Evolving Products at the Aviation Weather Center

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One of the nine NWS national centers

Domestic and international aviation forecasts and warnings

www.aviationweather.gov
Aviation Weather Testbed
The Importance of User Input

➔ FAA Aviation Weather Demonstration and Evaluation (AWDE) Services
  ◆ Explore, integrate, and evaluate NextGen aviation weather concepts
  ◆ Provide human-factors experts

➔ FAA AWDE & AWC Collaboration
  ◆ Assess utility and usability of various tool displays on www.AviationWeather.gov
  ◆ Conduct evaluations as well as in-person interviews with users
    ■ HEMS Tool, GFA, probabilistic C&V
Weather at Low Altitudes
The Helicopter Emergency Medical Services (HEMS) Tool

A web interface designed to show weather conditions for short-distance and low-altitude flights that are common for the Helicopter Emergency Medical Services community.

➔ Need information presented for non-weather experts quickly and effectively

➔ Displays grids of critical weather parameters like cloud ceiling and surface visibility (C&V)

AviationWeather.gov/hemst
Recent Updates in HEMS

- Multi-year effort in collaboration with FAA and other NOAA partners
- Updated Ceiling and Visibility (C&V) analysis; addition of hourly forecast
- Improved user interface features
  - Time slider
  - Configurations menu
Evolving HEMS for the future
Who else is using HEMS?
Weather Needs Below 500ft

- Aviation Weather Center (AWC) currently supports FAA regulated manned aircraft
- Services do not currently meet the needs of the UAS/UAM community
  - High resolution winds
  - More observations
- Looking for opportunities where we can provide useful information in already established framework!
Starting to Bridge the Gap

- The Graphical Forecasts for Aviation (GFA) is geared toward general aviation users

- Integrate HEMS into the GFA
  - GFA-Low Altitude (GFA-LA)
  - Low altitude needs, with the look/feel/capabilities of the GFA

- Higher resolution winds below 1000ft

- Additional forecast information
  - Clouds (with layer info)
  - Precip and weather from NDFD
  - Turbulence, LLWS

- Additional observations from mesonet stations

www.aviationweather.gov/gfa
Future Capabilities

➔ Updated look for www.AviationWeather.gov
➔ Product consistency across the website
➔ More user intuitive & mobile friendly interface
Drones equipped with weather sensors could provide numerous high resolution observations!

- Currently no FAA standard on where UAS/UAM operators need to get their weather information
- Need a requirement from the FAA
  - funding (computing, observations)
  - Product development and testing
Thank You!

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