





AWIPS II Hazard Services Testing C. Vada Dreisbach - CIRES - ESRL/GSL/WIDS



What is AWIPS II?



for Advanced Weather Interactive Processing

AWIPS II is an interactive data ingest and display system that allows forecasters to view and work with multiple datasets on a common time and projection

For example, observational data such as satellite, surface observations and radar data can be synced to display at a given

Forecast data parameters can be combined in multiple overlay formats such as images, contours, and shading.

AWIPS includes display perspectives (D2D - Display 2-Dimensional), as well as data manipulation tools (GFE -Graphical Forecast Editor.)

What is Hazard Services

Hazard Services is a plugin developed for AWIPS2 that allows the forecaster to issue any of the National Weather Service's 122 Watch/Warning/Advisory products from a single unified user interface

WarnGen (< 1 hour)



Graphical Hazard Generator (Hours, Days)







AWIPS II

Captured Issues Virtual Forecaster Test Team Assessment Integration Testing Testing (FAT) **Cloud Testing New Requirements** Developer Unit Testing In-Person Forecaster **Fixes NWS WFO Focal Point** Assessment Testing Demonstration and (FAT) Feedback

Engage customers in the testing process to ensure the result meets their needs

Weekly Focal Point Telecon



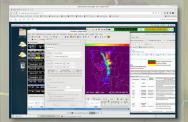
The Hazard Services Program Manager meets with the National Weather Service's Hazard Services Focal Points weekly to demonstrate new development and get feedback.

Focal Points can also bring up issues they have encountered in daily operations using the software.

Often, suggestions are coded on the fly, so the focal points see the result immediately.

This unique capability has dramatically increased by-in from the Focal Points who report progress back to staff.

Cloud Testing



National Weather Service forecasters are recruited to sign up for testing time on our cloud instances where the latest version of Hazard Services is installed.

They report any issues they find and suggestions on a spreadsheet.

The team uses the spreadsheets to prioritize, assign and track these issues.

Cloud testing expands the variety of forecasters who can participate in testing by including more Weather Forecast Offices (WFOs) than normally participate in longer, formal testing.

In-Person FAT with Remote **Participants**



In-person testing combines a core group of National Weather Service forecasters and forecasters new to using Hazard Services, with policy makers, headquarters staff and our development staff. They travel to Boulder for 3 or 4 days of testing.

Development staff answer questions and work with the forecasters to understand requirements and get more detail on issues they identify during testing.

Some of the development staff is remote. We include them by setting up video cameras and using Google Meets displayed on large screen TVs.

The remote participants can hear, see and participate in discussions during the test periods

Often developers make fixes, and the fixes are installed so testers can evaluate them the next day.

Virtual Forecaster Assessment Testing



Virtual testing is done over a 3-day period where we log into a Google Meet for introductions, presentations and discussions.

We split into smaller Google Meet groups where we log into cloud instances running the latest version of Hazard Services.

The small groups work through job sheets and perform ad-hoc testing.

At the end of the day's testing, we meet again with the larger group to discuss issues found during testing.

Often, fixes are made and installed before the next day's testing.