Arctic Warrior Experiment 2023 (AWE-23)

"Remote Effects Delivery"

The Special Operations Research and Development (SORD) project at FFI, and the Norwegian Special Operations Command (NORSOCOM) are the organizers of AWE.

The AWE is a technical experiment (TE) modeled after US SOCOMs TE. The main purpose of this event is to challenge industry and the research community to develop new concepts and military equipment that increase the winter warfighter's capabilities in an Arctic environment. Another important goal is to enable SOF warfighters from the US, UK, CAN, AUS, NZ, SWE, DK and FIN to share experiences, discuss concepts and participate in experiments and demonstrations of new Arctic capabilities.

With the help of the Arctic Warrior Experiment, we seek to motivate Norwegian and foreign industry to develop equipment and technology for soldiers that is suitable for use in the harsh Arctic environment. We want to give the industry the possibility to experiment together with Norwegian and foreign military personnel to find new and innovative solutions.

Areas of specific interest:

The focus area for AWE-23 is "**Remote Effects Delivery**" adapted to the Arctic environment, and scaled to be operated by a small team. Obtaining their mobility and small footprint is crucial.

- Loitering Munition
 - \circ $\;$ $\;$ From small hand held, to portable for a four-man team.
 - Preferable tube launch, and "x-wing" design
- UXV-platforms (Air, Ground, Sea)
 - o VTOL
 - De-icing and/or anti-icing solutions for UAV
 - Maritime operation from a moving platform
 - Autonomous operation (navigation, collection, verification, processing and return to launch)
- GNSS-denied operation and navigation
- > Link systems for use in a contested environment
 - Integration to soldier system-BMS-C2IS architecture
 - Distribution of sensor detections
- Sensors and effectors
 - Anti-fog and/or icing solutions for lenses, sights and other sensors
 - Autonomy for sensor operation and detection
 - o Sensor fusion

- Remote safety systems for arming and firing of effectors.
- Battery and power supply
 - Battery and power supply for operating BMS, and small units requiring electricity. Lightweight solutions adapted to a cold climate (down to -30C)
 - Battery and power supply technology for long term operation of man portable sensor systems adapted to a cold climate (down to -30C)
 - \circ $\;$ Charging and maintaining operations of Loitering, UXV systems and effector delivery.

Submit a one-pager:

If you or your company has a solution to one of the areas of interest listed above, submit a one-pager describing your equipment and how it will contribute to solving our challenges. At a minimum, we need to be able to develop one useable prototype ready for the winter of 2023. We will evaluate the different contributions, and invite the selected companies to join us at the Arctic Warrior Experiment in Norway January/February 2023.

Deadline for submission of one-pager: 01.12.2022

Submit to: sord@ffi.no

All questions regarding Arctic Warrior Experiment must be routed to sord@ffi.no

Costs incurred by the contractor in connection with the preparation and submission of the one-pager or participation at the Arctic Warrior Experiment will not be refunded. Participation in this Arctic Warrior Experiment will not in any way commit the Norwegian Armed Forces and/or the Norwegian Defense Research Establishment to enter into contract with the contractor, or impose any type of economic obligations upon the Norwegian Armed Forces and/or the Norwegian Defense Research Establishment towards the contractor.