

FORM 442 Confirmation Number: EL873364

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EXPERIMENTATION DESCRIPTION

The radar sensor to be fielded and operated under this FCC application will be used as part of a sensor network for the Portable Doppler Weather Radar (PDR) for the United States Air Force Contract #FA8723-10- D-0001. The radar will be mounted on a truck located within the Continental United States and will provide weather radar information for the surrounding urban area, which is highly prone to severe weather including flooding due to significant rainfall (tropical storms, hurricanes, tornadoes, straight line winds etc.). The radar will be operated during severe weather events to characterize the severe weather events in the surrounding vicinity of the Mobile Truck, with the primary goal of the experiment to improve urban weather prediction by integrating this high temporal/spatial resolution radar rainfall mapping obtained with the E700XP/DP radar with models developed by the EWR researchers. Preliminary research has revealed that radar data are critical to improving forecasting and early warning detection forecast over small to regional basin scales, such as the urban areas or rural areas.