




UNITED STATES DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
National Weather Service Forecast Office, WS1
Boulder, Colorado 80305
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Memorandum For: NOAA Grant Evaluation Committee

From: Nezette Rydell, Meteorologist in Charge 
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National Weather Service Denver Center Weather Service Unit (CWSU) and Weather Forecast Office Boulder, CO (WFO) meteorologists have used continuous thermodynamic sounding information when it has been available via <http://weatherview.radiometrics.com> to improve aviation forecasts and weather advisories to the FAA over the last several years. This information has been helpful in forecasting near-term weather for Denver International Airport (DIA) and surrounding areas, particularly in regard to convection, inversions, and with freezing drizzle, snow, and icing.

During convective season, real-time soundings provided by RDX have been instrumental in diagnosing the actual presence or absence of mid- and upper-level instability as compared to model forecasts, directly aiding the forecasting and evolution of showers or thunderstorms at/near DIA and arrival and departure gates.

These soundings were also used in winter seasons; aiding in near real-time to monitor phenomena such as surface inversion strength (to forecast wind speed and direction and low stratus), and for monitoring of depth of low-level moisture and temperature profiles for forecast adjustments with regard to the onset timing of freezing drizzle, rain, and changeover to snow.

We estimate our forecasters used this data, when available, several times a week, and in rapidly evolving weather events, multiple times per day. The temporal resolution for these observations, roughly every 30-40 minutes, provided significant confidence to our staff in updated forecasts and warning operations.

