HEMS Weather TOOL

https://www.aviationweather.gov/hemst
To prevent controlled flight into terrain (CFIT) and loss of control (LOC) accidents, the FAA, the HEMS industry, and the University Corporation for Atmospheric Research (UCAR) conducted a HEMS Weather Summit in Boulder, Colorado.

**1st HEMS Weather Summit**

**November 1, 2006**

HEMS Weather Tool goes live NCAR delivered the first version of the HEMS Wx Tool to industry on the experimental Aviation Digital Data Service (ADDS) platform.

**2006**

**November 14, 2006**

FAA approval for HEMS providers to use the HEMS Weather Tool as a no-go decision maker (experimental).

**Notice 8000.33**

**2006**

**November 14, 2006**

FAA approval for HEMS providers to use the HEMS Weather Tool as a no-go decision maker (experimental).

**NTSB Recommendation**

**2009**

**2010**

NTSB makes recommendation to the FAA to permit HEMS Weather Tool to be used as an official weather product (A-09-92).

**2013**

Update Alpha released by NCAR / enhanced base map, colored elevation, shaded relief terrain, elevation contours, helipad locations added, specific location designators, C&V trending.

**2013**

**December 2013**

USHST/IWG holds 2nd weather summit with FAA & Industry in Washington DC to outline a path forward in making the HEMS Weather Tool an Official Weather Product.

**2nd HEMS Weather Summit**

**2013**

NTSB held a four-day hearing to help identify ways to reduce the increasing HEMS accidents rates.

**NTSB HEMS Hearing**

**2013**

**2013**

**6 Years**
Feb 2014 Update Beta Released by NCAR / Storage & Retrieval of user preferences, updated demo, transition strategy to move from Java ADDS to html website

Oct 23, 2014 USHST IWG Presents HEMS Weather Tool to the Friends and Partners of Aviation Weather (FPAW) at NBAA Orlando, FL to garner additional support

May 2015 Updated html HEMS Weather Tool goes fully operational

December 2016 Added Meteorological Assimilation Data Ingest System (MADIS) data to testbed version

OpenLayers
July 2014 Demonstration of OpenLayers Version of HEMS Weather Tool to FAA/NWS

Risk Analysis
Dec 2014 USHST/IWG coordinates FAA Safety Risk Management Panel Washington DC

LAMP
August 2016 Added Localized Aviation MOS Program (LAMP) ceiling and visibility to testbed version
After the Aug 2019 Survival Flight Accident in Ohio the NTSB recommends that the NWS should add terminal doppler weather radar data to the HEMS Weather Tool overlay and provide capability for the Weather Tool to graphically display certain areas of weather radar limitations.

NTSB Accident Recommendation

August 19-23, 2019 AWC conducted HEMS Tool testing with GA and HEMS Pilots at the FAA Tech Center Atlantic City NJ and Kansas City, MO. Several members of the USHST/IWG participated in the testing and facilitated getting pilot volunteers for the testing.

Pilot Testing

FPAW

April 17, 2019 USHST/IWG led a panel discussion on the strategic development for the Next Generation of the HEMS Weather Tool at the spring Friends and Partners of Aviation Weather conference.

GLMP

The Gridded Localized Aviation MOS Product (GLMP) chosen to replace current National Ceiling and Visibility Analysis (NCVA) product
THE HEMS WEATHER TOOL
Helicopter Emergency Medical Services

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)

www.aviationweather.gov/hemst
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 1000 ft

- Additional forecast information
  - Clouds (with layer info)
  - Precip and weather from NDFD
  - Turbulence
  - Wind shear
Future Capabilities

Additional Observations

➔ Current work funded by FAA AWRP to include mesonet observations

➔ Incorporate quality control before displaying observations

➔ Incorporate progressive display
  ◆ Distance from METAR
  ◆ Data quality
  ◆ Available weather elements
Future Capabilities

Flight Path Tool

➔ GFA-LA will eventually include cross-sections of various weather elements along a flight path

◆ 3D-Clouds along with TAF information
◆ Icing
◆ Turbulence / Winds
Future Capabilities

- Updated look for www.AviationWeather.gov
- Product consistency across the website
- More user intuitive & mobile friendly interface
I. DEC 2013 / Washington, D.C. / 2-days (*Weather Summit*)
II. FEB 2016 / Washington, D.C. / 2-days
III. FEB 2017 / Washington, D.C. / 2-days
IV. FEB 2018 / Washington, D.C. / 2-days
V. FEB 2019 / Washington, D.C. / 2-days
VI. MAR 2020 / Washington, D.C. / 2-days (*1 virtual*)
VII. Tues FEB 23 – Wed FEB 24, / Virtual
QUESTIONS

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