

Meeting Summary – NWS Baltimore/Washington Aviation Users Forum November 8, 2023 1:00-3:05 PM

Attendees

Aviation Partners: Jeff Sarver (UPS; A4A Meteorology Committee Chair), David Dillahunt (Southwest), Warren Weston (Delta), Jamie Siller (A4A), Steve Abelman (American), Tian Henry (Hawaiian), Esther Eivinsen (Air Canada), Kory Gempler (FedEx), Richard Allabaugh (Manassas Regional Airport), Alex Del Valle Mari (Manassas Regional Airport), Steve Bateman (AOPA), Paul Suffern (NTSB)

National Weather Service Headquarters: Mike Graf

Aviation Weather Center/National Aviation Meteorologists: Joe Carr, Ken Widelski

NWS Eastern Region Headquarters: Melissa DiSpigna, Jimmy Taeger (LANTERN from RAH), Kristie Smith (LANTERN from BOX)

Washington Center Weather Service Unit: Rick Winther, Shane Snyder, Michael Mathews

NWS Baltimore/Washington Forecast Office: Chris Strong, Andrew Snyder, Brendon Rubin-Oster, Kevin Witt, Chesnea Skeen

Action Item Summary

- None taken. Meeting summary and presentations will be sent to participants. Feedback will be incorporated into local training.

Welcome and introductions. Group started in 2019. Appreciate seeing many partners in person for the first time since then.

Review of forum goals, NWS mission and structure, and forecast products.

Follow up from previous meetings:

- 2022: MTN still has had a few METAR dropouts when the tower is closed over the past year. Unknown if this is related to a known third party server issue (out of NWS control) or another unknown problem.
- 2019: Continued work on consistency/collaboration. Aviation NDFD availability still in the works.

FY23 IFR Verification: Met performance goals but odd year with drought and few winter storms that likely hurt performance.

Goals for coming year: consider making MTN full time TAF, consider adjustments to “baseline recommendations” for thunderstorm inclusion, heads up collaboration chats to the NAMs.

Updates on recent and upcoming outreach activities, new aviationweather.gov site, aviation grid availability in NDFD, and Slack.

Comments:

- *Kory*: Anything to address collaboration/continuity across CWA borders in NDFD?
Andrew: Policy/directives/best practices remain in the works at HQ
- *Kory*: Sometimes TAF matches NBM output. Is that's what in the grids? *Andrew*: Still up to forecaster how to populate grids. If it matches, they probably used NBM/GLAMP.
- Any verification for thunderstorms in the TAFs? Most impactful, improvements are important. *Andrew*: Have not studied this locally (was unaware of verification tools).
Mike: Can run convective verification in Stats on Demand.
- *Warren*: Is lead time verified? *Andrew*: Can verify specific time periods (e.g., 6-12 hours out), but otherwise just aggregates POD/FAR from routine issuances. *Mike*: NWS HQ ran thunderstorm verification project about 10 years ago. Results weren't good.
 - Typical cross country flight 4-7 hours, so dispatchers need good forecasts in 6-8 hour range. Can't wait for it to develop. Don't use VCSH if expecting thunder. TAF is a planning forecast.
 - Delta writes TAFs only for hubs. Use NWS TAFs for 90% of airports.
- *Mike*: Can share what team came up with for TAF Weather Rules. Plan to "lock down" these rules in formatter to encourage consistency across NWS.
- *Steve A*: Found that dispatchers may not be aware of various ways VCTS is used. Used 4 cases: low chance/scattered storms, lead up to squall line, rain with embedded lightning, terrain-locked convection that won't move over airfield.

Presentation by Michael Mathews on "Using Aircraft Diversions to Determine the Most Impactful Weather at Airports"

- Looked at 10 years of diversion data to find what weather was associated with the worst 20 days for diversions. Core airports plus a few more to cover each CWSU.
- Thunderstorms have large impacts. For example, cause of 96% of worst days at DFW.
- DCA: low cigs with S winds over 8kt cause almost the same amount of diversions as thunderstorms.
- IAD: Some big impacts from fog/low cigs and winter precip in addition to convection
- BWI: Mostly thunderstorms
- *Steve A*: American using analytics to determine what happened in similar situations re: convective coverage/organization. Need to pinpoint 2 hour time frames where they get "slaughtered."

Discussion facilitated by presentation from Melissa DiSpigna. Meetings held during 2022-23 amongst Eastern Region urban coastal offices to develop best practices in consistency, winter weather, thunderstorms, collaboration.

- *Esther*: Forecasting thunderstorms that don't happen or vice versa is most impactful. Especially for international flights - need up to 18 hours. Limited options once planes take off.
- *Steve A*: 4-8 hour timeframe is most critical for domestic flights. No thunder in TAF and it happens is worst case for impacts.
- *Warren*: Stop using VCSH as a crutch in lower confidence situations for thunderstorms. If it's hot and humid, there will be thunder. Planners/dispatchers may not realize the

implication and not plan for thunderstorms. TAF is a planning tool; need it to convey things they need to plan for. Two hour lead time is not enough.

- *Kory*: Morning thunderstorms can have huge impact for FedEx. However, convection any time is important.
- *Steve A*: 1-2 day weather forecasts have improved a lot in recent years. Need to translate that to TAF. It's bad to use VCTS in the TAF when there is an 80% chance of storms in the public forecast. Use skill to put TEMPO group when likely or higher PoPs.
- *David*: Last half of TAF needed for planning too. Don't blend out all details and impacts.
- *Jeff*: Don't wait for scheduled issuance to get known details into the TAF. Update/amend, even if 30 minutes before routine TAF.
- *Steve A*: How about putting Prob70/Prob80 into IWXXM? Encouraged better use of probabilities; up to the airline meteorologists to train planners/dispatchers on how to use. They like using red/yellow/green graphics for forecast impacts.
- *Warren*: Wide range in TEMPOs can be detrimental. Be as narrow as possible. They bake in 1-2 hours on either side already.
- *Kory*: Local use of Airport Weather Warnings? (No) Work well in Memphis.
- Fog can be important, but order of magnitude lower than convection.
- Should have high confidence if using moderate or heavy intensity for winter precip types. Will shut down airlines. Regulations for deicing becoming more and more restrictive, causes big impacts. Forecasters need to know there is now more attention on moderate/heavy intensity.
- *AFD*: Be sure to express confidence, what decision is based on. Explain the why if the TAF is not telling the whole story. Less emphasis on synoptic overview.
- Freezing fog: New deicing rules, has impacts. ASOS reports FZFG with low visibility in precip, even if not truly fog. Need to figure out when to put in TAF...not all low visibility leads to deposition. Discuss in AFD?
- Frost: can also have impacts on deicing but on their own since not a TAF element. NWS only forecasts in growing season. UPS tries to get fleet out before frost forms; saves a lot of money.
- Possible thunderstorm matrix shown that eliminates VCTS.
- *Slack*: Helpful to know who's on duty to address concerns. *Chris*: Best to put in main chatroom, someone is always monitoring.
- Interest in what other regions are doing.

Please feel free to contact NWS if there are any questions or concerns.

Adjourn at 3:05 PM.

Appreciation extended to Chris Strong for taking notes.