

Warfighter Integration to Enhance Operational Utility of Emerging Technologies

Expeditionary Analytics for Chemical and Biological Detection

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The Joint Expeditionary Force currently has limited far-forward analytical capabilities to support near real-time detection, identification, or confirmation of chemical and biological-threat agents or precursors. This program was designed to address the limited automated communication as well as document and explore improvements to the detection capabilities available to these users. A training program was developed for chemical and biological detection instruments used for field-forward expeditionary analytics in partnership with United States European Command (EUCOM). Additionally, commercial hardware capable of communicating analytical results automatically were selected and integrated into DTRA-funded software efforts. Through these interfaces, commanders would be able to receive timely identification/confirmation of threat agents onsite, which would allow for confident hazard awareness and reduced operational impacts. Operational stakeholders include the Technical Support Group (TSG) and United States Special Operations Command (USSOCOM).

A technical demonstration was conducted with the Aerosol Sciences Branch at Edgewood Chemical Biological Center with the 20th CBRNE Command participating as users. The data transfer capabilities of the instruments were demonstrated at this event. The capstone operational demonstration event will be conducted with EUCOM and Navy operators in Q1FY18. Feedback from the operators will be gathered and transitioned to JPEO.

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