Safe Handling and Collection of Electronics

Homeland Security
Science and Technology

CURRENT CAPABILITY GAP: CAPTURED DRONES ARE NOT EXPLOITED

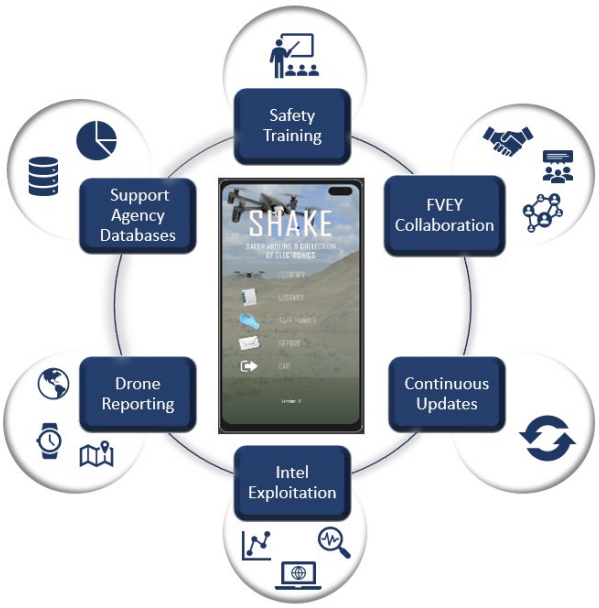
U.S. Customs and Border Protection (CBP) is aware of attempts by drug trafficking organizations (DTOs) to move illicit drugs across the border from Mexico using small unmanned aircraft systems, or drones. On rare occasions, CBP is able to confiscate drones, but there is no standard set of procedures for the best way to approach and secure drones without endangering CBP agents or altering any electronic or biometric evidence that may be present on or in the device.

Intelligence/information from these safely collected devices could be used for air domain awareness by exploiting valuable data contained in drones and also inform the development of counter-unmanned aircraft systems by examining how drones are being modified by DTOs to evade detection by CBP.

Currently, there are no standard operating procedures (SOPs) that are approved or in use by federal, state, and local law enforcement agencies for how to safely identify, stabilize, and collect drones that are found. Information on drones that is found is not coordinated through any one agency for collection, exploitation, or distribution of information/intelligence to end users. This impacts the ability to prevent and predict future drone attacks, hostile surveillance, and nuisances at high-profile sporting events and emergency response situations.

DELIVERING SOLUTIONS TO THE FIELD

The Science and Technology Directorate (S&T) is currently working with CBP to develop a downloadable application (App) that would provide users with information and techniques to safely collect drones from the field (i.e., non-operational or abandoned) and transport them to a CBP site for exploitation. This app (named Safe Handling and Collection of Electronics, or "SHAKE") can be leveraged by other operational DHS components as well. S&T intends to distribute this app across these Components via its access-controlled phones, tablets, and laptops. To assist in this effort, S&T has also partnered with the Federal Bureau of Investigation/ Department of Defense's Terrorist Explosive Device Analytical Center, other domestic law enforcement counterparts, and international partners to leverage their subject matter expertise in electronic exploitation and biometric collection.



ENVISIONED OPERATIONAL STATE

CBP will receive an application that will provide the following:

- Visual identification of drones through intuitive prompts and directions
- A library of basic information on the manufacturer, model, and capabilities of captured drones that are commercially manufactured
- SOPs for securing the area
- Ability to use embedded cameras on phones to document the drone and send a summary report to CBP and other agencies
- Standardized steps to safely approach and stabilize the drone for collection and shipping
- Shipping instructions and point of contact information

FUTURE OPERATIONAL STATE

S&T is working with CBP, Federal Law Enforcement Training Centers, the Cybersecurity and Infrastructure Security Administration, Transportation Security Administration, and the Countering Weapons of Mass Destruction Office to potentially provide a suite of applications that deliver safe handling instructions to other electronic devices, such as laptops and tablets.