Contribution ID: **37** Type: **Oral**

An overview of the real-time radar-based precipitation analysis of Deutscher Wetterdienst and plans for including CML data

Tuesday, June 25, 2019 4:05 PM (15 minutes)

In this presentation, we will introduce the Deutscher Wetterdienst (DWD) radar network and real-time analysis within the hydrometeorological production system RADOLAN. The key feature is the adjustment of radar-derived precipitation estimates to gauge-based measurements with a temporal resolution of one hour on a 1 km2 raster covering the German territory. The RADOLAN system has been developed in close cooperation with the hydrological agencies of the German federal states and provides real-time high-resolution precipitation data since June 2005.

Within the framework of a project financed by the „Strategic Alliance of German Federal Agencies ‚Adaptation to Climate Change"', DWD reprocessed the radar-based precipitation estimates starting in 2001. This RADKLIM data is available from the Climate Data Center of DWD. Using the long-term climatological analysis RADKLIM as an example, we show some measurement-specific challenges in deriving radar-based precipitation products illustrating the potential benefit of using additional CML data in the process.

Within the current project ‚HoWa-innovativ', together with several partners, DWD will include CML-derived precipitation information into a demo version based on the operational RADOLAN suite with the goal to provide optimized real-time precipitation information. Together with the hydrological forecasting authorities of the federal state of Saxony this demo product will be used to evaluate the potential of CML data for application in flood forecasting in small catchments.

Author: Dr WINTERRATH, Tanja (Deutscher Wetterdienst)

Co-author: CHWALA, Christian (KIT (IMK-IFU) / Uni Augsburg)

Presenter: Dr WINTERRATH, Tanja (Deutscher Wetterdienst)

Session Classification: Stakeholder presentations

Track Classification: Stakeholder contributions (Day1)