

Memorandum



DATE October 19, 2018

TO Honorable Members of the Public Safety and Criminal Justice Committee

SUBJECT **Dallas Police small Unmanned Ariel System (sUAS) Briefing**

On Monday, October 22, 2018, you will be briefed by Assistant Chief of Police Paul Stokes regarding small Unmanned Aerial Systems (sUAS) and the police department's request to initiate a proof of concept sUAS program. The presentation will be an overview of (sUAS), their purpose, capabilities and limitations. The goal of the presentation is to provide Council with an overview of emerging technology that will greatly enhance public safety.

Please contact me if you have any questions or need additional information.



Jon Fortune
Assistant City Manager

cc: T.C. Broadnax, City Manager
Chris Caso, City Attorney (I)
Carol A. Smith, City Auditor (I)
Biliera Johnson, City Secretary
Preston Robinson, Administrative Judge
Kimberly Bizzor Tolbert, Chief of Staff to the City Manager

Majed A. Al-Ghafry, Assistant City Manager
Joey Zapata, Assistant City Manager
M. Elizabeth Reich, Chief Financial Officer
Nadia Chandler Hardy, Assistant City Manager & Chief Resilience Officer
Directors and Assistant Directors

Small Unmanned Aerial Systems (sUAS) For Public Safety

**Public Safety and Criminal Justice
October 22, 2018**

**Paul A. Stokes
Assistant Chief of Police
Investigations and Tactical Support**



Presentation Overview

- Background/History
- Purpose
- Operational Concerns and Limitations
- Steps Taken
- Proposed Action
- Next Steps



Background/History

- Emerging technology – developing faster than regulations can be enacted
- Not a replacement for police helicopter operations – currently only a supplement
- Static vs Dynamic events
- Fear of sUAS - Must gain public acceptance



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Purpose

sUAS is a aerial camera platform that will supplement Dallas Police helicopter operations by:

- Augmenting coverage of large public events and protests (however, cannot fly directly over people)
- Officer safety: clearing buildings and large venues before search warrant entry
- Dallas Fire Rescue – hazardous material incidents, monitoring multi-alarm building and brush fires
- Suspect and Missing person searches
- Document illegal dumping and environmental issues

Purpose

Nationally Accepted sUAS uses by the Airborne Public Safety Association (APSA):

- Search and Rescue
- Suspect and Missing person searches
- Roof checks
- Environmental and illegal dumping investigations
- Survey fire scenes and check for hot spots
- Aerial mapping

Law Enforcement Agencies Using sUAS

As of May 2018 approximately 910 public safety agencies deploy sUAS –

- Texas Department of Public Safety
- Arlington Police Department
- Mansfield Police Department
- Houston Fire Department
- Las Vegas Metro Police Department
- Los Angeles County Sheriff
- New York State Police

Operational Concerns and Limitations

- Must obtain a Certificate of Authorization (COA) from the FAA to operate sUAS. Complicated airspace over Dallas metropolitan area
- Limited or Restricted sUAS zones (close to Love Field approach and departure areas)
- FAA designated Class “B” airspace. Restricted airspace over most of the Dallas area (Waivers required to deviate)

Operational Concerns and Limitations

- Acquisition and operating costs for (sUAS) are relatively low compared to Helicopter operations
- Only perform about 30% of current helicopter missions
- Can only operate within Visual Line of Sight (without waiver).
- Equipment life expectancy (up to 400 hours).
- Limited flight time – approximately 25-35 minutes (battery life)

Steps Already Taken

- DPD Standard Operating Procedures (SOP) draft work product
- Dallas Fire Rescue Method of Procedures (MOP) draft work product
- Several helicopter unit personnel are also FAA licensed Remote Pilots
- Invited Texas DPS for sUAS support during NRA 2018 Convention

Proposed Actions

- Garner public support
- City of Dallas must submit a Public Declaration letter to the FAA stating the City is a “public government entity” – a requirement before a “Blanket” COA can be granted
- Legal and Risk Management approval of written policies
- Obtain equipment
- Apply for FAA “Jurisdictional” COA

Equipment (sUAS) Options

Low Cost-

- Day and Low light Capability- \$7500 per unit

Medium Cost-

- Larger consumer grade. Thermal Imaging capabilities- \$10-\$15,000 per unit

High Cost-

- Specifically designed for LE, programable flight controls, secure communications. \$30,000+

sUAS Equipment



Recommendations

- Establish a “proof of concept” program
- Allow for future budget considerations

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