Weather Evaluation Team (WET) Update

Tuesday, November 1st | 10:30 a.m. – 12:00 p.m.

PRESENTED BY:
Kevin Johnston (FAA), Jeff Mclaren (AAL), John Kosak (NBAA)
Agenda

FAA CDM WET Update

- Task 51: Background on Operational Bridging (OB) and Collaborative Aviation Weather Statement (CAWS) Operational Demonstration
  - User Suitability Results
- Task 71: Moving forward with CAWS/CCFP Improvements
  - WET Recommendations
- Task 72: Extend Convective Forecast out to 18 hours
  - WET Recommendations
Task 51 Background
Operational Bridging Concept

• Take advantage of a blend of newer, higher resolution computerized weather forecast models

• Improve weather forecast collaboration and focus Met resources on events that impact the NAS

• Issue critical weather forecast information at the optimal time, even if it is between the usual 2-hour TFM Planning update cycle
Task 51 Background

Operational Bridging Concept

• Legacy Collaborative Convective Forecast Product transitioned to an automated product Nov 2014
  – CCFP “look and feel,” forecast issuance frequency, and full-CONUS coverage remain unchanged
  – Schedule improved to 24-7-365 issuance
Task 51 Background
Operational Bridging Concept

- New product: CAWS
  - Operational Demonstration started 2015 and continued for 2016
    - Event-driven – timed and focused on areas of potential air traffic impact (en-route and/or terminal)
    - National Weather Service (NWS) and Industry meteorologists collaborate on CAWS
Task 51 Background

Operational Bridging Concept

• Training and procedural guidance communicated:
  – CCFP and the CAWS will be the primary weather products utilized by Command Center and Traffic Flow Managers to develop the Operational Plan
  – The CAWS takes precedence over the CCFP if there are differences in the two
Task 51 Background

Operational Bridging Concept

• OB/CCFP/CAWS Challenges
  – No funding for development
  – In 2014, CSG asked WET to accelerate (original plan was 2016-17)
  – Proving concept outside of primary workstations via internet/web-based capability
  – End State never envisioned two products for operators to use/interpret
Task 51 Background

Operational Bridging Concept

• Live field observations from April – July 2016
  – Target ATCSCC, 3 ARTCCs, AWC forecasters, Airline Ops Center
• Evaluate the usability, effectiveness, and areas of potential improvement for OB and the CAWS
• Obtain feedback from ATM decision makers regarding perceived utility of OB and CAWS
  – Collect usability/utility data via interviews and questionnaires
• Document issues and lessons learned
Task 51 Background

Operational Bridging Concept

- Users rated most aspects of the OB/CAWS as borderline indicating it was neither effective nor ineffective in supporting strategic planning and TFM decision making during convective weather
  - Difficulty interpreting differences between CAWS and CCFP
  - CAWS is not integrated on the TSD
  - Weather and its impact is discussed with on-site meteorologists well in advance of an CAWS issuance
- OB/CAWS did not improve “active” collaboration with industry
Task 71

CCFP and CAWS - WET Recommendations

- Return to one product that is integrated into the TSD and available on the web
- Use Auto CCFP* as starting point, mets collaborate on output every 2 hours March 1-October 31 providing “Forecaster over the Loop” changes as required
  - Collaborated output for 4/6/8 hour forecast times
- NWS will provide scheduled final product 45 minutes prior to Strategic Planning Webinar in format to be integrated into the TSD
Task 71

CCFP and CAWS - WET Recommendations

• Changes to the Product
  – Any polygon signifies high confidence (no low confidence)
  – Added isolated coverage (Grey) (10-24%)
• Retains current Sparse/Medium coverage (Blue)
• Retains current broken and solid lines (Purple)
• AWC will make 2 hour available on the Web
• Name change to “TFM Convective Forecast”
Task 71
CCFP and CAWS - WET Recommendations

Rationale

- Human over-the-loop ability to make changes to one final product that is used by the TFM Planning Community
- Ability to be integrated into the TSD by March 2017
- Name change to overcome negative aspect of CAWS and CCFP and promote agreed upon, Single Authoritative Product for collaborated TFM decisions
- Minimal training needed
- Verification method pending
Task 72

Extend Convective Forecasts to 18 hours or more

- Use Auto CCFP* output out through 24 hours
- NWS will provide scheduled product via the Web, every two hours with forecast at 2/4/6/8/10/12 etc., out to 24 with the 4/6/8 collaborated on per Task 71
- Use same name: TFM Convective Forecast
Task 72

Extend Convective Forecasts to 18 hours or more

Rationale

• Same look and feel as 4/6/8...important to be seamless through 24 hours
• Continuous updates better than twice daily per task 72 request. During 2017 demonstration we can evaluate when best to add human oversight
• Can be in-place by March 2017
• CCFP*: NWS scheduled to make LAMP HRRR Meld operational by end of March 2017. 0-24 hour forecast updated hourly appears to show much improved resolution of probability of convection
Contact Info

FAA CDM Weather Evaluation Team

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