Persistent Smart Acoustic Profiler (PSAP)

**Problem Statement**

- **The Objective**: Combine groundbreaking technologies to develop easily-deployed, unmanned acoustic sensing platforms that can autonomously provide persistent surveillance of the maritime battlespace in support of the Navy’s Intelligent Autonomous Systems (IAS) Strategy.

- **The Approach**: Work collaboratively with industry and research partners to integrate novel technologies into a state-of-the-art solution that provides today’s warfighter intelligent information about the maritime battlespace, enabling more timely, informed, and precise decision making.

**Impact**

- Unique energy harvesting process supports unlimited endurance, reduces surface footprint.
- Smart processing gets essential information more quickly to the operator in near real time.
- Reconfigurable while deployed optimizing system performance based on environmental conditions.
- Robust performance - field-tested in real ocean environment, fundamental operational modes thoroughly checked and documented.

**Transition**

PSAP capability can be adapted to supporting a myriad of operational and research requirements.

- **Operational Missions**: USW, ISR, METOC Battlespace Awareness.
- **Research Applications**: Underwater acoustic studies, ambient noise studies, soundscape monitoring, behavioral response studies, ecological studies, marine mammal research.

Potential continued support: UWDC, ONR-OA, ONR-MM, N45-LMR, NOAA-Oc Exp.

Potential collaboration: Navy Labs, MM Research.

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**Seed Research Program 2022**

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