

Crosswind Calculator Aid

Product Description Document (PDD)

Part I - Mission Connection

Product Description - The Crosswind Decision Aid is color-coded according to the degree of impact the wind will have on various runways – green indicating little or no impact; yellow indicating marginal impact; and red indicating significant impact. Each color level is triggered based on a user-defined wind direction and wind speed threshold. The product also includes a “Wet Runway/IFR” factor that effectively lowers the crosswind speed thresholds.

Purpose – The Crosswind Decision Aid can help determine a critical wind (direction and speed). Meteorologists should then incorporate the onset of a critical wind into their forecast, to aid Traffic Managers in determining the usability of the various runways. Traffic Managers should then determine an airport acceptance rate based on current and forecast winds. The FAA outlined the need for a tactical decision aid in the following referenced documents:

Decision-Based Weather Needs for the Air Route Traffic Control Center (ARTCC) TMU (FAA, Air Traffic System Requirements ARS-100, November 1999, 21 pp). This report documents the results of an in-depth user needs analysis of weather information used in tactical air traffic decision making.

Audience - Meteorologists and FAA Traffic Managers should use the Crosswind Decision Aid. Meteorologists who issue forecasts for these airports should pay close attention to the observed winds and notice how they might impact the airport operations. The crosswind calculator was designed to indicate the impact on the air carrier operations more than the general aviation aircraft. Most general aviation aircraft experience critical crosswinds below the 20 knot threshold. Pilots can use this decision aid as a briefing tool only and should consult the FAA flight service stations to determine whether the runways will be usable.

Presentation Format – The Crosswind Project is web based. In addition to the graphical version of this tactical decision aid (see graphic below), a tabular form is also available for customers who cannot access Java-based applications. See this web based tool at: <http://srh.noaa.gov/zfw/crosswind.htm>.

National Weather Service
Fort Worth
Center Weather Service Unit

www.nws.noaa.gov

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Local forecast by "City, ST" or zip code
City, St: Go

ZFW CWSU Items
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Crosswind-Airports
DFW Climate
Statistics
Weather Briefing
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Links
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Storm Prediction
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Satellite
CWA/MIS

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Amarillo
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Fort Polk
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Contact Us:
E-Mail ZFW CWSU
ZFW CWSU Home

Experimental Crosswind Project

Select Airport:
DFW

Wind Direction
in degrees
270

Wind Speed
28

Wet Runway/IFR

Draw Map

DFW

Runway Crosswind (kts)
13L/C/R 35L/C/R; 16L/R 36L/R 28
13L/R 31L/R 20

Less than 20 knots
20-24 knots
25 knots or greater

Use the drop down boxes to select the airport and wind direction & speed
Crosswind FAQ

National Weather Service
Air Route Traffic Control Center
Fort Worth Center Weather Service Unit
13800 FAA Road
Fort Worth TX 76155
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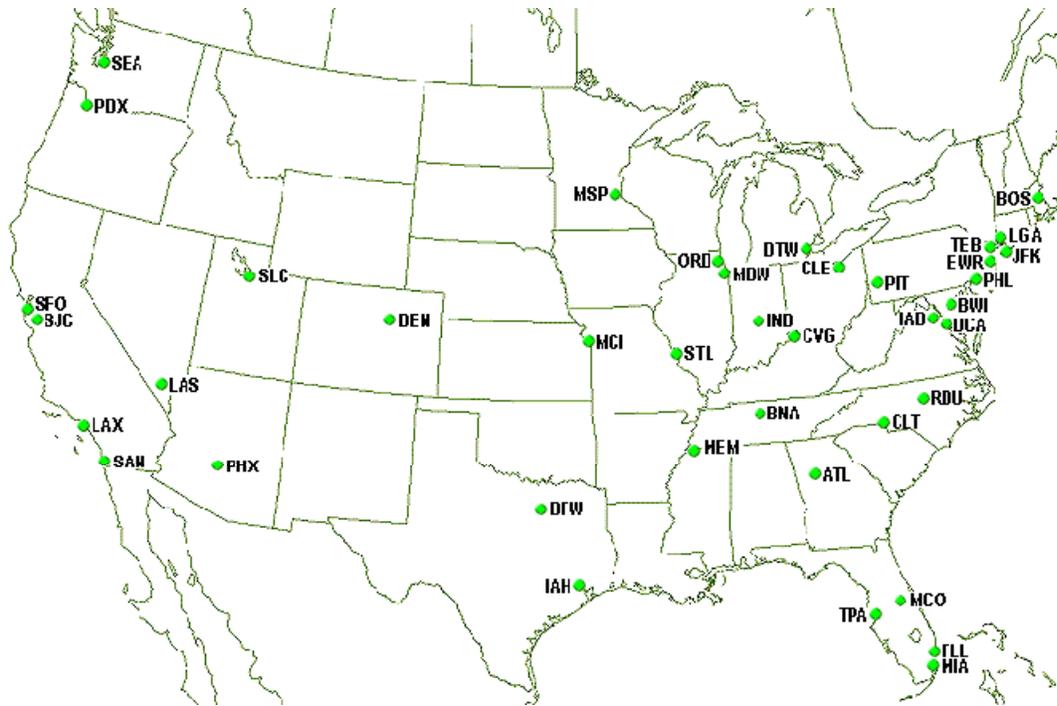
Feedback Method – Feedback is gathered from emails submitted via the CWSU Fort Worth web site ‘contact us’ link. Your Crosswind Decision Aid feedback is important. Comments may be addressed to:

Center Weather Service Unit
Attn: Tom Amis
Air Route Traffic Control Center
13800 FAA Road
Fort Worth, TX 76155

Email comments to: Thomas.Amis@noaa.gov

Part II - Technical Description

a. Format & Science Basis - At present, the product is manually-manipulated based on input from the forecaster, usually using the current observations. However, future enhancements of the product will include automated input of predicted winds from locally-derived forecasts. Also, improvements will be made to incorporate the crosswind aspect into a national color-coded map depicting weather delays at major airports, such as being generated on the Air Traffic Systems Command Center web page at <http://www.fly.faa.gov/flyfaa/usmap.jsp> (see following diagram).



Legend	
● General Arrival/Departure delays are 15 minutes or less.	
● Departures are experiencing taxi delays of 16 to 45 minutes and/or arrivals are experiencing airborne holding delays of 16 to 45 minutes.	● Departures are experiencing taxi delays greater than 45 minutes and/or arrivals are experiencing airborne holding delays greater than 45 minutes.
● Traffic destined to this airport is being delayed at its departure point. Check your departure airport to see if your flight may be affected.	■ Closed airport

b. Product Availability - The Crosswind Decision Aid is available at all times. It awaits user input to calculate.

c. Additional Information - Airports were selected because they have been defined as the “Pacing” airports to the FAA. A critical wind to any of these airports may create a sizeable impact to the National Airspace System. Additional airports may be added upon request with a brief description of need. Please submit requests for additional airports to:

National Weather Service, Southern Region Headquarters
Attn: Paul Witsaman, Regional Aviation Meteorologist
Room 10A03
819 Taylor Street
Fort Worth, TX 76102

You may email your request to: Paul.Witsaman@noaa.gov