



International SOF Week Collider Event Technology Focus Area 2

Technology Focus Area: Acoustic Sensor

Technology Focus Area Advocate: TVS/RSTA, PM TCC, PEO-TIS

Problem Statement: SOF does not currently possess a family of interoperable acoustic sensor subsystems, that can be integrated and used across a family of tactical ISR systems, as well as, integrated into reconnaissance and unattended ground sensor kits.

Operational Vignette 1: The human packable acoustic sensor(s) will be used to detect, locate, track, and possibly classify/identify activity (personnel, animal, vehicle, vessels, etc.) at range in ground ISR missions and be subjected to the elements of solar, rain, snow, and wind. The acoustic subsystem will operate for multiple days while left unattended and will be remotely projected on a user interface that supports human-in-the-loop and potentially autonomous machine software.

Operational Vignette 2: The human packable acoustic sensor(s) will be used to detect, locate, track, and possibly classify/identify activity (personnel, animal, vehicle, vessels, etc.) at range in maritime ISR missions and be subjected to the elements of solar, rain, snow, wind, and extended full water submergence. The acoustic subsystem will operate for multiple days while left unattended and will be remotely projected on a user interface that supports human-in-the-loop and potentially autonomous machine software.

Characterization of Successful Prototype OV-1: A human packable device that can withstand the external elements of solar, rain, snow, and wind that can classify/identify activity (personnel, animal, vehicle, vessels, etc.) at a high confidence level. This device must have the appropriate battery power to survive multiple days while being able to be remotely projected onto a user interface that supports human-in-the-loop and potentially autonomous machine software.

Characterization of Successful Prototype OV-2: A human packable device that can withstand the external elements of solar, rain, snow, wind, and extended full water submergence that can classify/identify activity (personnel, animal, vehicle, vessels, etc.) at a high confidence level. This device must have appropriate battery power to survive multiple days while being able to be remotely projected onto a user interface that supports human-in-the-loop and potentially autonomous machine software.

