

**Scientific Systems Company, Inc.**

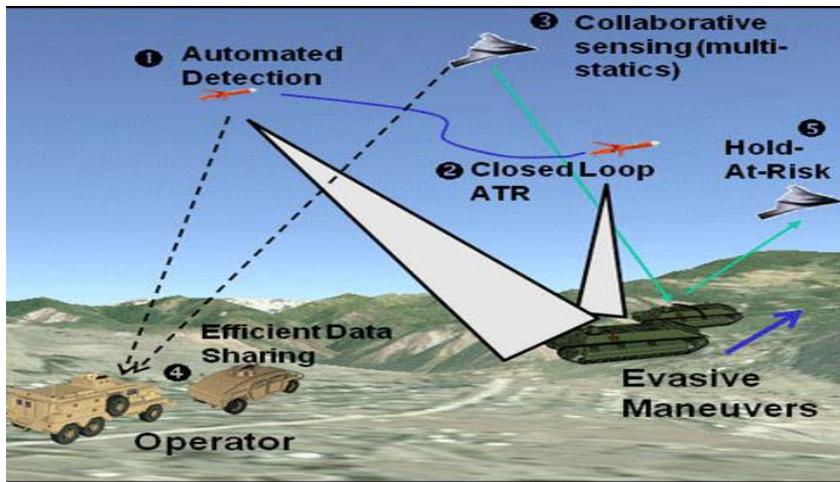


Woburn, MA  
 www.ssci.com  
 781-933-5355

**SINCE ITS FOUNDING IN 1976**

**>200 SBIR Awards**  
**78 Employees**

**SDB Socioeconomic Category**  
**2 Patent from SBIR/STTR**



**Active Collaborative Automatic Target Recognition (ACA)**

Countering Anti Access/Area Denial (A2AD) is an emerging challenge, requiring rapid, remote, reliable classification of threats with limited bandwidth, computer and human resources.

Scientific Systems Company, Inc. (SSCI) developed ACA (Active Collaborative ATR), a software suite of autonomous behaviors to improve efficiency and accuracy search and identification leveraging novel collaboration and sensing technologies. SSCI techniques enabled low bandwidth collaboration for EO/IR and RF sensing and demonstrated this technology with up to 30 Live/virtual UAVs. All of this technology was flown in real time within the confined space available on a small UAS.

**IMPACT TO THE MISSION**

ACA software requires minimum bandwidth demands, sending only informative, high-priority clips to operator, and reduced operator interaction. This allows effective collaboration between smaller UAVs and manned-unmanned teams to counteract A2AD threats against sophisticated adversaries. Delivered autonomous EO/IR and RF sensing, search and jamming behaviors.

**BEYOND PHASE II**

SSCI demonstrated this software in live testing conducted by Raytheon and the government under separate subcontract to Raytheon for \$650K. In addition, they received funding from Raytheon of up to \$3.5M to insert their technology into the Raytheon Coyote UAV as part of the DARPA SESU program and up to \$10M in another DoD classified program. A new program extending this technology to manned-unmanned aircraft teams is underway with a contract value ~\$1.2M. Also, 3 software licenses for related autonomous behaviors were sold by the company (\$100,000).

**Solicitation:**

VHF/UHF Emitter location from micro Unmanned Aerial Systems

**DARPA SBIR Sponsor**

**SB111-004 Topic Number**

**Collaborative Autonomy for Improved Accuracy**

**Primary Innovation**

**Robust, low bandwidth Secondary Innovation**

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