GEO Update

NRC "CONSENSUS STUDY"

NAS CS assesses how well the Report's findings, conclusions and recommendations:

1. Align with the Decadal Survey
2. Take into account:
    a. Actions already taken in response to the Survey
    b. Budget landscape
    c. Interdisciplinarity and scientific balance of GS activities
    d. Alignment of facilities investments with science needs
    e. Integration of technology development
    f. Balance of investments between facilities, grants and other GS activities
3. Provide a forward-looking focus
4. Provide clear recommendations re implementation of the Survey's priorities

And that the recommendations are unbiased and supported by the available data.



FROM REPORTS TO PLANS

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

Regularly recurring portfolio reviews.

RESPONSE TO THE GEOSPACE PORTFOLIO REVIEW & NAS ASSESSMENT REPORTS

FACILITIES

RECOMMENDATIONS FOR FACILITIES

- Reduce funding for Arecibo from $4M/year to $1.1M/year
- Divest from Sondrestrom ISR Facility
- Continue AMISR, but with separate management for the two sites (PF and RB)
- LIDAR sites should not be treated as a facilities

ARECIBO

- AST & AGS JOINT MANAGEMENT
- DRAFT ENVIRONMENTAL IMPACT STATEMENT RELEASED OCTOBER
- FEIS AND RECORD OF DECISION EXPECTED SUMMER 2017
- SOLICITATION CALLED FOR COLLABORATION WITH INTERESTED PARTIES FOR CONTINUED SCIENCE-FOCUSED OPERATIONS
- DECISION ON AUXILIARY AERONOMY INSTRUMENTATION WHEN FUTURE OF AO IS KNOWN
- SOLICITATION (17-538) FOR PARTNERSHIP
- PROPOSALS DUE MAY 4, 2017
- BUDGET PROFILE ADOPTS PORTFOLIO REVIEW RECOMMENDATION OF $1.1M (AGS) BY FIFTH YEAR OF NEW AWARD

SONDRES TROM

- 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

CONSORTIUM OF RESONANCE & RAYLEIGH RADARS – 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
- LEVEL OF SUPPORT WILL BE EVALUATED IN THE CONTEXT OF THE AERONOMY PROGRAM

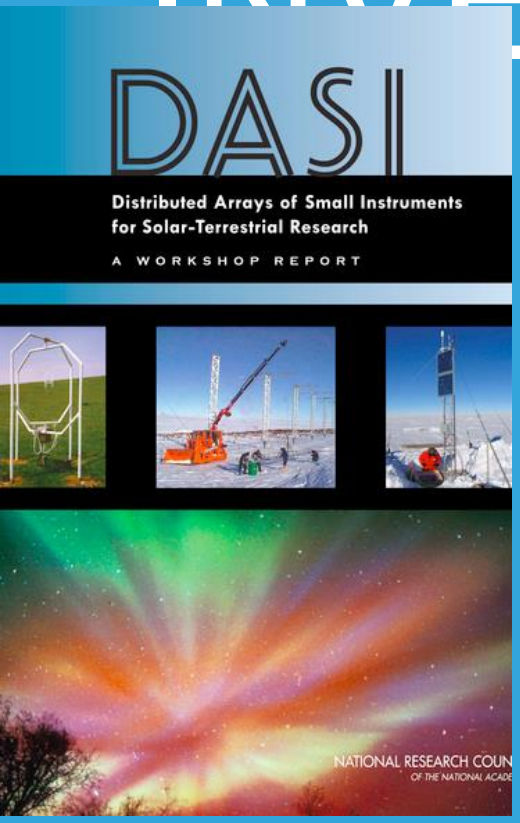
RESPONSE TO THE GEOSPACE PORTFOLIO REVIEW & NAS ASSESSMENT REPORTS

EVOLUTION OF FACILITIES

RECOMMENDATIONS FOR EVOLUTION OF FACILITIES

- Join EISCAT as replacement for Sondrestrom capabilities
- Invest in a new Innovation and Vitality Program to ensure that observing capabilities stay at the cutting edge
- Create Distributed Array of Small Instruments (DASI) facilities
- Stress the importance of having a midscale opportunity

NEW FACILITY INVESTMENTS



Joining the international EISCAT collaboration: Contact established to discuss terms

New I&V Program & new DASI Facilities:
Both needs further definition, e.g. through community workshops

Mid-scale and MREFC:
NSF-wide considerations

RESPONSE TO THE GEOSPACE PORTFOLIO REVIEW & NAS ASSESSMENT REPORTS

GRANTS

RECOMMENDATIONS FOR GRANTS PROGRAMS

- Ensuring a strong grants program
- Create an Integrated Geospace Science Program
- Develop process for optimal allocation of funds between programs

NSURE STRON ANTS PROGRA

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

- THE RESULT OF MANY YEARS OF FLAT BUDGETS & STRONG PROPOSAL PRESSURE
- SEVERELY LIMITS FLEXIBILITY TO ACCOMMODATE LARGER AWARDS AND NEW ACTIVITIES
- RISKS VIOLATING NSF POLICY
- PLAN TO REDUCE OUT-YEAR EXPENSES IN THE PROGRAMS

- BELT-TIGHTENING FOR A FEW YEARS: FEWER AND/OR SMALLER AWARDS
- REMOVE DEADLINES AND FOCUS TARGETED PROGRAMS TO REDUCE PROPOSAL NUMBERS
- BETTER FLEXIBILITY IN BUDGET ALLOCATIONS BETWEEN PROGRAMS
- DEVELOPING IGS ELEMENTS

RESPONSE TO THE GEOSPACE PORTFOLIO REVIEW & NAS ASSESSMENT REPORTS

WORKFORCE DEVELOPMENT & DIVERSITY

RECOMMENDATIONS FOR WORKFORCE & DIVERSITY

- Continue current efforts to engage students, support professional development and promote workforce diversity.
- Maintain metrics on diversity outcomes
- GS should be in the vanguard of NSF initiatives to promote engagement of women and underserved populations in all aspects of geospace science.

WORKFORCE DEVELOPMENT & DIVERSITY

- The assessment report acknowledged that the recommendations are challenging, but provide good ideas for us to pursue. Specifically we will:
  - Acknowledge the need for better data gathering on diversity and human development outcomes from investments
    - but there are policy concerns
  - Encourage PIs to recruit graduate students & postdocs at relevant 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
  - Improve information on diversity related programs and activities
    - Redesigned AGS website
    - Report relevant selections in community newsletters
    - Increase awareness of the new NSF-INCLUDES program: Inclusion across the Nation of Communities of Learners of Underrepresented Discoverers in Engineering and Science

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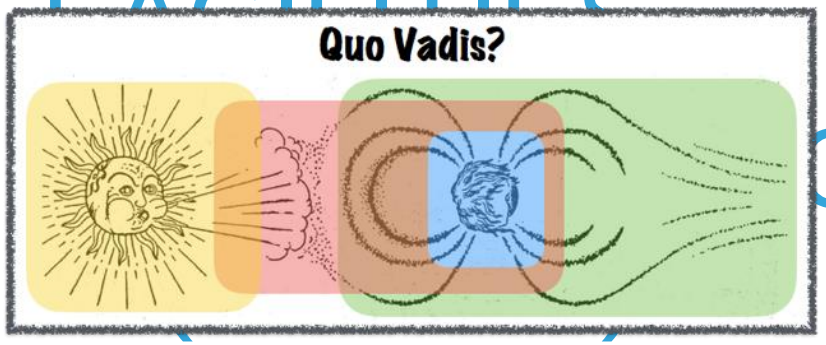
PARTNERSHIPS & OPPORTUNITIES

RECOMMENDATIONS FOR PARTNERSHIPS AND OPPORTUNITIES

- The portfolio review examined the GS portfolio in isolation but recognized the need importance of building and maintaining strong partnerships and collaborations both internal and external to NSF.
- The recommendations and finding in the ICCGS largely encourage the GS to continue with the current course of actions.

PARTNERSHIPS & OPPORTUNITIES

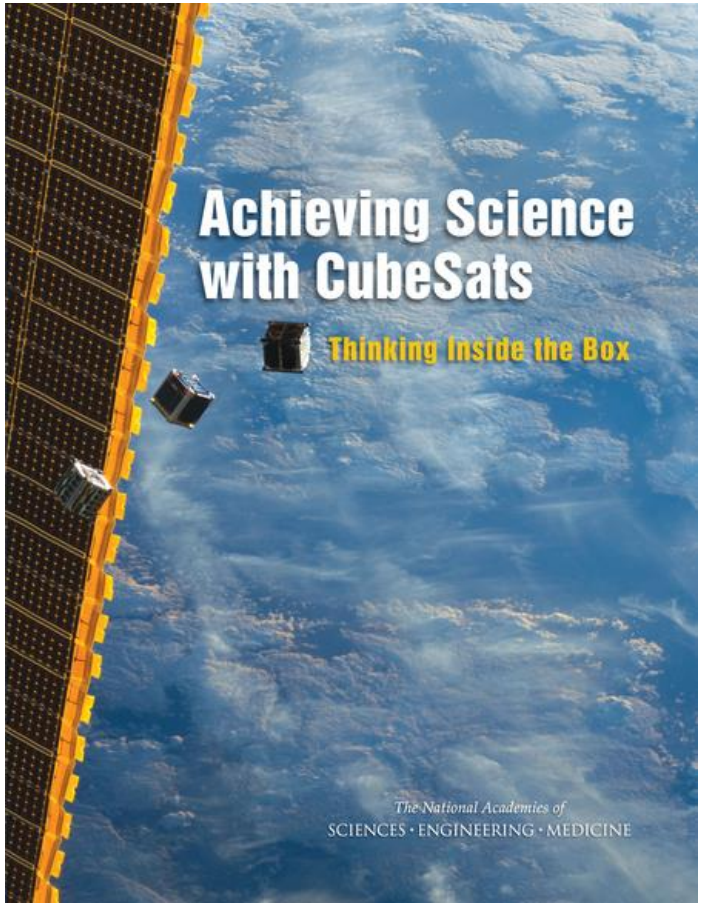
MAJOR RESEARCH EQUIPMENT AND FACILITIES



- 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 O&M 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 to enhance inter-agency collaboration and partnerships

STRENGTHENING THE PARTNERSHIP WITH NASA

NEW OPPORTUNITIES

- PLANS FOR NEW PILOT ON SW MODELING IN COLLABORATION WITH MPS
- PLANNING JOINT COMPETITION IN 2018 FOR SCIENCE WITH THE ICON & GOLD MISSIONS
- CONTINUING JOINT FUNDING & MANAGEMENT OF THE CCMC
- EXPLORING OPTIONS FOR JOINT COMPETITIONS FOR GRAND

PARTNERSHIPS AND OPPORTUNITIES

SPACE WEATHER

SPACE WEATHER OPERATIONS, RE AND MITIGATION (SWORM): NSTC SUBCOMMI

NATIONAL SPACE ACTION PLAN 201 EXECUTIVE ORDE 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

QUESTIONS?

EXTRAS

ALTERNATIVE OPTIONS FOR AO CONSIDERED IN THE DEIS

- Collaboration with interested parties for continued science-focused operations (Agency preferred alternative)
- Collaboration with interested parties for education-focused operations
- Mothballing of facilities
- Partial deconstruction and site restoration
- Complete deconstruction and site restoration