

# UUV Communications Transducer

Materials Systems Inc. has been awarded a Small Business Innovative Research (SBIR) contract from the Office of Naval Research (ONR) to develop a novel Common Acoustic Communications Module (CACM) for Unmanned Undersea Vehicles (UUVs).

MSI was selected for this program based upon its prior experience with the development and application of single-crystal and piezocomposite technologies. Through prior R&D efforts, MSI has developed an alternative ceramic-based method of producing single-crystal relaxor ferroelectrics. Under this contract, MSI will utilise its fabrication method to incorporate their material into broadband transducer elements, which are planned for integration with the Micro-Modem acoustic communications (ACOMMS) system developed by Woods Hole Oceanographic Institution (WHOI) for use in UUV applications.

The MSI CACM will provide a smaller, lighter-weight sensor package that will provide increased bandwidth, higher sensitivity and will draw less power than the ACOMMS devices in use today.

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<https://www.hydro-international.com/content/news/uuv-communications-transducer>

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