

Building Performance-Based Regulatory Environment for RPAS Operations: Are States Ready?

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**ICAO Third Remotely Piloted Aircraft
Systems (RPAS/3) Symposium**
Chengdu, Sichuan Province, China
September 10-12, 2018

RPAS Operations Management

- Over 1 Million UAS registered in the US.
- Operators of large UAS/RPAS do not have direct access to the airspace like small UAS.
- FAA continues an incremental approach to UAS/RPAS integration.
- Performance based regulations offer flexibility while maintaining high standards of safety.



Types of Rules

- Prescriptive Rule – What to do, how to do it and what to do it with.
- Performance Based Rule – a threshold of acceptable performance and a means for verifying that the performance has been met.
- Principle Based Rule - very high level “concept” based rule which relies on standards and guidance established outside of rulemaking to support approval of new technologies.



Principle vs. Performance-Based Rule

Detect and Avoid Example

- **Principle**-based Rule:
Detect and Avoid. The sUAS must be capable of **detecting conflicting aircraft** and maneuver when so as **not to create a collision hazard.**
- **Performance**-based Rule(s):
Detection. The sUAS must be able to detect at least **a 1m² object** at a distance necessary to remain well clear.
Well Clear. A distance **no closer than 2,000 ft. laterally or 250 ft. vertically.**

Compliance Philosophy



- The agency's organizational culture has traditionally focused on enforcement.
- Our new oversight compliance philosophy emphasizes the accountability of all stakeholders.
- Concentrates our resources on risk.
- Emphasis is on risk-based decision making.

Performance-Based Regulation

Advantages

- Encourages new technologies and entrepreneurship.
- Encourages proactive versus reactive policymaking.
- Allows for more efficient use of FAA resources
- Increases flexibility.
- Improves harmonization.



Performance-Based Regulation

Disadvantages



- Can be ambiguous, vague, harder to enforce.
- May allow too much flexibility.
- May require significantly more guidance materials.

Moving Forward

- Are States ready?!
- Ultimately, the guiding principle is to use the “right” approach to control hazards.
- Sliding scale - Regulators must decide on the ultimate goal for the regulation, whether enforcement or compliance.



Thank you

