



## Procuring UAVs

Unmanned aerial vehicles (UAVs), also known as drones, will soon be an integral part of our daily lives.

From aerial photography to the delivery of life-saving defibrillators, innovative uses for these machines are being discovered every day and usage has increased rapidly over the past few years. Commercial companies have even announced plans for same-day delivery of merchandise using UAVs. What other services can UAVs provide, and how can this technology be harnessed to make our lives better and public services more efficient?

State procurement officials are just beginning to explore the options when it comes to procurement of UAVs. In this edition of Tech-Next, learn the basics on UAVs, the developing applications for their use, the legal perspectives on this emerging technology, and considerations when procuring UAVs for the states.

### Quick Facts:



Sales of UAVs more than tripled in 2016 to **\$200 million per year**



**2.5 million UAVs** were sold in 2016



Projected sales of **7 million UAVs** in 2020



UAVs weighing over half a pound must be **registered with Federal Aviation Administration (FAA)**

### Three Categories of UAV Use:

**1** Public and governmental operations

**2** Civil or commercial use

**3** “Hobby” operation



## Public Uses For UAVs



### Law enforcement

- Traffic monitoring
- Photographs of crime/accident scenes
- Search & rescue
- Surveying storm damage
- Monitoring police pursuits and large crowds
- Prison surveillance



### Wildlife monitoring

- Tracking animal populations
- Monitoring for poaching and illegal hunting
- Keeping animals safe during migration



### Firefighting

- Looking for survivors
- Getting a “birds eye view” of a fire
- Assessing how to extinguish



### Agriculture

- Crop dusting
- Soil evaluation



### Ambulance/Paramedic

- Remote access to rural areas
- Delivery of defibrillators
- “Eyes and ears” for first responders



### Construction surveillance and structural safety inspections

- Power lines
- Oil & gas pipelines
- Transmission towers
- Roads, bridges, and overpasses



### Weather monitoring and research

- Hurricane & tornado research
- Data gathering
- Real-time weather updates

## UAVs & the Law

- Regulation of general UAV use is controlled by the Federal Aviation Administration pursuant to the FAA Modernization and Reform Act of 2012 (FMRA).
- The FAA has released the “State and Local Regulation of Unmanned Aircraft Systems (UAS) Fact Sheet,” which contains the first operational rules for routine, non-recreational use of UAVs under 55 lbs.
- The FAA currently requires that a UAV must remain within “visual line-of-sight” of the remote pilot in command.
- If federal law designates restricted airspace, it is typically off limits to UAVs, even those flown by public agencies.
- Forty states and 135 local governments have enacted laws and/or resolutions addressing UAVs.
- States should always consider federal law when using UAVs.
- Laws traditionally related to state and local police power, including land use, zoning, privacy, trespass, and law enforcement operations, generally are not subject to federal regulation.

### Examples include:

- Requirements for police to obtain warrants prior to using UAVs for surveillance
- Specifying that a UAV may not be used for voyeurism
- Prohibitions against using UAVs for hunting and fishing, and/or interfering with an individual who is hunting or fishing
- Prohibitions on attaching firearms or other weapons to UAVs.





## Considerations when Procuring UAVs

- Determine what federal, state, and local laws govern the use of UAVs in your area.
- Buying lead times for UAVs are short; most units are mass-designed and are delivered “ready-to-fly.”
- An RFP for a UAV should include a detailed explanation for the application for the UAV, the type and quantity needed, the desired timeline for delivery, and performance and quality specifications.
- Safety first! UAVs should have the ability to detect and avoid other aircraft, and should have appropriate running lights. Remote pilots will always require training to properly control the UAV.
- UAVs can be hacked just like any other piece of technology. Cybersecurity protocols must be taken into consideration, especially for the common data link (CDL) that connects the drone with the remote operating ground station and controlling pilot.
- Most UAVs use rechargeable lithium batteries. When purchasing extra battery packs, confirm compatibility to ensure optimal performance and operating life. Spare components may also be purchased to have on hand for immediate repair.
- Some suppliers of UAVs also offer training, maintenance, repair, warranties, and other value-added services that can be bundled together.
- The quality of the camera onboard should be carefully scrutinized carefully based on what task the UAV will perform.





## Additional Reading & Resources:

[FAA Modernization and Reform Act of 2012 \(“FMRA”\)](#)

[State and Local Regulation of Unmanned Aircraft Systems](#) - Fact Sheet from the FAA

[Current Unmanned Aircraft State Law Landscape](#) from the National Conference of State Legislatures

[Drones at Home: State and Local Drone Laws](#) from the Bard College Center for the Study of the Drone

[Next Battleground for Drones: State and Local Governments](#) from NBC News

[Cities and Drones: What Cities Need to Know about Unmanned Aerial Vehicles](#) from the National League of Cities

[Unmanned Aerial Systems, Governance and State CIOs: On the Radar](#) from the National Association of State Chief Information Officers (NASCIO)

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### About NASPO:

NASPO is the National Association of State Procurement Officials and represents the directors of the central purchasing offices in all 50 states, the District of Columbia, and the territories of the United States. For more information on NASPO, please visit [www.naspo.org](http://www.naspo.org).

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