

Written materials relating to an item on this agenda that are distributed to the legislative bodies within 72 hours before the item is to be considered at its regularly scheduled meeting will be made available for public inspection at the City Clerk's Office, 300 West Third Street 4th Floor during customary business hours. Agenda reports are also on the City of Oxnard web site at www.oxnard.org.



AGENDA
OXNARD CITY COUNCIL
PUBLIC SAFETY COMMITTEE
Council Chambers, 305 West Third Street
February 26, 2019
Regular Meeting – 2:00 to 3:15 PM

A. ROLL CALL / POSTING OF AGENDA

B. PUBLIC COMMENTS ON ITEMS NOT ON THE AGENDA

At this time, the legislative body will consider public comments for a maximum of fifteen minutes. A person may address the legislative body only on matters not appearing on the agenda and within the subject matter jurisdiction of the legislative body. Speaker cards will not be accepted after the beginning of the general public comment period. Based on the number of speaker cards submitted, the presiding officer may impose time limits per speaker. Typically, speakers are limited to two minutes, but shorter time may be established as deemed necessary. A person not able to address the legislative body at this time because the fifteen minutes expires may do so just prior to adjournment of the meeting. The legislative body cannot enter into a detailed discussion or take action on any items presented during public comments at this time. Such items may only be referred to the City Manager for administrative action or scheduled on a subsequent agenda for discussion.

C. CONSENT AGENDA

City Clerk Department

1. SUBJECT: Approval of Minutes.

RECOMMENDATION: That the Public Safety Committee approve the minutes of the February 12, 2019 Regular Meeting as presented.

Contact: Michelle Ascencion Phone: (805) 385-7805

D. REPORTS

Police Department

1. SUBJECT: Use of Small Unmanned Aerial Vehicles ("Drones") for Public Safety. (20/10/10)

RECOMMENDATION: That the Public Safety Committee: 1) receive a report from the Police Department regarding the planned use of small unmanned aerial vehicles in public service applications, and 2) provide input.

Contact: Scott Whitney Phone: (805) 385-7624

E. ITEMS FOR FUTURE AGENDAS

F. ADJOURNMENT

In compliance with the Americans with Disabilities Act, if you require special assistance to participate in a meeting, please contact the City Clerk's Office at 385-7803. Notice at least 72 hours prior to the meeting will enable the City to reasonably arrange for your accessibility to the meeting.

Agenda Item time estimates: (Staff Presentation / Committee Discussion / Public Comment)

DRAFT

MINUTES
OXNARD CITY COUNCIL
PUBLIC SAFETY COMMITTEE
Regular Meeting
February 12, 2019

A. ROLL CALL / POSTING OF AGENDA

At 2:00 p.m., Chair MacDonald called to order the regular meeting of the Oxnard City Council Public Safety Committee in the City Hall Council Chambers, 305 W. Third Street, Oxnard, California. The City Clerk called the roll and announced the posting of the agenda. Member Vianey Lopez and Chair Bryan MacDonald were present; Member Carmen Ramirez was absent.

Staff members present were Alexander Nguyen, City Manager; Darwin Base, Fire Chief; Scott Brewer, Emergency Services Manager; Scott Whitney, Police Chief; and Michelle Ascencion, City Clerk.

B. PUBLIC COMMENTS ON ITEMS NOT ON THE AGENDA (None received.)

C. CONSENT AGENDA

City Clerk Department

1. SUBJECT: Approval of Minutes.

RECOMMENDATION: That the Public Safety Committee approve the minutes of the January 22, 2019 Regular Meeting as presented.

VOTE: Lopez and MacDonald voted in favor of approval; the minutes were approved 2-0.

D. REPORTS

Fire Department

1. SUBJECT: Fire Department Overview.

RECOMMENDATION: That the Public Safety Committee receive a presentation on the Oxnard Fire Department's Development of Ready and Resilient Communities.

The Fire Chief and Emergency Services Manager gave a report. No public comments were received. Discussion ensued among the Council and staff. (Member Ramirez had submitted an article for discussion.) No action was required.

E. ITEMS FOR FUTURE AGENDAS (No requests were made.)

F. ADJOURNMENT

There being no further business on the agenda, and without objection, Chair MacDonald adjourned the meeting at 2:23 p.m.

MICHELLE ASCENCION, CMC
City Clerk

BRYAN MACDONALD
Chair



PUBLIC SAFETY COMMITTEE
AGENDA REPORT

TYPE OF ITEM: Report

AGENDA ITEM NO.: 1

DATE: February 26, 2019

TO: Public Safety Committee

FROM: Scott Whitney, Police Chief
scott.whitney@oxnard.org, (805) 385-7624

SUBJECT: Use of Small Unmanned Aerial Vehicles (“Drones”) for Public Safety. (20/10/10)

RECOMMENDATION

Recommendation: That the Public Safety Committee: 1) receive a report from the Police Department regarding the planned use of small unmanned aerial vehicles in public service applications, and 2) provide input.

BACKGROUND

The term “small unmanned aerial vehicle” (“sUAV”, but more commonly referred to as a “drone”) refers to a small remote controlled aircraft. For the purposes of this report, a drone:

- Is a remotely piloted aircraft, weighing more than half a pound, but less than fifty-five pounds;
- Has a top speed of less than one hundred miles per hour;
- Is generally battery-powered, has a limited flight endurance time, and
- Is capable of downlinking data, such as photos, video, or other imagery.

The term “small unmanned aerial system” (“sUAS”) refers to the aircraft, plus all of its accompanying hardware, such as its remote controller, antenna, and other peripheral equipment. For clarity, this report will use the more commonly used term “drone.”

The use of drones is a rapidly growing trend in the United States. The Federal Aviation Administration (“FAA”) expects that eleven million will have been sold by the year 2020. In addition to hobbyists and commercial users, a growing number of public safety agencies across the United States are seeking their use. As of October 2017, approximately five hundred public safety agencies in the United States were using drones in a variety of capacities. This number continues to rapidly increase. In Ventura County, the Sheriff’s Office and the Ventura Police Department have integrated drones into their operations. The Oxnard Police Department is in the process of developing policy, procedures, and authorization for a narrow scope of public

safety drone applications, that will be utilized to enhance the department's mission of protecting lives and property.

Drones are able to perform approximately one-third of the missions performed by helicopters, but at only 2% of the purchase cost, and less than 4% of the operating cost. Such missions are not limited to police, as other public safety and service agencies are adopting them for the following functions:

Law Enforcement

- Diagramming / photography
 - Crime scenes
 - Traffic collisions
- Event / operation planning
- Tactical operation support
- Crimes in progress
- Perimeter searches
- Alarm calls
 - Fenced areas
 - Roof checks
- Special event monitoring
- Traffic flow assessment

GIS

- Mapping / Surveying
- 3D Mapping
- Infrastructure Inspections

Fire Service

- Search and rescue
- Water rescue
- Firefighting
- Disaster assessment
- Damage assessment
- HazMat assessment
- Radiological assessment
- Arson investigation

The FAA regulates the use of drones by any government entity, and does so with considerably many more rules than hobbyists. Some fundamental rules that apply to public agency and commercial use drones include:

- Drones may not be flown above an altitude of 400 feet
- Drones may not be flown directly over crowds
- Drones may not be flown at night
- Drones must remain within unassisted line of sight
- Drones may not operate in controlled airspace

Public entities must obtain a Certificate of Authorization ("COA") from the FAA, and must obtain individual "Part 107" waivers in order to be exempt from any of the above restrictions. A COA allows an entity to fly drones in a specific place for a particular purpose, and for a specific period of time, and must be renewed every two years. Once an agency has a COA, it is able to self-certify its own pilots. Upon obtaining a COA, the Police Department plans to apply for a "Part 107" waiver to the nighttime requirement. Since most of Oxnard is between three airfields, the Police Department also plans to request the respective "Part 107" waiver so that it may operate in controlled airspace.

In order to develop a proper drone program, a public agency typically must:

- Develop agency guidelines (determine what purposes the drones will serve)
- Develop department policy and unit procedures
- Develop agreements with local air control towers
- Apply to the FAA for a Certificate of Authorization (every two years)
- Apply to the FAA for “Part 107” waivers (every two years)
- Select and train pilots and observers
- Purchase and maintain equipment
- Establish training and qualification standards, and conduct ongoing training

At the time of this report, the Police Department is in the policy and procedure development phase. It is also in the process of seeking a COA. The Police Department plans to use drones for the above-listed missions. As the program establishes itself and further develops, other City Departments may join the effort and incorporate other public service applications.

Public Concerns

The concept of drone use by both hobbyists and governmental agencies raises concerns from segments of the community, mainly centering on privacy rights. FAA regulations do not specifically address drone flights over residential areas. Because of this, some jurisdictions have enacted specific ordinances that restrict the use of drones. In general, the Police Department believes concerns can be mitigated when the community knows that the use of drones by its local law enforcement agency is both reasonable and responsible. These privacy concerns can be reduced when communities are aware that their local law enforcement agency indicates that their use of drones is 1) limited in scope, and for specific purposes, and 2) not used on a continuous basis, such as for routine surveillance.

In order to address public concerns, the Oxnard Police Department will remain attentive to them. The Police Department’s draft policy language states: “Any application of a UAS will be in accordance with Federal, State and City laws; and shall respect Constitutional rights, privacy rights, search and seizure regulations, and Federal Aviation Administration (FAA) regulations.” The current draft operations manual for drones includes a mission statement: “The members of the Oxnard Police Department’s Unmanned Aerial Systems (UAS) Unit shall provide aerial observation support for the Oxnard Police Department and other law enforcement and public safety entities within Ventura County. Members of the UAS Unit will provide safe and efficient aerial observations for law enforcement and public safety incidents. Missions will be accomplished efficiently and safely while respecting the law and the privacy of the community members we serve.”

In accordance with policy, all drone operations shall conform with Department policy, as well as applicable laws that govern search and seizure. The Police Department will also incorporate policy that documents drone flights, and will maintain photo and video materials in accordance with an established retention schedule. Drones shall be limited in their applications, and will perform a narrow spectrum of functions.

Community Outreach

The Police Department also values input from the community. In 2018, the Police Department gave presentations to the Community Relations Commission, the Inter-Neighborhood Council Organization, and the Chief's Advisory Board. The Police Department also extended invitations to meet with the Ventura County ACLU.

Related readings and resources

1. National League of Cities. Drones and Cities: What Cities Need to Know about Unmanned Aerial Vehicles (2016) <http://www.nlc.org/resource/cities-and-drones>
2. Center for the Study of the Drone at Bard College. Drones at Home (2017)
3. United States Department of Transportation, Federal Aviation Administration website on Unmanned Aircraft Systems: <https://www.faa.gov/uas/>

FINANCIAL IMPACT

There is no financial impact at this time.

Prepared by Jason Benites, Assistant Police Chief

Public Safety Committee
February 26, 2019 Meeting

Small Unmanned Aerial Systems
("Drones") in Public Service

Jason Benites, Assistant Chief



Presentation Objectives

Provide the PSC with an overview of:

- What Small Unmanned Aerial Systems (“drones”) are
- Their applications in public service
- Rules that govern public agency use
- Public concerns, and how they are addressed
- Solicit input and feedback

Small Unmanned Aircraft Systems

- “Drones” (sUAS vs. sUAV)
- Remotely controlled aircraft
- Less than 55 lbs. gross weight
- Top speed of less than 100 mph
- Capable of downlinking data
 - Video or still pictures
 - Forward looking infrared
 - Environmental sampling
- Generally battery-powered
 - Limited flight time



sUAV



sUAS

Commonly Used Drones



DJI Matrice 210



DJI Phantom 4



DJI Spark



DJI Mavic

Applications in Public Service

Fire Department

- Search and rescue
- Water rescue
- Firefighting operations
- Disaster assessment
- Damage assessment
- HazMat assessment
- Radiological assessment
- Arson investigation

GIS

- Mapping / Surveying
- 3D Mapping
- Infrastructure Inspections

Police

- Event / operation planning
- Tactical operation support
- Crimes in progress
- Perimeter searches
- Alarm calls
 - Fenced areas
 - Roof checks
- Diagramming / photography
 - Crime scenes
 - Traffic collisions
- Special event monitoring
 - Crowds
 - Traffic

Firefighting Applications



ONLY ON 7NEWS

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THREE FIRE DEPARTMENTS TO USE DRONES

DRONES WILL BE USED TO LOOK AT DAMAGE, SIZE OF FIRES

Fire Applications



Firefighting Applications



Search & Rescue Applications



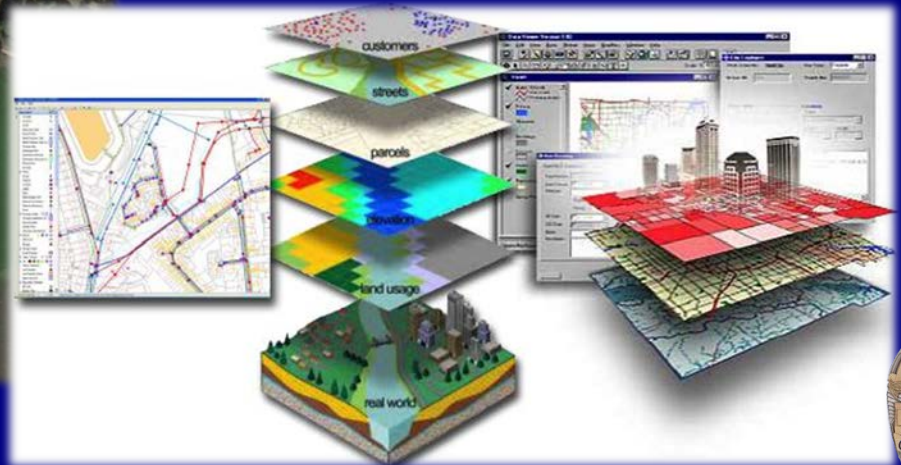
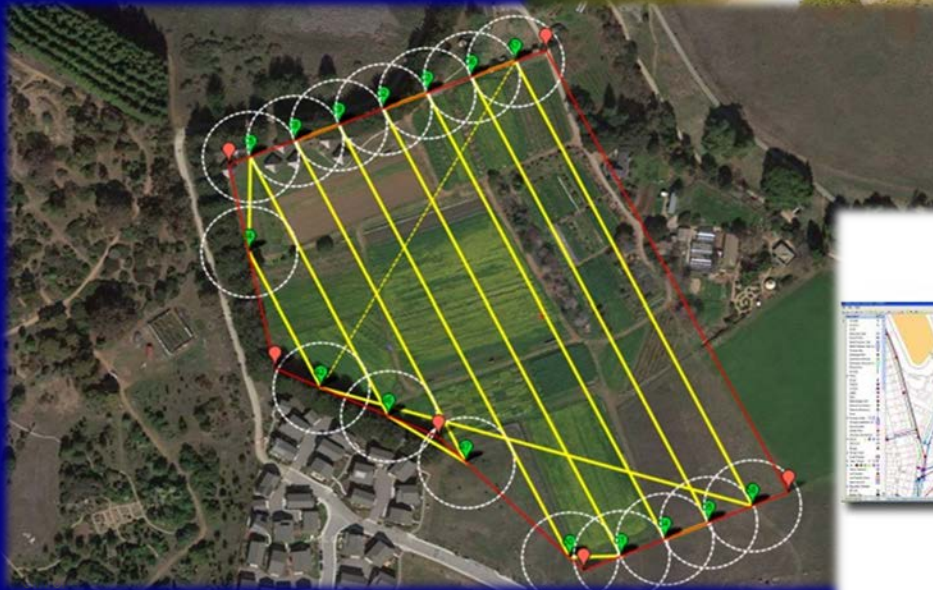
Rescue Applications



Rescue and Damage Assessment



Geographic Information Systems Uses



Geographic Information Systems Uses

Infrastructure Inspections

- Cost effective
- Safe
- Requires significantly less time
- View inaccessible areas



Law Enforcement Applications

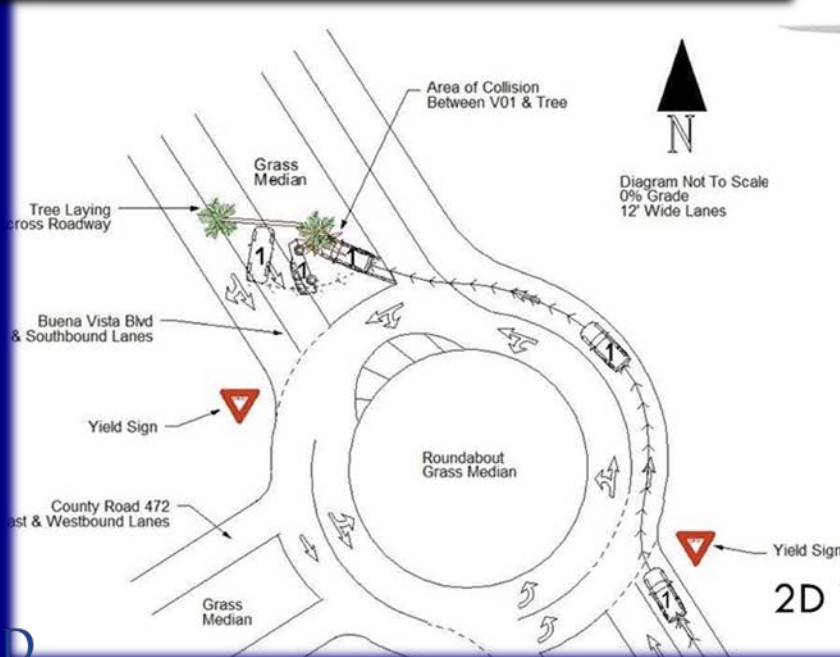
- Event / operation planning
- Tactical operation support
- Crimes in progress
- Perimeter searches
- Alarm calls
 - Fenced areas
 - Roof checks
- Diagramming/photography
 - Crime scenes
 - Traffic collisions
- Event / incident management
 - Crowd, traffic



Law Enforcement Applications



Diagramming/photography
Crime scenes
Traffic collisions



Traffic Accident Scene
Drawing System

2D Version & 3D Version & Drone Version

Law Enforcement Applications

Event / operation planning: Halaco site assessment



Law Enforcement Applications

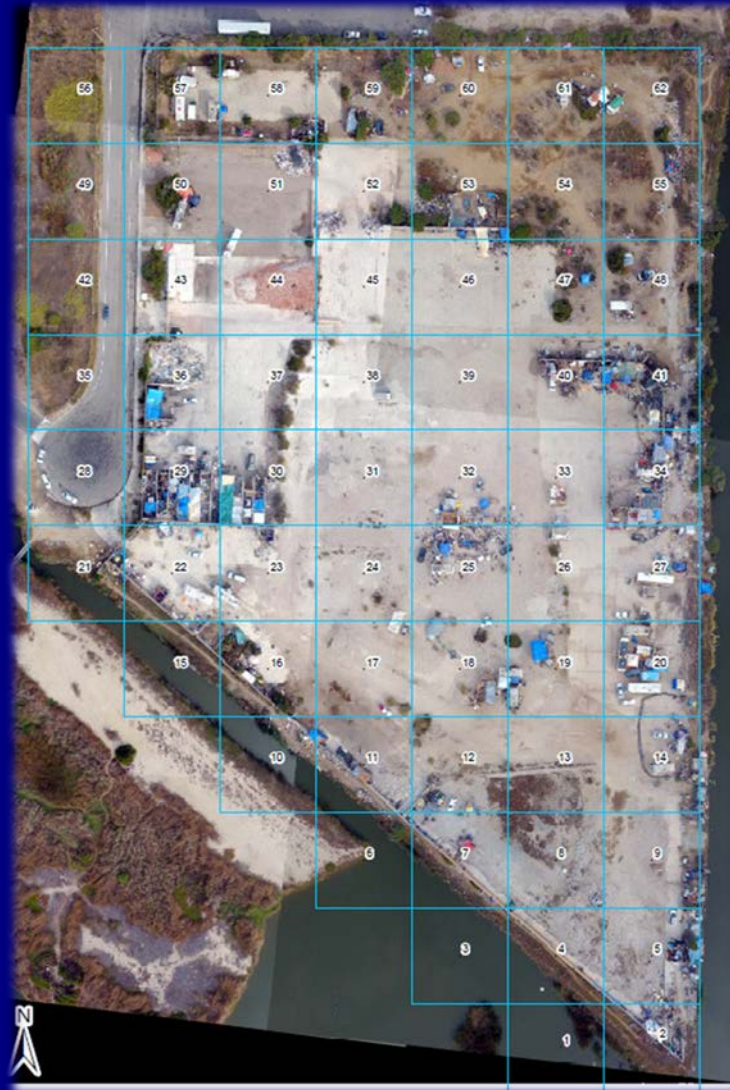
Event / operation planning: Halaco site assessment

Assessment of:

- Population
- Number of structures
- Number of vehicles
- Estimate debris/refuse

Facilitated cost estimates
and resource planning

(Mission flown by VCSO)



Law Enforcement Applications

Crimes in progress / Perimeter Searches



Law Enforcement Applications

Tactical operation support



Law Enforcement Applications

Other potential use: fireworks enforcement



FAA Regulations

FAA sUAS Limitations: 14 CFR, Part 107

- Generally below 400' AGL
- No flight over people not involved in operation of the sUAS
- Public agency or commercial sUAS can be operated only with Certificate of Authorization or Part 107 operations waiver
 - *Any person/entity with commercial application*
 - *Any subdivision of government*
 - *Does not apply to hobbyists*
- Daytime flight only, unless night flights are permitted by COA or Part 107 Waiver



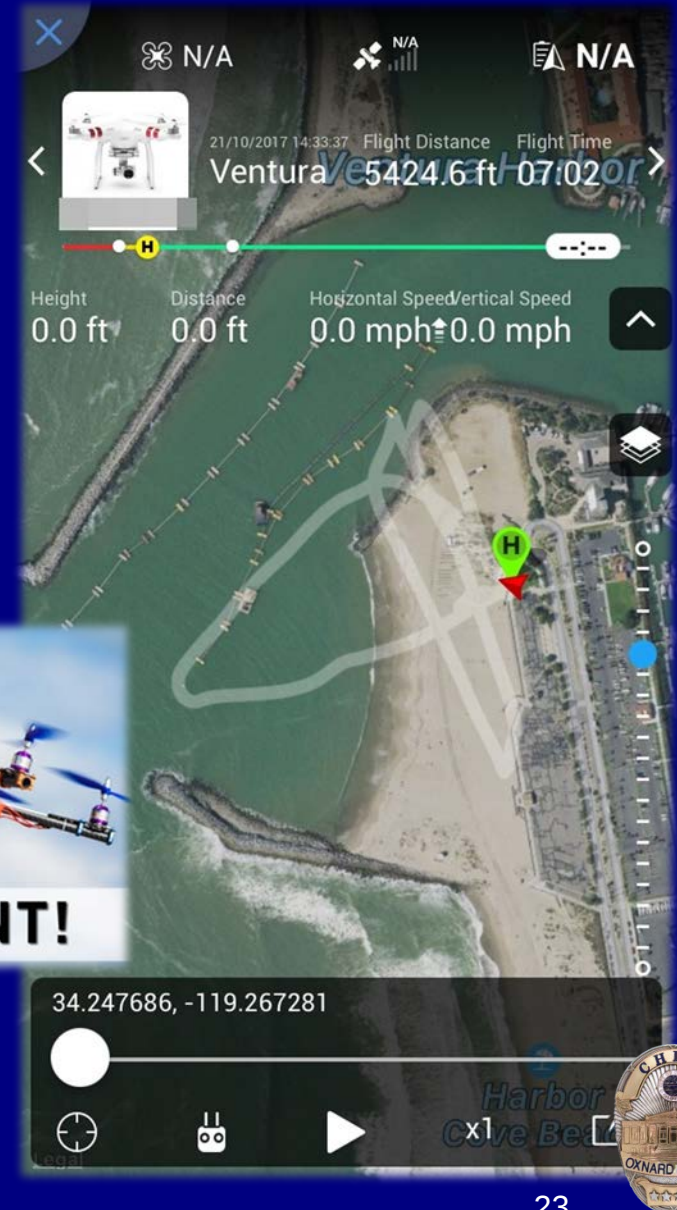
Steps Required

- Develop agency guidelines
 - Policy and Procedures
- Develop agreements with local air towers
- Apply for FAA Certificate of Authorization
- Apply for FAA Part 107 waivers
 - Controlled airspace
 - Fly at night
- Select pilots
- Training
- Identify Funding
- Equipment
- Maintenance
- Test operations
- Deployment



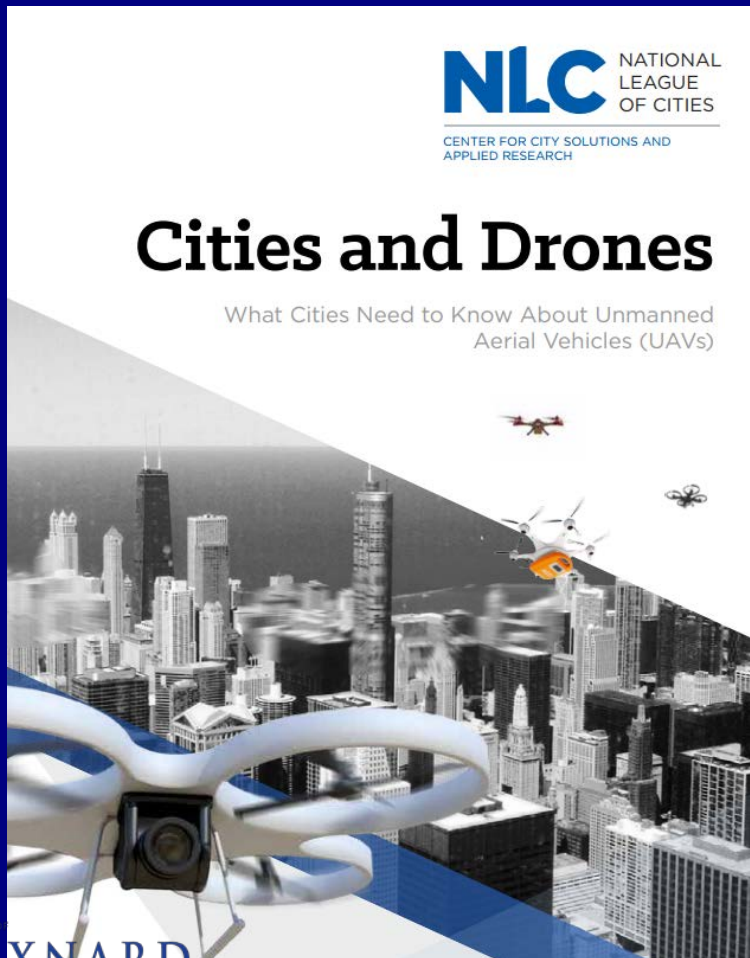
Considerations

- Legal issues
- Public concerns about drones
 - Perceptions
 - Privacy invasion
 - Intended uses of drones
 - Agency transparency
- Policies and procedures
 - Record retention
 - Flight logs
 - Photo/video



Resources

<http://www.nlc.org/resource/cities-and-drones>



<https://www.faa.gov/uas/>

Questions / Input?