LOCALIZING CHEMICAL AND BIOLOGICAL THREAT DETECTION

Small Standoff Trace Detection Sensor For Handheld And UGV/UAV Applications

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Alakai Defense Systems has recently developed what we believe is the first one-handed UV Raman sensor for standoff trace detection of chemicals (solids & liquids), which we refer to as Argos. Argos, equipped with increased range and detection capability, is the higher performance version of the lower cost SAFR sensor. And because they are lightweight, both Argos and SAFR can be deployed onto unmanned ground vehicles (UGVs) or unmanned aerial vehicles (UAVs). Data will be presented showing Argos detection performance on residue and trace Chemical Warfare Agent (CWA) samples at ranges from 1 m to 15 m both indoors and in bright sunlight. Further, data will be presented from UGV and UAV experiments performed with the Argos system in outdoor applications. This new capability of standoff trace chemical detection from a UAV we believe will be a game-changer, and allow many new CONOPS. The best part is that with Artificial Intelligence (AI) targeting and software upgrades, this capability can function autonomously thereby minimizing Soldier workload.

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