

Good Morning Chairman Argall and Members of the Senate Majority Policy Committee, Judiciary, State Government, Transportation and Veterans Affairs & Emergency Preparedness Committees.

The Pennsylvania Department of Corrections Security Division has been researching the potential negative and positive effects of Unmanned Aerial Vehicles (UAVs) or drones on our institutions.

Although there have been no reported incidents within our agency, there have been attempted or completed incidents of contraband introduction via UAV in Ohio, Maryland, South Carolina and Oklahoma in the last two years.

While we have several strategies in place to prevent the introduction of contraband (weapons, drugs, cellphones, etc.) into our institutions, the threat of introduction by a UAV presents new and complex challenges. As these vehicles become more capable and less expensive, the Security Division recognizes a need to have mitigation strategies in place.

In January 2016, we established a UAV Committee, headed by Captain Ken Goodman, our Special Teams Coordinator. The team is comprised of staff from a range of disciplines within the department, all experienced with UAVs either through the military or as hobbyists.

The committee was given two main objectives; to determine if there are detection technologies available that would help us to prevent UAVs from entering our facilities and to determine if we as an agency could benefit from having UAVs as tools within our institutions.

UAV detection is a growing industry. Some common characteristics of UAVs used for detection are silhouette, flight characteristics, sound, radio frequency and GPS tracking. Our committee has identified and contacted a number of vendors to set up demonstrations and allow us to test their technologies.

The committee has also identified potential uses for UAVs within our facilities, to include:

- Surveillance of offenders during critical incidents – All of our correctional institutions have cameras with pan/tilt/zoom

capabilities. In a critical incident (i.e. yard disturbance) we are able to utilize these cameras to gain intelligence. We can also provide a live-feed to Central Office when Area Command is established. While these cameras are excellent tools, they are fixed point cameras and we cannot control the angle from which we view an incident. With a UAV, the operator could have control of the angle allowing us better live intelligence that would impact on our tactical decision making.

- Search for escapees/walkaways – Many of our facilities have vast reservations that would take some time to escape from. Upon initial discovery of an escape, deployment of a UAV may help us locate and recapture an escapee before they become a threat to the public.
- Aerial photography – Each facility is required to submit aerial photographs anytime their footprint changes (i.e. new building construction). Currently we coordinate with the Pennsylvania State Police to utilize their helicopters and pilots. With UAVs we could accomplish this more safely and with less expense.
- Vulnerability Analysis – The department utilizes Vulnerability Analysis (VA) and Security Analysis (SA) teams to identify and mitigate escape pathways and introduction of contraband. These teams must prove every step of a found pathway, which at times has them working on the roofs of buildings, near razor wire or in other dangerous conditions. These teams are deployed year round and often work in inclement weather. UAVs could be utilized to capture data for these teams without putting the team members at risk.
- Assist other agencies – The Pennsylvania Department of Corrections is often asked to assist other state, federal and municipal agencies through resource requests submitted to the Pennsylvania Emergency Management Agency. In the past, we have utilized our Correctional Emergency Response Teams (CERT) to assist in searches for missing persons. A UAV would be instrumental in searching large areas quickly. These items would be added to our Emergency Equipment List and could be deployed with operators when properly requested.
- Facility maintenance – Visual inspections, structural integrity checks and damage assessment of structures such as

smokestacks, fencing, high mast lighting, etc. could be done quickly and with little expense utilizing UAVs

On March 1, 2016 a UAV demonstration was given outside of the DOC Central Office building to show Executive Staff some of the capabilities of the vehicles. Follow up demonstrations will be given at the regional quarterly Superintendents' meetings in April.

On March 4, 2016 a Security Advisory was sent out to the institutions giving direction on what staff should do if a UAV is spotted at a facility. Further direction will be given as we continue to develop mitigation strategies.