Hazardous Weather Testbed Activities

The NOAA Hazardous Weather Testbed (HWT) at the National Weather Center (NWC) in Norman, Oklahoma, is seeking participants for several experiments in 2020. The testbed is a joint project of the National Weather Service Storm Prediction Center and the National Severe Storms Laboratory that provides a conceptual framework and physical space to foster collaboration between research and operations to test and evaluate emerging technologies and science. This year, we will be conducting the 2020 HWT activities for 27 weeks in total.

There will be nine primary projects in the HWT during 2020. The details of the Hazard Services - Probabilistic Hazard Information Interoffice Collaboration and Severe Weather & Society Dashboard projects are listed in the attachment.

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<th>Project</th>
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<td>Hazard Services - Probabilistic Hazard</td>
<td>February 10-14, February 24-28 Application Deadline: Jan 3</td>
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<td>Information Interoffice Collaboration</td>
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<td>Severe Weather &amp; Society Dashboard</td>
<td>Mar 16-20, Mar 23-27, Mar 30-Apr 3 Application Deadline: Jan 3</td>
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<td>Radar Convective Applications</td>
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<td>Jul 13-17, Jul 20-24, Aug 3-7, Aug 10-14</td>
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<td>Brief Vulnerability Overview Tool**</td>
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<td>Hazard Services – Probabilistic Hazard Information (HS-PHI)**</td>
<td>Summer/Fall 2020</td>
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*Application Deadline: Will be announced in January 2020

**Application Deadline: Will be announced in Spring 2020
Details about HWT 2020 will become available over the next several weeks at: 
http://hwt.nssl.noaa.gov/

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 2020 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 in March.) Each project-specific application form (found in the project details selection below) will require from each candidate:

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

The interest statements should include your motivation for evaluating future warning systems in the HWT and demonstrate why you would be a good fit for a particular 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 the first round of applications is January 3, 2020. Candidates will be selected shortly thereafter so that we can begin the necessary travel arrangements. Any questions or concerns regarding work and travel time, and travel funds should be directed to Alan Gerard (alan.e.gerard@noaa.gov).

Note that the HWT organizational structure has two primary programs: the Experimental Warning Program (EWP) and the Experimental Forecast Program (EFP). Those interested in participating in the EFP’s Spring Forecasting Experiment should contact their Regional SSD Chief and EFP coordinator Israel Jirak (Israel.Jirak@noaa.gov) during the second round of applications.

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 HWT activities if requested.

Sincerely,

Kodi Berry & Alan Gerard
Hazardous Weather Testbed
National Severe Storms Laboratory
Winter 2020 Hazardous Weather Testbed
Hazard Services - Probabilistic Hazard Information (HS-PHI)
Interoffice Collaboration Experiment
Project Descriptions & Details

https://forms.gle/B444CidxcGzjd8ePA

The deadline for applications is January 3, 2020. Candidates will be selected shortly thereafter so that we can begin the necessary travel arrangements.

**WHEN** – February 10-14, February 24-28 (Travel periods: Sunday, Friday evening)

**WHAT** - The National Severe Storms Laboratory (NSSL) has been developing a prototype severe convective weather warning-scale tool for testing the early concepts of the Forecasting A Continuum of Environmental Threats (FACETs) initiative. A Joint Technology Transfer Initiative grant was awarded which funds an effort to transfer the capabilities of the NSSL prototype into AWIPS-2 Hazard Services (HS). This version, known as Hazard Services - Probabilistic Hazard Information (HS-PHI), has been evaluated by NWS forecasters and human factors experts in the HWT since 2016, and will be evaluated again in the HWT during the winter of 2020. We will evaluate the software design using archive data cases, as well as the concept of PHI as it relates to hazardous weather warning operations.

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

**WHO** - We would like geographic, experiential, and gender diversity in our forecaster pool. An interest in the evolution of forecast and warnings services is required. Four participants and two alternates will be chosen for each of the two weeks of the experiment. Ideally, we're looking for forecaster pairs from the same WFO so that we can test a particular aspect of the software, although individual applicants are still strongly encouraged to apply.
Severe Weather & Society Dashboard Experiment

https://forms.gle/W4Z3Yr419AbALTBVA
The deadline for applications is January 3, 2020. Candidates will be selected shortly thereafter so that we can begin the necessary travel arrangements.

WHEN – March 17-19, March 24-26, March 31-April 2
  • Travel periods: Monday, Friday afternoon

WHAT – Participants in the Severe Weather & Society Dashboard experiment will have the ability to explore data collected about public reception, comprehension, and response to weather information and warnings. The data come from an annual survey of the U.S. population, conducted since 2017. Responses have been aggregated in different geographic units, including at the CWA and county level, demonstrating differences owing to region across the country. Questions remain about how this information could be implemented in practice, and forecasters are sought to provide input that could bring the technology closer to operations.

  • Focus Groups: Forecasters will participate in focus groups, offering their interpretations of Dashboard attributes and providing input on the usefulness of population data and its geographic and graphical display.
  • Case Study Analysis: Forecasters will participate in experimental warning exercises using various combinations of forecast guidance and input about their citizens based on survey data.

WHY – The Severe Weather & Society Dashboard experiment conducted within the Hazardous Weather Testbed provides an opportunity to provide feedback that is critical to continue the transfer of the technology to operational settings.

WHO – All forecasters are welcome to apply for this experiment. We would like geographic, experiential, and gender diversity in our forecaster pool. Training with IDSS concepts is preferred. Five participants and two alternates will be chosen for each of the three weeks of the experiment.