Drones: Implications of Unmanned Aircraft

Jeffrey Hadnot
Chief, NIC Academy

Casey King
Unmanned Safety Institute

James Deater
American Military University

Jonathan Rupprecht
Rupprecht Law
A Panel Discussion in Three Parts

- Law Enforcement Applications
- Threats to Secure Facilities
- Drone Law
Polling Question

What is your current experience on drones at your agency?

(A) We have experienced drone intrusions
(B) We have implemented using drones
(C) We haven't had any issues with drones but are considering adding drone policy
(D) We don't have any experience with drones positive or negative and did not know it was an issue.
Law Enforcement Applications of Unmanned Aircraft Systems
Unmanned Safety Institute

Our Mission:
To improve safety in Unmanned Aircraft System operations

Our Philosophy:
The Unmanned Safety Institute is a professional training organization for UAS operators and proponents focused on improving safety in UAS operations through the adoption and modification of time honored aviation safety and training practices.
Routine Response to Calls

- Crimes in Progress
- Searches for Persons
- Traffic accident and crime scene photography
- Alarm Calls
Special Operations

- Crowd and traffic control at special events
- Pre-raid reconnaissance and intelligence
- Surveillance of high crime areas
- Disaster assessment
- Hazmat and radiological sampling/monitoring
Why Use Unmanned Aircraft

- **Helicopter costs:**
  - Average light turbine helicopter: $1-2 M
  - $300-550 per hour (without crew)

- **UAS costs:** $1K-50K
Case Study Helicopter vs. UAS

• Case #16-35111
  ▫ Same location but better visual perspective to SAO/Jury utilizing sUAS
UAS Flight Plan of Incident

- Aerial Videography Reconstruction
Crime Scene Reconstruction

• Mock Hit and Run Crime Scene 3D Reconstruction
Start-Up Suggestions

- Honesty and Transparency Critical
  - Don’t hide information from community – Engage
  - Welcome the media and answer questions
  - Distribute Policies and Procedures to community
Slow and steady wins the race

- Make sure your agency has mission or goal in mind
- Seek other agencies who have successful UAS programs
- Research equipment for mission
- Seek General Counsel assistance in writing policies
Slow and steady wins the race

- Coordinate with FAA on obtaining authorization (COA)

- Get OEM authorized training
Drone/UAV Threats to Secure Facilities
Two men arrested in what is the first known plot in Maryland to use a drone to smuggle drugs, tobacco and pornography into a prison
Contraband Introduced to the Facility

- 11 DVDs with pornographic titles
- 51 packages of "Scooby Snax" — suspected synthetic marijuana
- 116 packages of buprenorphine
- Suspected tobacco
- Hundreds of rolling papers
- .40-caliber handgun
Quadracopter Threat to Prisons

- Regular problem to prisons
- Gangs/Individuals utilizing drones to transfer contraband
- Drones found on three different prison grounds in Hong Kong
Contraband
Drone/UAV Threats to Secure Facilities

Thaddeus Shortz
Military veteran with prior UAV experience
Aviation Attorney Focusing on Drone Law

Jonathan Rupprecht, Esq.
Commercial Pilot & Flight Instructor
Rupprecht Law, P.A.
Polling Question

Is it legal to shoot down a drone if it is hovering over a prison?

(a) Yes, because it is in prison airspace.
(b) Yes, because it is outside of the FAA's jurisdiction if it maneuvers too low.
(c) No, drones are aircraft and it is illegal to shoot down aircraft.
Are Drones Regulated?

- Drones are aircraft, not toys, and **ARE** regulated if they operate in the national airspace.
- There are multiple ways drones can get approved to fly
  - exemptions
  - waivers
  - Part 101, Part 107
  - airworthiness certificate plus waiver.
Statues of Aircraft

Civil Aircraft
• Everything is this by default.

Public Aircraft
• Owned/Leased in 1 of 5 Ways.
• Governmental Function. ("Law Enforcement")
• No Compensation/Reimbursement for the Flight.
# Statuses of Aircraft

<table>
<thead>
<tr>
<th></th>
<th>Public (Some Regulations)</th>
<th>Civil (All Regulations)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Unmanned</td>
<td>Declaration Letter+ Public COA</td>
<td>Recreational (Part 101)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Non-Recreational (Part 107 &amp; Section 333 Exemption)</td>
</tr>
<tr>
<td>Manned</td>
<td>Declaration Letter</td>
<td>Recreational (Part 91)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Non-recreational (Part 119, 121, 135)</td>
</tr>
</tbody>
</table>
Can Prisons Use Drones?

Federal Laws

• Public COA - “Law Enforcement” is a governmental function.

• Part 107 - Civil

• Section 333 Exemptions

State Laws

• Many states have passed laws governing law enforcement use of drones.

• Warrant requirements and exceptions.
Civilians Flying Near a Prison

• Recreational
  • Not Prohibited
  • Registered and Identified

• Non-Recreational
  • Section 333 Exemptions
  • Documentation
  • Compliance
  • FAA cannot delegate
Civilians Flying Near A Prison

- Temporary flight restriction
- Interference with law enforcement or emergency response
  - Civil penalty not more than $20,000
- May petition the FAA to prohibit or restrict operation of unmanned aircraft close to:
  - Fixed Site Facility
  - Other warranted locations
  - Protection of persons & property
Can I Jam the Drone?

- Communications Act of 1934
- FCC Regulations
- Criminal Code
What If We Want to Use the Shotgun?

Destruction of aircraft or aircraft facilities

“(a) Whoever willfully— (1) sets fire to, damages, destroys, disables, or wrecks any aircraft in the special aircraft jurisdiction of the United States or any civil aircraft used, operated, or employed in interstate, overseas, or foreign air commerce;” . . .

“shall be fined under this title or imprisoned not more than twenty years or both.”
What are your questions?
Visit the Conference Site