

## NATIONAL SCIENCE FOUNDATION

### Request for Information—National Space Weather Action Plan

**ACTION:** Notice for request of information.

**SUMMARY:** The purpose of this Request for Information (RFI) is to seek inputs from the public on establishing space weather research priorities to address Action 5.5.1 in the National Space Weather Action Plan. This RFI is intended to gather information from external stakeholders about potential space weather research activities that will help guide the science and technology priorities of Federal agencies. The public input will be used as guidance by various concerned Federal agencies in planning for targeted research programs. Input is sought from space weather community including researchers in academia and industry, non-governmental organizations, scientific and professional societies, and all other interested members of the public. Suggestions in response to this RFI will assist NSF and other federal agencies including NASA, DOC and DOD in carrying out action 5.5.1.

**DATES:** Written comments must be submitted by March 6, 2018.

**ADDRESSES:** Email comments to [spwxrfi@nsf.gov](mailto:spwxrfi@nsf.gov). Include “RFI Response: SWORM Goal 5.5.1” in the subject line of the message. The response must be an attachment to the email. See the instructions in the **SUPPLEMENTARY INFORMATION** for comment guidelines.

**FOR FURTHER INFORMATION CONTACT:** Contact [spwxrfi@nsf.gov](mailto:spwxrfi@nsf.gov) for further information. Any requests for clarification must be received no later than seven (7) business days prior to the close of this RFI in order to receive a timely response.

#### **SUPPLEMENTARY INFORMATION:**

##### **I. Background Information**

On October 29, 2015, the White House OSTP released the National Space Weather Strategy (NSWS) and Space Weather Action Plan (SWAP). The NSWS identifies several key goals in specific areas of space weather research and operations to make the national critical infrastructure and technologies resilient to space weather events. The NSWS also calls for improving national space-weather services through advancing fundamental understanding of the underlying physical processes and their forecasting. The SWAP document, which accompanied NSWS, specifies actions to develop and

continually improve predictive models through enhanced fundamental understanding of space weather and its drivers. In particular, the SWAP Action 5.5.1 directed NSF, NASA, DOC and DOD with documenting priorities for research and development (R&D) efforts to enhance the fundamental understanding of space weather and its drivers and to improve space weather forecasting capabilities.

Action 5.5.1: NSF and NASA, in collaboration with DOC and DOD, will lead an annual effort to prioritize and identify opportunities for research and development (R&D) to enhance the understanding of space weather and its sources. These activities will be coordinated with existing National-level and scientific studies. This effort will include modeling, developing, and testing models of the coupled sun-Earth system and quantifying the long- and short-term variability of space weather.

Forecasting space weather depends on understanding the fundamental processes that give rise to hazardous events. Continued support for basic research in solar and space physics is essential to achieve the level of understanding required for accurate predictions. Particularly important is the study of processes that link the Sun-Earth system and that control the flow of energy within the coupled system.

Space weather science as a discipline is still in its nascent phase. There exist significant gaps in the fundamental understanding of many physical processes and coupling mechanisms underpinning various space weather phenomena. This poses a major limiting factor for improving space weather prediction, including some of the most important and immediate operational needs. It is, therefore, essential to continue untargeted investments in basic research into areas that in unforeseeable ways can lead to a better understanding of the physical processes that drive space weather.

High priority space weather research topics and linkages to the SWAP Benchmarks (Goal 1) were assessed by the 5.5.1 interagency working group. The SWAP benchmarks are a set of physical characteristics and conditions against which a space-weather event can be measured. They describe the nature and intensity of extreme space-weather events, providing a point of reference from which to improve understanding of space-weather effects. Addressing research that would advance our physical understanding of the phenomenology behind these benchmarks will ultimately improve our predictive capability necessary for operational advancements.

##### **II. Purpose**

Successful execution of Action 5.5.1 requires definitions of research priorities in the context of benchmarks identified by NSWS Goal 1. An interagency working group developed the first set of priorities in fulfillment of this task. To ensure that an optimal list of priorities is generated, which could benefit all interested parties including Federal agencies, state and local governments, universities, policy groups, and the private sector, the broader community must weigh in. This RFI requests public comments to SWAP Action 5.5.1 to support a public dialogue on developing research priorities to enhance fundamental understanding of space weather and its drivers to develop and continually improve predictive models.

This RFI seeks inputs from the research community on setting research priorities, which will then be used as guidance by various concerned agencies in planning for space weather related research programs. Examples of space weather research topics include ionospheric irregularities and structure, thermospheric neutral density and neutral wind response to external drivers, forecasting of GICs, radiation belt dynamics, SEP events, flare and CME initiation and propagation, forecasting of EUV and proxy F10.7, predictions of ICME amplitudes and directions, magnetosphere-ionosphere coupling during space weather events, etc.

##### **III. Response Instructions**

The specific objective of this RFI is to seek information that will assist the Action 5.5.1 Working Group in determining a list of space weather research priorities.

*Disclaimer:* Federal agencies may or may not use any responses to this RFI as a basis for a subsequent project, program, or funding opportunity. Responses to this RFI will not be returned. The National Science Foundation is under no obligation to acknowledge receipt of the information received, or provide feedback to respondents with respect to any information submitted under this RFI. No requests for a bid package or solicitation will be accepted; no bid package or solicitation exists. In order to protect the integrity of any possible future acquisition, no additional information will be provided and no appointments for presentations will be made in reference to this RFI. This RFI is issued solely for information and planning purposes and does not constitute a solicitation. Responders to

this RFI will have no competitive advantage in receiving any awards related to the submitted input on a potential space weather-related research priority.

**Confidential Information:** Some contents of the submissions may be made public. Therefore, responses must be unclassified and should not contain any information that might be considered proprietary, confidential, business sensitive, or personally identifying (such as home address or social security number).

**Instructions:** One page documents per topic, multiple documents are allowed. Responses must include the following sections: (1) Title—short and descriptive, (2) Brief Summary of Impacts—a bulleted list of systems impacted by the potential study, (3) Description—a succinct discussion of the topic, its importance, and relevant supporting evidence or arguments, (4) 5–10 year Imperatives—a bulleted list of the steps necessary to carry out the research including comments on relative importance to other. A section including references can be added if needed. Responses should follow the template outlined below. Responses may be no longer than 1 page type written in 12-point font.

#### Response Template

Title of the priority

Brief Summary of Impacts

- One sentence summary of impact 1
- One sentence summary of impact 2

Background and Relevance

A few paragraphs explaining the background of the space weather research priority, its relevance to SWAP Goal 5.5.1 and supporting justification of why this is a high priority issue.

5–10 Year Goals

Over the next 5 to 10 years it is imperative to:

- One sentence summary of goal 1
- One sentence summary of goal 2

References

Include essential references only

#### References:

National Space Weather Strategy, [https://obamawhitehouse.archives.gov/sites/default/files/microsites/ostp/final\\_nationalspaceweatherstrategy\\_20151028.pdf](https://obamawhitehouse.archives.gov/sites/default/files/microsites/ostp/final_nationalspaceweatherstrategy_20151028.pdf).

National Space Weather Action Plan, [https://obamawhitehouse.archives.gov/sites/default/files/microsites/ostp/final\\_nationalspaceweatheractionplan\\_20151028.pdf](https://obamawhitehouse.archives.gov/sites/default/files/microsites/ostp/final_nationalspaceweatheractionplan_20151028.pdf).

Dated: January 2, 2018

**Suzanne H. Plimpton,**  
*Reports Clearance Officer, National Science Foundation.*

[FR Doc. 2018–00031 Filed 1–4–18; 8:45 am]

**BILLING CODE 7555–01–P**

## NATIONAL SCIENCE FOUNDATION

### Notice of Permit Applications Received Under the Antarctic Conservation Act of 1978

**AGENCY:** National Science Foundation.

**ACTION:** Notice of permit applications received.

**SUMMARY:** The National Science Foundation (NSF) is required to publish a notice of permit applications received to conduct activities regulated under the Antarctic Conservation Act of 1978. NSF has published regulations under the Antarctic Conservation Act in the Code of Federal Regulations. This is the required notice of permit applications received.

**DATES:** Interested parties are invited to submit written data, comments, or views with respect to this permit application by February 5, 2018. This application may be inspected by interested parties at the Permit Office, address below.

**ADDRESSES:** Comments should be addressed to Permit Office, Office of Polar Programs, National Science Foundation, 2415 Eisenhower Avenue, Alexandria, Virginia 22314.

**FOR FURTHER INFORMATION CONTACT:** Nature McGinn, ACA Permit Officer, at the above address, 703–292–8030, or [ACApermits@nsf.gov](mailto:ACApermits@nsf.gov).

**SUPPLEMENTARY INFORMATION:** The National Science Foundation, as directed by the Antarctic Conservation Act of 1978 (Pub. L. 95–541, 45 CFR 670), as amended by the Antarctic Science, Tourism and Conservation Act of 1996, has developed regulations for the establishment of a permit system for various activities in Antarctica and designation of certain animals and certain geographic areas requiring special protection. The regulations establish such a permit system to designate Antarctic Specially Protected Areas.

#### Application Details

*Permit Application: 2018–030*

1. *Applicant:* Sarah Eppley, Portland State University, Department of Biology, PO Box 751, Portland, OR 97207.

#### Activity for Which Permit Is Requested

Enter Antarctic Specially Protected Areas (ASPAs), sample collection and import into the USA. The applicant proposes to collect moss and soil samples from ASPAs to investigate how warming will affect Antarctic moss terrestrial ecosystems. Moss and soil samples, up to 3 cm deep, would be collected using a metal 2 cubic centimeter coring device. Up to 180 samples total from each of seven different moss species and up to 400 total soil samples will be collected. Sample collection would require access to APSA in the South Shetland Islands. The samples would be imported back to the home university.

#### Location

ASPAs 125, Fildes Peninsula, King George Island, including Zone 125c, Glacier Dome Belligshausen (Collins Glacier); ASPA 150, Ardley Island, Maxwell Bay, Antarctic Peninsula; ASPA 126, Byers Peninsula, Livingston Island.

#### Dates of Permitted Activities

January 30–June 30, 2018.

**Nadene G. Kennedy,**

*Polar Coordination Specialist, Office of Polar Programs.*

[FR Doc. 2018–00009 Filed 1–4–18; 8:45 am]

**BILLING CODE 7555–01–P**

## NUCLEAR REGULATORY COMMISSION

[NRC–2018–0001]

### Sunshine Act Meeting Notice

**DATES:** Weeks of January 8, 15, 22, 29, February 5, 12, 2018.

**PLACE:** Commissioners' Conference Room, 11555 Rockville Pike, Rockville, Maryland.

**STATUS:** Public and Closed.

#### Week of January 8, 2018

There are no meetings scheduled for the week of January 8, 2018.

#### Week of January 15, 2018—Tentative

*Thursday, January 18, 2018*

9:00 a.m. Strategic Programmatic Overview of the Decommissioning and Low-Level Waste and Spent Fuel Storage and Transportation Business Lines (Public Meeting) (Contact: Damaris Marciano: 301–415–7328)

This meeting will be webcast live at the Web address—<http://www.nrc.gov/>.