

DHS Science and Technology Directorate

The Hunt for Drug Smuggling Aircraft at our Borders

Problem

Small dark aircraft being used for illicit purposes are entering the United States from Mexico and Canada. Although primarily used for drug running, these aircraft, including ultra-lights, small fixed-wing general aviation, and helicopters, could easily be used to transport people or weapons of mass destruction. The small, stealthy nature of these aircraft and the large, remote areas over which they operate make them difficult to detect. These suspect aircraft often fly below conventional radar and land undetected at uncontrolled airfields leaving law enforcement with limited ability to react. Customs and Border Protection (CBP) rules of engagement preclude harming the aircraft, and to date, there have been no interdictions.



Background

The Small Dark Aircraft program is committed to developing and transitioning capabilities to find, track, and interdict these small aircraft. DHS Science & Technology (S&T) leads a multi-phase, interagency effort that has assessed current detection systems, conducted an engineering review of these systems, and begun development of capabilities that will provide U.S. Border Patrol agents with early detection and tracking



capabilities, a greater opportunity for interdiction, and more efficient deployment of US Government assets. S&T is working with the CBP Office of Technology Innovation and Acquisition.



Progress

In October 2010, S&T hosted an Invitational Challenge to the scientific community in search of innovative technologies to detect and track small aircraft. Three capabilities were selected for further testing and development based on the technical merit of the idea, innovation of the technique, and the potential to meet CBP's mission needs. Currently, these capabilities are in the final development stages.

In March 2011, S&T conducted a joint exercise with CBP at the United States Air Force Test Pilot School (TPS) to evaluate the current capability to interdict small aircraft. S&T recommended a "non-material" solution to increase their ability to detect and track these aircraft, providing an unprecedented new approach to their operational doctrine.

In March 2012, S&T will demonstrate acoustic and special-purpose radar technologies and their ability to detect and track small aircraft. In August 2012, these technologies will be deployed to the U.S. Border Patrol Spokane (WA) sector.

