Evolving the Helicopter Emergency Medical Services (HEMS) Tool

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One of the nine NWS national centers

Domestic and international aviation forecasts and warnings

www.aviationweather.gov
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 to 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

No longer updating the current HEMS paradigm!!
Evolving HEMS for the future
Who else is using HEMS?
HEMS to GFA-LA Transition

→ 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

www.aviationweather.gov/gfa
GFA-LA Capabilities

Additional Observations

→ Current work funded by FAA AWRP to include mesonet observations

→ Developing QC of observations
  ◆ Focusing on temp, dewpoint, and winds
  ◆ What thresholds are important for helo users?

/testbed.aviationweather.gov/hemst
GFA-LA 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
GFA-LA Capabilities

 ➔ Updated look for www.AviationWeather.gov
 ➔ Product consistency across the website
 ➔ More user intuitive & mobile friendly interface
GFA-LA Evaluation

User Input is Critical!

→ Usability & utility of GFA-LA will be assessed

→ Work with FAA’s Aviation Weather Demonstration & Evaluation (AWDE) Services

→ Hoping for in-person experiment in Spring 2022.
  ◆ Virtual components
  ◆ Need helo pilots!

Email Rex or myself if interested!!
Where Do We Go Next?

Drones equipped with weather sensors could provide numerous high resolution observations!

Public transportation of tomorrow?
Thank You!

Questions?

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