Drone Chopper Five:
New FAA Regulations for Use of Drones in Journalism and Media Pursuits.

Christopher Teters
JD Candidate 2016
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What is a “Drone”

FAA Regulations

- *Unmanned Aircraft* means an aircraft operated without the possibility of direct human intervention from within or on the aircraft.
- *Small unmanned aircraft* means an unmanned aircraft weighing less than 55 pounds including everything that is on board the aircraft.
- *Small unmanned aircraft system (small UAS)* means a small unmanned aircraft and its associated elements (including communication links and the components that control the small unmanned aircraft) that are required for the safe and efficient operation of the small unmanned aircraft in the national airspace system.

Proposed 14 C.F.R. 107.3

For the FAA, a “drone” is any aircraft which can fly without a person in it. Many shapes, lots of sizes.
But what “is” a drone?

"Parrot AR.Drone 2.0 - indoor hull" by Nicolas Halftermeyer - Own work. Licensed under CC BY-SA 3.0 via Wikimedia Commons

"MQ-1 Predator 97-3034 - Nellis AFB" by United States Air Force
Commercial Drones

Current Regulation
• Pilots license with full medical exam.
• Exception from the FAA for the particular drone.
• Limited applications.
• Longer delays.
• Airworthiness inspection for drone.

Proposed Regulation
• Operator friendly approach.
• Drone operator certificate (similar to drivers license).
• Drone registration, not inspection.
• Limited scope of applications.
The Situation

- Mudslide just outside of town.
- Lots of property damage, but no casualties.
- Only reachable by air.
- Station helicopter is down for repairs.


- Simultaneous protest downtown.
- Lots of people, police keeping non-protestors and media back.
- Boss wants’ aerial footage.

"Wga rally - ave stars - crossing street" by Own work. Licensed under GFDL via Wikimedia Commons
Certification and Obligations

Operator Certification

• Required by Proposed 14 C.F.R. 107.13(a)
• Eligibility
  • 17 y/o.
  • Read, speak, and write English, though exceptions and limitations may apply.
  • Pass aeronautical knowledge test and repass the test ever 2 years.
  • No known or suspected condition which would interfere with safe operation.
• Aeronautical Knowledge Test
  • Cover broad range of subjects (applicable regulations, airspace classifications, emergency procedures, crew resource management, etc.).
  • Military personnel who were drone pilots can apply for a certification and only have to take the recurrent test.

Proposed 14 C.F.R. 107.61, .73, & .75
Certification and Obligations (Cont.)

Alcohol and Drug Testing

• Alcohol or drug offenses can be grounds for denial, suspension, or revocation of an operator certification.
• Refusal to submit to blood-alcohol content test or failure to release the results of the test can be ground for denial, suspension, or revocation of the certification.

Failure and Cheating

• 14 days wait after failure.
• 1 year prohibition from taking, and possible suspension or revocation of existing certification after cheating.

Proposed 14 C.F.R. 107.57, .59, .69, & .71
Certification and Obligations (Cont.)

Registration of the Drone

• Drone must be registered with the FAA in the same way as any aircraft in the US.

• The Drone must display its registration number in a readable format
  » At least 12” high or as large as practicable.
  » Two-thirds wide as high, in solid lines one-sixth as thick as the character is high.
  » Spaced one-fourth of a character width apart.

• Must also display nationality marks, like other aircraft.

Proposed 14 C.F.R. 107.13(d) & .89
Pre-Flight Check

Preflight Familiarization, Inspection, and Actions for Aircraft Operation

• Access the operating environment, considering risks to person and property in the immediate vicinity on both the surface and the air.
  » Weather, location of persons and property in the operation area, airspace restrictions, hazards, etc.
• Preflight briefing of all persons involved in small unmanned aircraft operation.
  » Operating conditions, emergency procedures, contingency procedures, hazards, responsibilities, etc.
• Test the links between ground operation and the drone to ensure proper function and perform visual inspection of the drone.
• Ensure enough power remains on drone for 5 minutes beyond intended operational time.

Proposed 14 C.F.R. 107.49
Rules of the Skies

• No hazardous or impaired flight.
• Operator must ensure drone is safe to fly and must stop if they have a reason to believe the drone may be unsafe to fly.
• Operator responsible for anything that falls off the drone.
• Operator responsible for damage resulting from loss of control of the drone.
• No operation from:
  » A moving aircraft.
  » A moving vehicle UNLESS that vehicle is moving on water.
• Operation must be during daylight hours.
• Can’t operate over people who are not under a covered structure which can provide protection.
• Can’t operate over non-participating people.
• Must give right away to other aircraft.
• Class B, C, D, or E airspace requires ATC permission.
• No flight in Class A airspace or “No-Fly” Zones.

Proposed 14 C.F.R. 107 Part B
Ceilings and Floors

- 500’ above ground ceiling
  - Crown Center – 504’.
  - Town Pavilion – 591’.
  - 1 Kansas City – 624’.

- 100 M.P.H. airspeed limit.
- 500’ below clouds.
- 2000’ away from clouds horizontally.
- 3 miles visibility.
- Specific Observation Rules.

"Hyatt Regency Crown Center Kansas City MO" by user:Charvex - Own work (Photo by author). Licensed under Public Domain via Wikimedia

Proposed 14 C.F.R. 107.51
Visual Observer

Drone Must Stay in “Potential” Line of Sight

- Operator must always be “capable” of seeing the drone while it is in operation.
- Either actually be able to see the drone, or through use of visual observer.
- Observer can view drone when an obstruction like a tree or building blocks actual line of sight.
- Visual observer must stay in constant radio contact.
- But drone must stay in the range which would be visible if the obstruction wasn’t present.
- No technology to assist vision, except eyeglasses.

Proposed 14 C.F.R. 107.31 & .33
Violations of FAA Regulations

Complaints

• Formal or Informal.
• Formal require full investigation and mandated timings, but can be more easily rejected.
• Informal require less investigation work, but may not result in any action.
• FAA can impose civil fines and revoke certification, but criminal enforcement is generally beyond scope.

Role of Law Enforcement

• Investigative Duties (Observe and Report).
• Can attempt to deter, but no arrests are allowed.

Open Question on Enforcing Your Rights
“Over” People

“§ 107.39

Operation over people.
No person may operate a small unmanned aircraft over a human being who is:
(a) Not directly participating in the operation of the small unmanned aircraft; or
(b) Not located under a covered structure that can provide reasonable protection from a falling small unmanned aircraft.”

Moving boat v. moving car is an unusual distinction.

Larger drones left undefined.
Comment Period

- April 24, 2015 Deadline.
- ~2,700 Comments Filed.
- Unclear when the rules will take effect.
- [www.regulations.gov](http://www.regulations.gov)
- “Operation and Certification of Small Unmanned Aircraft Systems.”
Conclusion

• Questions?