FAA Update

Safe & Incremental Integration of UAS

Presented to: Southern States Energy Board
By: Mark Bury, Office of Chief Counsel
Date: July 9, 2016
Safety is Our Mission

• The FAA has the responsibility to maintain the safety of the National Airspace System (NAS) and people and property on the ground.
• We have a plan for safe and incremental integration of UAS into the NAS.
• We are making progress to achieve that goal.
The Current UAS Operating Environment

- “333” Exemptions
  - Provide relief from certain FAA regulations where the petitioner can show an adequate level of safety
  - Responded to demand by UAS operators for access to the National Airspace system
  - Granted to Individual operators on a case-by-case basis.

- COAs for Public Aircraft Operations
The Small UAS Rule (Part 107)

- First operational rules for routine non-hobby use for civil small UAS (<55 pounds)
- Allows governmental entities to operate without a COA
- Not applicable to model aircraft that follow Section 336 criteria
- In effect on August 29
Becoming a Pilot under Part 107

- Must be at least 16 years old
- Must read, write, speak English
- Must pass an aeronautical knowledge test at a Knowledge Testing Center
  - Part 61 certificate holders (other than student pilots) with current flight review can take online training at faasafety.gov instead of the knowledge test
- Supervised operations without a certificate are allowed
Operating Rules

- Visual line-of-sight only
- Daylight or civil twilight only
- No operations over people
- Must yield right-of-way to manned aircraft
- One UAS per pilot
- Max groundspeed of 100 mph
- External load operation permitted
- Operating restrictions are waivable
## NPRM vs Final Rule

<table>
<thead>
<tr>
<th>Subject</th>
<th>NPRM</th>
<th>Final Rule</th>
</tr>
</thead>
<tbody>
<tr>
<td>Max Weight</td>
<td>55 lb</td>
<td>55 lb</td>
</tr>
<tr>
<td>Max Altitude</td>
<td>500 ft AGL</td>
<td>400 ft AGL / or within 400 ft of a structure</td>
</tr>
<tr>
<td>Max Speed</td>
<td>87 kts (100 mph)</td>
<td>87 kts (100 mph)</td>
</tr>
<tr>
<td>Daytime ops</td>
<td>Daytime only</td>
<td>Twilight ops allowed; night ops via waiver</td>
</tr>
<tr>
<td>VLOS</td>
<td>VLOS only</td>
<td>Allow expansion on VLOS via waiver request</td>
</tr>
<tr>
<td>Minimum Age</td>
<td>17</td>
<td>16 to earn certificate; any age to manipulate controls under supervision of Remote PIC able to take control</td>
</tr>
<tr>
<td>Ops Over people</td>
<td>Not allowed</td>
<td>Allow flight over non-participants in certain circumstances via waiver</td>
</tr>
<tr>
<td>Pilot Certification</td>
<td>sUAS operator certificate</td>
<td>Remote Pilot Certificate with PIC authority</td>
</tr>
<tr>
<td>Accident Reporting</td>
<td>Report ANY injury to person or damage to property</td>
<td>Report accidents resulting in loss of consciousness or medical treatment beyond first aid; damage to property other than the UAS estimated to exceed $500</td>
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<tr>
<td>Ops from moving vehicles</td>
<td>Prohibited</td>
<td>Allow from land or water vehicles in sparsely populated areas</td>
</tr>
<tr>
<td>Deviation/Waiver Authority</td>
<td>No Reg Text proposed</td>
<td>Provision added to allow for waivers for specific regulations in part 107</td>
</tr>
<tr>
<td>Use of technologies (e.g. see and avoid)</td>
<td>No Reg Text proposed</td>
<td>Allows use of technologies as mitigations for some expanded operations (beyond VLOS, night, over people) via waiver</td>
</tr>
<tr>
<td>Ops with External Loads/Towing</td>
<td>Prohibited</td>
<td>Allow external loads; towing and jettisonable loads permitted</td>
</tr>
<tr>
<td>Online knowledge test/credit for pilot</td>
<td>Not proposed</td>
<td>Allow part 61 pilot certificate holders to complete online training</td>
</tr>
<tr>
<td>Transport of property for comp or hire</td>
<td>Prohibited</td>
<td>Allow intrastate transportation of property for compensation or hire</td>
</tr>
<tr>
<td>Environmental Concerns</td>
<td>Not Addressed</td>
<td>Exercise discretion to not require part 36 certification</td>
</tr>
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Section 333 & Public Aircraft

- “333” exemption holders can continue to operate under the exemption until it expires.
- Public aircraft operations still an option for qualifying operations.
    - Advisory Circular 00-1.1A (Feb. 12, 2014).
  - No compensation for the operation.
  - Certificate of Waiver or Authorization (COA)
Next Steps

• **Operations Over People**
  – FAA evaluating ARC recommendations

• **Drone Advisory Committee**
  – Stakeholder group to advise agency on path forward for UAS integration in the NAS

• **Research**
  – Pathfinders
  – UAS Center of Excellence
  – Test Sites
Thank You

UAS Points of Contact:

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Information: www.faa.gov/UAS