



NASPO TECH NEXT SERIES

Procuring UAVs

In this edition of the Tech Next series, we will explore:

Quick Facts

Three Categories of UAV Use

Public uses for UAVs

UAVs & the Law

Considerations when 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.

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.



www.naspo.org



Quick Facts:



The UAV market is forecast to be valued at \$45.8 billion by 2025.



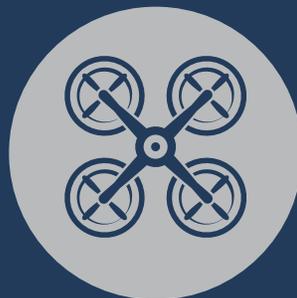
As of October of 2020, the FAA reports almost 200,000 remote pilots certified.



North Dakota introduced plans for the nation's first statewide network for drones in November of 2020.



7 million UAVs are forecast to be flying through American skies by the end of 2020



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

Three Categories of UAV use:

1

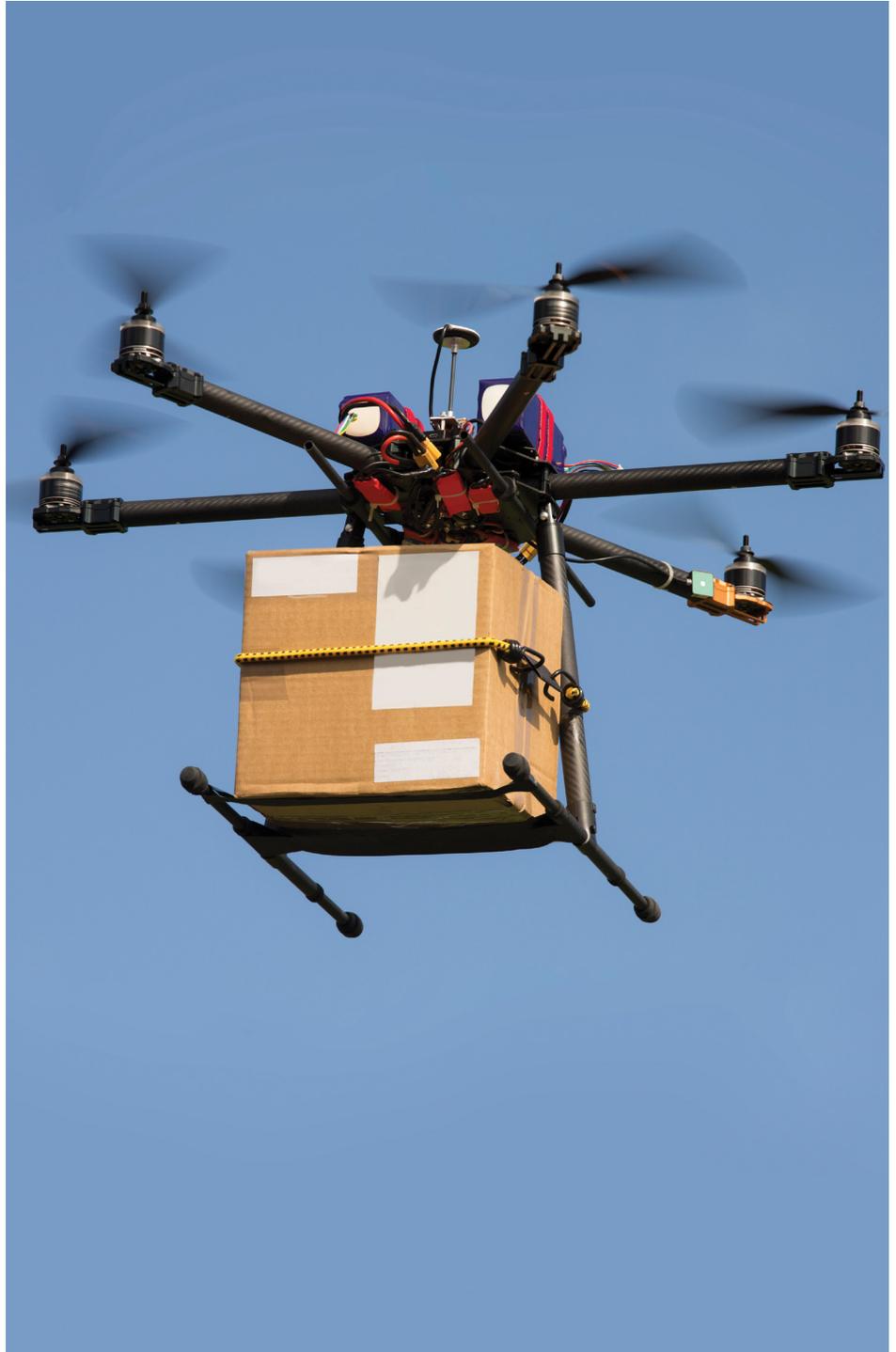
Public and
governmental
operations

2

Civil or
commercial
use

3

“Hobby”
operation



Public uses for UAVs

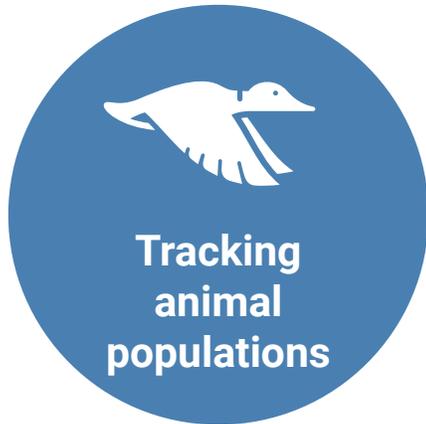
LAW ENFORCEMENT



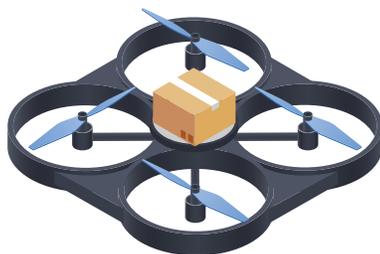
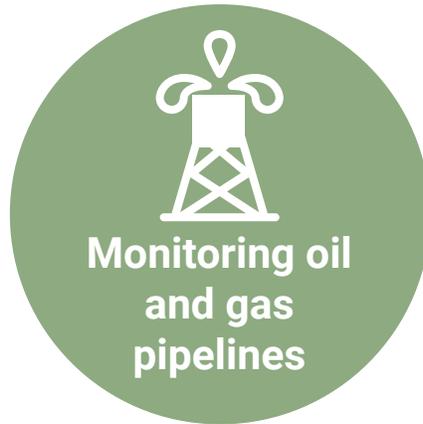
AMBULANCE/PARAMEDIC



WILDLIFE MONITORING



CONSTRUCTION SURVEILLANCE AND STRUCTURAL SAFETY INSPECTIONS



FIREFIGHTING



WEATHER MONITORING AND RESEARCH



AGRICULTURE



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.

According to the National Council for State Legislators (NCSL), 44 states have enacted laws and/or resolutions addressing UAVs.

Due to UAVs growing usage, procurement officials should review federal, state, and local statutes and regulations including land use, zoning, privacy, trespass, and law enforcement options prior to procuring. Examples include:

- Obtaining police warrants for surveillance
- Specifying that a UAV may not be used for voyeurism
- Prohibiting use of UAVs for hunting and fishing, and/or interfering with an individual who is hunting or fishing
- Prohibiting the attachment of firearms or other weapons to UAVs

Considerations when Procuring UAVs

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
- Type and quantity needed
- Desired timeline for delivery
- 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. Cyber security 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 scrutinized carefully based on what task the UAV will perform.



Additional Reading

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