

Introduction to Categorical Amendment Criteria (CAC)



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Outline

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- Why We Are Doing This
- Standard Amendment Criteria
- CAC Methodology and Category Thresholds
- AvnFPS Differences
- Amendments Using CAC
- Benefits of Using CAC
- Customer Feedback



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Why are we doing this?

- 3 To provide our customers with a more responsive product
- To provide customers a product tailored to their regulatory needs
- To allow forecasters to use AvnFPS as a **Decision Tool**, rather than an alert monitor



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Standard Amendment Criteria

TAF AMENDMENTS

CURRENT CRITERIA

CEILING
3,100
2,000
1,000
600
200

OR

VIS
P6SM
5
3
2
1
1/2

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Impacts of Standard Amendment Criteria

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- **Non-standard individual airport minimums ignored**
 - ▣ **Only 200 feet and 1/2SM used**
 - ▣ **Airfields served only by non-precision approaches not represented**



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Impacts of Standard Amendment Criteria

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- Amendments often issued for elements which may have no operational impact
 - TEMPO groups not monitored in AvnFPS in a timely fashion



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Impacts of Standard Amendment Criteria

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- Forecasters time is diverted from sites needing attention
- Aviation community receives too many amendments that do not have an impact on airport operations
- In Addition...
 - TEMPO groups may restrict operations resulting in flight delays and impact the National Airspace System (NAS)

TAF AMENDMENTS

CURRENT CRITERIA

CEILING
3,100
2,000
1,000
600
200

OR

VIS
P6SM
5
3
2
1
1/2

TAF AMENDMENTS

CURRENT CRITERIA

CEILING
3,100
2,000
1,000
600
200

VIS
P6SM
5
3
2
1
1/2

METAR = TAF

TAF AMENDMENTS

CURRENT CRITERIA

CEILING
3,100
2,000
1,000
600
200

VIS
P6SM
5
3
2
1
1/2

AMENDMENT?

TAF AMENDMENTS

CURRENT CRITERIA

CEILING
3,100
2,000
1,000
600
200

VIS
P6SM
5
3
2
1
1/2

HOW ABOUT NOW?

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CAC Methodology and Category Thresholds

- Employs the following important concepts
 - Tailors Ceiling and Visibility to meet specific airport requirements
 - Groups Ceiling and Visibility together into categories to match FAA Regulations (FARs)
 - TEMPO groups checked immediately against METARS to notify forecasters of resulting customer impacts

TAF AMENDMENTS

SITE SPECIFIC

BREAK DOWN THE WALL

TAF AMENDMENTS

SITE SPECIFIC

FLIGHT CATEGORY

LOCAL NEEDS

MVFR

ALTERNATE REQ'D

IFR

ALTERNATE MINS

AIRFIELD MINIMUMS

TAF AMENDMENTS

SITE SPECIFIC

FLIGHT CATEGORY

LOCAL NEEDS

3,000' / 5SM

2,000' / 3SM

1,000' / 3SM

ALTERNATE MINS

AIRFIELD MINIMUMS

TAF AMENDMENTS

SITE SPECIFIC

FLIGHT CATEGORY

LOCAL NEEDS

3,000' / 5SM

2,000' / 3SM

1,000' / 3SM

ALTERNATE MINS

AIRFIELD MINIMUMS

TAF AMENDMENTS

SITE SPECIFIC

ATC

FLIGHT CATEGORY

LOCAL NEEDS

FLOW

3,000' / 5SM

2,000' / 3SM

1,000' / 3SM

PRECISION

ALTERNATE MINS

NON-PRECISION

APPROACH

AIRFIELD MINIMUMS

CHARTS

TAF AMENDMENTS

SITE SPECIFIC

FLIGHT CATEGORY

5,000' / 5SM

3,000' / 5SM

2,000' / 3SM

1,000' / 3SM

600' / 2SM

400' / 1SM

EXAMPLE

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AvnFPS Differences

AvnFPS

CURRENT

File Options Help

TAF Editor Climate Plot Backup

DATA-px2f XMIT-px2f INGEST-px2f Queue

		METAR	persistence 1hr	ltg	rltg	ccfp	grid	llws	Editor Shortcuts
KBFD	<input type="checkbox"/>	TAF 14:58 MTR 15:53	tpo vis wnd wx cig	vis wnd wx cig	ts	ts	ts	vis wnd wx sky ws	Amd Rtd Cor
KA00	<input type="checkbox"/>	TAF 15:01 MTR 15:53	tpo vis wnd wx cig	vis wnd wx cig	ts	ts	ts	vis wnd wx sky ws	Amd Rtd Cor
KUNV	<input type="checkbox"/>	TAF 15:05 MTR 15:40	tpo vis wnd wx cig	vis wnd wx cig	ts	ts	ts	vis wnd wx sky ws	Amd Rtd Cor
KJST	<input type="checkbox"/>	TAF 13:45 MTR 16:00	tpo vis wnd wx cig	vis wnd wx cig	ts	ts	ts	vis wnd wx sky ws	Amd Rtd Cor
KIPT	<input type="checkbox"/>	TAF 15:55 MTR 15:54	tpo vis wnd wx cig	vis wnd wx cig	ts	ts	ts	vis wnd wx sky ws	Amd Rtd Cor
KMDT	<input type="checkbox"/>	TAF 13:48 MTR 15:56	tpo vis wnd wx cig	vis wnd wx cig	ts	ts	ts	vis wnd wx sky ws	Amd Rtd Cor

Separate boxes for ceiling and visibility

AvnFPS

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AvnFPS OB8.3.1 Monitor connected to local host

File Options Help

TAF Editor Climate Plot Backup

INGEST-lx6 DATA-lx6 Queue

METAR persistence 2hr Itg grid llws Editor Shortcuts

PTAF TAF 22:25 MTR 22:25 tpo cat vnd wx cat vnd wx ts vnd wx ws Amd Rtd Cor

OK
TAF
PTAF 222225Z 222218 00000KT 3SM BR DVC015=
METAR PTAF 222225Z 00000KT 3SM BR DVC015 03/03 A2945

Checking tafs for PTAF

Ceiling and visibility combined into one “cat” box

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Amendments Using CAC

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Amendments Using CAC

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- The lowest element of ceiling or visibility is considered “controlling” for amendment purposes
- Ceiling and visibility version of AvnFPS – Prompts for an amendment based on ceiling or visibility

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AvnFPS Notification

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Before SPECI

AvnFPS OB8.3.1 Monitor connected to local host

File Options Help

TAF Editor Climate Plot Backup

XMIT-px2f DATA-px2f INGEST-px2f Queue

METAR persistence 2hr ltg grid llws Editor Shortcuts

PTAF TAF 18:21 MTR 18:21 tpo cat wnd wx cat wnd wx ts wnd wx ws Amd Rtd Cor

OK
TAF
PTAF 181821Z 1818/1918 0000KT 3SM BR 0VC015=
METAR PTAF 181821Z 0000KT 3SM BR 0VC015 03/03 A2945

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AvnFPS Notification

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After SPECI

AvnFPS OB8.3.1 Monitor connected to local host

File Options Help

TAF Editor Climate Plot Backup

INGEST-px2f XMIT-px2f DATA-px2f Queue

METAR persistence 2hr Itg grid llws Editor Shortcuts

PTAF TAF 18:21 MTR 18:32 tpo cat wnd wx cat wnd wx ts wnd wx ws Amd Rtd Cor

```
Visibility category differs: METAR: 6SM/015, TAF: 3SM/015
TAF
PTAF 181821Z 1818/1918 00000KT 3SM BR OVC015=
METAR PTAF 181832Z 00000KT 6SM BR OVC015 03/03 A2945
```

- CAC Version of AvnFPS –
 - No **out of category notification**
 - AvnFPS indicates the visibility is in a higher category for situational awareness with a light green notification
 - In **most** cases, no forecaster action is required in this case because the ceiling is the lowest “controlling element”
- Result – Unnecessary amendments eliminated, saving valuable forecaster time

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Benefits of Using CAC

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Benefits of Using CAC

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- **Better customer service**
 - Amendments issued based on criteria tailored to each specific airport
 - Regulatory needs of the flying community addressed
 - Quicker reaction to out of category TEMPO groups
- **Forecaster's time maximized**
 - Focused on sites needing attention
 - Only valid amendments issued
 - *Fewer amendments (WFO FAI decreased by 23%)*

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Important points to keep in mind

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- The TAF is for planning purposes and should define categorical values needed by customers to determine arrival and departure procedures
- This is not a new or unproven concept – standard operating procedure used by the military and Canadian Weather Service
- TAFs and associated amendments should define operational impacts to the customer

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Important points to keep in mind

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- The meteorology remains the same
- Amendment thresholds link together ceiling and visibility to mirror the Federal Aviations Regulations
- CAC criteria can be applied nationally with flexibility for addressing local airport concerns



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Customer Feedback

- “Terminal Forecast Amendments are more responsive now than in the past. As a result, flight delays have been reduced.”
 - *Don Heckert, Director of Operations, Evert’s Air Cargo*
- “Our pilots used to complain a lot about the TAFs, this has not been the case over the last year. We are impressed that your forecasters are directly notified of the impacts to our operations.”
 - *Mike Morgan, Director of Operations, Warbelow’s Air Venture*

Customer Feedback – WFO FAI

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- “Matching your criteria to values that have operational impact on pilots has helped us better anticipate when a change will occur that is meaningful to us. Also, customizing the criteria to the different stations across northern Alaska is appreciated.”
- “Thanks for taking the trouble to evaluate this situation and make changes which allow you to focus on the information which is most meaningful to us.”
 - *Tom George, Alaska Representative, AOPA*

- “If we are not calling your office about the TAFs you’re doing good.....we call other offices on a regular basis”
 - *Alaska Airlines Dispatch*
- Alaska Airlines rarely calls the Fairbanks office

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Contacts

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Introduction to Categorical Amendment Criteria (CAC)



Questions???