1. **Purpose of this Order.** This order creates the Small Unmanned Aircraft System (UAS) Aviation Rulemaking Committee (ARC) according to the Federal Aviation Administration (FAA) Administrator’s authority under Title 49 of the United States Code (49 U. S. C.) § 106(p) (5). In it, we also outline committee organization, responsibilities and tasks.

4. **New Analysis of Small UAS is Needed.**

   a. Based on the relatively low initial cost of small UAS, plus their low operating expense, versatility for aerial photography, and other sensing applications, we expect that small UAS will experience the largest near-term growth in civil/commercial UAS. Another catalyst for growth is the interest of local law enforcement agencies in acquiring small UAS to either establish or augment their aviation capabilities.

   c. Recommendations from the Small UAS ARC will be important to us as we establish the regulatory basis allowing small UAS to operate in the National Airspace System (NAS) for compensation or hire, and clarify the definition of model aircraft.
sUAS Rulemaking – Milestones

Rulemaking Phase I (RMC) – April 2009

Rulemaking Phase II (RMC) – June 2009

Final Rule – December 2012

NPRM sUAS Rulemaking Team (RMT) – May 2010

SRMD sUAS Safety Risk Mgmt Panel (SRPM) – August 2010, December 2010, January 2011

NPRM Publication – October 2011

Public Comment Period (90-days) – October 2011

Review and Rule Amendment – October 2011

Council Approval – October 2011

FAA Executives – December 2011

FAA Administrator – OST & OMB Approvals – December 2012

Handbook

Required Standards

Automation “Webtool”
FAA Rulemaking Process

2007
- Identify Need
- Prepare Phase I RPR
- Obtain OPR Approval
- Send Phase I RPR to ARM
- Review Phase I RPR by core Council
- Determination by Council

2009
- If necessary, ANPRM
- NPRM
- If necessary, SNPRM

2010
- Phase II RPR
- Economic Evaluation
- Final team concurrence
- Associate-level concurrence
- ADA/AOA approval
- Safety Assessment

2011
- Analyze comments & address significant issues
- Submit Phase III RPR to Council
- Distribution of comments

2012
- Final Rule
- IRMIS Milestones for NPRM
- Determine suitability
- Economic Evaluation
- Final team concurrence
- Associate-level concurrence
- ADA/AOA approval
- Approval by Council

IRMIS Milestones for NPRM
- Issuance
- Publication
- OMB Approval
Model Aviation is a recognized, valuable and worthwhile recreational activity. Our aim is to keep the modeling activity intact and to allow the modeling enthusiasts to continue to enjoy their hobby much the same way as they have in the past.

AMA guidelines as they exist today have guided the modeling community for many years and have served effectively in ensuring the safe and enjoyable conduct of the aeromodeling activity. The effectiveness of the AMA guidelines and programs has achieved an exemplary safety record. We will first look to AMA guidelines, policies and procedures in developing our standards for the recreational component of the sUAS equation.
Model Aviation

Model Aircraft operations that are conducted in accordance with an FAA accepted set of standards established and administered by a community based association, shall effectively be exempt from the requirements of the sUAS Regulation… Manufacturers which are flight testing aircraft intended to be operated for the sole purpose of sport, recreation, and/or competition can likewise be exempt… (ARC – 3/2009)
Safety Concerns / Hazards

* Fly Away
* Loss of control
* Lost Visual Contact with MA
* Pilot/Observer Error
* Loss of Voice Communication with ATC
* Loss of Voice Comm (pilot/observer)
  ✓ High Performance A/C
  ✓ Transient & Sustained Altitude Operations
  ✓ Large / Complex A/C (> 55 lbs)
  ✓ Flying Location / Flight Operations
AMA Approach

If it Ain’t Broke…
Don’t Fix IT!!

• Present a set of guidelines (Standards) to the FAA for adoption…
• Conduct a comprehensive review of all MA safety related activities.
• Develop a broad based MA program document based upon AMA’s Safety Code and supporting safety documents, Turbine Waiver Program, Large Model A/C (Experimental) Program.
• Create the MA Program Document and Inclusive Standards Addressing:
  ✓ Flying Site Location, Operation and Airspace Utilization
  ✓ Operation of Hi-Performance / Hi-Speed Model Aircraft
  ✓ Transient and Sustained Altitude Operations
  ✓ Operation of Turbine Powered Model Aircraft
  ✓ Operations of Large Model Aircraft (> 55 lbs) [Experimental]
Work Product Components

Cover / Transmittal Letter

- Media – DVD
- Introductory and Promotional Presentation (MA Primer)
- AMA MA Standards Criteria (PDF Document)
- Attachments/Appendices, i.e.
  - Safety Code
  - Membership Manual
  - Competition Rulebook
  - Turbine Waiver Safety Program
  - Experimental Aircraft Program
  - Associated AMA Documents (PDFs), etc.
<table>
<thead>
<tr>
<th>Date</th>
<th>Event Description</th>
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<tbody>
<tr>
<td>April 2008</td>
<td>Aviation Rulemaking Committee (ARC) Established</td>
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<td>March 2009</td>
<td>Aviation Rulemaking Committee (ARC) submitted its report to the FAA</td>
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<td>April 2009</td>
<td>FAA began its internal rule development and review process (Ongoing)</td>
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<td>May 2009</td>
<td>AMA MA Standards Development Workgroup established. Standards development process initiated (Ongoing, WG meets weekly)</td>
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<tr>
<td>Jan 5-6, 2011</td>
<td>AMA/FAA MA standards development joint workshop (AMA Expo)</td>
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<tr>
<td>Jan – Jun 2011</td>
<td>Recurring AMA sUAS process updates and MA standards presentations</td>
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<tr>
<td>May 2011</td>
<td>Preliminary AMA MA standards completion</td>
</tr>
<tr>
<td>Jul/Aug 2011</td>
<td>FAA to publish its sUAS Notice of Proposed Rulemaking (NPRM)</td>
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<tr>
<td>Jul – Aug/Oct 2011</td>
<td>60 to 120 day public comment period</td>
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<tr>
<td>Aug/Oct 2011 – Mid 2012</td>
<td>Public comment review and resolution period (time period variable based upon the quantity, complexity and response to the comments submitted)</td>
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<tr>
<td>Winter 2011/2012</td>
<td>Finalization of the MA standards and submittal to the FAA for official acceptance as an alternative means of complying with the sUAS rule.</td>
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<tr>
<td>Mid 2011 thru 2012</td>
<td>MA Standards Development WG and AMA staff to review, develop and/or restructure AMA’s MA support material as needed in preparation for implementation of the AMA MA Standards</td>
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<tr>
<td>Mid to Late 2012</td>
<td>FAA to publish its Final sUAS Rule and response to the public comments</td>
</tr>
<tr>
<td>1st Quarter 2013</td>
<td>sUAS Rule and AMA MA Standards implementation.</td>
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Timeline Looking Forward

- **1/5 – 1/6/2011**  2-Day MA Stds WG Face-to-Face Mtg
- **1/7 – 1/9**  AMA Expo / FAA Forum / EC Mtg
- **Jan – Jun 2011**  sUAS Process and MA Stds Updates (Industry, SIGs, Clubs, Members, etc.)
- **May 2011**  Preliminary MA Standards Completion
- **Jul/Aug 2011**  sUAS NPRM Publication
- **Jul – Aug/Oct**  60 to 120 Day Public Comment
- **2011 – Mid 2012**  Public Comment Review/Resolution
- **Winter 2011/12**  Finalization/Submittal of the MA Stds
- **2011 thru 2012**  Develop/Restructure MA Sppt Material
- **Mid - Late 2012**  Final sUAS Rule / Response
- **1st Quarter 2013**  sUAS Rule / MA Stds implementation
Government & Regulatory Affairs

sUAS Rulemaking Update

Questions?