

Abstract Submitted
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Design of an Acoustic Array for Comparison with an Alternative Source Localization Method¹ DESHAWN COOMBS, JACQUES LEWALLE, MARK GLAUSER, GUANNAN WANG, Syracuse University — We report on the design, testing and construction of a conventional acoustic array, and document an alternate method of signal processing. The purpose of the new algorithm is to improve the spatial localization of acoustic sources. The reference results are obtained using the beamforming algorithm. The array design includes 60 microphones with a maximum aperture diameter of 39 inches. The arrays target frequency range is 500-5000 Hz. The new algorithm uses fewer microphones. We will show results with simulated signals and with jet noise experimental data. Details of the array calibration and representative data from measurements will be presented along with data post-processing procedures.

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