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January 8, 2014

Prof. S. Rutledge
CSU CHILL
National Weather Radar Facility

Dear Prof. Rutledge,

I recently completed the initial analysis of the CHILL radar data collected during the 20 hour CHILL HighParkQPE project. As part of this project during late July - early August 2013, several precipitation events, some of which caused local flooding, were observed by the CHILL radar in the High Park area west of Ft. Collins. The High Park area, which was affected by wild fires, is subject of ongoing research by the hydrological community who conduct runoff and soil erosion studies in the impacted area. As a result of the analysis, high spatial and temporal resolution quantitative precipitation estimate (QPE) maps were produced for each event. These maps were made available to our collaborators in hydrological community. Different conventional and polarimetric estimators were used for precipitation retrievals and comparisons were made with available gauge measurements in the area of interest. Results of comparisons were also provided to the collaborators so the use of the QPE results from particular estimators can be assessed.

I would like to thank you and the CHILL staff for providing high quality radar measurements. Special thanks are due to Pat Kennedy who operated the radar during the most events and provided the measurement data and the technical advice in the expedited manner. His willingness to go an extra mile to get good reliable data is greatly appreciated. Thanks to him and Bob Bowie we observed some good events that happened to be outside the regular hours of CHILL operations. I hope that there will be more opportunities to work with CHILL data in future.

Sincerely,

Sergey Matrosov
Senior Research Scientist
CIRES, University of Colorado
and NOAA ESRL.