P54 Implementation of a regional WRF forecast system to support the Columbian Civil Aviation Authority (Aerocivil).

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A 3-year collaborative effort between NCAR, Meteostar and Aerocivil is in progress, with the goal of establishing a regional forecast system aimed towards skillful forecasts, with an emphasis on deep convection in a high-altitude tropical environment. Regional nested domains of 27-9-3 km with 63 vertical levels are centered over Columbia and designed to include all airports within the high-resolution inner nest. Efforts have been directed at mitigating the effects of lateral boundary conditions on the outer domain, having adequate vertical resolution to handle complex terrain as well as meeting the expectations of available computational capabilities. Two physics schemes (ThompsonMP and WSM6) suitable for the tropical coastal and mountain climates of the region were selected to perform rigorous testing of the initial forecast system. A testing period of 1 week duration was chosen during the rainy season for a comprehensive statistical analysis of surface point observations and gridded precipitation observations using the Model Evaluation Tools (MET). Results of this evaluation will be used to establish a baseline for future development.