International SOF Week Collider Event Technology Focus Area 3

Technology Focus Area: C5I / Sustainment and Protection / "Digital" Camouflage

Technology Focus Area Advocate: SOF AT&L-ST

Problem Statement: How Might Special Operations and Partner Force Teams Operate in Future operating environments exhibiting omnipresent sensors and intelligence collection? The joint and partner special operations warfighters require new disruptive approaches to successfully operate in a future operating environment where continuous remote surveillance and monitoring is the norm.

Operational Vignette 1: Command, Control, Communications, Computing, Cyber and Intelligence problem set: How would joint (US) and partner SOF warfighters share and fuse information into a common architecture, enabling all levels of the force to make better decisions. Key aspects to be considered include multi-level security, tailorable encryption, network architecture, challenging environmental conditions, including intentional and unintentional jamming. Desired outputs/products should support a common operational picture that can be uniquely tailored.

Operational Vignette 2: Sustainment: How can we enable SOF peculiar logistics in Crisis and Conflict phases or Interchangeable logistic with "by/with/thru" partners. Key aspects to be considered include consideration of extended periods of operation (e.g. 40 days for a team of 12-20 warfighters) without access to re-supply, potential for pre-placement, extended ranges and terrain (consider Africa or the Indo-Pacific as use cases), harsh physical environments with extreme temperature conditions, etc.

Operational Vignette 3: Operations: How can we reduce/conceal/eliminate Joint and Partner Force SOF operators' signature in the virtual/digital domain in the same way that camouflage is used in the physical domain? This domain includes cyberspace as well as the electro-magnetic spectrum. Key aspects to be considered include consideration of personally identifying information, widely employed commercial sensors, employment of publicly or commercially available information/databases, etc

Characterization of Successful Prototype OV-1: A successful prototype (hardware or software) will be able to be used by SOF warfighters in simulated exercises and experiments to aid in the development of future TTPs and requirement generation.