

1cc Multi-Engine Profile Scale Rules (Revised for 2016)

GENERAL

- An event for Multi-engine (two or more engine) scale models of heavier-than-air aircraft.
- The Builder of the Model Rule is in full effect for all Styles and Categories.
- Jet replicas may use tractor and/or pusher props.
- Prototype aircraft need not have flown, but must have been built.
- 3-Views, Photos and/or other proof required (See Scoring, below).
- For glow or diesel power (no electric power), each engine must not to exceed .061 (1cc) displacement.
- Seaplanes/flying boats may use non-scale devices for takeoff and landing (dollies, recessed wheels or support struts in the hull and/or floats) without penalty.
- Engine housings (nacelles/cowlings) may be either profile or normal scale width.
- Static Points will be awarded consistent with the craftsmanship and design, with no penalty or bonus for the use of either profile, full design, or combination fuselages, wings and tails.
- Safety Thongs Required.

CATEGORIES

- Limited: Those aircraft with only flight controls (up and down) – no other devices or controls.
- Unlimited: Those aircraft with flight controls and any other combination of controls (throttle, retracts, flaps, etc.) 2.4 Ghz Radio Control (R/C) assist may be used to operate the other controls and functions. However, R/C assist may not be used to operate the primary flight controls (up and down).
- Contestants may enter both categories. However, the same model may not be entered in both.

STYLES

- Profile: Aircraft that use any thickness of fuselage and wing other than full scale.
- Full Design: Aircraft that use scale cross sections of fuselage, wing and tail.
- Plank: Aircraft that use fuselage and wing thickness no thinner than 3/16th inch, and no thicker than 1/4th inch, except for nacelles, firewalls, cowlings, etc. which may be 3/8th inch thick from the thrust-line to 50% of the wing chord. Fairings behind firewalls for radially mounted engines shall be no longer than the engine dimension from the prop driver to the rear of the engine/ tank mount. Flight control systems (bellcrank, lead-outs and pushrod etc.) may not be built-in, and must be exposed. Cables, Nyrods, etc. from bellcrank to elevator horn are acceptable.

Note: Any style of aircraft may compete in either category (Limited or Unlimited).

SCORING

Static Scoring

- Scale Documentation is required including:
 - An accurate, reliable 3-View, or a fully-assembled, unpainted plastic model of the aircraft.
 - Proof of color, markings and finish in photos, published descriptions, or other official documentation.
- Scale judging is “up close and personal”. Details count! Entries will be scored using the provided documentation as observed, and not what the judges know to be there. The better the documentation, the higher the possible score.
- The Documentation Package will be no larger than 10 pages total, including cover pages and interior. Use a folder or binder. One 3-View for each judge (two) is encouraged, but not necessary. Extra 3-Views do not count as part of the page count, only the required 3-View in the documentation. Please, no stack of books with markers or loose sheets.
- Contestants without documentation may compete, but cannot receive points for accuracy, color, finish, markings or detail – whichever is missing.

STATIC SCORE

- Accuracy of Shapes and Outlines (**50 Points Total**)
 - Left or Right Side plan view.....**25 Points**
 - Top / Bottom plan view.....**15 Points**
 - Front and Rear plan view.....**10 Points**
- Color and Finish**20 Points**
- Markings, Line Art and Decal/Transfer Details (panel lines, flight controls, data plates and placards)...**15 Points**
- 3-D Detail (antenna, probes, lights, guns, canopies, struts, and detached flight controls)**15 Points**
- **Maximum Static Score Available****100 Points Total**

FLIGHT SCORE

- Four (4) attempts for two (2) official flights. Single best high score submitted for competition.
- Each attempt must be airborne within five (5) minutes, plus one (1) minute per additional engine from signaled start. (Example 3-engines: 5+1= 6, 4-engines: 5+1+1= 7, 5-engines: 5+1+1+1= 8, 6-engines: 5+1+1+1+1= 9, etc.).
- All engines must be running at release.
- A flight becomes official when the model takes off and completes the first lap with all engines running.
- One point will be scored for each airborne lap after the first lap with all engines running for a maximum of ten (10) continuous laps including takeoff without touching the ground.
- Flying lines to AMA Scale Weight / Size Standard, Length between 35 feet minimum, and 70 feet maximum.

Limited Flight Scoring (No Throttle)

- Takeoff 0-10 Points Maximum
- Level Flight 0-10 Points Maximum
- Points for Laps 0-10 Points Maximum
- Realism of Flight 0-10 Points Maximum
- Landing 0-10 Points Maximum

Options: Scored by Quality of Option - Choose no more than Five (5)

- High Flight 0-10 Points Maximum
- Wingover 0-10 Points Maximum
- Inside Loop 0-10 Points Maximum
- Lazy Eight 0-10 Points Maximum
- Climb and Dive 0-10 Points Maximum
- More than Two (2) Engines (Not an Automatic 10) 0-10 Points Maximum
- More than One (1) Wing (Not an Automatic 10) 0-10 Points Maximum

Maximum Limited Flight Score Available

100 Points Total

Unlimited Flight Scoring (At Least Two Engines Throttled)

- Takeoff 0-10 Points Maximum
- Level Flight 0-10 Points Maximum
- Points for Laps 0-10 Points Maximum
- Realism of Flight 0-10 Points Maximum
- Landing 0-10 Points Maximum

Options: Scored by Quality of Option - Choose no more than Five (5)

- Throttle – Aircraft must stand still at Idle 0-10 Points Maximum
- High Flight 0-10 Points Maximum
- Wingover 0-10 Points Maximum
- Inside Loop 0-10 Points Maximum
- Taxi – One half Lap – Aircraft must stop 0-10 Points Maximum
- Lazy Eight 0-10 Points Maximum
- Touch and Go (Must use Throttle) 0-10 Points Maximum
- More than Two (2) Engines (Not an Automatic 10) 0-10 Points Maximum
- More than One (1) Wing (Not an Automatic 10) 0-10 Points Maximum
- Inflight Scale Options (Not an Automatic 10) 0-10 Points Maximum (Each Option - Flaps, Retracts, etc.)

Maximum Unlimited Flight Score Available

100 Points Total

Proxy Flights

- Proxy-flown entries allowed. Builder need not be present. However, the builder must make arrangements with a local pilot and be responsible for shipping everything except fuel.
- Builders in attendance may, if physically unable to fly, and with permission of the CD, use a Proxy Pilot.

Awards

- Limited 1st – 3rd Place Scored by adding the best flight score to the Static Score
- Unlimited 1st – 3rd Place Scored by adding the best flight score to the Static Score
- Plank Award Judges Choice Best Overall Plank (Perpetual)
- Best of Show Pilots Choice Peer Voting (Perpetual)