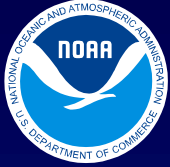




Modernized TAF Verification

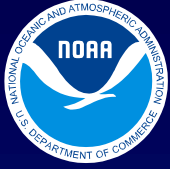
Chuck Kluepfel
National Weather Service
Office of Climate, Water, and Weather Services



Characteristics



- ! ***Verifies all TAFs***
 - *scheduled and amendments*
 - *all terminals*
 - *TEMPO/PROB groups evaluated*
- ! ***Basis of most algorithms - Oxnard program
(Developed by Andrew Rorke)***
- ! ***TAF evaluated every 5 minutes***
- ! ***User requests desired data (Stats on Demand)***



Types of Statistics

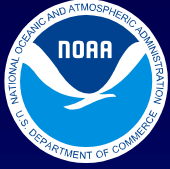
- ! *Prevailing forecast*
- ! *“Operational impact” forecast*
- ! *TEMPO group evaluation*
- ! *PROB group evaluation*



Projections



- ! ***0 to 3 hours***
- ! ***> 3 to 6 hours***
- ! ***> 6 to 9 hours***
- ! ***> 9 to 12 hours***
- ! ***> 12 to 18 hours***
- ! ***> 18 to 24 hours***



Elements Verified

- ! ***Ceiling***
- ! ***Visibility***
- ! ***Flight Category (worst category of CIG/VIS) ****
- ! ***Wind Direction***
- ! ***Wind Speed***
- ! ***Wind Gusts ****
- ! ***Significant Weather Type ****

**** Not verified in the past***



Guidance Types to Verify



- ! ***NGM MOS***
- ! ***AVN MOS***
- ! ***NGM LAMP***
- ! ***Eta MOS (under development)***
- ! ***AVA LAMP (under development)***



Ceiling Categories



- ! ***< 200 feet***
- ! ***200 - 400 feet***
- ! ***500 - 900 feet***
- ! ***1000 - 1900 feet***
- ! ***2000 - 3000 feet***
- ! ***> 3000 feet***



Visibility Categories



- ! ***< 1/2 mile***
- ! ***1/2 to < 1 mile***
- ! ***1 to < 2 miles***
- ! ***2 to < 3 miles***
- ! ***3 to 5 miles***
- ! ***> 5 miles***



Flight Categories Ceiling/Visibility Combined

! **LIFR**

! **IFR**

! **MVFR**

! **VFR**



Critical Thresholds

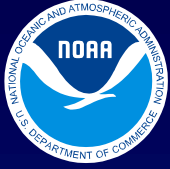


! **2 x 2 Evaluation**

- *< 200 feet or < 1/2 mile*
- *≥ 200 feet and ≥ 1/2 mile*

! **2x2 Evaluation - user enters critical thresholds**

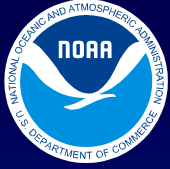
- *Ex: User enters < 700 feet; < 2 miles*
- *Supports airport specific amendment criteria*



TEMPO Evaluation



- ! ***Variability test (+/- 1 hour)***
- ! ***TEMPO Hit (correct category)***
- ! ***TEMPO Missed but Improved TAF***
- ! ***TEMPO should be FROM group***
- ! ***TEMPO Hurt the TAF***
- ! ***TEMPO Benign***



PROB Evaluation



- ! ***PROB Hit w/ precip/TS***
- ! ***PROB Hit w/out precip/TS***
- ! ***PROB Missed but Improved TAF***
- ! ***PROB Hurt the TAF***
- ! ***PROB Benign***