



Small Unmanned Aircraft Systems (UAS)

Proposed UAS Program Update

Public Safety Committee Meeting
March 12, 2019

Why implement a UAS program

- Adopted around the United States by local and state agencies to support operations and advanced real-time situational awareness
- Safety of County personnel and the public
- Unique capability
- Ability to operate in many types of environments - versatility
- Live streaming high definition imagery and photographic capability with post flight analysis on-site
- Onscene coordination
- Enhanced level of documentation for recovery reimbursement
- UAS is a force multiplier

Background

- Public Safety Committee presentation (January 30, 2018)
- Board of Supervisors Meeting (July 31, 2018)
 - Final decision was deferred
 - Directed staff to conduct community outreach and engagement

Community Engagement

Established UAS Task Force

- Invited community representatives and subject matter experts
- Public meetings: October 17, 30, December 11, 2018 and February 11, 2019
- Discussions on purpose, operations, mission profiles, safety, equipment, training, privacy, data collection and retention, wildlife, program evaluation strategy
- Reviewed and revised the Draft UAS Program Manual
- Developed the Community Engagement Strategy

UAS Task Force Participation

- ACLU
- NAACP
- FAA
- Fairfax Federation
- Leadership Fairfax
- Fairfax Area Disability Services Board
- Greater Reston Chamber of Commerce
- Dulles Regional Chamber of Commerce
- Asian American Chamber of Commerce
- Communities of Trust
- George Mason University
- McLean Citizens Association
- Planning Commission
- Park Authority
- Emergency Management
- Police
- Fire & Rescue
- Public Affairs
- Office of Public Private Partnerships
- Wildlife Biologist
- Audubon Society
- County Attorney's Office
- Commonwealth of Virginia
- Other individual subject matter experts

Community Engagement

- Community Engagement Strategy
 - County webpage: www.fairfaxcounty.gov/uas/
 - County email: uas@fairfaxcounty.gov
 - 30 Day Comment period (January 7 – February 8)
 - Social Media (Twitter, Facebook, Nextdoor)
 - Media: On Camera (e.g., Fox5, NBC4, ABC7)
 - Other Media: (e.g., Fort Hunt Herald, WTOP, Insidenova, Tysons Reports, AUVSI Unmanned system magazine, VDEM Daily Briefing)
 - BOS newsletters
 - Fairfax County: NewsCenter article, Emergency Blog
- Community Presentations / Comment Sessions (6)

Community Presentations / Comment Sessions

- January 16 (South County Government Center)
 - 27 Attendees
- January 23 (McLean Government Center)
 - 21 Attendees
- January 24 (Sully District Government Center)
 - 42 Attendees
- January 28 (Reston Community Center)
 - 42 Attendees
- January 30 (Braddock District Government Center)
 - 25 Attendees
- February 4 (Mason District Government Center)
 - 19 Attendees



Informational Books Flight Chart



Public Information Session

Community Presentations / Comment Sessions

- Static display of aircraft and equipment
- Elements of the Draft UAS Program Manual
- Program steps / Mission profiles
- Legislation: § 19.2-60.1
- Part 107/Part 49 (COA) / Airspace
- Equipment
- Governance
- Next Steps
- Questions / Discussion



Static Display – Unmanned Aircraft



Legislation – Virginia Code § 19.2-60.1

§ 19.2-60.1. Use of unmanned aircraft systems by public bodies; search warrant required.

A. As used in this section, unless the context requires a different meaning:

"Unmanned aircraft" means an aircraft that is operated without the possibility of human intervention from within or on the aircraft.

"Unmanned aircraft system" means an unmanned aircraft and associated elements, including communication links, sensing devices, and the components that control the unmanned aircraft.

B. No state or local government department, agency, or instrumentality having jurisdiction over criminal law enforcement or regulatory violations, including but not limited to the Department of State Police, and no department of law enforcement as defined in § 15.2-836 of any county, city, or town shall utilize an unmanned aircraft system except during the execution of a search warrant issued pursuant to this chapter or an administrative or inspection warrant issued pursuant to law.

C. Notwithstanding the prohibition in this section, an unmanned aircraft system may be deployed without a warrant (i) when an Amber Alert is activated pursuant to § 52-34.3; (ii) when a Senior Alert is activated pursuant to § 52-34.6; (iii) when a Blue Alert is activated pursuant to § 52-34.9; (iv) where use of an unmanned aircraft system is determined to be necessary to alleviate an immediate danger to any person; (v) by a law-enforcement officer following an accident where a report is required pursuant to § 46.2-373, to survey the scene of such accident for the purpose of crash reconstruction and record the scene by photographic or video images; (vi) by the Department of Transportation when assisting a law-enforcement officer to prepare a report pursuant to § 46.2-373; (vii) for training exercises related to such uses; or (viii) if a person with legal authority consents to the warrantless search.

D. The warrant requirements of this section shall not apply when such systems are utilized to support the Commonwealth or any locality for purposes other than law enforcement, including damage assessment, traffic assessment, flood stage assessment, and wildfire assessment. Nothing herein shall prohibit use of unmanned aircraft systems for private, commercial, or recreational use or solely for research and development purposes by institutions of higher education and other research organizations or institutions.

E. Evidence obtained through the utilization of an unmanned aircraft system in violation of this section is not admissible in any criminal or civil proceeding.

F. In no case may a weaponized unmanned aircraft system be deployed in the Commonwealth or its use facilitated in the Commonwealth by a state or local government department, agency, or instrumentality or department of law enforcement in the Commonwealth except in operations at the Space Port and Naval/Aegis facilities at Wallops Island.

G. Nothing herein shall apply to the Armed Forces of the United States or the Virginia National Guard while utilizing unmanned aircraft systems during training required to maintain readiness for its federal mission or when facilitating training for other U.S. Department of Defense units.

Community Engagement Sessions

- 176 attendees for the 6 outreach sessions
 - **133 questions** and **29 comments**
 - Comments/Questions were diverse in terms of topics
 - operations, equipment, budget/staffing, restricted airspace, best practices, partnerships, volunteers, wildlife, privacy, laws, procedures

Community Engagement – 30 Day Comment Period

- 118 responses received via email or Nextdoor
 - Participants were asked to provide feedback or ask questions
 - Comments/Questions were also diverse in terms of topics
 - operations, equipment and technology, budget/staffing, restricted airspace, best practices, cyber, vendor opportunities, partnerships, volunteers, wildlife, privacy, laws, safety and procedures

UAS Program – Enhancements, Revisions and Recommendations

- Community representation on UAS Steering Committee
- Biennial formal UAS Program evaluation
 - to include community engagement and outreach
- Transparency
- Predisposition to the release of information on the program, policies, missions, flight data, logs, etc.
- Law enforcement specific section
 - Restrictions
 - Limited exceptions
 - Examples of “immediate danger”

UAS Program – Enhancements, Revisions and Recommendations (continued)

- All UAS users to take reasonable precautions to avoid inadvertent recording or transmitting of images of individuals and properties unrelated to the mission
 - To the maximum extent possible, onboard cameras shall be directed toward the area of interest and away from uninvolved individuals or properties
- UA live feed only transmit capability will be the normal preferred operational posture
 - Agencies shall adopt a posture of minimal data imagery collection – only if mission essential
- Line of sight operation

UAS Program – Enhancements, Revisions and Recommendations (continued)

- Data retention schedules / agency audits / destruction of data
- Regional collaboration – review of MOUs / Mutual aid
- Identifiable clothing on flight crew members and County identification on UAS equipment
- County / media / hobbyist deconfliction strategies
- Further defined training requirements / demonstrated proficiency
- Wildlife impact mitigation strategies
 - ✓ Life safety mission priority

Next Steps

If approved by the Committee to move forward:

- Board Action Item for program approval
- Final revision of Program Manual
- Complete and submit paperwork to the FAA
- Purchase equipment (6-8 aircraft)
- Formalize individual agency flight policies and procedures
- Initiate flight training
 - Part 107 preparation course / Ground school
 - Flight and operations training
- Updated webpage
- Media and Community Day to demonstrate equipment and capability
- Flight notifications and operations begin
- Transition workgroup into UAS Steering Committee (Program Manager)

Questions