

FORM 442 Confirmation Number: EL426210

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Question #7: EXPERIMENTATION DESCRIPTION

The radar sensor to be fielded and operated under this FCC application will be used as part of a sensor network for RESEARCH. The radar will be mounted on the roof of a medical building located within the Texas Medical Center (TMC) in Houston, Texas and will provide weather radar information for the surrounding urban area, which is highly prone to severe flooding due to significant rainfall (tropical storms, hurricanes, etc.). The radar will be operated during precipitation events to characterize the rainfall rates in the surrounding vicinity of the TMC, with the primary goal of the experiment to improve urban flooding prediction by integrating this high temporal/spatial resolution radar rainfall mapping obtained with the E700XP/DP radar with hydrological models developed by the researchers. Preliminary research has revealed that radar data are critical to improving flood forecast over small to regional basin scales, such as the urban area of TMC.