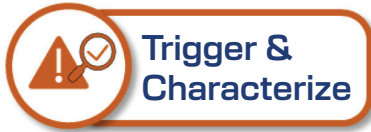


DTT: Detect, Tag, Track

Modular, tactically-ready system for fully autonomous detecting, tagging and tracking of critical threat assets



ARA's Detect, Tag, Track delivers a fully autonomous, modular capability for identifying and monitoring critical threats in contested environments. Detect, Tag, Track leverages existing off-the-shelf components to create an innovative, cohesive architecture that moves seamlessly from potential target detection through the target life cycle.

Detect, Tag, Track uses unattended ground sensors (UGS) to detect activity and trigger ground based automatic target recognition (ATR) code to identify potential targets or threats. Identified targets triggers the launch of an unmanned aerial system (UAS) with on-board ATR and taggant delivery capabilities. Once airborne, edge-processed ATR verifies the target in real time without needing to transmit streaming data, enabling rapid, autonomous intelligence and decision-making. With the target confirmed, the UAS can autonomously or upon user command deliver advanced taggants onto the target to enable enhanced tracking and ease target reacquisition. ARA developed advanced customized optical taggants that exhibit distinct infrared signatures for autonomous detection but unremarkable to the human eye, ensuring covert marking and trackable with a custom low-power, lightweight, hyperspectral imager. This taggant marker improves the ability to maintain track of a target after the initial UAS flight terminates by providing better means for other intelligence, surveillance, and reconnaissance (ISR) assets to acquire and maintain continuous tracking of the tagged target.

The result? Detect, Tag, Track offers a tactically ready end-to-end solution for target awareness and tracking for enhanced intel support to operations.

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