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Description of Research Project

This research program focuses on technologies to identify and localize sources of infrasound signals, capture and identify infrasound signals, and calibration and metrology of infrasound arrays. Key components of this research include the development of advanced infrasound sensors and the deployment of these sensors to study infrasound propagation phenomenology. Because localization of infrasound sources is of critical importance, exact location of the infrasound station arrays is crucial. In the development, calibration, and metrology of the sensors for these arrays, the University of Mississippi needs a capability to assess and optimize the functionality of the GPS components in the laboratory in a clean environment. A GPS repeater is required to meet this need since ambient GPS signals cannot penetrate to the laboratories being used in the development, calibration, and metrology of these sensors.