FAA-NWS Aviation Weather Requirements Working Group (ARWG)
Friends and Partners in Aviation Weather
October 23, 2013
Airplanes ... have changed.

Lockheed Constellation  

Airbus A380
Aviation weather products … not so much.

Area Forecast 1965

Area Forecast 2013
FAA and NWS Face Fiscal Challenges

• Budget cut storm hits National Weather Service
  [CNBC, February 2011]

• Sequester: Let the FAA furloughs begin
  [MSNBC, April 2013]

• NWS suffers budget cuts, furloughs during hurricane season
  [Sun Sentinel, April 2013]

• NextGen progress faces lack of FAA funding
  [AINonline, July 2013]

• FAA official: Budget cuts driving FAA reform
  [AINonline, August 2013]
Aviation Weather Requirements Working Group (ARWG)—Background

• Established in 2012 at the request of FAA’s COO, and agreed-to by the Director of NWS, ARWG builds upon prior efforts by the Traffic-Flow Management (TFM) Requirements Working Group (TRWG)

• ARWG is tasked with reviewing all weather information produced by NWS for aviation purposes
  ⊳ Many NWS weather products are decades old with little change in format, and without performance requirements or measures

• ARWG’s goal is to improve NWS products in-support of aviation weather
  ⊳ Increase emphasis on digital products and focus the activities of NWS forecasters on maximizing operational benefit
Aviation Weather Requirements Working Group (ARWG)—Objectives

- Identify NWS products and services in support of aviation weather with duplicative or overlapping information
- Identify NWS products and services that are resource intensive, with limited utility to operators
- Identify opportunities for digitizing legacy NWS products and services
- Identify opportunities to transition existing NWS products and services to graphical information for little or no cost

*NOTE: Text products will continue to be produced, in accordance with ICAO obligations*
Forecast Product Sources
(observational products and services, also under review)

- **Meteorological Watch Office products**
  - Area Forecast
  - Freezing Level Graphic
  - Weather Depiction Chart
  - Aviation Watch Notification
  - Convective SIGMET
  - Winds/Temps Aloft
  - SIGMET
  - AIRMET
  - Graphical AIRMET

- **Center Weather Service Units**

- **Aviation Weather Center**

- **National Center for Environmental Prediction**

- **Weather Forecast Offices**

- **Alaskan Aviation Weather Unit**

- **Volcanic Ash Advisory Centers**

- **Met. Watch Office-Honolulu**

- **Volcanic Ash Advisory**

- **Center Weather Advisory**
  - Meteorological Impact Statement

- **Aviation Tropical Cyclone Advisory**

- **Terminal Aerodrome Forecast**

- **Meteorological Watch Office products**

- **International Aviation Route Forecast**
1. Generate a list of products and services provided by NWS to NAS users (controllers, FOC’s, pilots and airport operators) based on AC 00.45G;

2. Assess the utility and usage of NWS products and services in-support of aviation;

3. Identify duplicative products and services; and

4. Make formal recommendations and transmit requirements to NWS.
Preliminary Discussion/Analysis

Non-ICAO products with high potential for change(s):
- Area Forecast
- Freezing Level Graphic
- Weather Depiction Chart
- Radar Summary Chart
- Aviation Watch Notification Message

Products required under international obligation—little potential for change(s):
- SIGMET
- AIRMET
- Graphical AIRMET
- Aviation Tropical Cyclone Advisory
- Volcanic Ash Advisory
- Terminal Aerodrome Forecast

Non-ICAO products with some potential for change(s):
- Convective SIGMET
- Center Weather Advisory
- Winds and Temperatures Aloft
- Meteorological Impact Statement

Additional products with constraints—little potential for change(s):
- International Aviation Route Forecast
- Collaborative Convective Forecast Product
- Current Icing Potential
- Forecast Icing Potential
- Graphical Turbulence Guidance
Questions?