MUSCIANO - SCIENTIFIC Kit 2016 CONTEST RULES

PURPOSE:

Remember the one and two page Scientific ads in the model magazines of the 50's, and 60's that displayed lots of little carved balsa fuselage and solid wing semi-scale designs that fell just within your nickel and dime budget?

The purpose of this event is to let you go back to that simpler time, soak your bones in the nostalgia, indulge yourself to the maximum while at the same time, honor the company that produced those dreams and Walt Musciano; the man who designed most of those models.

The rules are designed to stay within the spirit of the time, not transform the planes into modern designs powered by modern high performance engines, but to recapture the wonder of flight with period available engines and savor that time again after all these years.

OBJECTIVE:

- To honor the Scientific Company and specifically Walt Musciano, who, for many of us, was the person who designed our very first model airplane.
- To participate in a nostalgia control line event, with the emphasis on fun, not performance, and on nostalgia, not competition.

GENERAL:

- All events will be conducted in accordance with the Academy of Model Aeronautic Control Line General and Safety Regulations regarding control line models, except as otherwise specified in these rules.
- Should parts fall off any aircraft after the engine is started for any event; that flight, heat or final is either declared an attempt or the flight disqualified. Participation points will not be awarded.
- Should parts of any aircraft fall off during landing (or crashing); those parts must be repaired or securely reattached before proceeding and participation points will be awarded.

AIRCRAFT REQUIREMENTS:

- õ Must be a ½ A (.049 an under) control line plane designed by Walt Musciano and kitted by Scientific.
- õ Need not be built from a Scientific kit, may be built from Scientific kit plans (it is not necessary, but it is best bring the plans for proof).
- õ Single or Twin-engine ½ A models are permissible.
- õ Only carved fuselage (Hollow Log) type planes are permissible. No profiles.

- Only planes with solid wings are permissible.
- Only exposed (external) controls. No embedded or enclosed controls.
- Planes must be built per the plans, except as permitted otherwise in these rules.
- The size, outline, placement, and area of the original kit wing, stab, elevator, rudder, fin, fuselage side and top views are to be maintained true to the kit plan.
- The fuselage must be carved from a block, or constructed so as to conform to all outlines accurately. Rounding and shaping of the fuselage must match original plan outline.
- The wing construction must be of solid wood, the airfoil, however, is at the builder's discretion to carve or sand into shape.
- Modern control systems, hinges, and adjustable lead-outs are permitted.
- Finish and markings need not reflect the kit box art. Colorful, elaborate, multi-color, finishes are encouraged.

GENERAL PROCEDURES:

- Since this is a Nostalgia Event, based on scale reproduction of original designs, the "Builder of the Model" Rule applies. The builder of model should also fly the plane. Proxy Pilots may be used at the Contest Directors discretion.
- A maximum of 3 different models may be entered by each builder, one in each of the flying categories. Backup entries (replacement planes) are not permissible. Repairs to a primary entry, if safe in the opinion of the Contest Director, are permissible.
- Models entered in Concourse, must be entered in one of the "flying" events and be successfully flown in that event. "Successfully flown" means that Participation Requirements (below) have been met.

PARTICIPATON REQUIREMENTS:

- The minimum participation requirements for the flying events are that the entrant successfully flew at least one lap and additionally, in the opinion of the Contest Director, at least attempted to successfully complete the event.
- In the flying events, participation points are awarded unless the minimum participation requirements are not met.
- The decision of the Contest Director is final.

PLACEMENT / PARTICIPATION SCORING:

- **Placement points** are awarded in each event for 1st, 2nd, and 3rd place by reverse order of entries. If there are 10 total entries, then 1st place is awarded 10 points, 2nd place is awarded 9 points, and 3rd place is awarded 8 points.
- **Participation points** of 2 points each are awarded to each contestant that met the minimum participation requirements and did not finish in 1st, 2nd, or 3rd place.

ENGINE REQUIREMENTS:

To maintain the event's spirit of nostalgia and to keep the performance comparable to the original engines used on these planes, the desire for a level competitive environment must be balanced with the current availability of period engines.

- Engines must be no larger than .049 cubic inch.
- Only stock parts, as delivered on the engine originally, are allowed. Permitted exceptions are included with the eligible engine listing below.
- Simple fitting of the stock engine parts is permitted. Modifications are not. Example: Boring out the venturi, thinning the spray bar, opening up the bypasses, stuffing the crankcase, etc.
- Only suction fuel systems are allowed - no pressure systems.
- Glow heads are unrestricted on all models as long as they do not increase compression.
- Engines may be freely substituted between attempts, heats, official flights, finals, etc. Only those engines listed below are allowed.
- **Atwood .049:**
  - Wasp .049 and all the .049 Atwood's. This includes the Original/Cadet and those Atwood's with colored heads, integral heads; and the Signature, Atwood Shriek, and Atwood Shriek Signature engines.
  - The Cadet (clear) or earlier Signature (colored) heads may be used on the Shriek, if desired, so as to use standard ¼ x 32 short glow plugs.
- **Cox .049:**
  - Space Bug Jr., Babe Bee, Golden Bee, Black Widow, and product engines sometimes called the Cox 290. Engines may be of 2005 or previous year manufacture. Not included are the Space Bug, Thermal Hopper, Space Hopper, RR1, Tee Dee, Venom, Killer Bee, and Texaco engines.
  - Parts that fit may be freely interchanged, if desired, between the permitted Cox Engines.
  - Not permitted are any engines, stock or otherwise, that have Killer Bee back plates, or that have Tee Dee, Texaco, Killer Bee, or Venom piston sleeve combinations, or other parts from anywhere other than the permitted engines.
  - Cox Pee Wee .020 engines may also be used in place of any .049.
- **Fox .049:** Fox Sport single port .049 (not the dual port F.A.I. model).
- **Holland .049:** Wasp .049 only, not the Hornet.
- **K&B .049:** K&B Infant, Torpedo .035, Torpedo .049, and Sky Fury .049.
- **McCoy .049:** Any McCoy .049, either Glow or Diesel. Also includes the plastic case Testers/McCoy engines.
- **OK Cub .049:** Any OK Cub .049 (or smaller), either Glow or Diesel.
- **Spitfire .049:** Baby Spitfire .045, Spitzy .045, and Royal Baby Spitfire .049.
- **Testors .049:** Copy of Wen Mac Hotshot/AMF Thunderbolt.
- **Wen Mac .049:** Any Wen Mac .049, including AMF copies.

FUEL:
Club Supplied ½ A fuel (15%) must be used for all glow engines. Diesel users must supply their own fuel.

LINES:
- Two lines required minimum.
- Steel stranded cable.
- Minimum diameter .008 for single engine aircraft.
- For multiple engine aircraft with total displacement exceeding .049 cubic inches, minimum diameter .012 will be used.
- Length: 35 ft. from center of the plane to the center of handle grip, + 6 inches or – 0 inches.

PULL TEST:
- All pull tests for single .049 (or less displacement) powered aircraft will be 8 pounds.
- All pull tests for multi-engine aircraft with a total displacement over .049 will be 12 pounds
- All pull tests for multi-engine aircraft with a total displacement less than .049 will be 10 pounds
- A pull test must be accomplished on each aircraft before every attempt, heat, or final.
- A pull test on the aircraft may be required after crash repairs before being allowed to continue, at the Contest Directors discretion.

EVENTS:
- Concourse (Craftsmanship and Appearance)
- Scientific Speed
- Scientific Scale
- Scientific Stunt

EVENT DESCRIPTIONS:

CRAFTSMANSHIP & APPEARANCE
- Entries will be judged by contestants based on workmanship and appearance.
- Each entry will have the modeler's name and AMA number on a tag/card.
- The entry must be flown in one of the flying events to qualify for points.
- Points will be awarded in reverse entry scoring. If there are 10 entries, 1st place will receive 10 points, 2nd place will receive 9 points on down to last place where 1 point will be received.

SCIENTIFIC SPEED

- Successful launching and completing the 12 laps constitutes an official flight.
- Models will be timed from launch until completion of 12 laps (1/2) mile.
- Four total attempts will be allowed for two official flights.
- Attempt definitions include:
    - Failure to launch in 3 minutes.
    - Failure to complete required laps.
    - Failure to get or remain airborne after launch.
- Score will be based on the best speed (lowest) time of the two official flights.
- The next-best of the two official flights will be used to break ties, or the most laps completed in an attempt will be used if incomplete attempts are all that is remaining. If a tie still remains, a fly off will be used.
- Three minutes will be allowed to enter the circle, start the engine, and launch.
- Models may be hand launched or ROG from prepared surface, competitor's choice.
- Maximum flying height is 20 feet. 1 lap above 20 feet is a Warning, 3 Warnings will mean Disqualification. It is the responsibility of the Pitman to relay the warnings to the pilot.
- Electric starters may be used.

SCIENTIFIC SCALE:

- **Documentation:** A scale 3-view drawing will be required to receive any points.
- **Color and Markings:** Scale color photos, prints, written description or the kit box art will be required to receive points.
- Points are as follows:
    - Scale Application – up to 10 Points
    - Color and Markings – up to 10 Points
- Reverse order scoring is applied to placement: If there are 10 entries, 1st place will receive 10 points, 2nd place will receive 9 points on down to last place where 1 point will be received.
- Note: Points received are based on quality of documentation and photos, prints or description as applied to the entry on that day.

SCIENTIFIC STUNT

Because these designs are old, the maneuvers loosely resemble Old Time Stunt. Optional maneuvers have been included.

Procedeure:

- One level lap will be flown between maneuvers.
- There is no penalty for running out of fuel once**;** refuel and continue where you left off.

    - The Contest Director may allow "running out of fuel" twice (or three) times, provided that time permits.
    - The decision on "running out of fuel" will be announced prior to the start of stunt competition.
- Launch will be ROG from prepared takeoff area, or hand launched, per the competitor's choice (flying over grass).
- Electric starters may be used.
- Three total attempts will be allowed for two official flights.

Scoring:

- Scientific Stunt is scored by quality of each maneuver.
- Each official flight is based on the sum of the points for each maneuver.
- Placement is based on the best official flight.

- Launch and level flight (2 laps) 10 - 40
- Wingover (not reverse) 10 - 40
- Climb and Dive 10 - 40
- (Steep climb, like old time stunt, one lap high, dive back to level
- at same place climb was initiated)
- Two inside loops 10 - 40
- Approach and landing (Tumbles not downgraded) 10 - 40

- Optional maneuvers to gain additional points. Inform the judges before you fly and include these maneuvers after the inside loops.

- One outside loop 10 - 40
- Two lazy 8's 10 - 40

- Total Points Available 200 - Total Points Available with Optional Maneuvers 280
- Reverse order scoring is applied to placement: If there are 10 entries, 1st place will receive 10 points, 2nd place will receive 9 points on down to last place where 1 point will be received.

Note: In order to gage your engine run, the minimum number of laps to complete a perfect stunt flight is 12, 16 laps with optional maneuvers.

APPROVED DESIGNS:

CARVED FUSELAGE & SOLID WING DESIGN LIST & PLANS

A list of acceptable designs has been compiled and included below.

☆Free Plans available from Outerzone http://www.outerzone.co.uk/

1. AERONCA SEDAN
2. AIR CHAMP
3. ☆ AIRCOUPE 18 in. span
4. ARMY RACER
5. ATOMIC X
6. BEECHCRAFT T-24
7. ☆ BEECHCRAFT BONANZA 1960 – 18 in. span
8. BEECHCRAFT 17
9. ☆ BEECHCRAFT T-34
10. ☆ BOEING F4B-4 1953 – 15 in. span
11. ☆ BOEING P-26A 18 in. span
12. ☆ BULLET1960 – 24 in. span
13. CESSNA 170
14. ☆ CESSNA 172 1960 – 22 in. span
15. ☆ CESSNA 180 1960 – 17 in. span
16. COMBAT MASTER
17. CURTIS HAWK P6-E
18. ☆ CURTIS HELLDIVER 17 in. span
19. CYCLONE
20. ☆ DOUGLAS B-66 JET BOMBER 1957 – 18 in. span
21. LOCKHEED P-38
22. FLIGHT MASTER
23. FOKKER TRIPLANE
24. ☆ FORD FLIVVER 18 in. span
25. F-94C STARFIRE
26. ☆ GEE BEE SPORTSTER 1962 – 18 in. span
27. ☆ GOLDEN HAWK 1960 – 18 in. span
28. LITTLE MUSTANG, WWII FIGHTER
29. SUPERSONIC MISSILE
30. ☆ KELLET AUTOGIRO 1954 – 18 in. span
31. CESSNA BIRD DOG
32. LITTLE ACE
33. LITTLE BIPE
34. LITTLE DEVIL
35. LITTLE MERCURY
36. LITTLE MUSTANG

37.☆ LITTLE SABRE - 18 in. span
38. LITTLE STINKER
39.☆ LUCKY RACER – 18 in. span
40.☆ MESSERSCHMITT (109) 17 in. span
41. MONOCOUPE 90A
42. MR. MULLIGAN
43. F-51 MUSTANG
44.☆ NORTH AMERICAN AT-6 TEXAN 1960 – 18 in. span
45.☆ P-40 FLYING TIGER 1965 – 18 in. span
46.☆ PIPER COMANCHE 1960 – 18 in. span
47. PIPER CUB (AMBULANCE/RESCUE)
48. PIPER CUB CRUISER
49. PIPER CUB SEAPLANE/SCOUT
50. PIPER CUB SPECIAL
51. PIPER CUB TRAINER
52.☆ PIPER TRI-PACER 1956 – 18 in. span
53. RED DEVIL
54. RED FLASH
55.☆ P-47 THUNDERBOLT 1960 – 17 in. span
56. RYAN PT-16 TRAINER
57. BRITISH S.E. 5
58. SNARK GUIDED MISSILE
59. SPIRIT OF ST. LOUIS
60. STINSON RELIANT
61. STINSON VOYAGER
62. STITTS PLAYBOY
63. STUKA DIVE BOMBER
64. STUNT MASTER
65.☆ F-100 SUPER SABRE 18 in. span
66.☆ THUNDERBIRD 1960 – 15 in. span
67. F-82 TWIN MUSTANG
68.☆ F7U CUTLASS 1960 – 15 in. span
69. WACO CABIN
70. YELLOW BIRD
71. ZIG ZAG
72. CESSNA 182 TRICYCLE
73. GRUMMAN AVENGER

Added to the list 2016

74.☆ STARFIRE 18 in. span
75.☆ T-34 MENTOR 1964 – 17 in. span

(There are more designs that can qualify. Check your design with Henry Werner safecracker@reagan.com (520) 579-1992 or Ken Gulliford kgrtr@cox.net (602) 908-2810 to see if your choice may be added to the list)

TO ACQUIRE PLANS:

THE BEST PLACE TO GET PLANS IS FROM THE DESIGNER:

- **Walt Musciano,** 300 Teaneck Rd. Teaneck, NJ 07666, Phone (201) 836-4156 - *He will be very pleased to hear from you. Plans will cost $2 to $5 depending on copying costs and shipping.*
- **Jim Dodson,** (843)-476-3130, biscotti54@jhargray.com has plans, and selected cowls and canopies.
- **Currell Pattie** has all the plans, (586) 781-6394, currellpattie@hotmail.com