



UNITED STATES DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
National Weather Service
National Centers for Environmental Prediction
Storm Prediction Center
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December 20, 2016

Dear NWS Regional Headquarters Colleagues,

We are pleased to announce an invitation to the first Hazardous Weather Testbed (HWT) experiment of 2017. The **Hazard Services - Probabilistic Hazard Information (HS-PHI)** experiment will take place in March and April and operate for a total of 3 weeks. It will build on work from last year's experiment, which focused on developing an AWIPS-2 framework for displaying and disseminating probabilistic hazard information (PHI). All National Weather Service meteorologists are invited to apply.

The HS-PHI experiment will be conducted as part of the Experimental Warning Program (EWP) of the HWT. As a reminder, the EWP is focused on improving the nation's warning capabilities on small time and space scales. This is accomplished by testing research concepts and technology specifically aimed at short-fused warnings of severe convective weather. Thus, EWP operations mirror the operations within the Weather Forecast Offices and Center Weather Service Units.

Since some details of the other HWT experiments are unknown at this time, we plan to release more information about these experiments at a later date. As a preview, there will likely be three other EWP experiments, including: a prototype PHI experiment, a GOES-16 experiment, and a hydrology experiment. As usual, the Experimental Forecast Program will conduct a spring forecast experiment. These experiments will run from April to July. We look forward to active participation from NWS forecasters and SOOs, which is a critical component for effective testing and evaluation of emerging science and technologies needed to support the NWS Weather-Ready Nation vision.

Please see the following pages for more information about the HS-PHI experiment, and don't hesitate to contact us if you have any questions. We look forward to hearing back from you, and we thank you for your continued support and contributions to the HWT.

Sincerely,

Gabe Garfield
EWP Operations Coordinator
CIMMS/National Weather Service





UNITED STATES DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
 Office of Oceanic and Atmospheric Research
 National Severe Storms Laboratory
 120 David L Boren Blvd
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HWT Experimental Warning Program Activities

The NOAA Hazardous Weather Testbed (HWT) Experimental Warning Program (EWP) at the National Weather Center (NWC) in Norman, Oklahoma, is seeking participants for several experiments this spring and summer. The testbed is a joint project of the National Weather Service and the National Severe Storms Laboratory. The EWP provides a conceptual framework and a physical space to foster collaboration between research and operations to test and evaluate emerging technologies and science. The specific weeks in which we will be operating are detailed in the project descriptions that follow.

This will be the eleventh year for warning activities in the HWT. There will be four primary projects geared toward Weather Forecast Office applications. Some details of each project are listed on the attachment.

Hazard Services – Probabilistic Hazard Information Experiment	March 20-24, April 3-7, April 17-21
Prototype - Probabilistic Hazard Information Experiment	May – June
GOES-16 Convective Applications Experiment	June – July
Hydrology Experiment	June – July

All data will be evaluated via the AWIPS-2 platform (with the exception of the Prototype-PHI Experiment). Details about EWP2017 will become available over the next few weeks at the EWP Website: <http://hwt.nssl.noaa.gov/ewp/>. If you are interested in the other experiments, please check the website for updates.

Travel stipends are being awarded to pay for all of the travel costs of the participants (airfare, lodging, MIE per diem, local transportation). As a condition of receiving the travel stipend, those who are selected to participate in the HWT in 2017 are also agreeing to allow the principal investigators to use the data they provide for research purposes. (More details about the research participation will be sent to those who are selected.) There is an application process that will require the following from each candidate:



- a. Name and organization (WFO, region HQ, etc.)
- b. Weeks available
- c. Prior EWP experience
- d. Interest statement (one paragraph, 100-200 words)

The interest statements should include the candidate's motivation, number of years of NWS warning experience, and experience in evaluating future warning systems in the HWT or elsewhere. Your interest statement should demonstrate why you would be a good fit for the HS-PHI experiment. Participants may include WFO, CWSU, or Region HQ staff, and participants are not required to have had prior HWT experience. We are seeking diversity among regions, warning experience, and HWT experience.

The deadline for applications is January 27, 2017, and candidates will be selected by February 3rd so that we can begin the necessary travel arrangements. You may submit your application to on this Google form:

[GOOGLE FORM – APPLICATION LINK](#)

If you have trouble accessing the link, you may also access the application at <http://hwt.nssl.noaa.gov/ewp/>. You may edit your application until the due date. Any questions or concerns regarding work and travel time, and travel funds, should be directed to Gabe Garfield (gabriel.garfield@noaa.gov).

We desire enthusiastic people who are interested in improving NWS warning decision making technology, products, and services. We would be happy to provide more information about the EWP activities if requested.

Sincerely,

Gabe Garfield
EWP Operations Coordinator
CIMMS/National Weather Service



Hazard Services - Probabilistic Hazard Information Experiment Project Descriptions & Details

WHEN – March 20-24, April 3-7, April 17-21

(Travel periods: Sunday, Friday afternoon)

WHAT - NSSL has been developing a prototype tool for testing the early concepts of FACETs known as Probabilistic Hazard Information (PHI). The PHI Tool has been evaluated by NWS forecasters and human factor experts in the HWT the past three years. A USRWP grant was awarded which includes the initial effort to transfer the capabilities of the prototype into AWIPS-2 Hazard Services (HS). Basic PHI capability in HS has been developed in the past year. The second version of HS-PHI will be evaluated in the HWT during the spring of 2017. This evaluation will also include NWS forecasters and human factor experts. We will evaluate the software design using archive and real-time data. We will also evaluate the concept of PHI as it relates to hazardous weather warning operations.

WHY - We hope to collect the data necessary to make improvements to the HS-PHI software in anticipation of an experiment in 2018, prior to a decision for operational implementation. In addition, we hope to extend the dialog on FACETs and PHI as the concepts become closer to possible operational reality.

WHO - We would like geographic, experiential, and gender diversity in our forecaster pool. An interest in the evolution of forecast and warnings services is a must. We are looking to attract some enthusiastic people who are interested in setting an aggressive agenda for change.

