



Securing Correctional Facilities Against Drone Threats

With The Fortem SkyDome® System

Commercial and hobby drone sales have spiked in the past few years, filling the skies with millions of new aircraft. While the majority of drone operators abide by the law, the most dangerous threats come from criminal and terrorist operators who use drones to deliberately break the law for criminal ends or to destroy and terrorize.

The Threat to Correctional Facilities

Drones have become a legitimate threat to correctional security. Used to deliver drugs, phones, simcards, money, weapons, and other contraband to inmates, drones are easy to obtain and effectively leverage. Most correctional facilities are not equipped to handle drones that fly over fence lines.

Unlike other correctional facility threats that must navigate through the layers of ground security, drones can be sent by non-technical drone pilots from miles away at high speeds. More expensive consumer drones can carry payloads up to 35lbs (15.9kg), making them the new preferred contraband delivery mechanism. A criminal can configure one of these drones into an RF-silent dark drone to deliver a payload into a prison yard totally undetected by RF detection and jamming systems.

Fortem Technologies is dedicated to understanding the challenges that law enforcement officers face related to drones. Under U.S. federal law, a drone is defined as an aircraft. It is illegal for local and state law enforcement to damage, destroy, disrupt, or delay an aircraft in flight and there are steep penalties for breaking this law. A Fortem survey found that a third of law enforcement departments are not sure how to get started on a counter unmanned aircraft system (C-UAS) program. Fortem is focused on helping law enforcement secure against threats from drones. Law enforcement may also directly act on drone threats if they can articulate a clear and present danger to human life. Fortem has created a document to help law enforcement get started called 10 Steps to a C-UAS Program, available at fortemtech.com/10steps.

All correctional facilities have security systems in place that accommodate their unique situation, environment, and escalation of force protocols and processes. An effective counter drone system must be designed to complement and integrate with these systems with minimal effort and zero negative impact. This creates comprehensive security coverage above and beyond what is already in place. Unlike RF-based technologies, radar-based C-UAS systems don't just see drones that are emitting RF, but also see the dark drones that have been purposefully programmed to run silent. An effective system must provide precise real-time locations of where all drones are located inside or outside the secure perimeter, and should be able to cue other sensors such as optical and thermal cameras. This system must also accurately categorize and determine the threat level of every object in the protected airspace, delivering low false positives. It will have virtual fences, with a robust rules engine that gives correctional facility personnel adequate time to react to a threat or launch an integrated response. For corrections outside of the U.S., this should also include a mitigation solution.

A new layer of airspace security is required to secure and safeguard against these threats.

Implementing an Effective Corrections C-UAS Solution

Effective day or night and in adverse weather conditions, the SkyDome System can be configured in many ways and scales to monitor jails, prisons, and other correctional facilities. Security is alerted when drones are spying overhead or delivering weapons or other contraband to inmates, and can quickly retrieve any dropped contraband. Skydome Manager tracks the drones path, making searching for contraband easier. With DroneHunter included, personnel can capture the drone before it reaches its intended target,.

2. Assessment with SkyDome® Manager

- Customizable zones and geofences
- 3D tracking and threat assessment
- Real time notifications and alerts
- Visual evidence with cued cameras
- Maps to escalation of force protocols



3. Optional Mitigation with DroneHunter®

- Tracks drones
- Pursues drones
- Videos drones
- Captures drones
- Autonomous, AI-enabled
- Safe kinetic capture



1. Detection with TrueView® Radar

- Superior 3D detection
- AI at the Edge
- Cleanest categorization 24/7
- Cost-effective, compact form factor
- Efficient, Networkable
- Scaling for complete 360° Coverage



4. Integration

- Integrates other sensors like RF and cameras
- Integrates with commercial and defense C2 systems
- Subscription to 3d-party systems
- Flexible API for sending data



Summary

Corrections professionals must act in identifying the best solution to safeguard civilians, property, infrastructure, and personnel from this new and present danger. These threats are here to stay and will gain sophistication as drone technologies advance, costs decrease, and the ability to leverage drones improves.

The SkyDome System is the C-UAS system that detects, assesses, and mitigates drone threats, including RF-silent dark drones. Learn more about how to start your C-UAS plan by visiting fortemtech.com/prisons or contacting sales@fortemtech.com.

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