Algorithms for Aviation Climate Assessment Supplement II

Refer to the TRACON_Seasonal_Aviation_Weather_Factor_Summary_six_element.xls file when using the following algorithms:

Table 1. Annual Summed Weighted Frequency = U+AP +BK+CF+DX+DO, where:

U= Reverse ranking (P) of the significant wind factor (J=D*E) * the wind impact factor (O).
AP= Reverse ranking (AK) of the thunderstorm factor (AE=D*Z) * the thunderstorm impact factor (AJ).
BK=Reverse ranking (BF) of the significant ceiling factor (AZ=D*AU) * the ceiling impact factor (BE).
CF=Reverse ranking (CA) of the significant visibility factor (BU=D*BP) * the visibility impact factor (BZ).
DX=Reverse ranking (CT) of the snow event factor (CO=D*CK) * the snow event impact factor (CT).
DO= Reverse ranking (DK) of the freezing precipitation event factor (DF=D*DB) * the freezing precipitation impact factor (DJ).

Table 2. Annual Summed Weighted Frequency=DZ+EE+EJ+EO+ET+EX, where:

DZ=(Airport significant wind factor (J=D*E)/average significant wind factor for 30 airports) * wind impact factor (O).
EE=(Airport thunderstorm factor (AE=D*Z)/average thunderstorm factor for 30 airports) * thunderstorm impact factor (AJ).
EJ=(Airport significant ceiling factor (AZ=D*AU)/average significant ceiling factor for 30 airports) * ceiling impact factor (BE).
EO=(Airport significant visibility factor (BU=D*BP)/average significant visibility factor for 30 airports) * visibility impact factor (BZ).
ET=(Airport snow event factor (CO=D*CK)/average snow event factor for 30 airports) * snow impact factor (CT).
EX=(Airport freezing precipitation event factor (DF=D*DB)/average freezing precipitation event factor for 30 airports) * freezing precipitation impact factor (DJ).