TAF Best Practices2023



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NAS DELAYS



BIG PICTURE



CONSIDERATIONS

- TAF is still a regulatory product
- Critical decisions are being made Consider your main users
 - How far in advance are they planning?
 - Not every pilot is IMC certified; LLWS, convection, etc, all hazardous conditions THERE MAY BE LEGITIMATE SAFETY CONCERNS
 - Some TAF output may require extra fuel, alternate landing considerations, and may result in go/no go decisions
- TAF follows international standards
- TAF is a method for communicating critical information

Reframe Thinking

- TAF is a form of Impact-Based Decision Support Services
- Work with partners to provide value

In 2022-2023, a series of "Coastal Metro Aviation" meetings were held to develop best practices in four main areas



What's important to you?

Questions for discussion:

- What impacts your operations most?
- What is your most critical time frame in the TAF?
- What do you wish forecasters would consider?
- What do you wish forecasters would stop doing?
- What piece of information in the TAF or AFD do you find most useful?

What did we learn from the previous sessions?





GENERAL BEST PRACTICES

- Know your airport's critical thresholds not just CAC, but consider minimums (do they have ILS equipment?) runway configuration, cross wind thresholds, etc
- LLWS:
 - Should be lowest layer of concern, not necessarily default 2000 ft from DAS grids (less room for recovery)
 - Includes both speed and direction (vector)
 - Consider whether it's true LLWS or mechanical turbulence
 - Do not include for convection unless coincident with strong LLJ
- AFD is heavily utilized and your opportunity to include information that cannot be included in the TAF

THUNDERSTORM BEST PRACTICES

- Forecasters should focus on specificity in the timing of thunderstorms whenever possible and narrow down the most likely time frames thunderstorms may occur.
- Users currently do not interpret VCTS as a 10 sm restriction, and view it as higher confidence in thunderstorms than a PROB30. VCTS should be used judiciously.
- Consider the TCF and collaborate with the CWSU. Generally, medium in the TCF indicates higher confidence.
- The FAA (and GA) prefers more advanced notice and they are willing to overplan (accept some degree of FAR/worst case). Make a decision and add thunderstorms if needed.
- The latter half of the TAF is just as critical, especially for core 30 airports. For larger airports, the 18Z TAF is used in next day planning. The FAA/GA does not like to be surprised the next day when thunderstorms are suddenly in the TAF again, make a decision.
- The 09Z, 12Z, 15Z, and 18Z TAFs are most utilized for planning purposes (generally applicable to larger airports).

WINTER BEST PRACTICES

- Wind from the command center perspective is airport-specific. <u>Know specific thresholds (which directions are favorable/not favorable).</u>
- Aviation users need to know specifics in strong wind timeframes because it can impact deicing operations.
- Airlines have specific restrictions regarding deicing holdover times when there's more than 3 p-types in the METAR. They prefer the TAFs to have no more than 2 p-types in the FM group where possible to reduce unnecessary stress. Try to narrow down timing of 3 p-types if it's absolutely necessary to include.
- Ice pellets lead to significant restrictions on airline operations. The rules are very rigid on whether you can take off or must return for deicing. At moderate or higher intensity they cannot operate. Airlines utilize FAA allowance type charts for ice pellets and snow pellets.
- Heavy snow will basically shut airlines down, but there is nuance between the time of day/week, etc.
- Snowfall intensities are looked at as a function of the prevailing visibility chart. Moderate at night is considered heavy so it changes the hold over times/deicing. Intensity is not necessarily strictly looked at as moderate = moderate and heavy = heavy, etc.
- As soon as + enters the METAR, they must spray the aircraft and take off within 5 min.
- Any snowfall with temperatures falling below a certain threshold reduces holdover times significantly because the fluid itself starts failing. (temperatures below 0, esp below -11 F).
- NTSB: make sure you're archiving any graphics you use to communicate for 91 days (also FAA requirement).

COLLABORATION BEST PRACTICES

- Airlines would like to see some minimum standards of collab.
- Airlines would like to make better contact with WFOs and CWSUs
- HOW DO WE WANT TO USE SLACK IN THE FUTURE?? LET'S THINK ABOUT IT
- We have established chat for things like WWA, but need to establish the medium and types of things that are expected for TAF chat
- Generally WFOs with larger/core airports will collaborate with the CWSUs (NWSI 10-803) but coordination with other WFOs within the CWSU airspace may also be helpful
- More collab with National Aviation Meteorologists would always be beneficial. Check out awc_nam chat room in nwschat.

Important Upcoming Change!

| Summary of Default "Rules" for Including Thunderstorms in TAFs | | | |
|--|---------------------|-----------------------------|----------------------------------|
| Time to Convection: | Chc/Sct (25-54%) | Likely/Numerous (55-74%) | Definite/Widespread (75-100%) |
| 0-4 hrs | ТЕМРО | ТЕМРО . | Predominant TS |
| 5-11 hrs | PROB30 | Predominant TS | Predominant TS |
| 12-24-30 hrs | PROB30 | Predominant TS | Predominant TS |

PLEASE ASK YOUR REGIONAL AVIATION METEOROLOGIST QUESTIONS!

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