

Small UAS (sUAS) Special Federal Aviation Rule (SFAR) *Part 107*

Presented to:

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Federal Aviation
Administration



Overview

- **Project Goals**
- **Project/Team Organization**
- **Rulemaking**
 - Process, Status, and Milestones
- **What is a *Small UAS*?**
- **sUAS SFAR *Part 107***
 - Fundamentals
 - Methodology
 - Application
 - Outline
- **Benefits**



sUAS Project Goals

- **Issue Small UAS SFAR Part 107**
- **Develop *Priority 1* Standards**
- **Issue Guidance** (Advisory Circulars, etc.)
- **Publish “Small UAS Handbook”**
- **Deploy WebUAS** (Web-based application)

... by end of 2012



sUAS Project/Team Organization

sUAS Rulemaking Team (RMT)

- Preparing NPRM and FR, Addressing public comments, etc.

1. Extended RMT consisting of FAA SME/LOBs

- Technical review of sUAS ARC Recommendations
- Provide technical recommendations for SFAR
- Provide technical input for “Small UAS Handbook”

2. Safety Management Review Panel (SRMP)

- Conduct Safety Risk Assessment

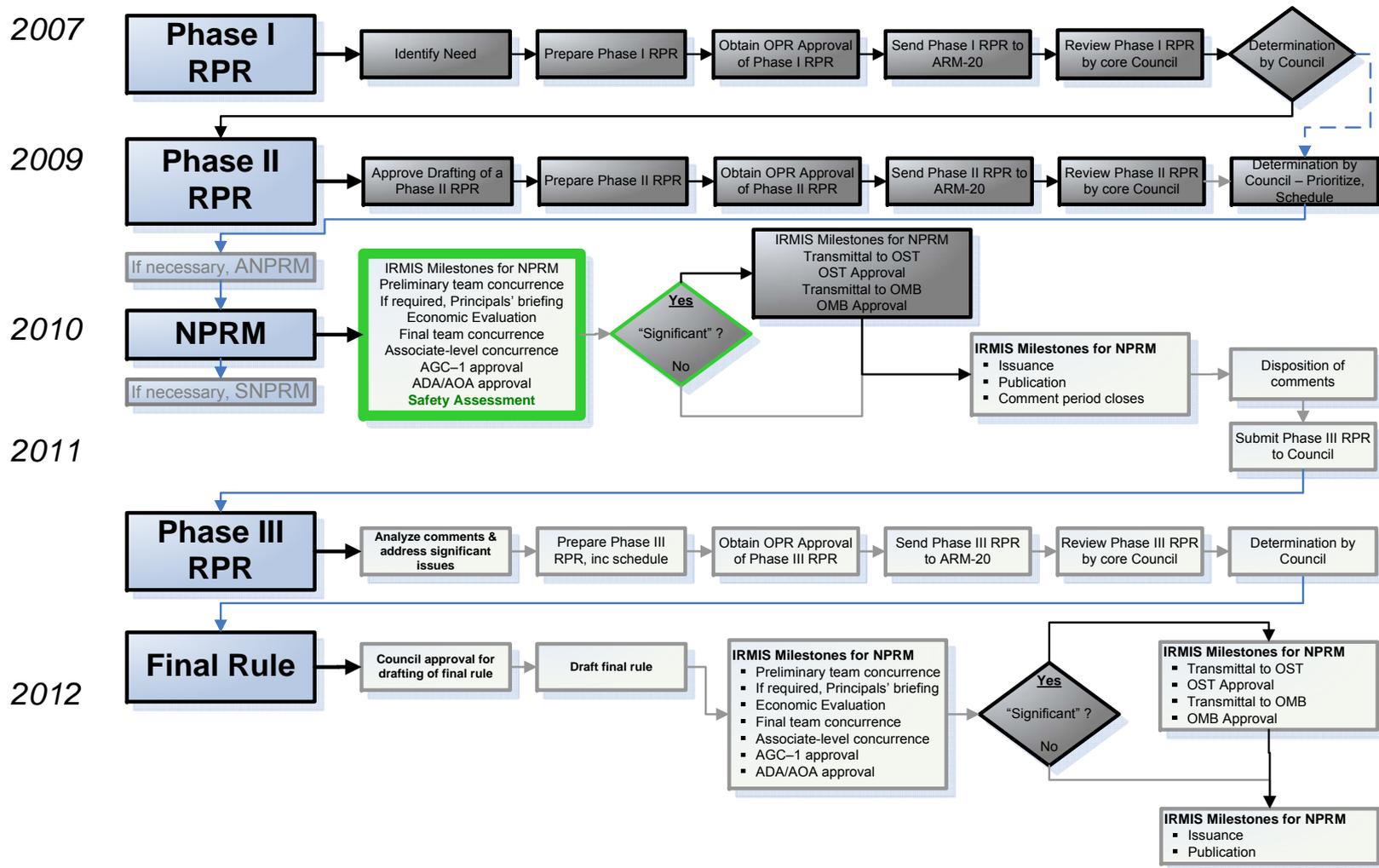
3. Standards Team

- Develop “Priority #1” Standards *(required for regulation to be usable)*

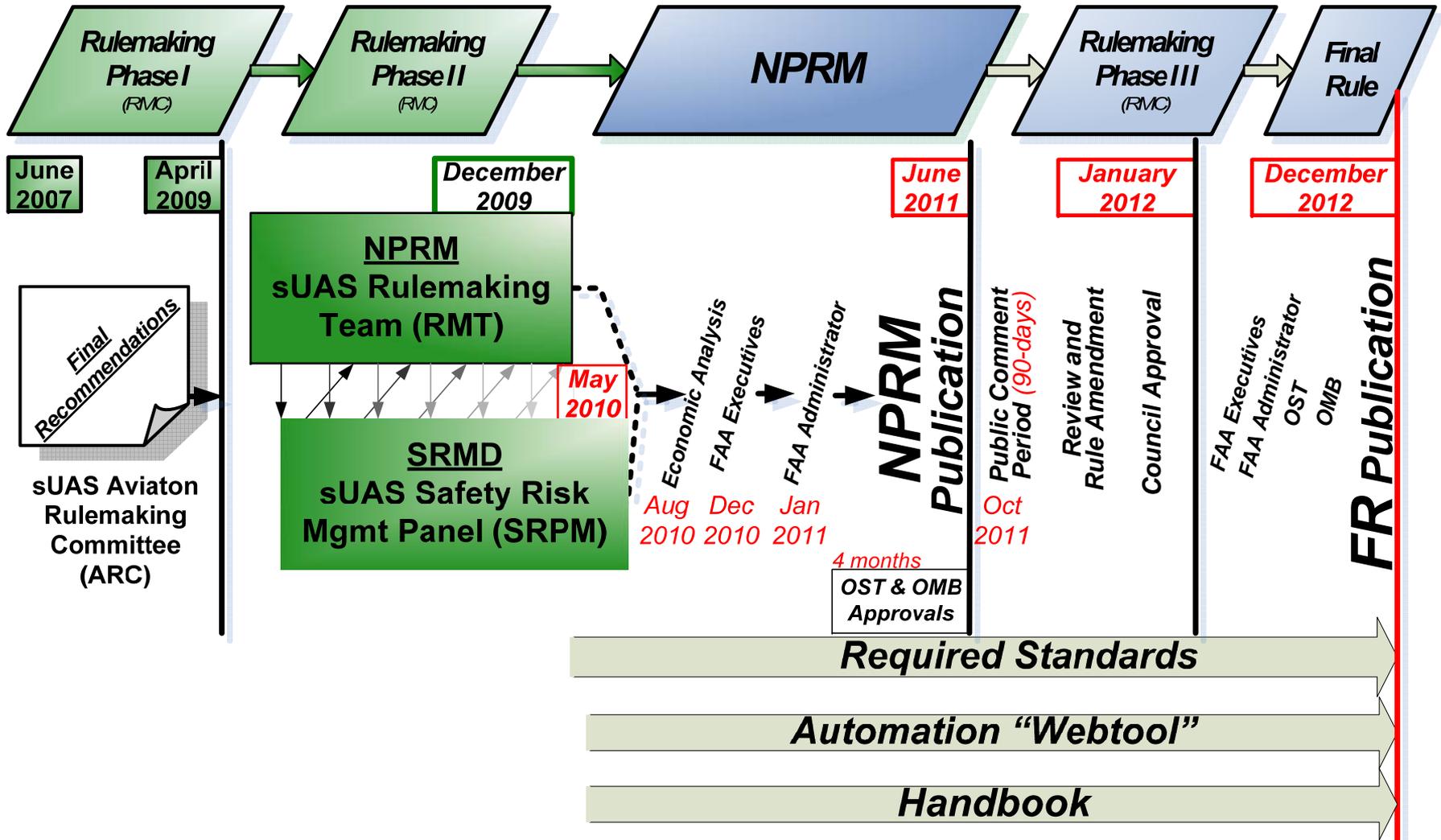
4. Automation Team (WebUAS) - Deploy by Final Rule date

- Unique User Account (Secured), Registration of Aircraft, Selection of Operational Category, Automated identification of applicable regulations (sUAS SFAR), (User Selected) Identification of applicable Standards (NOA), (Optional) Links to Advisory & Informational documents, User submitted application and quarterly data updates, Statement of Compliance (Declaration), E-Signature validation of Application and affirmation of Declaration

FAA Rulemaking Process – Status



sUAS Rulemaking – Milestones



What is a *Small UAS (sUAS)*?

“Any UAS operated in compliance with identified regulations, standards, and procedures.”

General Guidelines that may be used:

- ***“Aircraft” flown by a “pilot”***
- ***< 55 lbs***
- ***Operations: Visual Line of Sight, Daytime, VFR only.***
- ***Limited to low altitudes and maximum lateral distances from the pilot.***
- ***Not operated over people or inhabited structures.***
- ***Comply with ATC instructions.***

sUAS SFAR Part 107

“A Conservative First-Step”

Purpose of the regulation:

- Enable Small UAS to operate safely in limited portions of the NAS
- Gather data for future consideration

Primary Focus:

“Enable the widest range of activity that can be safely conducted within the shortest rulemaking timeframe.”

Schedule is a priority.

sUAS SFAR Part 107 *Fundamentals*

Standalone

- *Current regulations will not be affected.*

Performance-based

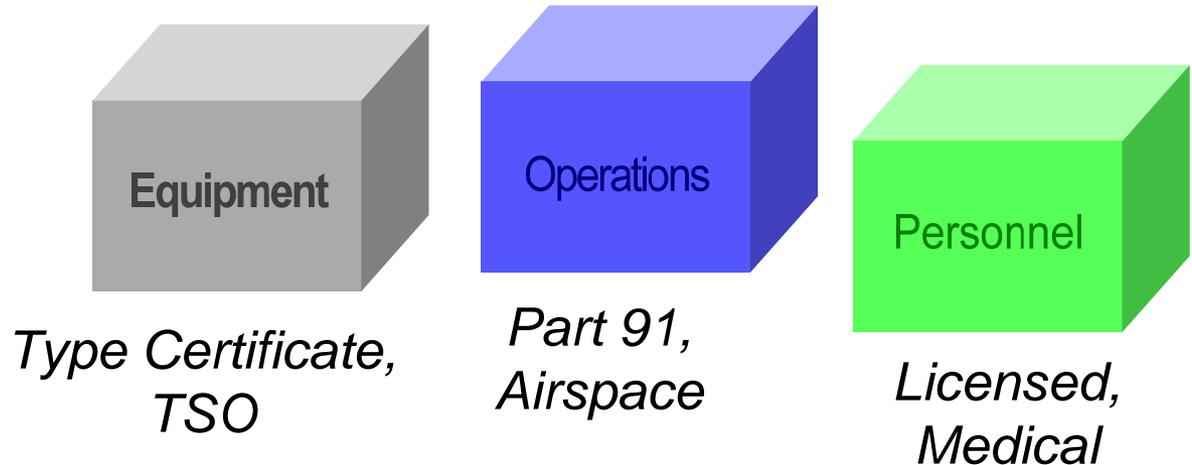
- Rely on Standards to address “means”
(easier to amend, aligns with federal RM guidance)

Safety Risk Management

- Safety assessment: “Balanced” vs. “Independent”
- Operational rules will mitigate most of the risk
Allows for the safe use of aircraft and equipment currently unable to obtain a Type Certificate or conform to current manned aviation standards.

Safety Risk Management

Traditional
Independent
Risk Assessment



Balanced
Risk
Assessment



sUAS SFAR Part 107 *Methodology*

“sUAS” versus “Recreational only”

- Addressed separately within the SFAR

sUAS Classification

- Public and Civil private/commercial operations treated the same
- 3 Aircraft “Groups” (*weight*)
- 1 Airspace Group (*R&D*)
- Operations, Equipment, and Personnel

Recreational Classification

- “Models” & “Toys”

sUAS SFAR Part 107 *Application*

Web-based Application

- Reduce workload and expedite process
- Centralized point-of-processing for application, approval, and data collection
- E-Signature (supporting E-Gov initiatives)

“Declaration of Compliance” vs. “Self-Certify”

- Regulations and Standards continue to be basis for safety assurance and determined by the FAA
- Applicants will “declare compliance” as appropriate.

Aircraft/Equipment: “Permit to Operate” **1-Year limit**

Personnel: “Certificate” or “Authorization”

sUAS SFAR Part 107 *Outline*

SFAR Part 107	Subpart A - General					
	Subpart B - Small UAS				Subpart C - Recreational	
	General				General	
	Categories	I	Aircraft & Equipment	Operating Rules	Personnel	"Model"
II	<u>Default Requirements:</u> <ul style="list-style-type: none"> • Aircraft Systems and Equipment • Operating Rules • Personnel 	<u>Default Requirements:</u> <ul style="list-style-type: none"> • Aircraft Systems and Equipment • Operating Rules • Personnel 				
III						
IV						
*NOA	Standards Acceptable Methods of Compliance (Developed IAW OMB A-119)				<u>OR</u> Alternative Standards In Lieu of "Model" or "Toy" rules (Developed IAW OMB A-119)	

**NOA = Notice of Availability. Issued by the FAA to formally acknowledge a specific Standard as a means of complying with a specific Regulation. (OMB A-119)*



Benefits

- **Reduce the number of COA applications.**
- **Enables routine Civil & Public operations**
- **Enables requests for ‘waivers’ or ‘exceptions’**
- **Manufacturers able to ‘mature’ equipment toward certifiable standards**
- **Recreational activities able to continue**
- **Gather operational data for future actions**



sUAS SFAR Part 107

”A Conservative First-Step”



Questions

