Product Description Document
Experimental Aviation Summer Weather Dashboard
June 2013

Part 1 – Mission Connection

1. Product Description:
The Experimental Aviation Summer Weather Dashboard displays the probability of weather phenomena, specifically convection, occurring within defined airspace. Updated four times per day, the web display shows the likelihood of weather occurrence for each airspace through a matrix of color coded boxes that depict nominal (green), slight (yellow), moderate (orange), and high (red) likelihood of occurrence out through a day two forecast. The probabilistic information is calculated using the Short-Range Ensemble Forecast (SREF) numerical weather prediction system.

2. Purpose/Intended Use:
The purpose of the dashboard is to provide support for meteorological decision support services for operational meteorologists and FAA air traffic managers to coordinate long range strategic weather planning by providing guidance on the potential for air traffic disruptions due to weather.

3. Audience/Users:
The intended audiences are operational meteorologists, local and national air traffic managers, and commercial airlines.

4. Presentation Format:
The dashboard is rendered via HTML in a web browser.

5. Feedback Method:
Feedback will typically be collected via comments provided to the www.aviationweather.gov Webmaster and via electronic survey : www.nws.noaa.gov/survey/nws-survey.php?code=ASWD
Opportunities for face-to-face responses will occasionally occur in the context of media workshops, public outreach events, etc.

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Part 2 – Technical Description

1. Format and Science Basis:
The dashboard renders the likelihood of weather occurring around airports, approaches, ARTCCs, and airways (referred to as areas of interest or AOIs) at hourly forecast intervals for the first 15 hours of the SREF forecast, and three-hourly intervals for an additional 36 hours. The calibrated probability of thunder is used to determine the probability assigned to each area of interest for each forecast period. Additionally, a forecast of convective cloud tops is also shown for each AOI and forecast interval.

Probabilities for airports are calculated by sampling the SREF forecast within as specified distance from the terminal. For airways and approaches, the forecast is determined by using values within a specified distance from the center line of the airway or standard approach. The likelihood for each ARTCC is a summary measure of the airway segments that fall within that ARTCC. The scientific algorithm that produces the likelihood (nominal, slight, moderate, or high) uses probabilistic information derived from the SREF along with empirically created thresholds for each weather phenomenon depicted.

2. Training:
No additional training is required to generate the product.

3. Availability:
The Experimental Aviation Summer Weather Dashboard is available 24/7 and is updated 4 times a day for the 03Z, 09Z, 15Z, and 21Z SREF runs.

The Experimental Aviation Summer Weather Dashboard will be available at:
http://testbed.aviationweather.gov/summerdashboard/