

Countering Unmanned Aerial Systems



Homeland Security

Science and Technology

EYES IN THE SKY

The rapid, exponential increase in the public availability and sophistication of commercially available unmanned aerial systems (UAS), represents a significant challenge as these capabilities are progressing faster than the ability to assess and mitigate potential threats.

The Department of Homeland Security (DHS) Science and Technology Directorate's (S&T) Counter Unmanned Aerial System (CUAS) Program assesses available CUAS solutions and guides the development of new capabilities to support acquisition, rapid deployment, and utilization decisions based on the needs and requirements of authorized DHS Components such as Customs and Border Protection (CBP), Secret Service, Coast Guard, and the Federal Protective Service. A long-term acquisition strategy is in place to identify, test, and procure CUAS capabilities that address future UAS threats for authorized DHS Components.

SUPPORTING DHS COMPONENTS

The S&T Operational Requirements Analysis Division, as the authority linking Component customer research and development (R&D) needs, gaps, and requirements to S&T R&D investments, will provide requirements management and decision support for CUAS initiatives.

UAS have quickly become a security concern due to the ease in which they can aid in intelligence gathering and/or be used as a malicious delivery platform. This, in turn, has led to a need to identify and understand the capabilities of currently available CUAS products and companies. S&T maintains a catalog of commercial-off-the-shelf (COTS) and government-off-the-shelf (GOTS) CUAS technologies. S&T collaborates with CBP and the Department of Defense to competitively test and evaluate multiple best-in-class commercial CUAS technologies in an operational environment. This joint initiative allows companies' technologies to be eligible for immediate acquisition using the Other Transaction Authority to deliver prototype capabilities.



Quantifying the performance of CUAS COTS/GOTS for inclusion into the DHS database will provide a basis for selecting system(s) to enter into the operational testing phase. It will also maximize efficiency by standardizing test methods, data collection, and formats, while reducing costs by pursuing interagency and international collaborations. S&T is building T&E expertise through development of standards and equipment, as well as participating in T&E events with federal and state partners to leverage resources and expertise.

DHS S&T is establishing a CUAS for selected infrastructure. Phase one will deliver initial operational capability for wide-area CUAS and pursue interoperability with other components. Phase two will evaluate new and improved technology for possible integration into the testbed. Phase three will validate and provide input for simulation exercises against scenarios/future threats that cannot be tested.

S&T understands the threat from nefarious UAS is not unique to the DHS. Therefore, S&T is working with numerous interagency partners.

CUSTOMER IMPACT

Components will have organic capability to successfully protect people, critical assets, and facilities from actions by nefarious actors employing UAS to cause harm, disrupt U.S. commerce, and move illegal substances within and across U.S. borders.

