

Alamance County Sheriff's Office

Sheriff Terry S. Johnson

Unmanned Systems Flight Program 2018 to Present



Introduction

- Sergeant Paul E. “Chip” Cobb
- 22 years in law enforcement
- 17 years with Alamance County Sheriff’s Office
- Divisions since beginning
 - Patrol
 - K-9
 - SWAT Operator
 - Detective Major Crimes / Homicide
 - Crime Scene Investigator
 - Arson Investigator
 - Gang Investigations (Advanced Gang Specialist NCGIA)
 - General Instructor
 - NC Firearms Instructor
 - Polygraph Examiner
 - Licensed sUAS part 107 pilot FAA, NC Dot both Commercial and Government

The Beginning

- 2018
 - Conversation between Captain R. Denham (Retired) and myself began. At this time I was tasked with other duties and this fell to the side. Meanwhile Corporal Byron S. Tucker and Captain David Sykes were researching the possibilities of utilizing these systems in our field and what the benefits the Sheriff's Office could see from the use of these systems.
 - Corporal Tucker created the SOAR (Sheriff's Office Aerial Reconnaissance) power point and presentation. During this presentation Cpl. Tucker reviewed and presented Sheriff Johnson and the administrative staff with the proposal of the use of sUAS into the agency and the benefits. During this presentation it was discussed that our main function would be to assist in the location of missing persons and hopefully directly impact positively public safety through the use of the unmanned systems.

2018 Continued

- Legal aspects were discussed at this meeting.
- Sheriff Johnson and the administrative staff approved the research into the most up to date and progressive flight platforms which were available at the time.

May 2018

- Sergeant Cobb made contact with Darshan Patel with Wake County Emergency Management.
- Darshan assisted in the contact of Kyle Snyder and Chris Keon in showcasing the different drone platforms and the pros and cons with the platforms which were available.
- Demonstration with Kyle, Darshan, and Chris was done at a local Church with the Inspire and Mavic systems.
- Conversation began that there would be a need for both an IR camera and also a camera with telescopic abilities. At this time the inspire platform only supported one camera at a time.

June 2018

- It was determined with the consideration of use of two cameras that the Matrice 210 aircraft would be the best and most progressive aircraft to purchase for the types of missions that the Sheriff's Office would be undertaking.
- Problem
 - Identifying the missions.
 - Requests for property searches, drugs, and other uses.
 - Where to house or a Captain Denham referred to who would be the "Gate Keeper" and how would we deploy the aircraft to cover both the citizens and the agency.

June 2018

- Policy begins
- Decision made to make drone operations a part of Intelligence and Emergency Management.
- Purchase of drone from SSI through Alamance County Purchasing is performed.
- Alamance County Sheriff's Office purchased one (1) Matrice M210 Drone, one ZX—2 Flir Thermal Camera, one ZX-30 Camera, one Mavic Pro Air drone (for training and deployment for patrol)
- Total estimated purchase price was \$30,000.00.



July 2018

- Late July 2018 delivery was taken of the Matrice and Mavic aircrafts.
- Problem
 - Pilots with FAA 107 certifications
 - The agency had sent eight people to school to learn to operate the aircraft but none had taken the part 107 test and considerations had been made to fly under a “COA” or certificate of authorization through the FAA.
 - It had come to my attention from my conversations with Chris that the “COA” would probably not be the direction that we would need to go since the FAA was considering removing this option.
 - So part 107 and pilots were what we needed.

August 2018

- Interest letters were sent out to the people who were sent to the spring drone training performed by Alamance Community College.
- Four Were developed
- Pilots
 - ✓ Corporal Tucker
 - ✓ Sergeant Adams
 - ✓ Sergeant Cobb
 - ✓ Corporal Kilmer

August 2018

- Orientation with the aircraft
- Matrice 210
- Mavic Pro Air
- Problem
 - No Policy

August 2018

- Intelligence Officer was sent for polygraph training.
- Sunny South Florida for 3 months

November 2108

- Sergeant Cobb returns from Florida
- Administration changes at the Sheriff's Office
- Captain Denham Retires
- Captain Sykes is Promoted
- Chief Deputy Parker is hired
- It is determined that the aircraft will be listed with Emergency Management under Captain Sykes and that Sergeant Cobb will continue to be over the program.

December 2018

- Policy is finalized and approved.
- Problem
 - Of the four original pilots which passed part 107 and were cleared to fly in August, one had resigned.
 - Need for additional pilots and training.

January 2019

- Initial training
- Video of Sandy Cross Road

Missions

April 2019, patrol was notified of a mental subject which had walked from a residence in the Northern part of Alamance County into a wooded area. The subject was unstable as far as his mental condition and needed to be committed. Prior to arrival it was relayed that the subject had three machetes on his person when he entered the woods.

The Matrice aircraft was utilized to locate and assist in detaining the subject for transport for mental evaluation.

The aircraft located the subject behind a residence and the pilot was able to relay the position of the subject to the deputies on the perimeter of the scene.

Also the aircraft was able to identify where the subject placed two of the machetes into a building prior to him being detained.

April 2019 Video 6:48

April 2019

- Additional Pilots were taught through the Sheriff's Office and sent to the FAA for the part 107 test. Five attended the class, all five passed the part 107 test with the lowest score being an 83.
- Huge gain for the agency as it more than doubled our pilots with the program.

Missions Continued

- June and July of 2019
- Missing persons missions were conducted
- It was identified that the aircraft will be a great tool but that the missing persons to date had been runaway juveniles which had either not wanted to be located and were running away from the aircraft or had left the area prior to the arrival of the aircraft.

August 2019

- Night Waiver Approval
- Night training and testing.

Brittany Apartments

In August 2019 the Burlington Police Department requested assistance in reference to shots fired at officers which were responding to a disturbance call. Officers on scene made a perimeter around the area and responding officers assisted with containment. Subjects were later located doing target practice approximately ½ mile away from the scene and it was determined that the bullets were traveling from the area that the target practice was taking place.

Haw River Barricaded Subject August 2019

In August of 2019 Officers responded to a loud music call. Upon arrival to the call they encountered an intoxicated subject which fired upon the officers and retreated into the residence. The officers set up a perimeter and SRT was requested with the assistance of the sUAS. The location of the residence was a challenge as it was at the end of a dirt road and there were many aerial obstacles in the area.

The Drone was utilized to perform an evaluation of the area prior to deploying assets around the exterior of the residence.

To Date

Currently with the deployments of the aircraft, our agency has seen a large impact of the utilization of the aircraft and the relation to officer safety, increase of manpower without additional personnel, and time to scene has decreased for the aircraft. (NCSHP assist with helicopter)

Future

- Need to remotely view the video stream. (SSI)
- Need for additional aircraft.
- Need for vehicle to support program.
- Need for additional pilots.

Alamance County Sheriff's Office

Sergeant Paul E. Cobb

**Criminal Intelligence, Polygraph
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