Drones as First Responders: A Community Forum
February 7, 2019
Tonight’s agenda

• 6:05 – 6:35: Introductions and remarks by city officials
  • Mayor Mary Salas
  • Police Chief Roxana Kennedy
  • Police Capt. Vern Sallee
  • Police Lt. Chris Kelley
  • CAPE representative Fritz Reber

• 6:35 – 7:30: Questions and answers
Chula Vista’s Smart City Strategy

• **Smart City Strategic Action Plan – 2017**
  • A roadmap of the city’s technology and data work to improve:
    • Public safety
    • Economic development
    • Community and civic engagement
    • Quality of life

• **Measure P (2016) and Measure A (2018)**
  • Half-cent sales taxes to support police, fire and infrastructure upgrades
Chula Vista Police technology

- **Body-worn cameras** - *Testing began 2010, fully implemented 2015*
- **Computer-aided dispatch (CAD)** - *Upgraded 2017*
- **Traffic signal camera access** - *Enabled 2018*
- **UAS/Drones** - *Planning began 2016, testing began 2017*
- **Traffic signal pre-emption** - *GPS-based testing begins 2019*
UAS Integration Pilot Program

• Federal Aviation Administration (FAA) chose 10 pilot program sites in 2018

• Goal: Help FAA craft new national rules for integrating drones into civilian life
San Diego Regional UAS Integration Pilot Program

- City of San Diego Office of Homeland Security
  - City of Chula Vista
  - UC San Diego Health System
  - Palomar College
  - Port of San Diego
  - Cape
  - Uber
  - Qualcomm
  - (and many more)
San Diego Regional UAS Integration Pilot Program

Concepts of Operations (ConOps)

1. Smart City, International Commerce and Public Safety
2. Medical and Package Delivery

FAA Authorizations

- Part 107 Night Operations
- Part 107 Airspace Waiver
- Certificate of Authorization (COA)
Fleet and personnel

• Two DJI Matrice 200 drones
• One DJI Mavic Pro
• Two DJI Mavic 2 Zooms
• Nine FAA-certified pilots
  • Part 107 Remote Pilot Certificate
Current deployment area

- One-mile radius from CVPD headquarters
Future deployment area

• Nine fire stations provide citywide coverage at 1.5-mile radius
Use cases

• Verifying complaint of vicious dog at public park
• Identifying size and behavior of brushfire
• Capturing crime scene photos
• Locating homeless encampments in difficult terrain
Metrics

From 10/22/18 to 2/5/19:

• 312 flights
• 231 calls for service
• 75 flight hours
• Contributed to 20 arrests
Chula Vista PD Policy on UAS

- No intentional observation of locations where a person has a reasonable expectation of privacy
  - Residential backyards, inside of homes or private buildings
- No random surveillance activities
  - Only deployed in response to calls or active incidents
- No discrimination or harassment
- No personal use of police drones
- Any recordings are stored in same database as body-worn cameras and deleted after one year unless part of an ongoing investigation
Other Limits

Technical limitations

• Battery life
• Magnetic interference
• Software / firmware

FAA restrictions

• Must remain within line-of-sight
• Must fly below 400 feet above ground level
• Cannot fly a drone over people
• Cannot fly from a moving vehicle
• May only fly during daylight or twilight hours
How it works

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How it works

1. Collision avoidance between drones

2. Drone air traffic control

3. Highly customizable 3D geofencing and interactive obstacle creation
How it works
Get involved

• Provide your comments tonight
• Send additional comments or questions to: UASTeam@ChulaVistaPD.org
• Sign up for email updates: ChulaVistaCA.gov/residents/enotification
• Join an advisory group
• Read about other smart city efforts at ChulaVistaCA.gov/SmartCity
Your questions and comments

Send additional questions or comments to: UASTeam@ChulaVistaPD.org