

FLYING LINES



NEWS OF NORTHWEST CONTROL-LINE MODEL AVIATION

1073 Windemere Dr. NW, Salem, OR 97304

Editor: Mike Hazel

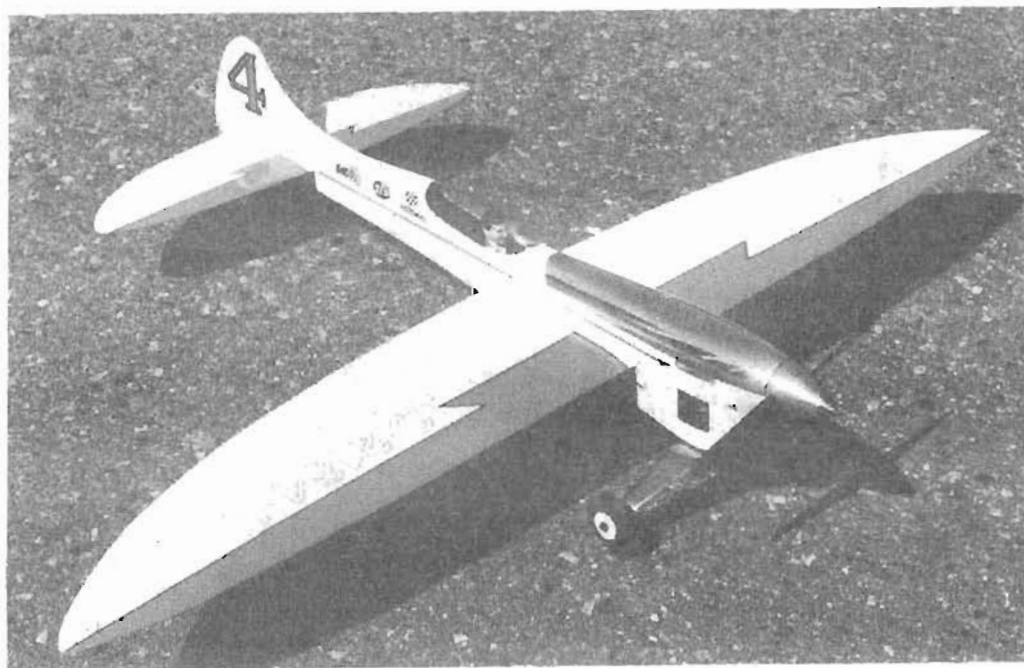
MAY 1995
ISSUE #122

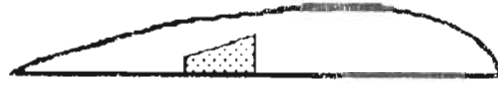
SPECIAL NORTHWEST RULES ISSUE

IN THIS MONTH'S EVER EXCITING PUBLICATION:

- * CURRENT RULES FOR NW EVENTS
- * CONTEST RESULTS
- * UPDATED NW RECORDS SUMMARY
- * ROUND & ROUND, BY JOHN THOMPSON
- * MUCHO PHOTOS
- * PLUS MORE REALLY SWELL STUFF

PICTURED BELOW IS CHRIS SACKETT'S .21 PROTO SPEED SHIP. POWER IS A NOVA-ROSSI .21 ENGINE. MODEL IS FINISHED WITH K&B PURPLE AND WHITE EPOXY. BE WATCHING FOR MORE OF THESE AS THE EVENT SEEMS TO BE CATCHING ON. MANY IN THE AREA ARE TALKING ABOUT BUILDING ONE. RULES FOR THIS EVENT ARE INCLUDED HEREIN.





Hello again. As you will see when thumbing through this issue, we have dedicated this issue to covering our regional rules. In the past this has been done on a piece meal type basis, and we thought it might be good to have all of them in one place. Be sure to save this issue. (you do save your issues anyway, don't you?)

Speaking of rules, discussion is still on regarding NW Goodyear. Please see John's Round & Round column for more thoughts on this.

If you are going to enter the AMA CI Nationals, then you better get your entry sent in before too long. The late entry charge is kind of stiff. All information and forms are of course available from AMA HQ.

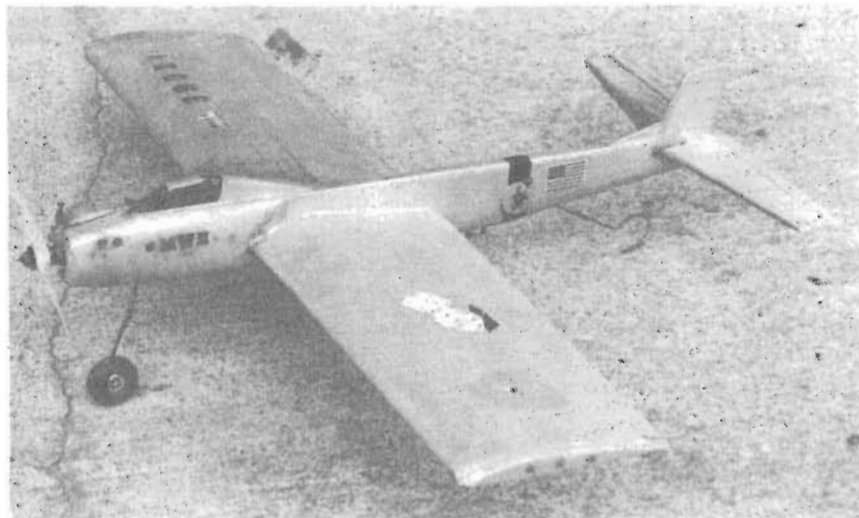
After the NW Regionals, the next significant meet is the Stuntathon in Kent, Wash. (check contest calendar for info). Stunt legend Bob Palmer is scheduled to be there, after an on-again, off-again sort of status. Wish we had a contest flyer to include in this issue for more details, but the Seattle Skyriders did not seem to think it important to get one to us!

SUBSCRIPTION EXPIRATION DEPARTMENT: Kirby Soike, Dave Finnie, Howard Rush; this issue #122 is your last one. Please renew soon, so you won't miss the soon upcoming Regionals issue.

This is Todd Ryan's Formula 40 speed ship. Features inverted engine configuration. Landing gear is bolted to the cylinder head. Power is K&B 6.5 cc, and a fiberglass 8 x 7 prop is used. Todd broke the Senior age category AMA record for this class at the CBBB May contest. The speed turned was 132.79 mph. Congratulations!



The scourge of the carrier deck. This is the editor's ancient carrier bird, the "Cro-Magnon Air Force One". Plane was built in 1976, and continues (just barely) in competition. Very ugly, but also very reliable and predictable, which are desirable traits.



NORTHWEST FLYING CLOWN RACE

1. PURPOSE: This event is intended for all fliers and pit crews interested in a simple racing event which uses a common aircraft, emphasizes both speed and economy, and encourages the use of a wide variety of engines.

2. All AMA control-line unified racing rules apply, except as follows:

2.1. Pull test is 25 pounds. Lines are .015 stranded steel. Length is 52 feet, plus or minus 6 inches, measured from the center of the handle to the fuselage.

3. Engine: Any design or make of piston engine is allowed, except that maximum engine displacement is limited to .19 cubic inches. Modifications are not restricted within the limits of the AMA safety code.

4. Fuel tank: Any design of fuel tank is allowed, including pressure systems, except that fuel capacity is restricted to 1 ounce. The fuel tank shall be fully external of the plane, on the outboard side of the fuselage, and entirely in front of the leading edge.

5. Fuel: Glow fuel shall contain a maximum of 10 percent nitromethane with 20 percent lubricant and the rest methanol. Glow fuel will be supplied by the contest management. Diesel engines may use diesel fuel.

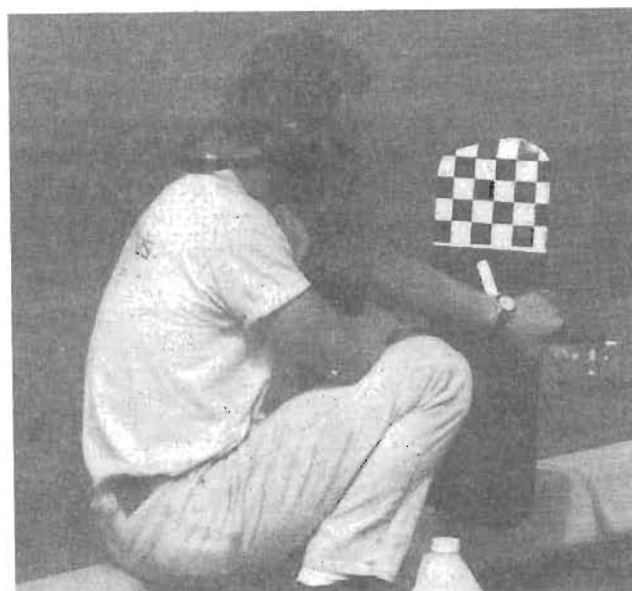
6. Aircraft: The only aircraft allowed is the PDQ Flying Clown or faithful replica. Changes to the planform, profile, or wing thickness are prohibited. Wheels must be at least 1 inch in diameter, and be spaced laterally about 7 inches.

7. No hot gloves, fast fills, or trick pitting equipment is allowed.

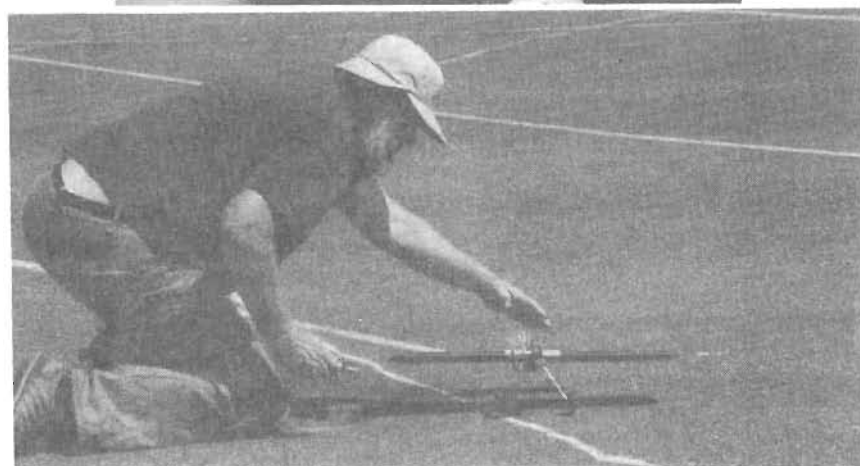
8. Races: All preliminary heats and the final race will be timed for 15 minutes from start to finish. The contestant with the most laps wins.

jmt/cbbb/FL/rev:6-10-94

Todd Fischer doing some ground running with his Clown Racer entry. Note the proper orientation of fuel tank for test running: plane is held so that outside of fuel tank is down. This is the way the plane sees it when it is flying.



Joe Just of the J & J racing team releases his Clown Racer. (More action from the May Richland meet).



RULES FOR NORTHWEST 80MPH COMBAT
(Provisional)

1. **PURPOSE:** It is the intent that this event will provide a form of combat that is slower, more relaxed, and less destructive to equipment than all-out AMA combat events.
2. All rules for AMA (fast) combat shall apply except as follows:
3. **ENGINES:** Any engine up to .40 displacement is permitted.
4. **AIRPLANES:** Each contestant is limited to two airplanes total for the contest. If a contestant has only one airplane of his own and destroys it, he may borrow a second airplane. No third airplane shall be allowed.
5. **ADVANCEMENT:** If a contestant has destroyed all his airplanes, he cannot advance any further in the contest. If a contestant who would otherwise advance has run out of airplanes, the last contestant he defeated shall advance in his place.
6. **SPEED LIMIT:** The airspeed limit for all contestants shall be 80 mph, which is defined at 6.43 seconds for a two-lap period at 20-foot height. No devices capable of varying the speed of the airplane in flight, such as throttles or carburetors adjusted by elevator trim, are allowed.
7. **MATCH PROCEDURE:** Flying of matches shall be exactly the same as in AMA combat except as follows:

Airspeed timing:

The first airplane to launch will be timed for two laps after the first full lap, at a height of approximately 20 feet (brief deviations in height for safety reasons are permitted). If the time for those two laps is greater than 6.43 seconds, the airplane will be judged eligible to compete. Pilots must keep the plane near the 20-foot height; failure to do so will delay timing.

If the second airplane launched appears to the circle marshal to be slower than the first plane, after the first plane has been declared eligible, the circle marshal may waive the timing of the second plane and signal the start of combat. If the second plane appears equal to or faster than the first plane, the circle marshal may time the second plane as well before beginning combat.

In the case of a simultaneous launch, the faster airplane will be timed.

Airplanes will not be timed on successive launches in the same match, unless the circle marshal has reason to believe that a plane has passed the 80mph speed limit. The circle marshal retains the right to stop combat at any point and re-time any airplane that appears to have passed the 80mph speed limit.

Exceeding the speed limit:

If, on the initial launch, a plane is judged to be flying in excess of the 80mph speed limit, that plane's airtime watch will be cleared, and airtime will not be counted until the plane is judged to be consistently flying below the airspeed limit; combat will not be started until both airplanes are within the speed limit. If a plane is judged to exceed the limit at sometime during the match — after the initial timing — the airtime watch will be stopped and not restarted until the plane is judged to be consistently flying below the speed limit; combat will be stopped until both planes are below the speed limit.

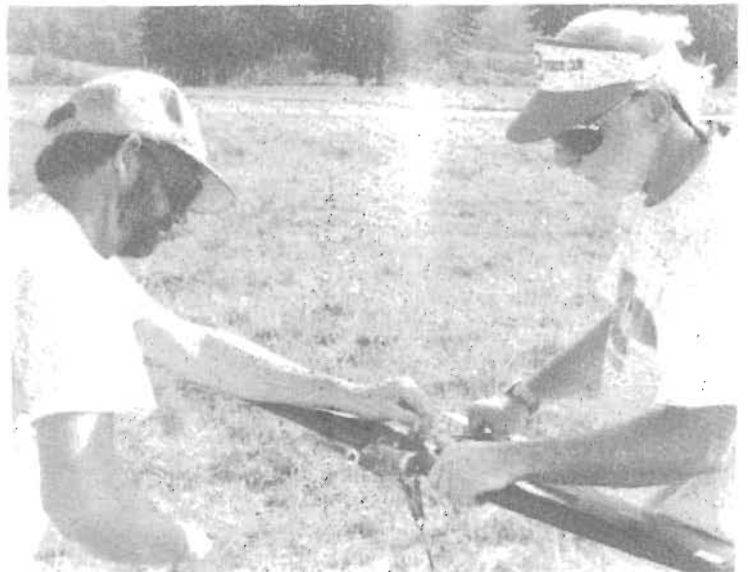
8. **SCORING:** Per AMA Combat.

For information, contact: John Thompson, 295 W. 38th Ave., Eugene, OR 97405

jmt/FL/1-21-94/rev:2-18-94/6-10-94

Jeff Rein fires up his Combat entry at the '94 Raider Roundup. Buzz Wilson holds.

(Jim Cameron photo)



NORTHWEST CL CONTEST CALENDAR

THE FOLLOWING LISTING IS A SUMMARY OF ALL KNOWN A.M.A. AND M.A.A.C. SANTIONED EVENTS AS OF 5-20-95. FOR FURTHER INFORMATION, PLEASE CONTACT THE INDIVIDUAL LISTED. CONTEST DIRECTORS AND CLUB LEADERS ARE ENCOURAGED TO CONTACT FLYING LINES AS SOON AS POSSIBLE WITH THEIR PLANS, INCLUDING ANY REVISIONS.

JUNE 17, RICHLAND, WASHINGTON

EVENTS: OLD TIME STUNT, GX COMBAT
SITE: BURBANK SCHOOL CONTACT:
DAVID THOMPSON (509) 662-5401
SPONSOR: COLUMBIA BASIN BALSABASHERS.

JUNE 24 & 25, KENT, WASHINGTON

JIM PARSONS MEMORIAL
STUNTATHON CONTEST

EVENTS: PRECISION AEROBATICS- PAMPA
CLASSES, OLD TIME STUNT, CLASSIC
STUNT, MYSTERY EVENT. SITE: BOEING
FIELD CONTACT: BOB EMMETT, 17972
W. SPRING LAKE DR, RENTON, WA 98055
(206) 432-5808 SPONSOR: SEATTLE
SKYRAIDERS

JULY 8-16, RICHLAND, WASHINGTON

A.M.A. NATIONALS FOR CL

JULY 29 & 30, RICHMOND, B.C.

P.A.C. INVITATIONAL

EVENTS: FLYING CLOWN RACE, .15 SPORT
RACE, NW SPORT RACE, OLD TIME STUNT,
PRECISION AEROBATICS. SITE: RICE MILL
ROAD CONTACT: ???HELLO? SPONSOR:
PACIFIC AEROMODELLERS CLUB

AUGUST 19, RICHLAND, WASH.

EVENTS: 1/2 A COMBAT, GX COMBAT
SITE: BURBANK SCHOOL CONTACT:
DAVID THOMPSON (509) 662-5401
SPONSOR: COLUMBIA BASIN BALSABASHERS

SEPT 2 & 3, COQUITLAM, BC

VGMC CAN-AM SPEED
CHAMPIONSHIPS

EVENTS: ALL CLASSES OF SPEED
SITE: UPPER COQUITLAM RIVER PARK
CONTACT: BRUCE DUNCAN, PO BOX 58037,
STN. 1, VANCOUVER, BC V6P 6C5
(604)855-7295 FAX (604) 855-7285
SPONSOR: VANCOUVER GAS MODEL CLUB

SEPT 16 & 17, KENT, WASHINGTON

1995 RAIDER ROUNDUP

EVENTS: AMA RECORD RATIO SPEED, NW
RECORD RATIO SPEED, CLASS I MOUSE
RACE, FLYING CLOWN RACE, NW SPORT
RACE, NW SUPER SPORT RACE, NW
GOODYEAR, BALLOON BUST, .15 CARRIER,
PROFILE CARRIER, CLASS I & II CARRIER
(COMB.), PROFILE SCALE, SPORT SCALE,
OLD TIME STUNT, CLASSIC STUNT,
PRECISION AEROBATICS (BEG/INT)(ADV)
(EXP) SITE: BOEING SPACE CENTER FIELD
CONTACT: DAVE GARDNER, 17210
109TH PLACE SE, RENTON, WASH 98055
(206) 226-9667 SPONSOR: SEATTLE
SKYRAIDERS

OCT 7 & 8, RICHLAND, WASH.

DESERT CARRIER BASH

EVENTS: PROFILE CARRIER, .15 CARRIER,
CLASS I & II (COMB) CARRIER, OLD TIME
STUNT, & TENTATIVE RACING EVENTS.
SITE: HORN RAPIDS ATHLETIC COMPLEX.
CONTACT: JOE JUST (509) 837-5983
SPONSOR: COLUMBIA BASIN BALSABASHERS.

OCT 21 & 22, EUGENE, OREGON

REALLY RACING & FALL FOLLIES

1993 RULES FOR NORTHWEST GOODYEAR RACING

(Provisional)

1. Purpose: It is the intent that this event will provide a form of Scale Racing similar to the AMA Scale Racing (Goodyear) class but without the expense and high speeds required in that class.

2. All rules for AMA Scale Racing shall apply except as follows:

3. ENGINES: The following list of .15-size engines are those permitted in this event. The engine used shall be a standard production unit; no prototypes or "factory specials" are allowed.

Fox: Any version.

K&B: Any version.

Cox: Any version.

Conquest: Any version from K&B, Cox or RJL

O.S.: Any version.

Supertigre: Any front-intake version

Enya: Any version.

Engine reworking is permitted, providing that all major engine components are from the original manufacturer. (No hybrids or scratch-built major engine components permitted.)

4. Lines shall be 60 feet long, plus or minus 6 inches. Lines shall be .014" single strand lines (per AMA rulebook) or .015 multistranded.

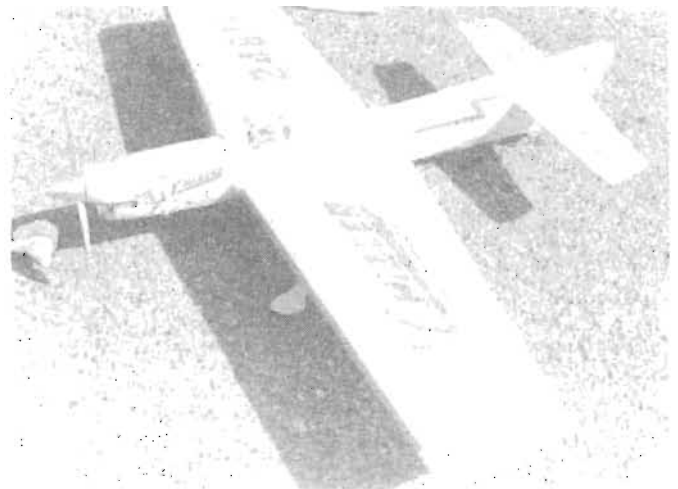
5. Pull test will be 25 pounds.

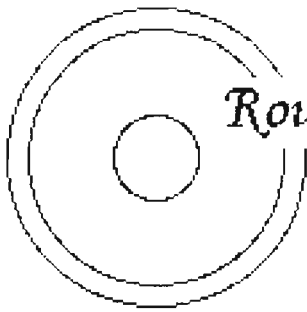
FOR INFORMATION contact Mike Hazel, 1073 Windemere Dr. N.W., Salem, OR 97304.

mwh/jmt 3-27-93

From the '94 Roundup, this is Joe Dill's classic stunt design. The "Chizler", by Dick Mathis, circa 1964. Hey Joe, when are you going to renew?

(Jim Cameron photo)





Round and Round

The Control-Line
modeler at large

By John Thompson

Rules: Some food for thought

The contest season is under way, and it's a great feeling.

I don't know where it started for you, but for the Nitroholics Racing team it started in Richland on May 6-7. A great chance to dust off the planes, shake the cobwebs out and snag a couple more trophies.

Best of all, it's a chance to re-establish all those friendships that build up over the course of many seasons of competition. And the Richland gang always puts on a good contest. They're pretty good at arranging for contest weather, too.

It's also a blast to watch some of the real up-and-coming competition teams at work. Todd Ryan and dad Mac are clearly a class act in both racing and carrier. We understand that Mac does the building and Todd is the engine wizard as well as pilot. These guys are getting very good at every racing and carrier event. Likewise the Cleaver Team. Jeff and Jim Cleaver and Todd Fischer are clearly forces to be reckoned with in racing as well as speed. And young Euan Edmonds, assisted by able pitman and dad Charlie Edmonds, are gaining skills rapidly, as is fast-developing pilot Julie Rice.

As often happens, the conversation at the Saturday night banquet turned to rules. This time the subject was racing and some pretty good ideas emerged. Mostly the events under discussion were Northwest Goodyear and Flying Clown Race. The ideas are as follows. Contribute your ideas to the discussion. Eventually, these ideas may become law — you want to make sure your input comes before, not after, any changes may be made.

Item No. one was Northwest Goodyear engines. You will recall from previous FL issues that it has been proposed that two more engines be added to the list: the

Moki .15 Sport and the CS .15 Sport. These are both pretty good engines that can be purchased fairly cheaply.

They also run strong: The Ryans were using the Moki in Richland and it was impressive for \$52.

Discussion at the round table (no, actually it was a long and rectangular table) settled on the point that it isn't the speed of the engines that matters, it's their availability to the common flier on a budget. Both of the suggested additions to the list are good competitive choices and cheap. If we use a \$100 purchase as a rough guide to what ought to be legal, then maybe we ought to add these two engines and phase out the Conquest, which is now over the century mark in price.

Then again, what of Northwest Goodyear in general? This is an event that pretty much duplicates AMA Goodyear in everything except cost of engine and a few miles per hour. Do we need such a "sport" event when we already have Northwest Sport Race and the rapidly growing Flying Clown Race?

Clown uses pretty much the same engines and is not a duplicatory event. There are some different challenges and some different strategic considerations.

Not that Clown is perfect, but it's a good concept. A little bit of fine tuning could make it even better than it already is, which is pretty good. We've suggested a length differential for heats and features — perhaps a 5-minute heat and the already established 15-minute feature (they're all 15 minutes now). Also, a closer look at the diesel question: Should they be banned, or required to run standard fuel, or have a different tank size (one suggestion is 1/2 ounce)?

Here's one opinion: I think we should phase out Northwest Goodyear altogether over the next year or so, and shift attention to Clown and back to Sport Race.

With AMA Goodyear a lightly attended event in the Northwest, the current crop of NWG planes would be competitive as is, or could be retrofitted with AMA power plants. That would bolster the AMA event, while getting rid of a redundant sport event. It also would clear time on contest schedules for Clown Race, as some have hoped could happen.

What do you think? Don't let others decide for you: Make your feelings known.

Comments or contributions to the Round & Round column can be sent to John Thompson at 295 W. 38th Ave., Eugene, OR 97304. E-mail at JohnT4051@aol.com. Make sure to mention that your contribution is for Round & Round.



The Flying Flea Market

Classified advertisements — FREE for FL subscribers

FOR SALE: CUSTOM CONTROL LINE HANDLES, \$40.00. ALSO, LARGE SELECTION OF MODEL MAGAZINES (2500+) FROM 1946 TO PRESENT CALL MARK WAHLSTER, (503) 873-3775.

FLYING LINES SUBSCRIBERS: THIS SPACE IS FOR YOU! SEND IN YOUR AD FOR SELL, SWAP, OR NEEDS. ADS RUN TWO ISSUES, UNLESS OTHERWISE REQUESTED. CHANGE AT ANY TIME.

WANTED: GASKET SET FOR 1963 FOX .59 SHORT SHAFT. AL LIKELY, 9722 200TH, KENT, WA 98031 (206) 859-7776

FOR SALE: FASCAL - CLEAR AIRPLANE COVERING FOR EITHER FOAM OR OPEN FRAMES. IT HAS STICKY ADHESIVE, SO IT'S ALSO GOOD FOR ON-FIELD REPAIRS. WORKS WITH HIGH OR LOW HEAT, AND CAN BE PAINTED. A MUST FOR COMBAT FLIERS. PRICE IS 75 CENTS PER FOOTS, PLUS SHIPPING. I'LL DELIVER IT AT CONTESTS IF CONTACTED IN ADVANCE. WRITE JOHN THOMPSON, 295 W. 38TH AVE., EUGENE, OR 97405, OR E-MAIL 73473,1407 COMPUSERVE COM. NO PHONE ORDERS PLEASE.

WANTED: KIT PLANS FOR TOP FLITE GIESKE NOBLER. I NEED THIS FOR AN OVERSEAS FRIEND. MIKE HAZEL, 1073 WINDEMERE DRIVE NW, SALEM, OREGON 97304

BUY/SELL/TRADE: MODEL MAGAZINES AND SPECIAL INTEREST GROUP NEWSLETTERS. SEND S.A.S.E. FOR LIST. JOHN THOMPSON, 295 W. 38TH AVE., EUGENE, OREGON 97405

FOR SALE: JIM WALKER "U-REELY" HANDLE W/ SOLID LINES (ORIGINAL?) \$12.50; 2 EARLY McCOY SPORT ENGINES: RINGED PISTONS, ONE IS .19, OTHER .29 WITH REAR MOUNT TANK, \$55.00 EACH; TAIPAN .15 AND .21 (FRONT INTAKE, SCHNURLE, BB CRANK, .15 IS REAR EXHAUST) \$65.00 EACH; ALSO 23 WOOD SPEED PROPS 5.5 TO 6 DIAMETER AND 6.75 TO 10 PITCH, NEW, ALL FOR \$6.00 RICHARD KULAAS, 815 YAKIMA STREET, WENATCHEE, WA 98801 (509) 663-4874



Racing action at the CBBB May contest. Jason Just (left) prepares for launch, Euan Edmonds waits on ground for pit stop, and Todd Fischer motors on for some laps.



Charles Edmonds puts out a hand to stop Euan's Mouse racer for pit stop. Design looks like the popular Streaker.

RULES FOR NORTHWEST .15 CARRIER

(Provisional)

- 1. PURPOSE:** It is the intent that this event will provide an entry level Navy Carrier competition using a simple airplane.
- 2. AIRPLANES:** Any model is allowed; it is not required to be a model of a full-scale aircraft. Working functions are strictly limited to throttle, hook and elevator; no working flaps, ailerons, rudder, etc. The tail "wheel" may be a non-moving hook.
- 3. ENGINES** are limited to .15 displacement. Muffler pressure is allowed. Mufflers are recommended but not mandatory.
- 4. LINES,** as measured from the center of the handle's grip to the center line of the aircraft, must be between 52 feet and 52 feet, 6 inches, with a diameter of .012 inch or larger.
- 5.** All AMA general rules, control-line rules and Navy Carrier rules shall apply unless specifically addressed above.

For information, contact: Orin Humphries, 19805 48th Ave. W., #A101, Lynnwood, WA 98036

oh/jmt/4/16/93

Todd Ryan proudly displays his NW record holder .15 Carrier ship. He just bumped up the record again in Richland.



80 MPH Combat winners at the '94 Raider Roundup: (left to right) 1st) Tim Strom, 2nd) Gary Harris, 3rd) Jeff Rein. This event is becoming much more popular in the NW than the AMA Slow event.

(Jim Cameron photo)





21 PROTO RULES

THIRD DRAUGHT, JANUARY 1994

OBJECTIVE: It is the purpose of 'New Proto' to fly semi-scale, realistic airplanes in C/L speed competition. Proto speed models need not be scale models however true scale subjects are highly encouraged.

DESIGN; The model must have a full fuselage and rudder. Butterfly type stabilizers are not acceptable unless it is a true scale model. The engine can be mounted upright or inverted only with no 'sidewinder' type installations. A model with a small fuselage and helmet cowl used on traditional speed model designs is not acceptable. The model must have a cockpit or cabin as laid out in specifications following. No pod and boom fuselages, flush or prone cockpits or flying wing designs will be accepted unless they are actual scale models of full size craft.

The engine must be fully cowled except in the case of a scale model. If the builder wishes, the glow plug or head fins may be exposed. Wing area enclosed in the fuselage will be considered but area of fillets shall not be counted. The model must be colorfully painted, with no all clear finishes.* The entrants AMA or MAAC license must be permanently affixed to the upper right-hand wing surface at least 1" high and prefixed with either 'N' (USA) or C,CF (Canada) *Clear areas of finish must not exceed 20% of the total models surface area (Wing, stabilizer, fuselage, rudder)

AIRPLANE SPECIFICATIONS: The model shall have a minimum of 125 square inches of wing area; The stabilizer must be a minimum of 25% of the wing and the rudder shall be a minimum of 5% of the wing area. The minimum wingspan shall be 24" or 16" for a biplane. The minimum distance from the trailing edge of the wing to the leading edge of the stabilizer must be 5". The model must have a clear canopy, a minimum dimension of 4" in length by 1" high and 1" wide and shall house a scale pilot with a minimum of 1" in height. (Williams Brothers type or equivalent) The landing gear must be of the fixed type and similar to a real airplane. The main landing gear shall consist of two wheels spaced at least 6" apart between wheel centers. Wheels must have a minimum diameter of 1½". The wing and stabilizer must be of equal span with no asymmetry, maximum deviation is ¼". The weight limits of the aircraft (dry) shall be 20oz minimum and 30oz maximum.

ENGINE, PROPELLOR AND FUEL SYSTEM: The engine shall have a maximum size in displacement of .2135 cubic inches. An open exhaust or mini pipe type exhaust system only. A mini pipe cannot be longer than 6 inches from the centerline of the engine bore to the end of pipe. The inside diameter of the pipe shall be of constant size. Any fuel system is acceptable and the use of a shutoff is encouraged. Only standard two bladed propellers are acceptable either wood or composite.

FLYING LINES: Only two wire type control systems are acceptable. Minimum two wire size shall be (2) .018" x 60'-0". The minimum wing tip separation of the lines shall be .20". The model and control system shall be subjected to a 32q pull test.

FUEL: Fuel shall be of standard composition containing 10% Nitro Methane, 20% lubricants and 70% Methanol. The fuel will be supplied by contest management.

DISTANCE OF TIMED COURSE: The model will be timed from the instant the model is released from takeoff for 14 laps (1 mile). The flyer will be allowed $1\frac{1}{2}$ full laps to get model airborne before entering the pylon. Any attempt to whip the model more than is necessary to get airborne during the first lap shall constitute a foul and the flight will be DQ.

JUDGING ; All models will be lined up where an experienced panel of three judges will place them in order of appearance from best to worst. The model aircraft will be inspected and judged upon REALISM, CONSTRUCTION and FINISH and models will receive points based on the following formula;

$$\frac{3}{\text{number of entries}}$$

That is the three divided by the number of entries, with each model receiving points according to its position.

EXAMPLE:

Six entries divided into three equals .5 stagger of points from best to worst where the best model would get the maximum three points, 2nd would receive 2.5 points, 3rd would receive 2 points, 4th-1.5, 5th-1 point and 6th-.5 . This works for any number of entries ,the more the entries the tighter the competition. Points are rounded out to the 100th.

SCORING; Each contestant uses their best Proto speed time in MPH converts that time to points and adds in the appearance points for the final tally,

EXAMPLE;

' Joe Speedster': PROTO SPEED TIME : 121.21 MPH
: APPEARANCE POINTS: 1.5

TOTAL 122.71 POINTS

RECORDS; All records local or national will be expressed in the actual Proto speed time of the model only.

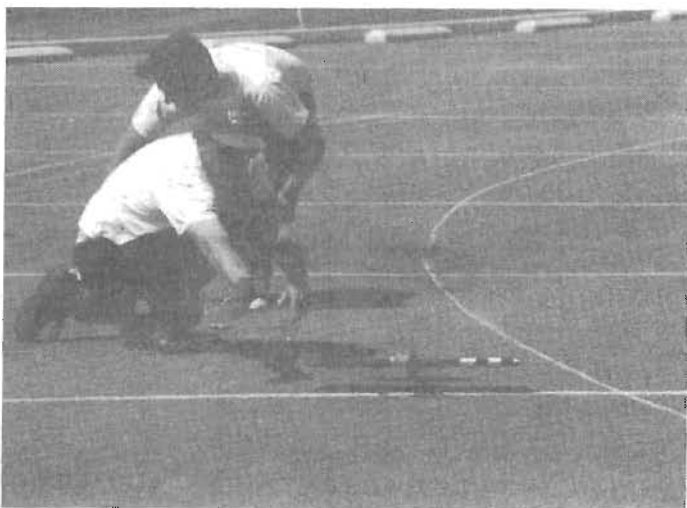
HANDY 21 PROTO APPEARANCE POINTS GUIDE

		(number of entries)														
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
judged position)	1st	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3
	2nd		2	2	2.25	2.4	2.5	2.57	2.63	2.67	2.7	2.73	2.75	2.77	2.79	2.8
	3rd			1	1.5	1.8	2	2.14	2.25	2.33	2.4	2.45	2.5	2.54	2.57	2.6
	4th				.75	1.2	1.5	1.71	1.86	2	2.1	2.18	2.25	2.31	2.36	2.4
	5th					.60	1	1.29	1.5	1.67	1.8	1.91	2.0	2.08	2.14	2.2
	6th						.50	.86	1.13	1.3	1.5	1.64	1.75	1.85	1.93	2.0
	7th							.43	.75	1	1.2	1.36	1.5	1.62	1.71	1.8
	8th								.38	.67	.90	1.09	1.25	1.38	1.5	1.6
	9th									.33	.60	.82	1	1.15	1.29	1.4
	10th										.30	.55	.75	.92	1.07	1.2
	11th											.27	.50	.69	.86	1
	12th												.25	.46	.64	.8
	13th													.23	.43	.6
	14th														.21	.4
	15th															.2

RULES FOR NORTHWEST SPORT RACE

1. **Purpose:** It is the intent that that this event will provide the novice competitor a beginning racing event, racing with other competitors using similar equipment which is readily obtainable and operates in a basic fashion.
2. All pertinent rules from AMA unified racing rules shall apply, in regard to safety and conduct of races, except as follows.
3. **Engine:** The only allowed engine shall be the Fox stunt .35, which shall be a stock, unmodified engine operated on suction feed. ("Stock" is defined as absolutely unmodified except for needle valves and spray bars.) No exhaust extensions are allowed except bona fide mufflers that do not increase engine performance. The Fox Manufacturing Co. hemi/stuffer kit modification is **prohibited**.
- 4.1. **Aircraft:** The model shall be built from, or an exact duplication of, a commercially manufactured kit. In the case of obscure or rare kits, some documentation, such as a set of plans, may be required by the contest director for confirmation of the airplane's kit status. Kits need not be in current production or distribution to qualify.
 - 4.2. Models must be of profile fuselage type, and must conform to the general profile definition. The model must have a minimum fuselage length of 24" when measured from the propeller thrust washer face to the leading edge of the movable elevator surface.
 - 4.3. The minimum wing area shall be 300 square inches. The wing must have a minimum thickness of 1 inch when measured at any point along the span, with the exception of the last two inches before each wingtip.
 - 4.4. All models must have a canopy, horizontal stabilizer, elevator and vertical fin. Models must have a fixed landing gear with a minimum of one wheel, 2 inches in diameter or larger.
 - 4.5. **Modifications:** Major changes to the kit design such as clipped wings, shortened fuselage, partial omission of the tail assembly, etc., are prohibited. Reinforcement of the nose and engine mount areas is permitted. Landing gear location and construction are entirely optional from what may be included in the kit, except as specified in section 4.4.
5. **Fuel tank:** The fuel tank shall be fully external and forward of the wing leading edge, and located on the outboard side of the fuselage. The tank may not be designed so as to cowl the engine. All tank vents are limited to a maximum size of 1/8-inch outside diameter. The tank may not be pressurized, but the vents may be directed forward into the airstream.
6. **Prohibited equipment:** Equipment and devices standard to full-race aircraft are prohibited. These include fuel shutoff, pressure refuelers, fast-fill systems, "hot glove" electrical contact systems, and centrifugal carburetor switches.
7. **Pull test:** The plane and entire control system shall undergo a pull test of 35 pounds.
8. **Lines** shall be of a minimum .018-inch diameter, and lines shall be of the stranded type, with a length of 60 feet measured from the handle grip to the fuselage, plus or minus 6 inches.
9. **Races:** Preliminary heats shall be of 70 laps duration, with one pit stop minimum required. Feature races shall be of 140 laps with two pit stops minimum. All races shall be flown with at least two entrants, and not more than four entrants. At contestants where entrants fly preliminary heats to determine finalists, at least three entries shall proceed to the final races. The decision on the number of final entries shall be made by the event director and made in advance before the start of any preliminary heats.
10. It is assumed that the usual sportsmanship of Northwest modelers will prevail in this event. The event director may disqualify any entrant that is not in keeping with the spirit or intent of this racing event.

FL/jmt9/29/85 //Ed:4/15/93//rev2/12/95



Dave Cleaver gives quick and clean release of Clown Racer at CBBB May contest. Brothers Dave and Jeff perform pit duties for Todd Fischer.

RULES FOR NORTHWEST SUPER SPORT RACE

1. **Purpose:** It is the intent that this event will serve as an intermediate racing class between Northwest Sport Race and the AMA racing events.

2. All pertinent rules from the AMA control-line racing unified rules section shall apply in regard to safety and the conduct of races, except as follows.

3. **Engine:**

3.1 The "engine" is defined as the complete unit, ready to run, needing only prop, fuel and starting voltage, except that the glow plug, venturi and/or restrictor and spraybar and needle valve, gaskets, bolts, drive washer, front washer, prop nut, shims, piston ring(s) (if used), and ball bearings (if used) need not be considered part of the production unit. These parts are not subject to the rules regarding quantity or source.

3.2. No tuned pipes or exhaust extensions are allowed except bona fide mufflers which do not increase engine performance. Engines shall operate on suction feed. No variable or in-flight adjusting carburetors are allowed; however, any other modification of the intake is permissible except as noted below.

3.3. Two types of engines will be allowed:

3.3.1. Engines of .36 c.i.d. maximum with single bypass intake port. These engines shall not be restricted in regard to venturi dimension. There is also no restriction regarding engine rework, except that all major components shall be produced by the original manufacturer. No material or part may be added.

3.3.2 (a). Engines of maximum total nominal displacement of 0.4020 cubic inches (6.6 cc). Engines must be production units assembled from factory available production parts. Engines and parts, with the exception of the venturi-spraybar assembly, must have been produced in quantities greater than 500, and all must be available through normal retail outlets in the U.S.A. Parts substitution shall be limited to catalog listed parts produced in quantities greater than 500 units for the engine being altered and available commercially to anyone from the manufacturer of the engine. Engines may only be modified by removing parts or material from parts. No material or part may be added.

3.3.2 (b). The engine must be of the front-intake, single-bypass configuration. All air for the combustion process must come through the crankshaft. Altering nominal subport induction, timed holes in the case and the sleeve, or other techniques to circumvent the requirement that all air come through the specified venturi opening, are prohibited.

3.3.2 (c). No ABC or AAC piston/sleeve configurations are allowed.

3.3.2 (d). Each engine shall be equipped with a venturi and spraybar meeting the following restrictions: The venturi shall have an inside circular bore of not more than 0.315 inch. The venturi will maintain this diameter for at least 0.25 inch above and below the spraybar centerline. The spraybar assembly will be located precisely through the centerline of the venturi bore and shall have a circular cross section of diameter not less than 0.155 inch for the portion in the throat of the venturi. Exception: R/C carburetors may be used with the opening fixed in one position.

3.3.2 (e). The complete engine/venturi/spraybar system shall weigh less than 10.5 ounces (excluding muffler).

4. **Aircraft:** The model shall conform to the AMA slow rat specifications:

"Models must be of profile fuselage type, and must conform to the general profile definition. The model must have a minimum fuselage length of 24" when measured from the propeller thrust washer face to the leading edge of the movable elevator surface.

"The minimum wing area shall be 300 square inches. The wing must have a minimum thickness of one inch when measured at any point along the span, with the exception of the last two inches before each wing tip.

"All models must have a canopy, horizontal stabilizer, elevator and vertical fin ... Models must have a fixed landing gear with a minimum of one wheel."

5. **Fuel tank:** The fuel tank shall be fully external and forward of the wing leading edge, and located on the outboard side of the fuselage. The tank may not be designed so as to cowl the engine. The tank may not be pressurized, but the vents may be directed forward into the airstream.

6. **Pull test:** The plane and entire control system shall undergo pull test of 35 pounds.

7. **Lines:** The minimum diameter of lines shall be .018". Lines shall be of the stranded type, with a length of 60 feet measured from the handle grip to the fuselage, plus or minus 6" tolerance.

8. **Races:** Preliminary heats shall be of 70 laps duration, with one pit stop minimum required. The final or feature race(s) shall be of 140 laps duration, with three pit stops minimum required. All races shall be flown with at least two entrants, and not more than three entrants. At contests where entrants fly preliminary heats to determine finalists, at least three entries shall proceed to the final race(s). The decision on the number of finalist entrants shall be made by the event director and be made before the start of any preliminary heats.

CONTEST RESULTS

KENT, WASHINGTON APRIL 15TH

.15 CARRIER (2 ENTRIES)

- | | | |
|----|------------|-------|
| 1) | JOHN HALL | 184.5 |
| 2) | ALAN OLSEN | 171.5 |

PROFILE CARRIER (4 ENTRIES)

- | | | |
|----|----------------|-------|
| 1) | ALAN OLSEN | 206.2 |
| 2) | JOHN HALL | 201.3 |
| 3) | TERRY MITCHELL | 185.5 |
| 4) | BILL DARKOW | 51.8 |

CLASS I II CARRIER (2 ENTRIES)

- | | | |
|----|-----------|-------|
| 1) | TOM STROM | 192.5 |
| 2) | JOHN HALL | 99.9 |

RICHLAND, WASHINGTON MAY 6 & 7 MAY BALSA BASH V

CLASS I MOUSE RACE (6 ENTRIES)

- | | | |
|----|--------------|-----------|
| 1) | CLEAVER TEAM | 6:24.80 |
| 2) | NITROHOLICS | 6:58.25 |
| 3) | TODD RYAN | 9:00.97 |
| 4) | FUAN EDMONDS | 5:11 HEAT |

NORTHWEST GOODYEAR (3 ENTRIES)

- | | | |
|----|--------------|----------|
| 1) | JULIE RICE | 10:10.88 |
| 2) | FUAN EDMONDS | 16:23.63 |
| 3) | NITROHOLICS | DQ |

NW FLYING CLOWN RACE (7 ENTRIES)

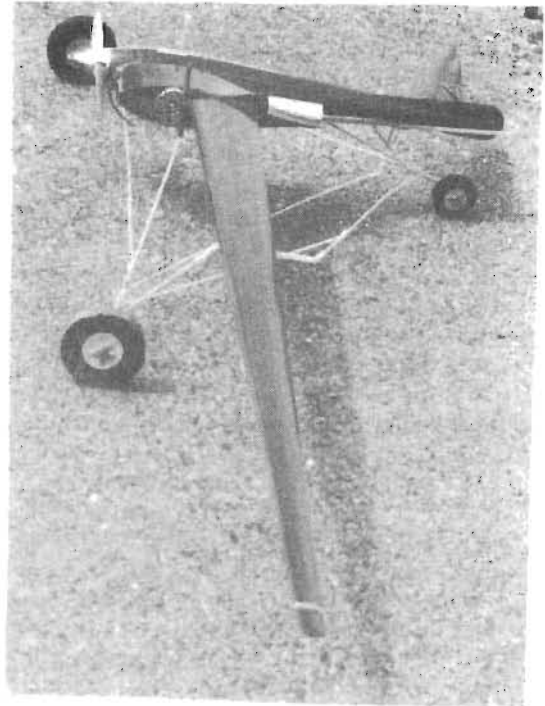
- | | | |
|----|--------------|----------|
| 1) | TODD RYAN | 280 LAPS |
| 2) | BILL DARKOW | 201 |
| 3) | TODD FISHER | 133 |
| 4) | CLEAVER TEAM | 149 HEAT |

NW RECORD RATIO SPEED (3 ENTRIES)

- | | | |
|----|----------------|------|
| 1) | BOB SPAHR | 110% |
| 2) | CHUCK SCHUETTE | 98 |
| 3) | JEFF CLEAVER | 94 |

AMA RECORD RATIO SPEED (3 ENTRIES)

- | | | |
|----|----------------|------|
| 1) | TODD RYAN | 102% |
| 2) | CHUCK SCHUETTE | 95% |
| 3) | BOB SPAHR | 93 |



Bob Spahr's big red D Speed ship. Power is OS 65 DF engine. Has flown at over 180+ mph. NW record. look out!

CLASS I II CARRIER (1 ENTRY)

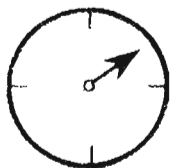
- | | | |
|----|------------|-------|
| 1) | MIKE HAZEL | 84.53 |
|----|------------|-------|

PROFILE CARRIER (7 ENTRIES)

- | | | |
|----|-------------|--------|
| 1) | TODD RYAN | 246.39 |
| 2) | ALAN OLSEN | 222.27 |
| 3) | MIKE HAZEL | 199.22 |
| 4) | BILL DARKOW | 149.90 |

.15 CARRIER (5 ENTRIES)

- | | | |
|----|--------------|--------|
| 1) | TODD RYAN | 211.32 |
| 2) | ALAN OLSEN | 192.08 |
| 3) | BILL DARKOW | 183.32 |
| 4) | FUAN EDMONDS | 82.59 |



Northwest Competition Records

Record performances established between Northwest CL modelers in sanctioned competition

New records to report: Some new marks were established at the years first major competition, that being the Columbia Basin Balsa Bashers May Bash in Richland. In the racing circle the lap count just keeps going up in the Clown Race event. Todd Ryan flew his clown to 280 laps for the 15 minute race. This eclipsed Julie Rice's record of 272. In the Speed circle, Bob Spahr bettered Chuck Schuette's old "A" record by 15 mph, increasing the standard to 166 mph. And over in the Carrier circle, Todd Ryan bumped his .15 class record from 204 up to 211. Congratulations, all!

1/2 A SPEED	99.78	BRUCE DUNCAN	5-29-94	EUGENE, OREGON
A SPEED	166.29	BOB SPAHR	5-07-95	RICHLAND, WASH.
B SPEED	156.87	RON SALO	5-29-93	EUGENE, OREGON
D SPEED	172.34	LOREN HOWARD	5-24-92	EUGENE, OREGON
JET SPEED	196.64	JERRY THOMAS	8-8-93	RICHMOND, B.C.
FORMULA 40 SPEED	153.13	MARTY HIGGS	6-26-94	RICHMOND, B.C.
21 SPORT SPEED	147.97	CHUCK SCHUETTE	9-12-93	KENT, WASHINGTON
FAI SPEED	168.56	BOB SPAHR	5-29-94	EUGENE, OREGON
1/2 A PROFILE PROTO	84.79	JEFF CLEAVER	9-18-94	KENT, WASHINGTON
21 PROTO SPEED	119.63	CHRIS SACKETT	6-26-94	RICHMOND, B.C.

MOUSE RACE I -50 LAP	2:43	JOE RICE	10-3-92	RICHLAND, WASH.
MOUSE RACE I -100 LAP	5:23	CLEAVER/CLEAVER	10-16-93	EUGENE, OREGON
MOUSE RACE II -75 LAP	3:40	DAVE GREEN	5-24-86	EUGENE, OREGON
MOUSE RACE II -200 LAP	10:04	HAZEL/THOMPSON	9-19-87	KENT, WASHINGTON
AMA SCALE RACE -70 LAP	3:25	MARTY HIGGS	7-20-89	RICHLAND, WASH.
AMA SCALE RACE -140 LAP	8:48	JOE RICE	7-17-93	LAWRENCEVILLE, IL
NW GOODYEAR -70 LAP	4:12	JOE RICE	5-30-93	EUGENE, OREGON
NW GOODYEAR -140 LAP	8:26	CLEAVER/CLEAVER	5-7-94	RICHLAND, WASH.
SLOW RAT RACE -70 LAP	3:10	HAZEL/THOMPSON	5-30-93	EUGENE, OREGON
SLOW RAT RACE -140 LAP	6:38	HAZEL/THOMPSON	10-17-92	EUGENE, OREGON

AMA RAT RACE -70 LAP	----	-----	-----	-----
AMA RAT RACE -140 LAP	6:32	HAZEL/THOMPSON	10-22-94	EUGENE, OREGON
FAI TEAM RACE -100 LAP	3:36	KNOPPI/McCOLLUM	6-84	SHANGHAI, CHINA
FAI TEAM RACE -200 LAP	7:40	KNOPPI/McCOLLUM	6-84	SHANGHAI, CHINA
NW SPORT RACE -70 LAP	4:00	BRUCE DUNCAN	5-12-87	RICHMOND, B.C.
NW SPORT RACE -140 LAP	8:48	TODD RYAN	10-8-94	RICHLAND, WASH.
NW SUPER SPORT -70 LAP	3:14	DAVE GREEN	4-13-86	PORTLAND, OREGON
NW SUPER SPORT -140 LAP	7:03	DAVE GREEN	3-8-87	PORTLAND, OREGON
FLYING CLOWN RACE, LAPS: 280		TODD RYAN	5-06-95	RICHLAND, WASH.

CLASS I CARRIER	318.30	ROY BEERS	9-13-86	KENT, WASHINGTON
CLASS II CARRIER	330.25	ORIN HUMPHRIES	9-19-87	KENT, WASHINGTON
PROFILE CARRIER	265.21	TODD RYAN	5-7-94	RICHLAND, WASH.
.15 CARRIER	211.32	TODD RYAN	5-07-95	RICHLAND, WASH.

AMA ENDURANCE	18:37	WESLEY MULLENS	8-15-87	KENT, WASHINGTON
---------------	-------	----------------	---------	------------------

records as of 5-15-95

FLYING LINES

1073 WINDEMERE DRIVE NW
SALEM, OREGON 97304

FLYING LINES is produced by a staff of volunteers interested in keeping lines of communication open between Northwest region control line modelers. FLYING LINES is independent of any organization, and is made possible by the financial support of its base of subscribers.

The FLYING LINES staff: John Thompson, Joe Just, Orin Humphries, Rich McConnell, Jim Cameron, Paul Gibeault, Gerald Schamp; Mike Hazel, editor. Contributions for publication are welcomed. Any material submitted to the editor which is not for publication, should be indicated as such. Duplication of contents is permissible, provided source is acknowledged.

FLYING LINES is published nine times per year. Subscription rate is \$13.00 for USA, and \$15.00 for Canada (U.S. funds). Subscription expiration is noted on the mailing label-issue number listed after name.

RUSH TO:

JOHN THOMPSON OZO
295 WEST 38TH AVENUE
EUGENE OR 97405

FIRST CLASS MAIL