

The Front Range Observational Network Testbed

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Since 2008 the staffs of the Colorado State University CSU-CHILL National Radar Facility and the National Center for Atmospheric Research S-Pol radar facility have been developing, with guidance from the National Science Foundation, a plan for the two radar Facilities to more closely align their missions. Initially, the radar groups focused on adopting common software and hardware structures including antenna control, radar process control, signal processing, calibration, and data display capabilities. These common structures allow each radar to be more efficient in their operation and more reliable. Another highlight of this joint activity is FRONT, the Front Range Operational Network Testbed. FRONT brings a new observational capability to the community formed by S-Pol, CSU-CHILL and CSU-Pawnee S-band radars, along with nearby NEXRAD radars.

Key to the envisioned FRONT mission is moving S-Pol to a new site in Weld County, called the Firestone Site (with a base line of 42 km to CSU-CHILL) in order to create a dual-Doppler, dual-polarimetric radar configuration. It is planned that radar data from the NEXRADs KFTG (Denver Airport) and KCYS (Cheyenne) will be mosaiced with CSU-CHILL, S-Pol and Pawnee (located close to Nunn, CO) data thus creating a unique research radar network for the scientific community.

This is an informational poster for the new facility, FRONT.