Blowing Dust Potential Product

Part I - Mission Connection

a. Product Description – The Blowing Dust Potential graphical forecasts are designed to provide customers enhanced information on the potential for blowing dust (low, moderate, high, very high) to reduce visibilities below 1 statute mile during the next two days for areas in the Pendleton County Warning Area (CWA) prone to blowing dust (primarily the Columbia Basin and Blue Mountain Foothills).

b. Product Type - Official

c. Purpose - The purpose of this product is to provide our customers and partners with enhanced detail on the potential for blowing dust for the next two days.

a. Audience - The audience is any customer in the WFO forecast area that would like access to graphically-depicted information on blowing dust potential. Anticipated users include: media, farmers, and those planning outdoor activities, and especially those planning to travel through the affected areas including the I-84 corridor.

b. Presentation Format - All displays will occur via a web page interface. These graphics will be created from computer scripts, but will be QC'd for accuracy by the forecasters on duty.

c. Feedback Method - We will solicit feedback through an existing NWS Feedback form and/or e-mail to the WFO webmaster.

d. Example URL = http://weather.gov/pendleton/dust

e. PDD Approved by Vickie Nadolski, WRH Regional Director

Part II - Technical Description

a. Format and Science Basis- The graphics are created each time the Point Forecast Matrix (PFM) product is issued or updated at the Pendleton forecast office (WFO PDT). A computer algorithm is triggered that uses forecast wind values from the PFM and observed precipitation amounts to calculate the rate of soil erosion due to wind. The "threat" levels (low, moderate, high and very high) are determined by comparing these soil erosion estimates to visibilities during past blowing dust events. The threat levels represent the potential for visibilities below one mile.

Because the algorithm is primarily designed to work for synoptic-scale weather systems and spring and fall soil conditions, the graphics will only be available on the Internet during the March through May and September through November time period.

b. Availability - The graphics will be available 24/7. They will be updated at a minimum of twice per day with the issuance of each major Zone Forecast Product (ZFP, and hence the PFM). However, they may also be updated at non-routine times as conditions warrant.

c. Additional Information - Forecast output from this experimental application is not intended for a specific user group. The intent is to provide enhanced information to all of our customers.