Proposed
Recommended Airport Practices for Drone Safety

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Presentation Focus

• Drones <= 55 lbs.
• *Quadcopter-class*
• Recreational / Hobbyist – not commercial operations
• Flight Safety – not privacy, property claims, etc.
• Enfranchising airport operators

---A Discussion---
The “Wild West”

“The real problem right now is there is really sort of a Wild West [situation] out there in the operation of these devices, especially the ones used for entertainment”

Chesley “Sully” Sullenberger
Regulatory Challenges

“I am afraid that regulators have thrown up their hands. At this point, it does not seem that even a disaster caused by a drone would stop their proliferation.

We understood the problem many years ago, but there were too few believers. At this point I can only sit and watch and shake my head.”

ICAO RPAS Panel Member
Aug. 24, 2015
Selected Law and Guidance

• 1981 – AC 91-57 Model Aircraft Operating Standards
• 2012 – FAA Modernization and Reform Act of 2012
  ➢ Sec. 336, Special Rule for Model Aircraft
• 2014 – FAA Interpretation of the Special Rule for Model Aircraft
• 2015 – Small UAS NPRM
• 2015 – AC 91-57A Model Aircraft Operating Standards
FAA Modernization and Reform Act of 2012

Sect. 336. Special Rule for Model Aircraft

FAA may not promulgate regulation for model aircraft if-

1. Strictly for hobby or recreational use
2. Operated per community-based safety guidelines and programming of a nationwide community-based org.
3. <= 55 lbs.
4. No interference with manned aircraft
5. When flown within 5 miles of an airport, operator provides prior notice to airport operator and control tower (if towered)
Other Rules May Apply

“Other rules...may apply [and the cited regs] are not intended to be an exhaustive list of rules that could apply to model aircraft operations.”

FAA Interpretation of the Special Rule for Model Aircraft, p.17
Academy of Model Aeronautics
National Model Aircraft Safety Code

- The most recognized community-based safety guidelines

“New Drone Flyers”

“Our more than 176,000 members know where to fly and where not to fly... *Unfortunately, the same is not always true for the legions of new ‘drone’ flyers* increasingly taking to the skies.”

(emphasis added)

Bob Brown, President, AMA
“Personal Users”

“We are seeing a new emergent community of what we call personal users that are not traditional model aircraft enthusiasts...This new generation of users have not bought into this [safety] mindset.”

(emphasis added)

Richard Hansen, AMA
1. Stakeholder Inclusiveness

Engage airport tower management (where towered), FAA, FBOs, local government, model aircraft groups, pilot associations, and all relevant airport stakeholders to ascertain local risks and develop responsive solutions.

- We are charting new ground – cast a wide net!
2. Education

Promote drone safety, education, and awareness to all relevant parties including: airport staff, drone operators, pilots, and public/private owners and stewards of property hosting drone operations.

• Educational outreach is the most-recognized responsibility.
• Education should extend to sharing subject-matter expertise.
3. “Hot Spots”

Identify drone-intensive hot-spots proximate to the airport, such as parks, and large open areas. Determine associated safety risks to aircraft, persons and property, and plan remedial action.

- Responsibility extends to the *vicinity* of the airport
- Proximity akin to NOTAM, noise, wildlife, obstruction and disaster planning
4. Safety Responsibility

Understand the obligations of airport operators to the overall safety of their airport. Recognize that such obligations, by implication, mandate attention to drone safety.

- Safety is a primary role of airport management.
- Safety duty near-universal in airport manager job descriptions.
4. Safety Responsibility:
Airport Managers and Owners

• “Managers of small airports are responsible for a wide range of activities that include... safety.”

• “It is the airport owner’s responsibility to undertake every effort to protect the public from hazards that may exist in the airport environment.” (emphasis added)
5. Coordination

Assure effective coordination/communication between airport and tower management regarding the disposition of drone operator notifications. Reports of drone sightings, incidents and accidents, as well as relevant operational information require dissemination to all airport stakeholders to facilitate safety and improve effective airport stewardship.

- Drone Operator Notifications
- AC 91-57A contravening the Special Rule?
- Compartmentalization of FAA reporting?
“If the model aircraft operator provides notice ...*objected to by the airport operator*, the FAA expects the model aircraft operator will *not* conduct the proposed flights [and will] consider [such] flying ...over the objections of... *airport operators* to be endangering the safety of the NAS.”

Interpretation of the Special Rule, pp. 13-14

(emphasis added)
Recognize that airport Safety Management Systems (SMS) promote effective sharing of information relevant to operational safety, and should include information relevant to safe operation of aircraft. Effective safety management also includes establishing responsibilities, evaluating risk, monitoring operations, and communicating safety issues.

• SMS demands collection of accurate, complete data.
• Consider procedures and tools to document notifications.
7. Law Enforcement

Assist local law enforcement to become apprised and knowledgeable with respect to: (a) FAA Law Enforcement Guidance for Suspected Unauthorized UAS Operations, (b) risks of drones to the airport environment, and (c) benefits of designating a knowledgeable point of contact to coordinate response to future drone incidents.

- Sec. 336 (b) “Nothing in this section shall... limit the authority of the Administrator to pursue enforcement action against persons endanger[ing] the safety of the national airspace system.”
Anticipate that drone operations may necessitate changes to airport planning documents, including emergency response, grant assurances regarding safety, personnel training, and facilities. Airport management should plan accordingly.

- Support includes Airport Layout Plans – FAA grant assurances.
- Sharing of geospatial data (to support geofencing).
9. Airspace Redesign

Consider the extent to which airspace redesign responds to particular airport safety risks caused by drones. As a recognized stakeholder in Federal airspace redesign, engage the FAA accordingly.

• Airports are key stakeholders – informed from runway and instrument approach redesign, and noise abatement procedures.
9. Airspace Redesign

Google Airspace Proposal
10. Advocacy

Within the scope of your responsibilities, provide information, remain accessible, and engage decision-makers regarding drone operations to ensure the safety of the airport environment and the flying public.
"We have the safest transportation system- it's not a birthright. I encourage you to do the right thing before it’s too late.”

Edward L. Bolton, Jr.
FAA Assistant Admin for NextGEN

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