

Product Description Document Experimental Impacts Terminal Aerodrome Forecast (TAF) Board

Part 1 – Mission Connection

1. Product Description: The Aviation Weather Center (AWC) experimental Impacts TAF board is a time series display of weather conditions at airports with significant impact on the National Airspace System (NAS) across the United States. The board is a visualization of the “impacts catalog” – a database designed to reflect weather conditions that could impair arrivals and/or departures (or airport closure) based on criteria specific to each airport.

Each box (hourly forecasts from the TAF) is color coded based on the level of the impact. White represents no impact, yellow slight impact, orange moderate impact, and red high impact. The letters in the box represent the cause of the hazard. The criteria for color coding comes from the impacts catalog of critical weather conditions that impact air traffic at the given airport. Individual conditions have been determined for about 40 major airports. General purpose conditions exist for all other airports. The weather conditions are as follows:

- CIG – Ceiling (hundreds of feet, Above Ground Level [AGL])
- VIS – Visibility (statute miles)
- WX – Weather (see legend)
- WSpd – Wind speed (knots)
- WGust – Wind gusts (knots)

There are two formats for the board: condensed and expanded.

The condensed view lists any number of stations along the vertical axis and time along the horizontal axis. The first column is the latest observation. See Figure 1.

Time	OBS	27/15Z	27/16Z	27/17Z	27/18Z	27/19Z	27/20Z	27/21Z	27/22Z	27/23Z	28/00Z	28/01Z	28/02Z	28/03Z
@TOP														
KATL														
KBOS														
KBWI					WX	WX	WX	WX	WX	WX				
KCLE														
KCLT														
KCVG														
KDCA					WX	WX	WX	WX	WX	WX				
KDEN	CIG	[CIG]		[CIG]	[CIG]	[CIG]	[CIG]							
KDFW		[WX]	WX					WX	WX	WX				

Figure 1: Impacts TAF Board condensed view.

More detailed information can be found for each site by clicking on the station identifier. This will go to the expanded view for each site. In this view, each weather condition is listed along the vertical axis. These are:

- Type – Type of forecast: OBS – latest observation, PRVL – prevailing forecast in TAF, TEMP – TEMPO conditions from TAF
- VIS – Visibility (statute miles)
- CIG – Ceiling (hundreds of feet, Above Ground Level [AGL])
- Cover – Cloud cover: CLR, FEW, SCT, BKN, OVC
- FltCat – Flight category: VFR, MVFR, IFR, or LIFR
- WX – Weather from METAR/TAF codes
- WDir – Wind direction
- WSpd – Wind speed (knots)
- WGst – Wind gusts (knots)

The general criteria for each weather conditions is shown in Fig. 2. The default criteria use the flight category cutoffs.

	Slight	Moderate	High
Visibility	1.5sm > CIG ≥ 0.8sm	0.8sm > CIG ≥ 0.5sm	0.5sm > CIG
Ceiling	800ft > CIG ≥ 500ft	500ft > CIG ≥ 200ft	200ft > CIG
Weather		VCTS, SHSN	SN, FZRA, FZDZ, IP, TS, TSRA, TSGR
Wind Speed			WSpd > 30knts
Wind Gusts			WGst > 35knts

Figure 2: Impacts TAF Board color criteria.

There could be multiple hazards, but only the top one from this list is shown. TAFs also have temporary (TEMPO) conditions. If the impact is based on a TEMPO condition, it will be noted with brackets (i.e. [WX]). The temporary condition will always override the prevailing condition even if it is lesser impact. The option to only show prevailing conditions can be set by checking off the “Tempo: on” setting.

By hovering over each cell in the table, a popup will show the details for each weather condition, so the impact from other weather conditions can be seen. Below the table in the popup, specific criteria from the impacts catalog will be shown if the impact is different from the general criteria.

More detailed information for each site can be found by clicking on the station identifier. This will go to the expanded view for each site. In this view, each weather condition is listed along the vertical axis (see Figure 3).

KDEN - Denver Intl, CO, US

Issued at 1733 UTC 26 May 2016
Updated at 2024 UTC 26 May 2016

Time	2015Z	26/21Z	26/22Z	26/23Z	27/00Z	27/01Z	27/02Z	27/03Z	27/04Z	27/05Z	27/06Z	27/07Z	27/08Z	27/09Z
Type	OBS	PRVL	PRVL [TEMP]	PRVL [TEMP]	PRVL [TEMP]	PRVL [TEMP]	PRVL							
VIS	5	>6	>6 [4]	>6 [4]	>6 [4]	>6 [4]	>6	>6	>6	>6	>6	>6	>6	>6
CIG	45	50	70 [30]	70 [30]	70 [30]	70 [30]	12	12	12	12	12	12	12	12
Cover	OVC	OVC	OVC [OVC]	OVC [OVC]	OVC [OVC]	OVC [OVC]	OVC							
FltCat	MVFR	VFR	VFR [MVFR]	VFR [MVFR]	VFR [MVFR]	VFR [MVFR]	MVFR							
WX	-TSRA	-TSRA	-SHRA [TSRA]	-SHRA [TSRA]	-SHRA [TSRA]	-SHRA [TSRA]	-RA							
WDir	30	60	10 [10]	10 [10]	10 [10]	10 [10]	330	330	330	330	330	330	330	330
WSpd	7	10	10 [10]	10 [10]	10 [10]	10 [10]	10	10	10	10	10	10	10	10
WGst	--	--	-- [-]	-- [-]	-- [-]	-- [-]	--	--	--	--	--	--	--	--

Figure 2: Impact TAF Board expanded view

2. Purpose/Intended Use: The AWC experimental Impacts TAF Board allows the aviation community to quickly ascertain the specific weather hazards and impacts at key airports across the United States, based on the TAFs. Information on the timing and level of impact are also included. This information is displayed graphically on the Aviation Weather Center’s testbed website at: <http://testbed.aviationweather.gov/taf/board>. The display assists dispatchers and flight planners with flight plan preparation, while also raising situational awareness and improving operational decision making.

The AWC experimental Impacts TAF Board is also meant to consolidate pre-existing situational displays into a single, authoritative source. As a result, the following web pages will no longer be available once the Impacts TAF Board is operationally implemented:

www.aviationweather.gov/taf/tda

www.aviationweather.gov/trafficflowmgmt/tda

3. Audience/Users: Air traffic control, flight planners, and traffic managers.

4. Presentation Format: Website

5. Feedback Method:

Feedback will be collected through July 27, 2016 via comments provided on the electronic survey at:

<http://www.nws.noaa.gov/survey/nws-survey.php?code=BOARD>

Opportunities for face-to-face responses will occasionally occur in the context of media workshops and public outreach events.

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Part 2 – Technical Description

1. Format and Science Basis: The AWC experimental Impacts TAF Board is a tool to allow users to quickly determine the weather hazards and impacts at key terminals across the United States on a single web platform. The display itself is not a weather product; it is a repository that aggregates existing weather products, including Terminal Aerodrome Forecasts (TAFs) into a single, quick-glance, automated display.

2. Training:

No additional training is required to generate or use the product.

3. Availability:

The AWC experimental TAF Board is available 24 hours a day, 7 days a week at:

<http://testbed.aviationweather.gov/taf/board>