International SOF Week Disrupter Event Categories

DISRUPTIVE opportunities that the US Government can successfully action are expected to be in the Technology Readiness Level (TRL) 3-5 range, but this will not be a limiter during review of anything proposed outside of these levels.

**Emplacement and Access disruption:**
Special Operations is interested in technologies and solutions associated with medium lift vertical take-off and landing capabilities. Proposed disruptions should support never before attained range, speed, and capacity.

Special Operations is also interested in enabling runway independent platforms and technologies to support logistics, mobility, sensing, and strike.

**Scalable and Precision Effects disruption:**
Special Operations is interested in intelligent kinetic and non-kinetic focused strike platforms and/or weapons that can be integrated capabilities that can be integrated into diverse delivery mechanism usable by US and international partners and allies independently or working jointly. A variety of approaches will be considered. Exemplar conditions may include: 1) small, unsupported operational unit deployed without immediate technical support (assume a 14-30 day independent mission with a team of 10-40 personnel). 2) Joint US, partner force, and potentially international civil organizations such as coastal defense forces, fire/police services, etc. operating multiple teams (up to 100 teams of 2-20) across distances ranging from 10 km to 150 km. 3) Joint US, partner force enterprise The logistics and operations of such systems can/should be organic, asymmetric, scalable (size and quantity), expeditionary, concealed and/or clandestine with minimal personnel and expertise. Proposed disruptions should enable or support never attained range, speed, automation, awareness (multiple senses), operation and transition between environments (ground, air, sea, space), and safety.

Special Operations is interested in sensing further than has ever physically been done in history. The disruptions can be any singular sensing capability or technology (e.g. visual, acoustic, electromagnetic, environmental, cyber, other), but would be advantageous when new methods of combined sensing is effective. Within the sphere of advanced sensing the application of the sensing capability understands and provides higher level information and/or intelligence to the operations (e.g. understanding patterns of life, independently cue US and/or US/Partner operational teams when anomalous conditions arise, etc.) Increasing the speed and accuracy every detail in an operational environment and reducing the cognitive load of the user or operator(s) is the focus for this interest. Technology and system size, weight, power, automation, range, accuracy, and administration (networks, Command and Control, security) will all be major factors to consider in any disruptive response.
Multiple Domain Communication and Computing disruption:
Special Operations is interested to enable small unit operations with advanced multi-scale compute, and multi-layered communication networking technologies. Small units may include people, platforms (small, medium, large, SOF, non-SOF, DoD, non-DoD, partners), sensors, partners, local resources, strategic resources, support teams and services. Distribution of coordinated nodes and resources across multiple capabilities and ranges is expected. Disruptions are expected to enable or provide ubiquitous connectivity and information from any source, protected at all layers (DoD standards) with layered and intelligent protections and redundancies to ensure no-fail information to appropriate users. The use of multiple electromagnetic, optical, acoustic, other sciences to enable this disruption is expected through phases of operation.

Special Operations is interested in science and technology in independent or stand-alone Position and Timing capability that provides equal to or better P&T than current commercial Global Positioning Satellite (GPS) solutions. Disruptions need to reduce and remove the use of any reference through days of operation without reducing the quantity of position or timing at appropriate levels. Disruptions must be open to platform and system integrations and would be most beneficial to use the same interfaces and standards to seamlessly integrate into systems that GPS currently provides the service.