



The Pylon Racer's Official Voice

NMPRA

HIGH PERFORMANCE

National Miniature Pylon Racing Association

Since 1965

AMA Affiliated

May 99

Presidential Pontification

Right after Duane Gall was appointed chairman of the AMA Pylon Racing Contest Board (these are the guys who decide what our rules will be) Duane and I started discussions about rewriting the current rules. Our concern and intent was to make the rules more coherent and understandable. We also thought they could be organized into a better format and that non generic terms should be defined to eliminate misunderstandings. Last Fall I asked five NMPRA members to form a committee under Duane's direction to do the rewrite. I think most of our rules are by nature very technical (size, area, weight), so a strong math background is needed to evaluate changes and language. Also, many of our rules are procedural (how we run the races) and there is no substitute for years of experience when looking at how we organize and manage our races.

The guys I chose to lend the procedural input were a shoe in. Pete Reed and Cliff Telford are both AMA officials with years of experience organizing and managing pylon races, and active racers. As an added value, Pete is an engineer as well. The other three spots were filled by Jim Allen, Bob Dible, and Dub Jett. All three are engineers and active experienced pylon racers. I know many others could have done the job but I was on a first name basis with these guys and didn't feel embarrassed asking them to give a lot of their free time to the project.

The results of their efforts are printed elsewhere in this newsletter. If you take the time to read them you will see that nothing

in them materially changes what we are doing now. Nobody has been asked to slow down and no airplanes are headed for obsolescence. I think they did an outstanding job. Many of the email exchanges between them were copied to me so I know that all of them have well over thirty or forty hours of their time invested in the rewrite. Duane Gall typed, distilled, and edited four complete versions before everybody signed off on the end product. Duane has to have over one hundred hours devoted to the rewrite. The next time you see any of these guys please thank them for a job well done.

The rewrite was sent to the AMA as an urgent proposal to be implemented January 1, 2000. It will not affect this year's races. As you can imagine, much of the rewrite depends on all the various sections, definitions, and specifics all relying on each other to make a cohesive whole. You can't take some parts out, or add others without materially effecting the whole document. For this reason the rewrite is being offered as a complete single proposal. Please read it and ask your AMA Contest Board representative to vote for it.

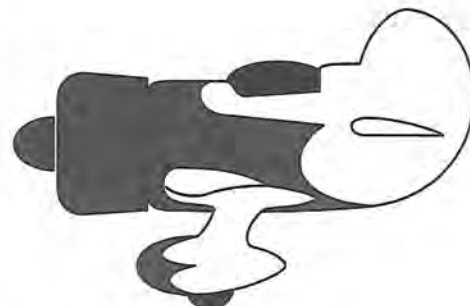
I was in Merced last weekend at the second JR Gold Cup Race. Q40 VP Barry Leavengood is reporting on the race in his introductory column in this issue. I got a chance to check out the new AMA cages in Merced. The first set were drug from Muncie to Merced by Bruce Coffey and a friend a couple of weeks ago. This saved the California racers a couple thousand bucks in shipping costs. These are some very impressive cages. It's great that the AMA had the faith in our event to make the financial commitment to build these cages for us.

The AMA Safety Committee met last weekend in Palm Beach Florida to discuss

turbine safety issues. I sent a proposal to the committee requesting a second series of barrier tests using materials and cage frame sizes that are now in existence all over the Country. Please refer to my column in the last newsletter for more details on this. Simply put, I want the AMA to allow us to race 424 (entry level) quickies using our old cages (updated with #9 wire). This will be an uphill battle but I think we have a shot at it. I've gotten criticism from some for not incorporating this into the cage proposal we wrote last October. This couldn't be done because there were no tests done with fence posts and 140 mph, 4 pound airplanes. We had to make the best proposal we could with the test data we had.

This could be my shortest column. Fortunately, I can't remember a time since I took the job when things were as quiet and peaceful as they are right now. This is probably the lull before the next storm.

Vern



THE CRAP TRAP 2

By Dub Jett

I keep reading and hearing stuff from time to time that makes my hair stand on end, so I thought I would give you an alternative view, and hopefully help lift a little fog.

I have a saying: "If you assume the obvious, you are probably wrong." Be careful when someone tells you something that makes a lot of sense, appeals to what you already want to believe and costs you money.

I have lots of other sayings that I bore my friends with. For example, "I'll sell my mother for 200 RPM." If I had just 10 RPM for every time someone has given me their deepest, darkest secret for picking up 1000 RPM, I'd be King Kong himself. The fact of the matter is, given everything else equal, nothing helps that much except a fundamental change like Nitro, Tuned Pipes, Turbocharging, etc. **Not a 2-thousands shim!!!**

Then what causes people to believe they have hit the mother lode? **Bad data.** It's really easy to get bad data when you only take one datum point. It happens to me all the time. Oops, time for another Jett saying, "Everything works one time in a row!" Sometimes I get some really great results from a test, so I close the shop and go home. Then I get to savor the thought all night long before I go back and confirm the test. Usually I get different and more disappointing results the next time.

How, then, can we get better data? Work harder. Be careful and make sure you are really testing what you think you are testing. Here are some good rules for collecting data:

Only do your testing on a test stand. Airplanes are lousy test beds.

Always change only one thing at a time. More than once a test is messed up by sloppy procedure—always ask yourself, what have I changed?

Repeat the test more than once, and in reverse order. For example, you test a prop and it turns 24000. You unbolt the prop and put on another. It turns 22000. Which is faster. You don't know. The engine and muffler were cold the first time and hot the second. Try the test over, but with the propellers in reverse order. The same thing holds true for almost any kind of test you run. If you change something and it picks up, then reverse the change and see if it slows down—Sometimes it picks up again!!!!

Make sure atmosphere, engine and muffler temperatures are the same. You can't spread you tests over several hours. Things change.

Keep notes on what you did—you will forget!!!!

Be very careful what propeller you tach on. Flying props are not good tach props. When you tach too close to the staging point of the pipe just a 200 RPM difference in engines could make the difference between getting on the pipe or not. Thus you see huge differences in engines that are essentially the same. Use a small prop to make most comparisons. Larger propellers can be useful, but make sure you know what you are measuring.

Repeat your test on a different day. You'll be surprised that things work one day and not the next.

In summary, everything works one time in a row.

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NMPRA OFFICIAL WEB SITE

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Editor's Request

ARTICLE SUBMISSION FORMAT AND PRIORITY

Best way:
Internet mail — ppage@capecod.net
Fax (508) 432-9939 (10pt, no justify)
Modem file transfer (8N1 Y or Z)
Disk - IBM compatible
Printed output - monospaced, no justify
Typewriter
Long hand (worst way)

Call the Editor if you have a problem

Race Announcement Policy

High Performance will publish announcements of upcoming races free of charge, on a first come, space available basis. Also, camera ready copy no larger than 7.5" wide by 2.5" high (border dimension). Copy must be received by the Editor no later than the announced due date.

Advertising Rates

Rates are for camera ready artwork. Artwork, composition and typesetting will be charged at cost. Printable area 7.5x10, lpi=133, half tone permitted.

	Size(WxL)	Single	Annual
Full Page	7.5x10	\$100	\$700
Half Page	7.5 x 5	\$ 70	\$490
Quarter Page	7.5 x 2.5	\$ 40	\$280
Econo Ad	3-5/8x2-3/8	\$ 20	\$140

Wanted

Interesting photos of races, planes, events. Send slides, B/W or color negatives to the Editor, they will be returned.

Hall of Fame

Ron Schorr (1994)

Jim Kelly (1994)

Ed Shipe (1995)

Paul Page (1998)

Jerry Nelson (1999)

Gil Horstman (1999)

Official AMA Records

421-F1-Op	Richard Verano - 1:03.16 - 3/28/92
421-F1-Sr	Henson Bartle - 1:07.94 - 10/10/98
421-F1-Jr	Matt Van Baren - 1:10.81 - 8/18/96
422-Q40-Op	*Gary Schmidt - 1:01.04 - 04/23/99
422-Q40-Sr	Henson Bartle - 1:04.90 - 10/09/98
422-Q40-Jr	Matt Van Baren - 1:04.24 - 6/6/98
422-QM15-Op	Craig Grunkemeyer - 1:10.89 - 9/11/93
422-QM15-Jr	Thomas Doe - 1:26.78 - 9/29/92
423-1/2A	no record
427-FA1-Op	Richard Verano - 1:03.31 - 11/11/94
427-FA1-Jr	Henson Bartle - 1:20.19 - 07/12/96
428-Q500-Op-2m	Chip Hyde - 0:56.49 - 5/29/94
428-Q500-Sr-2m	David Wright - 1:01.36 - 7/10/94
428-Q500-Jr-2m	Bucky Miller - 1:10.43 - 6/13/92
428-Q500-Op-2.5m	*Gary Schmidt - 1:05.20 - 1-17-99
428-Q500-Sr-2.5m	Seth Tomblin - 1:11.16 - 10/06/96
428-Q500-Jr-2.5m	Matt Van Baren - 1:13.19 - 5/24/98

* applied for AMA Official Record

The New Rules --- re-written

RADIO CONTROL PYLON RACING

The AMA recognizes 5 classes of R/C pylon racing for U.S. competition. All are intended for multi-channel R/C aircraft powered by conventional 2-stroke glow engines. The task consists of an ROG takeoff (or, in the case of 1/2A, a hand launch) followed by left turns around a closed course marked out by pylons. The builder-of-the-model rule does not apply.

Specific rule formulas concerning airframes and engines, as well as any nonstandard rules or procedures applicable to each event, can be found under section XV ("Event-specific rule formulas").

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I. GENERAL

- A. Cross-references

All AMA regulations (see sections entitled Sanctioned Competition, Records, Selection of Champions, and General) and FCC regulations covering the R/C pilot and his or her aircraft and radio equipment shall apply except in cases of direct conflict between such regulations and an R/C Pylon rule. To the extent of any such conflict, the applicable R/C Pylon rule shall prevail.

- B. Penalty for infractions

Unless otherwise stated, the penalty for any infraction of these rules is disqualification from the contest.

II. DEFINED TERMS

Words and phrases used in these rules shall be read in context and construed according to the rules of grammar and common usage. Standard dictionary definitions shall govern except when terms are specifically defined in this section.

AAC: Aluminum/Aluminum/Chrome metallurgy used in the piston and cylinder liner of an engine such that an aluminum piston runs in a chrome-plated, aluminum liner.

ABC: Aluminum/Brass/Chrome metallurgy used in the piston and cylinder liner of an engine such that an aluminum piston runs in a chrome-plated, brass liner.

APC: Brand name of a line of composite propellers manufactured by Landing Products, Woodland, California.

Backplate mount: A backplate-type, radial engine mount that replaces the stock engine backplate and that displaces the same crankcase volume as the stock backplate assembly.

Black flag: A signal from the starter that an aircraft is disqualified from the heat in progress and will receive a score of zero points. A pilot given the black flag must immediately fly his or her airplane to clear airspace away from the course and land as soon as it is safe to do so.

Buttonhook: A type of cut in which the aircraft goes past the right side of Pylon #1 (as viewed from the starting line of the 3-pylon course) and returns, also on the right side of Pylon #1.

Carburetor: An open chamber, at or near the air intake of the engine, in which fuel and air are mixed and which features a rotating barrel, butterfly valve, slide valve, or other device that regulates the total amount of fuel/air mixture entering the engine.

Commercially available: An engine or part is commercially available if:

1. An identical engine or part can be obtained within 14 days by any consumer at a price that is independent of who the consumer is; and
2. The manufacturer or other source has given the notice required by subsection VI of this section ("Availability of engines and parts") and received a letter of approval from the chairman of the R/C Racing Contest Board; and
3. The following information is disseminated by means of a catalog, an advertisement in a regular AMA or NMPRA publication or aeromodeling magazine, or other means reasonably calculated to bring it to the attention of R/C pylon racing contestants:
 - (a) Catalog number or other specific identification;
 - (b) Price; and
 - (c) Name and telephone number of the manufacturer or other source.

Engine: A 2-stroke cycle, glow ignition, reciprocating-piston internal combustion engine. For purposes of events requiring stock or commercially available engines and parts, the "engine" is defined as the complete unit, ready to run, needing only propeller, fuel, and starting voltage; except that the following parts may be substituted for the original parts and may come from any source:

- Backplate mount
- Bearings
- Gaskets
- Glow plug
- Head and crankcase bolts
- Propeller nut
- Propeller washer
- Remote needle valve assembly
- Shutoff mechanism

Engine displacement: The total swept cylinder volume of the engine.

Expansion chamber muffler: A muffler that completely covers the exhaust outlet of the engine and collects exhaust gases in a hollow chamber containing no internal pipes, baffles, perforations, ducts, or other devices of any kind.

Front-intake engine: An engine that has a single carburetor or venturi permanently mounted ahead of the cylinder and in which fuel/air mixture flows into the crankcase through an opening in the crankshaft. The use of a remote needle valve does not convert a front-intake engine into a rear-intake engine.

NMPRA: The National Miniature Pylon Racing Association or a successor organization officially recognized by the AMA as the special interest group for R/C pylon racing.

Pressurized fuel system: Any system, other than a simple, continuously open conduit between the fuel tank and a muffler or pipe, by which fuel is delivered to the carburetor or venturi at greater than ambient atmospheric pressure. A fuel tank containing a flexible bladder that prevents bubbling or foaming of the fuel but does not generate pressure is not a pressurized fuel system.

Remote needle valve: A manual fuel-metering device located on the fuel feed line, between the fuel tank and the carburetor or venturi. The sole purpose of the remote needle valve shall be to regulate the amount of fuel flowing from the tank to the engine. A device that supplies pressure to the fuel system, or is adjustable by radio control, or combines any other function with the metering of fuel is not a remote needle valve. The use of a remote needle valve does not constitute modification of the engine's carburetor or venturi, and is encouraged in all events.

Slice: A type of cut in which the aircraft goes past the left side of Pylon #1, as viewed from the starting line of the 3-pylon course.

Stock: Unmodified.

Tuned muffler: A type of muffler, also known as a "magic muffler" or "folded pipe," in which a constant-diameter exhaust extractor of a specific length is enclosed within a chamber so that it resonates at the engine's operating rpm, adding power.

Tuned pipe: An exhaust pipe of specified length, containing diverging and converging chamber sections, that resonates at the engine's operating rpm, adding power.

Unmodified: Identical to a commercially available engine or part received from a manufacturer that has met all requirements of part VI ("Availability of Engines and Parts").

Venturi: An open chamber, at or near the air intake of the engine, in which fuel and air are mixed. A venturi differs from a carburetor in that a venturi does not have a rotating barrel, butterfly valve, or other device that regulates the total amount of fuel/air mixture entering the engine.

Zero-boost muffler: A muffler that contains internal pipes, stepped pipes, baffles, perforations, ducts, or other devices to offset

the power loss normally associated with an expansion chamber muffler, but does not increase power by more than 300 rpm in any rpm range.

III. MEASUREMENT METHODS AND STANDARDS

A. Engine displacement

Engine displacement (total swept cylinder volume) is calculated by multiplying the cross-sectional area of the cylinder bore, in square inches, by the stroke of the piston from bottom dead center to top dead center, in inches, using the following formula: $(\frac{1}{2} \times \text{cylinder diameter}) \times (\frac{1}{2} \times \text{cylinder diameter}) \times 3.1416 \times (\text{total piston stroke})$.

B. Expansion chamber muffler

The presence of internal pipes, baffles, etc., can be determined by disassembly of the muffler or, if this is not practical, by the insertion of a wire or probe through the exhaust outlet. Alternatively, the engine can be run with and without the muffler using a propeller that allows the engine to unload to the expected in-air rpm (normally 10% to 15% higher than takeoff rpm). If the engine gains rpm with the addition of the muffler, or will not run without the muffler, the muffler is not an expansion chamber muffler.

C. Fuselage depth

When fuselage depth is measured within the chord of the wing, the thickness of the wing at the point of measurement is included in fuselage depth.

D. Projected span

The projected span of the wing is the straight-line distance from tip to tip, disregarding dihedral.

E. Propeller diameter

Propeller diameter is the straight-line distance from tip to tip.

F. Weight

Weights specified are for the complete aircraft, ready to fly except for fuel. At least one aircraft from each heat shall be weighed immediately after the heat with any residual fuel remaining in the tank. In addition, the contest director (CD) may require any aircraft to be drained of fuel and weighed at any time.

G. Wing area

Wing area is determined by multiplying the projected wingspan by the average wing chord, including the area displaced by the fuselage but not including fillets or stall strips. On aircraft that have flaps, the wing area shall be measured with the flaps retracted.

H. Wing thickness

This shall be determined using a "no-go" gauge with an opening of the specified thickness. On aircraft with tapered wings, the gauge shall not "go" less than 3 inches outboard of the wing centerline. If fillets or other obstructions prevent measurement at the 3-inch point, the gauge shall not "go" past a point outboard of such obstructions.

IV. SAFETY

A. General

Consideration of safety for spectators, participants, and contest personnel is of the utmost importance. Hazardous flying over the racecourse or any flying over controlled spectator areas or pits during competition is a black flag offense. Alcoholic beverages shall not be allowed in the pits or on the racecourse. Intentional hazardous flying, unsportsmanlike conduct, or consumption of alcohol during competition shall be cause for immediate disqualification from the contest.

B. Crowd control; protection of on-course personnel

All R/C Pylon events and all other events, regardless of sanction, in which engine-powered R/C model aircraft are flown in speed competition over a closed course shall be governed by the following safety procedures:

1. Every person going onto the racecourse or between the designated sideline and the racecourse (see racecourse diagram) shall properly wear a helmet approved by OSHA, DOT, ANSI, SNELL, NOCSAE or other recognized organization that certifies safety equipment. In addition, all officials occupying safety cages shall wear protective eyewear.

2. Pit and spectator areas shall be separated from the racecourse by at least the minimum distances shown on the racecourse diagram. Every person desiring to go onto the racecourse or between the designated sideline and the racecourse shall first be required to sign a "Waiver of All Claims, Release of Liabilities, and Indemnity Agreement for Radio Control Pylon Events" on a form supplied by AMA headquarters (HQ). It is the contest director's (CD's) responsibility to return all of such signed waivers to HQ at the conclusion of the event.

3. All timers, flaggers, and judges on the racecourse shall be protected by cages built to the specifications set forth in paragraph 5 of this subsection, except in momentary instances where exposure outside the cages is absolutely necessary in order to perform their duties. No one other than the Pylon #3 cut judge shall be permitted in the danger area shown on the 3-ylon racecourse diagram while a heat is in progress.

4. Individuals in barrier cages shall be cautioned to remain at least 18 inches away from the inner surface of the cage material while the aircraft are in flight, and shall be seated while the aircraft are in flight if the cage is not high enough to provide 18 inches of head clearance when they stand. In addition, a legible warning sign shall be mounted on the inside of each cage, facing toward the inside, and stating:

WARNING

STAY AT LEAST 18 INCHES AWAY
FROM WALLS AND CEILING
WHILE AIRCRAFT ARE IN FLIGHT.

In addition, all participants and racecourse workers shall be briefed on the safety aspects of their involvement in the event and instructed in the proper performance of their duties and the use of all safety equipment, communications systems, and timing devices.

5. Barrier cage specifications. Barrier cages used in R/C pylon events shall conform to the specifications listed in Addendum A. (See page ____.)

6. An absolute minimum number of persons should be present on the racecourse during competition. In the interest of safety, CDs are encouraged to use variations on, or alternatives to, the basic course layouts shown on these pages so long as such variations or alternatives are noted in all pre-contest publicity. AMA specifically endorses the use of telemetry, where shown feasible, and any other

available means of reducing or eliminating the need for officials and participants to be physically present on the racecourse. Waiver of the cut penalty for slices and buttonhooks is permissible if sideline judging is used to verify that aircraft travel the required distance even if they do not go around the pylon.

C. Absolute authority of CD

During a racing event, an unforeseen situation may arise that requires immediate controls. Therefore, the CD is authorized to initiate any special procedure he or she deems necessary to eliminate a situation that may be considered unsafe.

V. CHALLENGES TO LEGALITY

A. Challenge by contestant

Any contestant may have another contestant's engine or aircraft inspected for compliance with the rules by posting a challenge fee of \$25.00 cash with the CD. As soon thereafter as is practicable, the CD and at least one other person appointed by the CD shall inspect the challenged engine or aircraft. If the engine or aircraft is found to be legal, the challenge shall be dismissed and the owner of the challenged engine or aircraft shall be given the \$25.00. If the engine or aircraft is found to be illegal, the owner shall be disqualified from the contest and the \$25.00 shall be returned to the protester.

B. CD's option

At any time, the CD or the CD's designee may inspect an engine or aircraft entered in the contest without requiring the posting of a challenge fee.

VI. AVAILABILITY OF ENGINES AND PARTS

A. Declaration

1. Any person, group of persons, or business entity may declare themselves to be a manufacturer or source of commercially available engines or parts. Such a person, group, or entity does not have to fully or partially fabricate complete engines or engine parts, but must fully comply with any and all applicable quantity and availability requirements applicable to the event(s) the engine or part is qualified to be used in.

2. An acceptable declaration shall contain a list of all uniquely identifiable engine assemblies, subassemblies, or parts for each applicable competition event. The list shall contain any pertinent part, assembly, or product identification numbers plus source-approved or recommended replacement, alternative, or modified part associations. Furthermore, the declaration shall state that the listed products conform to the current AMA rules for competition events of interest.

B. Acceptance and publication

The declaration shall be sent to AMA headquarters and forwarded to the Contest Board Chairperson for his or her letter of approval. If approved, a copy of the declaration and approval letter shall be sent to Model Aviation for publication and to the NMPRA.

VII. GENERAL MODEL AIRCRAFT REQUIREMENTS

(Note: for event-specific requirements such as wing area, weight, engine displacement, etc., please refer to the individual event listings.)

A. Conventional design

Aircraft used in R/C Pylon events shall be of conventional design with forward wing, aft horizontal stabilizer, and a single engine

mounted in front. No deltas or other tailless designs shall be allowed. An aircraft shall be considered tailless if the ratio of its wingspan to its overall length is greater than 2:1. The "overall length" of the aircraft, for purposes of this measurement, is the distance from the front of the propeller to the trailing edge of the rear-most movable tail surface.

B. Engine shutoff

1. Every aircraft shall be equipped with a positive means of shutting off the engine in flight. In 1/2A, this may consist of a fixed fuel pickup inside the fuel tank or some other method activated by the aircraft's attitude or by the operation of flight controls. In all events other than 1/2A, the throttle or shutoff mechanism shall be activated by a dedicated, operable servo and shall not affect the aircraft's flight path. Regardless of the method used, shutoff must occur within 5 seconds of command.

2. A pilot whose shutoff system fails after a heat shall be given one warning. Upon a second instance of shutoff failure, the pilot shall receive a score of zero for the heat. Upon a third such instance, the pilot shall be disqualified from the contest.

C. Flight controls

1. Steering: Except in 1/2A, every aircraft shall be equipped with a positive means of steering on the ground using a dedicated, operable servo(s). Aerodynamic yaw control by means of a movable rudder or "V" tail fulfills this requirement. In addition, while in flight, all aircraft shall be positively and independently controllable in pitch and roll modes using dedicated, operable servos. Mixing of control functions is permitted so long as the aircraft remains positively and independently controllable in both pitch and roll modes at all times while in flight.

2. Fuel/air mixture: Except in Formula 1, there shall be no adjustment of the engine's needle valve from the ground while the aircraft is in flight. If the engine is equipped with an R/C carburetor, in-flight adjustment of the engine's fuel/air mixture by partially throttling back is permissible.

D. Spinner or prop nut

On all aircraft, the front end of the engine crankshaft shall be covered with a rounded spinner or AMA safety nut. A spinner with a flat, oval, or Allen (hex) head of at least 3/16 inch diameter on the front fulfills this requirement. The use of a spinner of any size in Quickie 500 or Sport Quickie shall not be considered streamlining of the engine.

E. Propeller

1. Propellers shall be fixed-pitch, with 2 blades of equal length, area, and shape. Metal propellers are prohibited. Where wood is the material specified, the propeller shall be made from a single piece of wood. Wooden propellers may be finished with a clear coating for purposes of waterproofing or balancing only.

2. In events requiring stock, commercially available propellers, the following modifications may be made without penalty:

(a) One blade may be sanded on the top (front) side only for balancing.

(b) One side of the hub may be sanded for balancing.

(c) The shaft hole may be enlarged, but only as much as necessary to fit the engine crankshaft. The enlarged hole shall be concentric with the original hole.

(d) Edges and tips may be sanded, but only as much as necessary to remove sharp molding flash.

F. Airworthiness

1. General. Materials and workmanship shall be of satisfactory standards. The CD or the CD's designee may refuse permission to fly or may disqualify any aircraft which, in his or her opinion, is not safe and airworthy in terms of materials, workmanship, radio installation, radio function, design details, or evidence of damage.

2. Repairs. Any aircraft that has been damaged after a safety inspection or has a known history of problems shall not be permitted to fly until it has been satisfactorily repaired and reinspected. Materials used for repair may come from any source. However, if a pilot chooses to completely replace a damaged wing or fuselage, the replacement wing or fuselage may come only from that pilot's alternate aircraft. In other words, a pilot may not use more than two wings or two fuselages, or both, during one contest.

VIII. PREFLIGHT INSPECTION OF AIRCRAFT

During registration, all aircraft shall undergo a safety inspection to ensure that, at a minimum, the following requirements have been complied with:

1. Push/pull rods or cables, control horns, and servo leads shall be installed in such a way that they will not become disconnected in flight. Clevises shall be physically held closed by short pieces of fuel tubing or similar material. Metal clevises shall be protected from deterioration of the threads due to vibration by means of a jam nut, thread treatment such as Loctite(R) or Vibra-Tite(R), or a similar method. Ball-links shall be tight.

2. All screws holding the engine to the mount and the mount to the firewall shall be in place and secure.

3. The radio receiver and battery pack shall be surrounded by soft foam rubber or other vibration-dampening material and adequately protected against contamination by engine exhaust, raw fuel, or fuel residue.

4. Batteries shall be of adequate capacity for the size and number of servos used. Minimum battery capacity shall be: 250 milliamp-hours (mAh) for all events except 1/2A, and 150 mAh for 1/2A.

5. Servos controlling the pitch and roll functions shall be of adequate strength for the weight and speed of the aircraft. Except in 1/2A, whenever a single servo is used to control one of these functions, it shall be designed and built to accommodate at least 4 mounting screws. When 2 or more servos are used together to control the same function, as in the case of dual aileron servos or the movable tail surfaces on a "V"-tailed aircraft, each of such servos may be of the 2-screw variety.

6. Control surfaces shall be firm on the hinge line without excessive play. Safety inspectors shall be alert to the danger of excessive play whenever electronic servo throw reduction is used in combination with a mechanically inefficient linkage.

7. All screws holding the servos to the servo rails or trays and holding any trays to the airframe shall be in place and secure. Rubber grommets shall be used on all servos designed to accept them. If the heads of the servo mounting screws are small enough to pull through the grommets, washers shall be used to prevent this.

8. Servo trays, if used, shall be restrained by at least one safety screw (not turned down tight) that will prevent the tray from becoming completely dislodged if the primary mounting screws loosen in flight.

9. Pushrods shall have only one threaded end that is free to turn. The other end shall consist of a "Z" bend, an "L" bend with keeper or collar, a metal clevis that is soldered on, or a threaded ball-link that is glued or otherwise secured so that it cannot turn.

10. Wings, if removable, shall be securely attached to the fuselage with bolts or screws.

11. Wheels shall be securely attached and shall turn freely.

12. The aircraft shall be free of stress cracks and any other indications of structural damage.

IX. NUMBER OF AIRCRAFT ENTERED

Each pilot may enter up to two aircraft. If two are entered, both shall be inspected.

X. AIRCRAFT MARKINGS

A. Registration numbers

Registration numbers shall consist of the last 2 or 3 digits of the pilot's AMA number, preceded by a capital "N" and followed by the first letter of the pilot's last name. Alternatively, registration numbers may consist simply of the pilot's full AMA number. Letters and numbers shall be clearly legible, at least 1 inch high, and located either on the top of the starboard wing panel or on both sides of the fuselage, behind the wing.

B. Racing numbers and area letters

1. Racing numbers and area letters may be obtained from the NMPRA Secretary. The use of these identifiers is highly recommended, but not required. The numbers are located on the upper left and lower right hand wing panel facing toward the left side, so that the number will be right-side-up when the model is in a left bank. The height of the numbers shall be at least 3 inches. Area letters should immediately follow the racing numbers and should be at least 1/2 inch high.

2. The assigned area letters are as follows:

A Northern California.

B Central California, Hawaii.

C Southern California.

D Nevada, Utah, Arizona.

E Oregon, Washington, Idaho, Alaska.

F Colorado.

G Montana, Wyoming, South Dakota, North Dakota, Nebraska, Kansas.

H I New Mexico, Oklahoma, Texas, Arkansas, Louisiana.

J Maine, New Hampshire, Vermont, Massachusetts, Connecticut, Rhode Island.

K L M New York, New Jersey.

P Ohio, Pennsylvania, West Virginia.

Q R Maryland, Virginia, North Carolina, Delaware, Washington D.C.

S T Tennessee, Mississippi, Alabama, Georgia, Florida, South Carolina.

U V Missouri, Illinois, Indiana, Kentucky.

W Minnesota, Wisconsin, Michigan, Iowa.

XI. ADVERTISEMENTS

Advertising of a racing contest through any media should include the following information:

1. Event numbers of the events that will be run;

2. Airframe and engine rule variations, if any;
3. Course length and number of pylons, if different from the 3-pylon, 2-1/2-mile course;
4. Whether sideline judging will be used at any of the pylons;
5. Nitro content of fuel to be supplied.
6. Brand and size of propellers to be supplied, if any.

XII. OPERATION OF THE RACE

(Refer to racecourse diagrams.)

A. 3-pylon racecourse

1. The standard course is triangular, with an individual lap length of 1/4 mile. Total distance traveled in 10 laps is 2-1/2 miles (13,200 feet). CDs should strive to select a course length that will produce 10-lap times between 1 minute (a very fast pace) and 2 minutes (a slow pace, suitable for beginners). This will depend on the rule formula selected and the reasonably anticipated speed of the aircraft. When in doubt, follow the guidelines on the chart accompanying the racecourse diagram. *[Note to Steve Kahuf: please change the chart to eliminate all "short course" options for events 421 (F1) and 422 (Q40). These should only use the 2-1/2 mile course, 608 feet overall length. Thx!]*

2. Pylon height shall be a maximum of 20 feet and a minimum of 15 feet. Pylons #2 and #3 shall be equal in height. A pole, to be called the sighting pole, shall be placed at least 100 feet to the right of pylon #1, as viewed from the starting line, at right angles to the long centerline of the course. The pole should be of such color and construction as to stand out from the background clutter when viewed from pylon #1.

3. At the #1 pylon, there shall be one chief judge plus an additional judge ("flagger") assigned to each pilot in the heat. The chief judge shall be positioned in close proximity to the pylon. The flaggers shall sit or stand perpendicular to the direction of the course on the left side of the pylon as looking at #1 pylon from the start line and no more than 15 feet away from the pylon.

4. At the #2 and #3 pylons, there shall be one judge for each pylon, positioned in close proximity to the pylon. There shall be no pilots' helpers at any of the pylons.

5. Each heat race begins with the aircraft stationary at or behind the start/finish line and ends when the aircraft cross the start/finish line after completing 10 laps (or 11 laps for an aircraft that has cut once). Timers' clocks shall be started with the first drop of the starter's flag. No more than 4 aircraft per heat are allowed. Except in 1/2A, all takeoffs shall be ROG. No mechanical device shall be used to assist in launching the aircraft. Laps shall be flown in a counterclockwise direction, with all turns to the left.

6. Engine starting time:

(a) Except in Formula 1, pilots have a maximum of 1 minute to start their engines and prepare for takeoff. In Formula 1, the engine starting period is 1-1/2 minutes. Once the starting period has elapsed, any pilot who is not prepared for takeoff (facing #1 pylon with both hands on the transmitter) is disqualified from the heat and shall not be allowed to fly or run his or her engine in the course area.

(b) If determined at the pilots' meeting before the race, the heat may be started on a "go when ready" basis, that is, when all pilots and callers are ready before the starting period has elapsed. If the pilots have elected to go when ready, the starter shall check that all pilots are in position and ready to control their aircraft before giving the signal to launch. Each pilot shall confirm his or her "ready" status by a nod of the head or other agreed signal. However, the pilots are only entitled to a confirmation *before* the starting period has

elapsed. Once the starting period has elapsed, any pilot who is not prepared for takeoff (facing #1 pylon with both hands on the transmitter) is disqualified from the heat and shall not be allowed to fly or run his or her engine in the course area.

7. Unless otherwise specified, the following starting procedure shall be used. Lane assignments shall be determined by drawing lots or by another random method at the start of each heat. The aircraft shall be flagged off the starting line in 2 groups, the first group being the aircraft in lanes #1 and #3 and the second group being the aircraft in lanes #2 and #4. The starter shall use 2 distinct motions of the starting flag to signal both groups approximately 1/2 to 1 second apart.

8. All aircraft are to be signaled the moment they break the plane (a/k/a "gate") established by the #1 pylon and the sighting pole. There will be no signals at the #2 or #3 pylons unless a pylon is cut. The judges shall use an appropriate method to notify pilots of cuts. If possible, such notification shall be simultaneous; however, it is not grounds for a refly if the pilot does not receive notification of a cut before the completion of the heat.

9. If a pylon is cut, that lap shall not be counted. In addition, a cut penalty shall be assessed for any flying over the designated sideline, pit, or spectator area or in "no-fly" zones clearly identified at a pre-race pilots' meeting. A pilot who cuts twice in the same heat shall receive a score of zero points and, if both cuts occur before the last lap, the starter shall give that pilot the black flag.

10. Pilots whose callers push off before their launch signal shall receive a cut for that heat. A blatant early push is a black flag offense. In the event of a midair or takeoff contact between aircraft, or at any other time during the heat, the starter is empowered to black-flag any pilot whose aircraft may be damaged or whose flying becomes erratic or dangerous. This decision is entirely at the discretion of the starter and is not subject to protest.

11. Aircraft shall not fly lower than the tops of the pylons at any time except for takeoff and landing. A pilot flying below the top of a pylon more than once in any heat (for example, below the top of #2 twice, or once below the top of #2 and once below the top of #3) shall be warned once, during or after the heat in which the low flying occurs. Another such violation in any later heat shall be cause for a black flag. Determination of low flying shall be made by the starter and is not subject to protest.

12. In the event of a dead heat, where the finish order of a heat is disputed, or timekeeping or scoring equipment failure occurs and a clear-cut decision cannot be made for a particular position, only the airplanes in question for a particular position will refly. The other (unaffected) places will maintain the scores from the original heat race. The airplanes that are reflown will only be in contention for the undetermined positions and neither of the scores can be worse than if they had received an adverse ruling in the original heat race, however, reflown planes must complete 10 laps without cutting out to receive a score. Any reflown plane that does not complete 10 laps or double-cuts will be awarded a zero (0) for that heat.

B. Optional 2-pylon racecourse

1. The purpose of the 2-pylon race course is to provide a course layout that does not require any personnel to be on the race course. All flying and judging is to be conducted from the sidelines.

2. The operation of a 2-pylon race may be conducted by either of the following methods:

(a) Method 1: Requires a starter, 4 lap counters and 2 cut judges (a minimum of 7 people) all located off the course. Cut judges are stationed in line with the pylons. They record cuts and relay them to

the starter. Therefore, the responsibility for flying the proper distance lies solely with the pilot and his or her caller.

(b) Method 2: This is the same as Method 1 except it requires flaggers for each aircraft, stationed off the race course, in line with the pylons. They signal (by flag, shutter or light) when each aircraft has passed the respective pylon and record cuts as in Method 1. This method requires a much larger number of workers including an extra communications person standing with each group of flaggers.

XIII. HEAT MATRIX

(Refer to matrix diagram.)

Note: The following instructions assume that 4-plane heats will be flown. 2- or 3-plane heats may be a better choice in situations where there are not many entries, not enough racecourse workers, a narrow runway, or inexperienced pilots. In any case, the number of columns in the matrix always must equal the number of planes per heat.

Divide the entries into 4 columns of separate frequencies or groups of frequencies so that each frequency appears in only one column. Column totals should be adjusted so that the number of entries in each column is as equal as possible. Pilot numbers should be assigned according to the following matrix. If a particular column has less than the indicated number, simply skip that number. Use the matrix schedule to set up the heats for each round. All pilots shall be given an equal number of opportunities to race.

XIV. SCORING

A. Points per heat

After each heat, points shall be awarded based on the order of finish. If the matrix is set up for 4-plane heats, the result is 4 points for first place, 3 points for second place, 2 points for third place, and 1 point for last place. If the matrix is set up for 3-plane heats, the winner receives 3 points, second place 2, and last place 1 point. If the matrix is set up for 2-plane heats, the winner receives 2 points and the loser receives 1. Zero points are awarded for a no-start (DNS), failure to complete the heat (DNF), double cut (XX), or black flag (DQ).

B. Adjustment of the matrix during the contest

Sometimes, attrition or other factors may result in a number of "bye" or solo heats. In such a case the CD may be tempted to rematrix the remaining entries. Remember that consistency is part of the task of racing, and depriving a contestant of an easy win when competitors are not prepared to come to the starting line alters the task. Therefore, rematrixing should only be done at the completion of a round, and even then only after a pilots' meeting to obtain the pilots' informed consent to the decision.

C. Ties and flyoffs

The winner of the event is the pilot who has accumulated the most points after the conclusion of all heats. If time permits, and there is no frequency conflict, ties shall be broken by a flyoff race. Otherwise, the best single race time shall be considered in determining final placings.

XV. EVENT-SPECIFIC RULE FORMULAS

Event 421: Formula 1

I. AIRFRAME

A. WEIGHT

Minimum 5 pounds, maximum 6-1/2 pounds.

B. WINGS

1. Area: Minimum 450 square inches.

2. Span: No limit.

3. Chord: No limit.

4. Wing thickness: Minimum 7/8 inch at the "no-go" point (see paragraph III.H. above). Thickness shall progress uniformly in a straight line or convex taper from root to tip.

C. FUSELAGE

1. Depth: Minimum 7 inches at the pilot's cockpit.

2. Width: Minimum 3-1/2 inches at the pilot's cockpit. Width and depth points must coincide. Width does not include fillets or cheek cowl fairings.

3. Cross-section: No limit on cross-sectional area. The engine shall be cowled at least to the extent that no more than the head fins project beyond the fuselage outline. The exhaust side of the cowl may be shaped to clear the exhaust exit.

D. LANDING GEAR

At least 2 wheels of 2-1/4 inch diameter or larger shall be used. Where applicable, a third wheel of any size may be used. Retractable landing gear is prohibited.

E. REPLICA RULE

Models shall be replicas of the 190 cubic inch class of full size Formula 1 aircraft. It is the pilot's responsibility to supply judges with a 3-view scale drawing of a 190 class airplane that has been flown (any 3-view drawing taken from any publication will be considered acceptable) and/or at least 2 photographs that show the aircraft clearly.

F. HANDICAP SYSTEM

An experienced team of judges shall grade each aircraft, including back-up, and place it in one of 4 rows. The first row shall represent the best in craftsmanship and excellence of appearance, and the 4th row the least. These 4 rows will determine the takeoff position to be used by the contestant, with those judged "1s" as the first to be flagged off and "4s" the last. In any heat where there are 2 or more aircraft assigned the same judging number, the takeoff order shall be determined by lottery. If there is a Best Finish award, it shall be awarded to one of the aircraft judged "1s".

Note: An alternate handicap system is detailed in the NMPRA Race Procedure Guide.

G. MISCELLANEOUS

1. Spinner: A rounded spinner of at least 2 inches diameter is required.

2. Interchange of major components: The wing and fuselage may not be interchanged between primary and back-up models.

II. POWERPLANT

A. ENGINE

1. Maximum displacement: 0.4028 cubic inches (6.60 cubic centimeters).

2. Configuration: Front or rear intake, side or rear exhaust.

3. Availability, modification:

(a) Engines shall be production units assembled from commercially available production parts produced in quantities greater than 100. Alterations shall be limited to commercially available, catalog-listed parts produced in quantities greater than 100 units. Engines may only be altered by removing parts, or by removing material from parts; except that liners may be rechromed. No other material or part may be added unless otherwise specified in these rules.

(b) The carburetor, exhaust extension, and drive washer need not be commercially available or produced in quantities greater than 100. In addition, the following parts may be purchased from sources other than the standard manufacturer providing they meet certain specifications: Piston and cylinder; connecting rod; wrist pin; head. These parts must be commercially available and must be "copies" of the stock parts in that they are metallurgically and dimensionally similar to the stock parts. Metallurgically, aluminum must be replaced by aluminum, etc. The "no material may be added" rule still applies.

(c) Two-piece or "button" heads are allowed only to the extent that they can be manufactured from commercially available heads. A 2-piece head may not be used to provide additional material for modifications not possible with a 1-piece head.

4. Intake: A single carburetor or venturi; no limit on diameter or shape.

5. Exhaust system: Tuned pipes, zero-boost mufflers, and tuned mufflers are prohibited. An exhaust extractor may be used. Any part of the exhaust extractor may continue outside of the cowl. Rear-exhaust engines may use an adapter not over 1-1/2 inches long, and side-exhaust engines may use a curved adapter not over 2-1/2 inches long (measured along centerline and from face of piston). In either case, the adapter shall be followed by a constant inside diameter pipe which increases the total length of the complete exhaust system to not over 5 inches as measured from face of piston to extreme exhaust end.

6. Fuel feed: Pressurized fuel systems are permitted.

B. PROPELLER

1. Material: Wood.

2. Dimensions: No limit.

C. FUEL

Contestants shall supply their own fuel.

III. SPECIAL PROVISIONS

As an alternate to the standard 1-3, 2-4 takeoff order, the CD may elect to use a 1-2-3-4 procedure in which the order of takeoff is determined by handicap judging as described in paragraph F above. If the 1-2-3-4 procedure is used, the aircraft shall be flagged off the line one at a time at 1-second intervals or as rapidly as the starter can drop the flag 4 times in succession. Regardless of the procedure chosen for the contest generally, all heats in which the Best Finish aircraft races shall be started using the 1-2-3-4 procedure.

Event 422: Quarter 40

I. AIRFRAME

A. WEIGHT

Minimum 4 pounds, maximum 5 pounds.

B. WINGS

1. Area: Minimum 400 square inches.

2. Span: Maximum 56 inches (projected).

3. Chord: No limit.

4. Airfoil thickness: Minimum 7/8 inch at the "no-go" point (see paragraph III.H. above). Thickness shall progress uniformly in a straight line or convex taper from root to tip; except that, if the full-scale prototype has a different progression, the progression on the model may be similar. The wing taper, in addition to other distinctive design features, is subject to the design approval requirements of paragraph F below.

C. FUSELAGE

1. Depth: Minimum 5 inches at its deepest point; except that models of P-51s and other full-scale prototypes with belly-mounted radiators shall have a fuselage depth of at least 6 inches. Depth includes the radiator or belly scoop (if any) and the windshield, canopy, pilot's head, or headrest, but does not include tail surfaces, dorsal or sub fins, tail skids, or non-scale protuberances.

2. Width: Minimum 3 inches at its widest point. Width and depth points need not coincide. Width does not include fillets, cheek cowl fairings, or non-scale protuberances.

3. Cross-sectional area: At some point, the cross-sectional area of the fuselage shall be at least 12.5 square inches, and the contestant shall be required to furnish templates to prove this. Fillets and cheek cowls are not to be included in the measurement.

3. Cross-sectional shape and features:

(a) Profile representations of any significant feature of the full-scale prototype are prohibited. Cross-sectional contours at the height and width measurements and at stations determining the likeness to the full-scale prototype shall maintain the integrity of the contours in the full-scale prototype. The only exception permitted shall be in the engine compartment for maintenance purposes.

(b) Cheek cowls, canopy, and belly scoop, if any, shall have at least a 5/8 inch radius at their widest point so that a hypothetical 1-1/4-inch-diameter ball would fit inside, tangent to the outer surface. A cowl, canopy, or scoop with an oval or rectangular cross-section and corners of less than 5/8 inch radius satisfies this requirement if the hypothetical 1-1/4-inch-diameter ball would be fully enclosed.

(c) Removable cowls are prohibited. The front end of the fuselage shall be configured so that the engine head and cylinder protrude on all sides at least 3/4 inch, not including the glow plug, and the muffler is fully exposed for its entire length. However, the fuselage may incorporate a shallow channel, dimple, or trough to provide clearance for the muffler. In addition, the access hole for the engine crankcase and mounting lugs may be covered with a piece of fiberglass, Mylar(R), or other stiff material, not more than 0.020 inches thick, that restores the original contours of the fuselage in that area.

D. LANDING GEAR

1. Location and size: The landing gear shall be fixed and shall resemble that of the full-scale prototype aircraft as to location on the airframe and the number of wheels used. At least 2 of the wheels shall have a diameter of at least 2-1/4 inches.

2. Streamlining: Wheel pants, wheel spats, or strut fairings are not required, and are permitted only if they were used on the full-scale prototype.

E. REPLICIA RULE

Models entered in this event shall be recognizable replicas of full-scale, human-carrying, propeller-driven aircraft that either raced in or were built for closed-course or cross-country racing or a speed record attempt.

F. PRIOR APPROVAL OF DESIGNS

1. Procedure: All designs, past and future inclusive, shall not be entered in competition until 3 accurate views or photos of the model and the full-scale prototype aircraft have been submitted to a 5-member subcommittee of the RC Racing Contest Board and approved by an affirmative vote of at least 3 members thereof. Such approval may be given orally, but shall be recorded for future reference. In the case of unusual or little-known designs, the designer shall produce documentation to clarify that such a design did exist. A model shall be considered eligible for competition if it meets all dimensional requirements of these rules and, in addition, does not vary significantly from the approved 3-views or photos of the same design.

2. Membership of Committee: The 5-member committee shall be appointed by the Chairperson of the RC Racing Contest Board and may consist of any 5 members, including the Chairperson, who do not have a financial interest in any kit manufacturing business that produces airplane kits for this event. If a design has been disapproved by the 5-member subcommittee, the designer is entitled to review by the entire contest board.

II. POWERPLANT

A. ENGINE

1. Maximum displacement: 0.403 cubic inch.
2. Configuration: Stock, commercially available, front-intake, side-exhaust.
3. Intake: A single carburetor or venturi with a maximum inner diameter of 9 mm (0.3543 inch). Carburetors or venturis may be modified and are not subject to availability rules.

4. Exhaust system:

(a) General description: The engine shall be equipped with an expansion chamber muffler, zero-boost muffler, or tuned muffler as provided by the manufacturer for the engine being used, and having a single exhaust outlet with a maximum outlet area of 0.0621 square inches (equivalent to the area of a round hole measuring 9/32 inch in diameter).

(b) Inner configuration of tuned mufflers: A tuned muffler used in this event shall have only one internal part, a straight tube or extractor of the type commonly known as a "mini-pipe". The mini-pipe shall have a constant, circular cross-section and constant inside and outside diameter, with the following exception: the side-wall of the tube may be thickened, not to exceed 1/16 inch wall thickness, within 1/2 inch of the front end of the mini-pipe where it attaches to the header.

(c) Outside dimensions: The distance from the center of the piston to the centerline of the muffler shall not exceed 2-3/4 inches. The overall length of the muffler shall not exceed 7-1/4 inches, measured from the front of the header to the back of the exhaust outlet. The outside diameter shall not exceed 1-3/4 inches, and both the

inside and outside diameter of the outside shell of the muffler shall remain constant for at least 4-1/2 inches.

(d) Modifications: No modifications to the muffler are permitted except that the muffler may be tapped for a pressure fitting to supply pressure to the fuel system.

5. Fuel feed: Other than muffler pressure, no fuel system pressurization is permitted.

B. PROPELLER

1. Material: Wood.
2. Dimensions: No limit.

C. FUEL

The fuel shall be commercially available, containing not over 15 percent nitromethane, and shall be supplied and dispensed by the hosting organization. The dispensing operation shall include draining the tank of any existing fuel and then filling from a supply container when the pilot brings the aircraft to the ready box.

Event 428: Quickie 500

I. AIRFRAME

A. WEIGHT

Minimum 3-1/2 pounds, maximum 4-1/2 pounds.

B. WINGS

1. Area: Minimum 500 square inches.
2. Span: Minimum 50 inches (projected), maximum 52 inches (projected).
3. Chord: Constant for at least 47-1/2 inches of span.
4. Airfoil thickness: Minimum 1-3/16 inches for at least 47-1/2 inches of span.

C. FUSELAGE

1. Depth: Minimum 3-1/2 inches at its deepest point, which must occur within the wing chord.
2. Width: Minimum 2-7/8 inches at its widest point, which must occur within the wing chord. Width and depth points need not coincide.

3. Cross-section: The fuselage shall have a simple, rectangular "box" cross-section with a maximum radius of 1/4 inch at the corners. Diamond-shaped cross sections are prohibited. Fillets or fairings between the fuselage and wing are prohibited. Canopies and turtle decks are acceptable but shall not be included in width or depth measurements. The front firewall shall be a rectangular, flat plate measuring at least 2-1/4 inches by 2-1/4 inches. The perimeter of the front firewall may be rounded to a maximum radius of 1/4 inch.

4. Engine installation: The engine and engine mount shall be fully exposed. No cowling or streamlining of the engine is permitted. A backplate-type radial engine mount that replaces the stock engine backplate may be used so long as it displaces the same crankcase volume as the stock backplate assembly. Corners and edges of the engine mount may be rounded to a maximum radius of 1/4 inch.

D. LANDING GEAR

The landing gear shall be fixed, with at least 2 main wheels of a diameter not less than 2-1/4 inches. The main wheels shall be at least 7 inches apart, measured parallel to the wing span. No wheel

pants, wheel spats, or strut fairings shall be used to streamline the main landing gear. Struts shall be either round wire, at least 1/8 inch in diameter, or flat stock no more than 1/8 inch thick. Flat stock may be filed or otherwise shaped to an airfoil cross-section but must have a blunt leading edge. Nose or tail wheels, if used, may be streamlined or enclosed.

II. POWERPLANT

A. ENGINE

1. Maximum displacement: 0.403 cubic inch.
2. Configuration: Stock, commercially available, front-intake, side-exhaust.
3. Intake: A single carburetor with a maximum inner diameter of 9 mm (0.3543 inch). The carburetor may be locked or pinned in the open position and needs not be functional; except that, if the carburetor is not functional, a separate engine shutoff mechanism shall be used. Other than such locking or pinning, the carburetor shall be stock. Venturis are prohibited.
4. Exhaust system:
 - (a) General description: The engine shall be equipped with an expansion chamber muffler, zero-boost muffler, or tuned muffler as provided by the manufacturer for the engine being used, and having a single exhaust outlet with a maximum outlet area of 0.0621 square inches (equivalent to the area of a round hole measuring 9/32 inch in diameter).
 - (b) Inner configuration of tuned mufflers: A tuned muffler used in this event shall have only one internal part, a straight tube or extractor of the type commonly known as a "mini-pipe". The mini-pipe shall have a constant, circular cross-section and constant inside and outside diameter, with the following exception: the side-wall of the tube may be thickened, not to exceed 1/16 inch wall thickness, within 1/2 inch of the front end of the mini-pipe where it attaches to the header.
 - (c) Outside dimensions: The distance from the center of the piston to the centerline of the muffler shall not exceed 2-3/4 inches. The overall length of the muffler shall not exceed 7-1/4 inches, measured from the front of the header to the back of the exhaust outlet. The outside diameter shall not exceed 1-3/4 inches, and both the inside and outside diameter of the outside shell of the muffler shall remain constant for at least 4-1/2 inches.
 - (d) Modifications: No modifications to the muffler are permitted except that the muffler may be tapped for a pressure fitting to supply pressure to the fuel system.
5. Fuel feed: Other than muffler pressure, no fuel system pressurization is permitted.

B. PROPELLER

1. Materials:
 - (a) Wood; or
 - (b) APC composite, packaged for "40 Pylon" and containing a D-1 designation on the outside hub.
2. Dimensions: Minimum diameter 8-3/4 inches for APC, 8-1/2 inches for wood.
3. Availability, modification: Propellers shall be commercially available and stock, except as otherwise provided in paragraph VII.E.2. Above.

C. FUEL

The fuel shall be commercially available, containing not over 15 percent nitromethane, and shall be supplied and dispensed by the hosting organization. The dispensing operation shall include draining the tank of any existing fuel and then filling from a supply container when the pilot brings the aircraft to the ready box.

III. SPECIAL PROVISIONS

The CD or the CD's designee may elect to check the top 3 finishers' engines for legality at the end of the contest. In addition, CDs are encouraged to check the carburetor bore, muffler outlet area, and propeller diameter of aircraft that are being weighed immediately after each heat.

Event 424: Sport Quickie

I. AIRFRAME

The airframe specifications for this event are identical to those for Quickie 500 (Event No. 428).

II. POWERPLANT

A. ENGINE

1. Maximum displacement: 0.403 cubic inch.
2. Configuration: Stock, commercially available, front-intake, side-exhaust.
3. Intake: A single carburetor, as supplied by the manufacturer of the engine being used, with a maximum inner diameter of 0.325 inch. The carburetor shall be fully functional and shall be stock, except for longevity-enhancing modifications as follows:
 - (a) Adjustment screws and idle needle valves may be held in place with commercially available thread locker, epoxy, or other adhesives and safetied with rubber bands, wire, or plastic ties.
 - (b) Barrel retaining screws or pins may be replaced with commercially available screws or pins of harder material and may be held in place with commercially available adhesives. Barrels may be deburred for smoother movement and may be safetied with rubber bands, wire, or plastic ties.
 - (c) Throttle arms may be modified or replaced.
4. Exhaust system: The engine shall be equipped with an expansion chamber muffler or zero-boost muffler as provided by the manufacturer of the engine being used, and having a single exhaust outlet with a maximum outlet area of 0.0621 square inches (equivalent to the area of a round hole measuring 9/32 inch in diameter). The distance from the center of the piston to the centerline of the muffler shall not exceed 2-3/4 inches. The overall length of the muffler shall not exceed 7-1/4 inches, measured from the front of the header to the back of the exhaust outlet. The outside diameter shall not exceed 1-3/4 inches. No modifications to the muffler are permitted except that the muffler may be tapped for a pressure fitting to supply pressure to the fuel system. Tuned mufflers and tuned pipes are prohibited.
5. Fuel feed: Other than muffler pressure, no fuel system pressurization is permitted.

6. Power output: Sport Quickie is intended as an entry-level event for pilots who are new to racing. As such, it is not a suitable event for the use of engines that come with tuned mufflers or otherwise are capable of turning a stock 9 x 6 APC propeller at over 16,500 rpm on the ground. If engines more powerful than this are to

be used at a contest, the contest should be sanctioned as Quickie 500 (Event No. 428), not Sport Quickie.

B. PROPELLER

1. Material: APC composite or a similar, commercially available composite.

2. Dimensions: Minimum diameter 9 inches. Nominal pitch 6 inches, as indicated by the manufacturer's stamp or packaging.

3. Availability, modification: Propellers shall be commercially available and either supplied by the hosting organization or specified by brand and size in all pre-contest publicity. Propellers shall be stock, except as otherwise provided in paragraph VII.E.2. Above.

C. FUEL

The fuel shall be commercially available, containing not over 15 percent nitromethane, and shall be supplied and dispensed by the hosting organization. The dispensing operation shall include draining the tank of any existing fuel and then filling from a supply container when the pilot brings the aircraft to the ready box.

III. SPECIAL PROVISIONS

1. Routine inspections encouraged: The CD or the CD's designee may elect to check the top 3 finishers' engines for legality at the end of the contest. In addition, CDs are encouraged to check the carburetor bore, muffler outlet area, and propeller diameter of aircraft that are being weighed immediately after each heat.

2. Rule variations permitted: The engine rules specified below have been used successfully on a local basis to limit the cost or power output of engines used in this event. These and any other variations from the rules specified above should be noted in all pre-contest publicity. **Note: any variation that results in the use of engines larger than 0.403 cu. in. displacement, tuned mufflers, or tuned pipes will result in the event being sanctioned as Quickie 500 (Event No. 428) rather than Sport Quickie.**

(a) Approved engine list: Sample engines are tested and a list of permissible engines is published annually. Criteria include purchase price and power output in both the normal takeoff rpm range and the presumed in-air ("unloaded") rpm range.

(b) Prohibited Features: Typically these include Schneurle porting and ABC/AAC metallurgy.

(c) Claiming rule: In addition to either or both of the above approaches, a claiming rule allows any contestant to purchase any other contestant's engine after the contest for a specified price. \$100 is suggested.

Event 423: 1/2A

I. AIRFRAME

A. WEIGHT

Minimum 20 ounces, maximum 32 ounces.

B. WINGS

1. Area: Minimum 200 square inches.

2. Span: No limit.

3. Chord: No limit.

4. Airfoil thickness: Minimum 3/4 inch at the "no-go" point (see paragraph III.H. above). Thickness shall progress uniformly in a straight line or convex taper from root to tip.

C. FUSELAGE

1. Depth: Minimum 3-1/2 inches at its deepest point, which must occur within the wing chord. Depth does not include tail surfaces, dorsal or sub fins, wheels, skids, or profile features.

2. Width: Minimum 2-1/4 inches at its widest point, which must occur within the wing chord. Width and depth points need not coincide. Width does not include fillets or cheek cowl fairings.

3. Cross-sectional shape and features: Models used in this event need not resemble full-scale aircraft; however, canopies and cowlings shall not be counted as part of the width or depth measurements unless they are at least 1 inch wide at their base and have a cross-section similar to that found on an ordinary full-scale aircraft.

D. LANDING GEAR

Landing gear is not required.

II. POWERPLANT

A. ENGINE

1. Maximum displacement: 0.519 cubic inch.

2. Configuration: Stock, commercially available, front-intake.

3. Intake: A single carburetor or venturi. Carburetors or venturis may be modified and are not subject to availability rules.

4. Exhaust system:

(a) Mufflers: Local conditions shall determine muffler usage. When required, mufflers shall be stock, commercially available units. Only modification to the muffler inlet for the sole purpose of mounting to the engine shall be permitted.

(b) Exhaust extractors: When used, exhaust extractors shall be of constant inside diameter.

5. Fuel feed: Pressurized fuel systems are prohibited.

B. PROPELLER

1. Material: Wood or composite.

2. Dimensions: No limit.

3. Availability, modification: Propellers shall be commercially available and stock, except as otherwise provided in paragraph VII.E.2. above.

C. FUEL

Fuel shall be commercially available and commercially mixed, containing not over 50 percent nitromethane.

ADDENDUM A: BARRIER CAGE SPECIFICATIONS

It is recommended that cages constructed of chain link fencing or similar material should have an adequate number of fencing to frame fasteners, with spacing of approximately six (6) inches. (It is recommended that fencing be welded to the outer frame.) Composite or multilayered barriers are encouraged. This may be chain link fencing plus Lexan, or Kevlar, or two staggered layers of chain link. Where feasible, the materials used should not overly obstruct the officials' vision.

NMPRA & Horizon proudly present the

JR QUARTER FORTY GOLD CUP '99

Five races. Premium sites. Superb organization. For the best of the best in Quarter Midget 40 pylon racing, be sure to join in on the new JR Gold Cup Series of racing. Attend any one race or the whole series for individual and Series race rewards.

Haven't ever been to a pylon race? You owe it to yourself to see what action-packed racing thrills are all about. Widely acclaimed as "the best spectator sport" in radio control, the speed and close racing of these miniature bullets are unmatched for viewing entertainment.

PHOENIX, AZ Feb. 27, 28

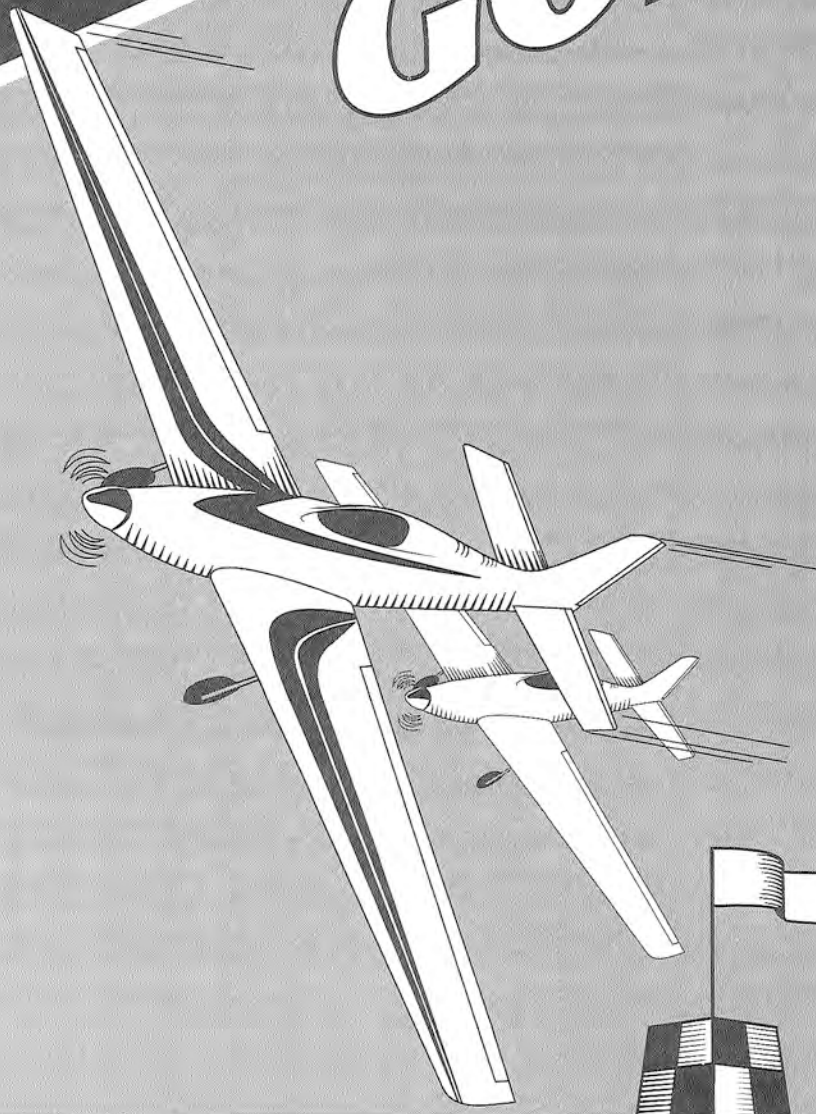
MERCED, CA Apr. 24, 25

BOWIE, MD May 22, 23

DAYTON, OH Sept. 11, 12

TANGERINE Dec. 11, 12

Fuel supplied by POWERMASTER



1999 JR Gold Cup Series



Merced Results

- 1 Rusty Van Baron
- 2 Richard Verano
- 3 Darrol Cady
- 4 Lee Van Der Hey
- 5 Chuck Anderson
- 6 Jamie De La Vega
- 7 Jim Allen
- 8 Lyle Larson
- 9 Jarrett Cangie
- 10 Randy Bridge

What's Next

Bowie, MD - May 22-23

Dayton OH - Sept. 11-12

Orlando FL - Dec. 11-12

Course Worker Sponsors

ACE Hobby Dist

Anchor Adhesives

Balsa USA

Goldberg Models

Du-Bro Products

FMA Direct

Futaba Corp.

Great Plains Mfg

K & B Mfg.

Performance Spec.

Sullivan Products

Sig Mfg

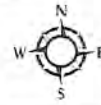
Tower Hobbies

ZAP Products

Fuel Supplied by **PowerMaster**



District News



District 2 - Darrol Cady

10711 NE 37th Ct., Vancouver, WA 98686
(306) 573-0987
E-mail: dcady@pacifier.com

Fellow racers,

I have asked some questions, and I have gotten some answers. My questions were about the Club Racing cage specifications. This I can assure you has not been a forgotten issue. It was started as soon as the "Super Cages" were accepted by the EC and the attorneys.

The new specifications call for 150-MPH maximum speed. This speed should more than coincide with the new rules that are to be proposed for the 424 class of racing. The 424 APRA class racing that is being proposed for the club racing are much slower than the 150 MPH. These classes are in the sub 130 range.

The proposals for the new specifications of the cages have been completed. They will go before the safety committee in April. They are written with the consultation of Lee Webster, the engineer that did the testing of the 170 mile per hour cages. There should be no problem getting them through the safety committee. From there the proposal will go to the summer meeting of the Executive Council.

This may seem like a cumbersome method of getting something done, but it is the only way that it can be done. It is part of the good and bad of big. We must be careful, and not do things that divide the population of racers. The NMPRA has done a great job of including all racers in the group in the last ten years. I can remember that if you were not a Formula 1 racer, you had no voice. Times have changed. It may be like the Civil Rights movement. If you question the younger minorities, they will tell you it is terrible and nothing has changed. Talk to an older person, and he will tell you the changes are enormous, but not enough. This is the same scenario that we are facing. All of our racers do not have the same interests. All needs cannot be met at the same time. The goal is to keep moving towards a goal that will take care of the majority, not the minority.

Look at the cage challenge as an example. If the current NMPRA officers had not stayed in the game, and fought for our racing, it would not have had the outcome that it is having. We are still racing the way we want to. It is the NMPRA working in conjunction with the AMA that has had a conclusion that we can all live with so far. We

will see a cage specification that will be acceptable for both sides when it is done. It just takes time.

Remember, too, that time is on our side. No one has said that we cannot race if we do not have the "Super Cages" The AMA is working with the NMPRA to keep racing alive and well. When this is over, we will have racing as we are used too. AMA is also doing their job of protecting the racers and the rest of the AMA membership.

The following is the race report written by CD Jim Kelly, and it is fun!

It was our third Quickie race of the winter season. God gave us a fantastic day. No! I am not talking about Cady. It was 50 degrees in the morning and got better, up to 68 degrees by 4:30 PM.

We had 10 racers in APRA and 15 in 428 Expert. There were a couple of mishaps before and during the racing. The new kid to Expert (Eric Ide) lost a wing during the trim flight, the bolts pulled through the wing. The epoxy dowels did not get hard and it let the screws go through. Matt Mikko lost a wing also. He was trying to qualify for the Boeing missile award. I think he qualified.

Darrol is really a guy that likes to win. He flew one race with a cut that he had to lap the 2nd place airplane. As they crossed the finish line, he and Mike Brownlee tried to occupy the same airspace. I have never seen that succeed to date, including last Sunday. Darrol had another airplane, but Mike did not. Mike was overheard to say he had been flying that airplane for three seasons before this heat! Goes to show, do not talk about airplane longevity. Sorry Mike!

In the last newsletter, Vern Smith talked about preparation and practice. Jon Packer is an exception to that way of doing things. He only flies on race day..... Don't know how you do it, but way to go Jon.

The following is the race standings and comments I over heard while calling the racers to the line and being Assistant CD:

APRA Quickie April 11, 1999		
1. John Hillyard	1:39.59	"See? That is twice."
2. Bruce Teel	1:45.14	"I am getting tuned up for 428 today."
3. Kirk Pennock	1:54.60	"Give me a break, Hoppe!"
4. Marty Hoppe	1:49.69	"Ok, I cut for you!"
5. JR Fisk	1:50.29	"Eric says that I better go faster, the trailer is green."
6. Dick Salter	1:50.29	"I am going to run my Dynajet next race."
7. John Russo	2:05.30	"I gotta fly more at Fort Lewis."
8. Eric Ide	2:40.14	"Bad needle! Thought I would give Hillyard a chance."
9. Holder	1:55.98	"We Canadians brought US dollars."
10. Miller	2:04.19	(first race) "These are not like our Boeing aircraft"

428 Expert Quickie April 11, 1999

1. Darrol Cady	1:11.73	"Glad I brought a backup Thingy"
2. Tom Strom Sr.	1:12.73	"It was a good day! Sun and fun at Kent."
3. Eric Ide	1:13.82	"I really wanted to fly Watson more."
4. Jon Packer	1:16.70	"That darn kid with all the Green Stuff"
5. Nelson Eddy	1:12.16	"I should have been in the fly-off!"
6. Al Watson	1:15.00	"That new kid; Ide, is tough!"
7. Dave Torre	1:17.50	"No zeros for me, today."
8. John Calloun	1:26.59	"Lucky matrix today, no Cady or McIndoe."
ab Andrew McIndoe	1:13.72	"Never did fly Cady! Darn the matrix."
10. John Headley	1:18.30	"I am poor, but I need a new airplane."
11. Dan Nalley	1:16.86	"My engine is definitely working!"
12. Bruce Teel	1:23.83	"Boy! This fast stuff is fun!"
13. Tom Strom Jr.	1:20.33	"Wish I could fly Dad's airplane like he does."
14. Stan Davis	1:22.74	"CDing takes too much race time!"

15. Mike Brownlee 1:16.76 "It was time for a new Quickie anyway!"

Submitted by: Jim Kelly, NMPRA Hall of Fame Member.

The Northwest will be well represented at the second JR Gold Cup race in Castle, California. Andrew McIndoe, Jerrett Cangie, Matt Mikko, Steve Milos, and Darrol Cady will be in attendance. Dave Torre is also going down to call for both Steve Milos and Matt Mikko. The temperatures have been running in the 80's in Merced. We should have a great time. Matt will be flying a new airplane; the rest of us will be flying race proven equipment.

Correction, there were two new airplanes at the Merced race. Steve Milos also had a new airplane there. I mean a big HAD for both Matt and Steve. Neither of the only new airplanes from the NW survived the Merced race. Sorry, they were both very nice airplanes. We had another surprise there. Stan Davis and Jim Kelly came down to the race to observe. Stan had the best seats. The first was in the timers cage, and the second was in the number three pylon cage. Thanks for helping out as well as coming down to support the NW group.

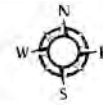
NEXT ARTICLE

DUE DATE

JUNE 9



District News



The Northwest flyers finished in the race as follows:

- 3rd. Darrol Cady 1:04.07
- 9th. Jerrett Cangie 1:04.41
- 16th. Steve Milos 1:05.06
- 23rd. Matt Mikko 1:05.47
- 33rd. Andrew McIndoe 1:11.53

This is a good showing anywhere.

Any of you "Travelers" should consider coming to our Arlington race in June. The facility is great. As good as you will see anywhere for racing. (Exception Club Pegaso! Nothing compares to Pegaso) You can hear the racing airplanes from the motel in Smokey Point. It is close. There is even a McDonalds on the way to the field. The contest is June 5 and 6, 1999, it's always a good race. If you are going to attend, let me know and I will make motel reservations and help you get to the race. It is always confusing to go to a new race area and not know where everything is.

A short note on the Championship Race in Mexico City next October. It will be an easy race to attend. You will not have to rent a car or find your way around in the city. Club Pegaso will see that you and your equipment will be transported from the Airport to the field and to the motel. There will be busses running to move all the people and equipment where they need to be when they need to be there. The hotel is very nice and has a special rate of \$62 per night. There will be valuable prizes awarded for the race. I will get in to more of the details in the next issue of this newsletter. Start looking for tickets to Mexico City as soon as possible. The summer is the slow time for going to Mexico City and the fares are the lowest. We are going there at the best time of the year, and also if you wait to purchase your tickets at that time, you will pay a premium price for the tickets. It pays to shop and buy early. Make a commitment to go and start preparing. It will be a great experience for you and your spouse. Treat it as a vacation... You will be pleased.

Darrol

District 6 John Fike

12706 Beaverdale Ln, Bowie, MD 20715-3912
(301) 262-1486

April 24 Q500 424 Race at Bowie, MD

Finally, a decent weekend to do some racing. Turnout was a little sparse but we managed a field of flyers to go racing.

Weather was sunny but a little on the blustery side. One thing 424 flyers don't need on the first race of the year is excessive wind. Fortunately, it was directly down the runway so takeoffs and landings were handled with ease. Gene Bass and Chick White seemed to be the hottest of the group and had several races with each other to show their stuff. The wind gusted at times that made the airplanes appear to apply their breaks when they came around pylon 3 and also created enough havoc to produce a lot of cuts on the poles. Throughout the day, it was the steady gathering of points that brought Regis White to the top of the list. Regis did a good job of completing each of his races and kept collecting points as he went. The top 5 flyers of the event were as follows:

- | | |
|----------------------|--------------------|
| 1. Regis White | 4. Warren Gillette |
| 2. Derrick Schreiner | 5. Chic White |
| 3. Gene Bass | |

April 25 (not April 28) Q5AMA 428 Race at Bowie, MD

The weather was a little better on Sunday. Lots of sun and a lot less wind. We yielded a field of 15 flyers and off we went. There were a lot of good heats throughout the day. Gooooood weather for horsepower. We had a few interesting first heats as everyone shook out the cobwebs on their thumbs from the winter. One of the best heats was the flyoff for first place between Rick Moreland and David Binger. Both were flying identical airframes with Edmunds engines. Lap after lap they stayed close. If one bobbed, they both bobbed. They didn't cause the fast time to fall, but you could have thrown a blanket over both airplanes at any time during the heat. David pulled some last lap heroics and cruised across the finish line just barely ahead of Rick. Fast time of the day was awarded to Steve Baker who turned a respectable 1:11.27 with a Nelson. Don Kim held the fast time most of the day with his 1:11:35. Art Edsall posted his career 428 fast time in a shoot out with Moreland in which Art turned a 1:13.29 in a losing effort. That's a little hard to take. The top 5 in the standings at the end of the day were:

- | | |
|--------------------------|----------------------------|
| 1. David Binger 1:16.40 | 4. Warren Gillette 1:22.99 |
| 2. Rick Moreland 1:12.98 | 5. Neil Rehm 1:19.13 |
| 3. Don Kim 1:11.35 | |

Next Topic "The Race Schedule"

Contest Directors: Please check the current listing for races for our district and notify Paul Page if there are any corrections that need to be made. I noticed some races listed that were not submitted to the newsletter by me. (Frank Flesch, Your Jackson

NJ August 8 race does not appear in the schedule. Please notify Paul if it should or should not be listed)

Racers: The April races for Bowie was listed incorrectly and also had the wrong date for the 428 race. Seems pretty peculiar that our 424 race was held on 4/24 and that the following days 428 race was listed as 4/28 instead of 4/25. I'm not sure how it happened, but I probably sent Paul the wrong information. My apologies to all and especially to the CDs Steve Baker and John Albritton. Please cross check our schedule with the AMA magazine as well. Probably not a bad idea to contact the CD and ask questions either.

NOTE: The Bowie race in October should read. October 9 - Q5 (424) October 10 - Q500AMA (428)

JR QUARTER 40 GOLD CUP '99

Let's get ready to ruuummble!!!

Slots are filling up. We are approaching the 40 entry mark and Chic White is ready to accept more. It looks like it is going to be a good time shoot out for all. The field is in terrific shape. Moreland has guaranteed perfect weather and we are getting excited. The dates are MAY 22, & 23. Let me repeat that May 22, & May 23. There is plenty of Gold Cup information to be had through NMPRA.NET and also through the RCAIRPLAINES.COM. **Contact Chic White at (703) 768-6347** for available frequencies and housing.

*Until next time
John*

District 7 Gary Freeman Sr.

1005 Taproot Dr., Winter Springs, FL 32708
(407) 695-1855

Fumes filled the air once again as District 7 was provided a SEMPRA race at the TRACS field in Tampa Florida. Veteran CD, Wayne Smith headed up the event and had everything planned out except the weather, but with dry weather for weeks and weeks, everything should be good to go. Wrong!! Pilots arrived just as it started to drizzle. A couple of pilots test flew in hopes the rain would quit, but unfortunately it only got worse. Wayne called and got the updated weather forecast, which was not good news. Rain all day. A pilot meeting was held and it was agreed to cancel and come back Sunday. Sunday proved to be better weather even though there was a 20-25 mph direct cross wind.. Determined pilots chose to



District News



"DO IT" and do it they did. I have included Wayne's race report. The race had the surprise of NMPRA President Vern Smith and his lovely wife Betsy. Vern spent the weekend with us in the rain and racing on Sunday. Good to see you, Vern.

The next SEMPRA race is scheduled for May 15th and 16th. This race is the reschedule of Brandon Florida's March race that also got rained out. Can't figure it out ... perfect weather for weeks and mention test fly or race and here come the fronts. Oh well, if it were easy, everyone would do it.

I received a call from Brad Clayton who is looking at holding a race in Decatur, Alabama in the September time frame, if the details can be worked out. Brad and his crew put a great race together and the field is an excellent race facility. I'll update the race schedule when the details are confirmed. We also hope South Florida will host a race this year since we always have a good time at the Markham Park field.

TRACS Race report by CD, Wayne Smith

TRAC Pylon Event: On April 17 & 18 TRAC and Morgan Fuels hosted SEMPRA Pylon Racing. For those of you attending and working on Saturday, you know the race got washed away with the rain at about 9:30 a.m. On Sunday, the weather was much better with sunny skies but somewhat breezy conditions. There were 24 participants with 9 participants using the same frequency. This posed a slight problem with the computer matrix so the racing matrix had to be completed by hand. The racing went pretty good for most of the day. There was one mishap between two planes on takeoff, another plane performed a high speed touch with the ground and the ground won, another plane performed a stress test on it's wing tip by hitting a pylon pole, the plane survived but pulled out of the race, and one plane that experienced some type of radio problem that flew off and crashed, but was recovered later. In the Standard Class, two fly-offs were needed to determine all three places. Jason Burnside defeated James Creech in the fly off for 1st Place. Richard Rosenberg finished ahead of Chris Mahnken to take 3rd Place. Richard Rosenberg also had Fast Time for Standard with a 1:24. In the Expert Class, it turned out to be a family affair with Gary Freeman, Jr. taking 1st Place, followed by Gary Freeman, Sr. in 2nd Place, and Tom Pownall finishing in 3rd Place. Dennis O'Brien had Fast Time for the Expert Class with a 1:06. I would like to take this opportunity to thank all of the Pylon Racers for coming and making

this a successful race for them and for the TRAC Club. A special thanks to Morgan Fuels for donating the Omega and Cool Power Fuels used during the race. Our Club Workers also deserve a great deal of thanks for their time and efforts in hosting this race and making it enjoyable for the racing community for without them this event could not be held. TRAC will be hosting another Pylon Race on November 6 & 7, 1999. Hope to see you then.

Gary

District 8 – Randy Ritch

4104 Lark Lane, Houston, TX 77025-5831
(713) 661-5458, E-mail: rrritch@msn.com

The 1999 District 8 race season is now under way and our first race was held at the Space City R/C Club in Houston. This is a very experienced race club and they put on a great race! We had a combined total of 37 paid entries on Saturday and 33 paid entries on Sunday. With all of these entries, there were some very exciting races! Hopefully, with a start like this, it is the indication of a great race year to come.

In early January, we had a meeting to discuss the '99 race season and the major topic of discussion was Quickie. What do we do with our rules? After many discussions and lots of thought, we were all back at square one: Use the same format as last year.

I was just as concerned with our rules as everyone else, and we were all wondering what we were going to do to get NEW PEOPLE. After much discussion/debate/input from several people, we all decided to let the Sportsman type flyers basically "fly what you bring", excluding Jetts, Nelsons, and tuned pipe motors. This was a real eye opener! We went from about 3 entries in '98 (Sportsman class) to 12 entries at our first race in 1999! It really did not matter what motors these guys were racing, they were all about the same speed and all had a good time. We made it simple for everyone and it worked. My opinion is - keep it simple, do not make too many rules (at least for the beginner) and let these new guys get their feet wet and race. After that, if the new guys want to get serious, then it is time for them to move up to AMA Quickie or QM 40. I think we will continue to use this theory as long as it works and we continue to have new people show up. Hopefully some of these guys will become AMA Q500 and QM 40 pilots in the future! Our next race is May 15 & 16

in Ft. Worth, Tx. Some of you out of District guys should show up for this one - it will be a great race!

Until next time, go fast, turn left

Randy

Quarter 40 Barry Leavengood

10855 Remmet Ave, Chatsworth, CA 91311
(818) 998-4564
E-mail: bl10@aol.com

This is the first article, in what I hope will be a long series, I've written for High Performance. I would like to thank Vern Smith for asking me to contribute in this manner to our sport. I would also like to thank Bob Beaudette, outgoing Q40 VP, for his years of effort and contributions to the NMPRA and pylon racing. His will be a tough act to follow.

My wife, caller and ace pit person, Sonia, and I have been racing, primarily in district one, for the last three or four years. We attend about 20 races per year. We started with APRA sports quickie and progressed through 428 and are now running 422 and 428. What a blast!

Just back from the 2nd JR Gold Cup race held at Castle Air Force base in Merced Calif. The weather was great with temperatures in the mid 80's and 5 to 8 mph winds for most of the race.

We were using a set of the new AMA provided portable cages and they are nice. I don't think a Mac truck much less a Q40 could get through them. The pylons were picked up in Muncie by local Calif. flyers Bruce Coffey and Bill Center, thanks guys.

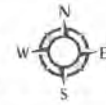
Dave Ferrell, the CD, and the Merced RC club put on a great race. They got the 1st round started about 9 AM and finished 5 rounds on Saturday by 2:30 PM. Sunday started at 8:30 AM and finished by 3 PM or so. There were very few re-flyers or controversial heats which contributed to the fast pace. There were the usual ration of mid-air and such but all in all a very clean well run race.

The Merced RC club hosted a Saturday night Prime Rib banquet complete with a set of interactive jet flight simulators. Sonia and I were unable to attend but by all accounts it was great.

While entries were a little low at 37, the racing was as good as it gets. Most of the best were there. We got in a full 10 rounds spread over two days of some of the tightest racing I've ever seen. Most every race was a



District News



real battle with, in some cases, the winner being determined by the starter due to a virtual tie. The results to 5th place were:

1. Rusty Van Baron	1:01.91
2. Richard Verano	1:02.59
3. Darrol Cady	1:04.07
4. Lee Von Der Hey	1:03.97
5. Chuck Anderson	1:05.38

Fast time and new record goes to Gary Schmidt, 1:01.04.

The JR Gold Cup is a great series. The races are worth a little extra effort to attend. If you turn good numbers it's the best racing you'll find bar none. If you're still learning, like me, you not only get to race the best but it's a great place to pick up tips and get help.

*Till Next Time
Barry*

Quickie 500 - Cliff Telford

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FL 32708 (407) 359-9958 Fax: (407) 359-5063
E-mail: clifftracer@aol.com

The Top Twenty are listed below. The list is heavy with flyers from District 7 because most of the races reported have been in that District (FL) over the winter. The list will change rapidly as flying begins in the Northern climates. Darrol Cady from Washington state leads the list and is the only flyer to have seven races reported. He had to travel out of his district to Mexico, Florida, etc. to earn all of those points. He's going fast and traveling far so the rest of us will have to go to a lot of races to catch him.

	Dist	#races	Pts
1. D. Cady	2	7	622.7
2. G. Freeman Jr	7	6	510.9
3. J. Llanos	7	6	424.2
4. G. Freeman Sr	7	6	399.4
5. D. O'Brien	7	5	362.6
6. V. Smith	6	4	360.0
7. C. Telford	7	5	340.2
8. T. Bogut	7	4	335.3
9. J. Allen	1	3	309.6
10. G. Schmidt	1	3	284.2
11. D. Telford	1	3	278.0
12. E. Ide	2	5	268.8
13. S. Kovach	7	4	266.1
14. T. Pownall	7	4	249.7
15. R. Perez	7	6	246.1
16. T. Strom Sr	2	3	243.1
17. T. Dobyns	7	3	224.5
18. T. Jenkins	7	4	220.6
19. D. Llewellyn	7	5	219.5
20. C. Poulton	7	3	215.7

Cliff

Formula One - Mike Helsel

7 Still Meadow, Round Rock, TX
78664-9607 (512) 244-2133
E-mail:

The '99 NATS will mark a milestone for RC Pylon Racing. It is likely to be the last NATS appearance of Formula 1 Pylon Racing. Formula 1 is the foundation of the sport we all enjoy today no matter which event we fly. I know there are good and bad memories about Formula 1, but without it we would not be where we are today. As with many things, it appears that Formula 1 has run its course and we are now evolving RC Pylon Racing with new events.

I have enjoyed flying Formula 1 for over 30 years and I am saddened to see it slip away, but it is time to celebrate what Formula 1 has meant to RC Pylon Racing, and to retire it in style. To do this I am promoting the Formula 1 event at this years NATS as the "Last Blast".

As part of this celebration I am asking for donations from past and present competitors to make the Last Blast memorable. I have approached a few flyers and collected \$100 from each to provide great awards at the NATS for the Last Blast, as well as a memento for every entry. This donation is a way of expressing appreciation for the enjoyment (and frustration) that we have had with Formula 1. So far I have received donations from: Paul Stenberg, Lloyd Burnham, Bruce Richmond, Darrol Cady, Bill Hager, Henry Bartle, Dave Shadel, Mike Helsel, and Alan Green.

PowerMaster has also agreed to support the Last Blast by providing the first 20 entrants with a gallon of their 65% Pylon Special fuel at the NATS!

So don't waste any time. Dust off that Form 1, enter the NATS and send me a check for \$100 (or whatever you can). The money will be used to pay for special "Last Blast" mementos for everyone entered or donating, and the remainder will be given as awards for the race.

Let's have Formula 1 go out in style,
Mike

Q40 Design

By Lou Rodriguez

Vern Smith makes some interesting statements in the February newsletter regarding Q40 design. The rule book lists dimensional criteria that aircraft must meet. The design review committee is only concerned with "scale fidelity". While Rick Moreland and the design review board may be diligent and cooperative, I see several problems with this review requirement as it currently exists.

I believe that Q40 is the only AMA rule book event that has such a review requirement. Other events list all criteria in the rule book. Why can't the "scale fidelity" criteria be adequately described in the rule book to

allow elimination of the scale police! The system as it exists now is time consuming. Creativity is being thwarted by the red tape of this review process.

I would venture to say that most designs meet both the rules and the intent of the Q40 event. An airplane should be allowed entry at a contest without prior review. If a design seems unacceptable by the CD or by protest from contestants, a review process could then be initiated. An airplane should be allowed entry until such a review would deem the design unacceptable. This is a simple concept of being considered innocent until proven guilty, not the other way around.

There are many quality designs available today. Many of these could accept some cosmetic alterations to provide for an array

of different aircraft types. A "Nemesis", for example, could be modified to resemble a "Rickey Rat" or "Sundowner". A "Midget Mustang" could be easily modified to resemble a "GR-7". These simple modifications would broaden the appeal and move away from the cookie cutter event that Q40 is becoming.

NMPRA is in the business of promoting racing. Keep the emphasis on racing. "Scale fidelity" should be a secondary concern that should not be a bottle neck in the process of building racing airplanes. I would ask Vern Smith, Rick Moreland, Duane Gall, and anyone else interested in this event to move to eliminate the "review" process as a prerequisite to airplane entry at a contest.

District 1 - Dave Ferrell1565 Echo Dr., Merced, CA 95340
209.722.0655

Q5 uses APRA rules

11/8	Phoenix, AZ	Q5,AMA
12/6	Phoenix, AZ	Q5,AMA,Q4
1/16-17	Phoenix, AZ Winterfest	Q5AMA
2/7	Sepelveda Basin, CA	Q5,Q5AMA,Q4
2/27-28	Phoenix, AZ, - JR Gold Cup	Q4
4/11	Merced	Q5,Q5AMA,Q4
4/24-25	Merced, CA - JR Q40 Gold Cup	Q4
5/16	Sepelveda Basin,CA	Q5,Q5AMA,Q4
5/29-30	Whittier, CA	
6/12-13	Sepelveda Basin	Q5,Q5AMA,Q4
7/2-3	Reno, NV	Q5,Q5AMA,Q4
9/4-5	Modesto	Q5,Q5AMA,Q4
10/3	Merced	Q5,Q5AMA,Q4
10/24		Q5,Q5AMA,Q4

District 2 - Darrol Cady10711 NE 37th Ct, Vancouver, WA 98686
360.573.0987

Q5 uses APRA rules

11/01	Kent, WA.	Q5,Q5AMA
2/6-7	Puyallup Expo - Fair Grounds	
2/14	Kent, WA - Hawks	Q5,Q5AMA
3/7	Kent, WA - Hawks	Q5,Q5AMA
4/4	Kent, WA - Hawks	Q5,Q5AMA
5/2	Kent, WA - Hawks	Q5,Q5AMA
6/5-6	Arlington	Q5,Q5AMA,Q4
6/26-27	Whidbey Island, WA Al Watson 425.746.9519	Q5,Q5AMA,Q4
7/24-25	Spokane, WA - Barons	Q5,Q5AMA,Q4
8/14-15	Ephrata, WA Matt Mikko 253.863.6478	Q5,Q5AMA,Q4
9/18-19	Spokane, WA	Q5,Q5AMA,Q4
10/2-3	Kent, WA - Championship	Q5,Q5AMA
11/7	Kent, WA - Hawks	Q5,Q5AMA

District 3 - Terence Palaschuk39 Tremaine Ave, Regina, Saskatchewan S4R 6N6, Canada
306.585.1465 E-mail: tpchuk@sk.sympatico.ca

5/15-16	North Battleford, Sask.	Practice
6/5-6	Regina, Sask.	Q5,Q4,F1
6/26-27	Calgary, Alberta	Q5,Q4
7/24-25	Swift Current, Sask.	Q5,Q4
8/14-15	Prince Albert, Sask.	Q5,Q4
8/28-29	Saskatoon, Sask.	Q5,Q4
9/18-19	Winnipeg, Manitoba - tentative	Q5

District 4 - Mike Sperry1614 11th St, Cody, WY 82410
307.587.5870

11/14	UVA field-Regis	Q5
	John Sheely	
11/21	UVA field	1/2A
	Bill Cowley	
5/8	Utah Valley Aeromodelers	Q5
5/10	UVA	Q5
5/18	Mead, NE	Q5SE,Q5AMA
5/22	UVA	1/2A
5/23	Council Bluffs, IA	Q5SE,Q5AMA
5/24	UVA turf farm	1/2A
6/12	UVA	Q5
6/26	UVA	1/2A
6/27	Mead, NE	Q5SE,Q5AMA
7/10	UVA	Q5

7/24	UVA	1/2A
7/25	Council Bluffs, IA	Q5SE,Q5AMA
8/7	UVA	Q5
8/28	UVA	1/2A
8/29	Mead, NE	Q5SE,Q5AMA
9/11	UVA	Q5
9/23	UVA	1/2A
9/26	Council Bluffs, IA	Q5SE,Q5AMA
10/9	UVA	Q5
10/23	UVA	1/2A
11/6	UVA	1/2A
11/13	UVA	Q5

District 5 - Pete Bergstrom7526 Balfour, Allen Park, MI 48101
313.928.8260 E-mail: pbergstrom@email.msn.com

5/3	Rockford, IL	Q5
	Orv Steinmetz 815.885.1161	
5/17	Rockford, IL	Q5AMA
	Glen Wierschke 815.234.3285	
7/19	Rockford, IL	Q5
	Mark Boesen 815.877.3912	
8/16	Rockford, IL	1/2a
	Dick Shields 815.398.8366	
9/11-12	Dayton, OH JR Gold Cup	Q4
9/13	Rockford, IL	Q5
	Leroy Webb 815.389.4519	

Distict 6 - John Fike12706 Beaverdale Ln, Bowie, MD 20715-3912
301.262.1486 E-mail: jfike@feico.com

4/18	Jackson, NJ	Q5AMA
	John Zanghi 732.364.7637	
4/24	Bowie, MD	Q5
	Steve Baker	
4/25	Bowie, MD	Q5
	John Albritton	
5/2	Hadley, MA	Q5SE
	Dave Fogg 413.593.3581	
5/2	Jackson, NJ - GPRA	Q5
	Frank Flesch 732.929.8205	
5/16	Colts Neck, NJ - GPRA	Q5
	George Schmauch 732.238.2551	
5/22-23	Bowie, MD - JR Gold Cup	Q4
	Chic White 703.768.6347	
6/6	Farmington, CT	Q5SE
	Pete Reed 860.673.7883	
6/12-13	E. Hartford, CT-PWA-Mason Dixon	Q4
	Lloyd Burnham 860.644.9072	
6/19-20	Defence Hill, NY	Q5BSE
	Vince Juliano 516.744.8884	
6/27	Jackson, NJ - GPRA	Q5
	Frank Flesch 732.929.8205	
7/25	Colts Neck, NJ - GPRA	Q5
	John Zanghi 732.364.7637	
7/31-8/1	Bowie, MD - Mason Dixon	Q5AMA
	Rick Moreland 301.261.7366	
8/7-8	Ellington, CT	Q5SE
	Kevin Cyr 860.871.8316	
9/12	Hadley, MA	Q5SE
	Dave Fogg 413.593.4581	
9/19	Jackson, NJ - GPRA	Q5
	Frank Flesch 732.929.8205	
9/25-26	E. Hartford, CT-PWA-Mason Dixon	Q5AMA
	District Championship	
	Lloyd Burnham 860.644.9072	
9/26	Colts Neck, NJ - GPRA	Q5
	George Schmauch 732.238.2551	
10/3	Jackson, NJ - GPRA	Q5
	Frank Flesch 732.929.8205	
10/9	Bowie, MD	Q5

	Derrick Schreiner	
10/10	Bowie, MD	Q5AMA
	Dan Myer	

District 7 -Gary Freeman Sr.1005 Taproot Dr., Winter Springs, FL 32708
407.695.1855

	Q5 is SEMPRA Sport Pylon	
12/13/98	Tangerine	Q5AMA
12/14	Tangerine	Q5
4/17-18	Tampa, FL TRACS	Q5
	Wayne Smith 813.621.4051	
5/15-16	Brandon, FL	Q5,Q5AMA
	Lucien Miller 813.985.3688	
	Season Ends	
11/7-8	Tampa, FL TRACS	Q5
	District Championship	
	Wayne Smith 813.621.4051	
11/20-21	Jacksonvill, FL Gateway	Q5
	Pete Rickard 904.826.3608	
12/11-12	Tangerine - JR Gold Cup	Q4
12??	Tangerine	Q5

District 8 - Randy Ritch4104 Lark Ln, Houston TX 77025-5831
713.661.5458 E-mail: rrritch@msn.com

4/24-25	Houston, TX Space City R/C
5/15-16	Fort Worth, TX Thunder Birds
6/5-6	Houston, TX Bayou City Flyers
8/21-22	Seguin, TX Tri City Flyers
9/25-26	Dallas, TX Dallas R/C
10/9-10	Brazoria, TX County Modelers

(1) one race per race date, (2) separate race(s) each date, (?) Tentative, (B) Beginner, (S) Standard, (E) Expert, (AMA) AMA 428
(Q5) District rules unless otherwise noted
Example: Q5SE,AMA - Q500 Standard and Expert

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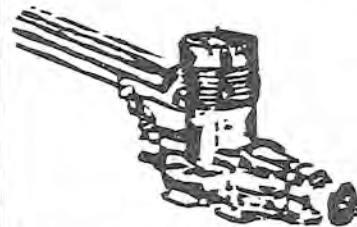
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