

PROTECTING THE SKY

U.S. Customs and Border Protection (CBP) is responsible for protecting our nation's borders to prevent terrorists and terrorist weapons from entering the United States while facilitating the flow of legitimate trade and travel. CBP is also responsible for apprehending individuals attempting to enter the United States illegally. CBP must achieve the following objectives in securing the border: detect illegal entries into the United States, identify and classify those entries to determine the level of threat involved, efficiently and effectively respond to those entries, and bring each event to a satisfactory law enforcement resolution. Because of increased surveillance capabilities and successful border security operations, smugglers and terrorist organizations are exploiting other means for clandestine access to the United States, such as small unmanned and manned aircraft.

ADA & PROTECTING THE NAS

With the increased sophistication of both small manned and unmanned aircraft systems (UAS), monitoring and protecting the national airspace system (NAS) over our borders is becoming more difficult. To address the challenge, CBP, U.S. Coast Guard and the Department of Homeland Security Science and Technology Directorate (S&T) are teaming with NASA, the Federal Aviation Administration and the Department of Defense to evaluate air domain awareness (ADA) technologies in four distinct terrains (mountainous, plains, maritime and urban) along the northern border. ADA is the detection, tracking and identifying both manned and UAS. The evaluation will determine what systems and components work in a specific terrain and environment. At each terrain, up to four suppliers at a time will be evaluated (using a standardized process so data is comparable across platforms) for a week, both night and day against rotary and fixed wing manned and unmanned aircraft flying below 500 feet above ground level (AGL). Following the evaluations, systems and components will be selected to be placed alongside CBP Air and Marine Operations radar systems that are providing ADA above 500 feet AGL for six months to determine if the combined systems provide coverage from ground level to 8,000 feet AGL.

THE OUTCOME

At the conclusion of the evaluations, reports will be developed and available to all federal agencies that will describe each system and component. The report will contain information on



each system and component capability, such as; range of detection, altitude of detection, accuracy of detection and cost. With the report results, organizations looking to procure ADA systems or components to cover a single asset to a region can determine: what systems will work best for the site, how many systems they would need to cover the site, and perform a cost study on total cost for different systems to cover the same site.

ACCOMPLISHMENTS TO DATE

- August 2019 RFI Released
- January 2020 Systems down selected
- October 2020 Sites selected (Camp Grafton North Dakota-Plains, Limestone Hills Area Montana-Mountainous, Selfridge AFB Michigan-Maritime, Detroit Michigan-Urban)
- March 2021 Dry runs completed at Camp Grafton

UPCOMING MILESTONES

- April 11, 2021 Three weeks of weekly demonstrations begin at Camp Grafton
- July 6, 2021 Dry runs start at Limestone Hills Area
- August 9, 2021 Three weeks of weekly demonstrations begin at Camp Grafton
- October/November 2021 Dry runs and Three weeks of weekly demonstration begin at Selfridge AFB
- January/February 2022 Dry runs and Three weeks of weekly demonstration begin at Detroit
- FY 2023 Long-term evaluation starts at AMO sites

PERFORMERS

- Northern Plains UAS Test Site – North Dakota
- MITRE – Virginia