### **Focus Group Protocol for Space Weather Advisory Group User Survey**

#### **RESEARCH SECTOR**

## **Focus Group Information**

Focus Group time/date:

Moderator: [Add before focus group]

Focus Group Participants: [Make sure people complete the sign in sheet]

### **Focus Group Protocol**

#### Welcome

Good [morning/afternoon] and thank you so much for agreeing to participate in this focus group.

#### Introduction

My name is [name] and I am a member of the Space Weather Advisory Group also known as the SWAG.

I am joined by [name] for today's conversation who is assisting by taking notes as we go along.

Our time is limited so rather than go around the group, please say your name and organization before you speak for the first time.

#### **Purpose of The Focus Group**

The purpose of this focus group is to understand how space weather affects your work and what forecasts, products, and services you would like to see.

The SWAG will use the information gathered to identify the space weather research, observations, forecasting, prediction, and modeling advances required to improve space weather products.

The PROSWIFT Act, which led to the SWAG's formation, also laid out the topics for the user survey. We will be asking you questions about current use and future needs for space weather information, technological systems, components, or elements affected by space weather, and current and future risk reduction and resilience activities.

### **Ground Rules**

We want this to be a discussion so please feel free to respond to each other's comments. That said, let's go over the ground rules for today's conversation.

1. We would like everyone to participate so I might call on you if I haven't heard from you in a while.

- 2. There are no right or wrong answers. Every person's experiences and opinions are valued and important. Speak up when you agree or respectfully, when you disagree. We want to hear a range of opinions.
- 3. What is said here today stays here. We want folks to be comfortable sharing information so please do not discuss who said what once you leave.
- 4. We want to capture everything you say so we will record the conversation. By participating today, you are consenting to being recorded. No one will be identified by name in our report. The recording will only be used for note taking. As required by the PROSWIFT Act, the results of the user need survey(s) including any recommendations will be compiled into a report that will be delivered to Congress as well as made public.

Thank you again for your time and cooperation. Before we begin, do you have any questions for me?

## Let's begin with your current use of space weather observations, information and forecasts:

- 1. What facet of space weather do you research?
- 2. What are the sources of your information?
- 3. What are the gaps in information?
- 4. Are current data archives and curation methods adequate for your research activities?
- 5. Are there other sources of space weather information that are not readily available to users, but (in your opinion) could be broadly used?
  - a. What would be required to transition those to wider availability?

# We have talked about current use, needs, and which systems are affected by space weather. Let's talk about future needs:

- 6. What advances in capability (observations, models, or forecasts) would improve understanding of space weather causes?
- 7. What advances in capability (observations, models, or forecasts) would improve understanding of space weather effects?

8. What (software or hardware) infrastructure might be required to produce information to improve understanding of space weather causes and effects?

9. What educational tools, formats, or platforms would best assist in the communication of space weather information?

# The last set of questions cover next generation technologies, research, instrument and models to address space weather:

- 10. Are there particular technologies that should be accelerated to reduce the risk of space weather effects?
- 11. How should future space weather capabilities be coordinated to reduce duplication of effort and enhance collaboration?
- 12. How can next-generation capabilities be integrated to rapidly improve numerical models and space weather forecasts?
- 13. What next-generation capabilities should be prioritized?
  - a. how might that best be accomplished?
- 14. What educational materials or approaches might be employed to improve scientific understanding and participation across the space weather research community?
- 15. What educational materials or approaches might be employed to improve diversity in the space weather research community?

#### **Last Question**

16. Are there any other things that we have not asked about that you wish to share?

#### Wrap Up

Those are all the questions we have for you. Let us know if you are interested in keeping in touch and please let us know who else to speak with as part of this effort. We hope to have initial results from the SWAG User Survey by AGU and AMS. Thank you once again for your time and energy.

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information collection are voluntary. Send comments regarding this burden estimate or any other aspect of this information collection, including suggestions for reducing this burden to the Dr. Jennifer Meehan, National Weather Service, NAA, 1325 East West Highway, Silver Spring, MD, 20910, jennifer.meehan@noaa.gov.