

Flying Lines

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District XI AMA News

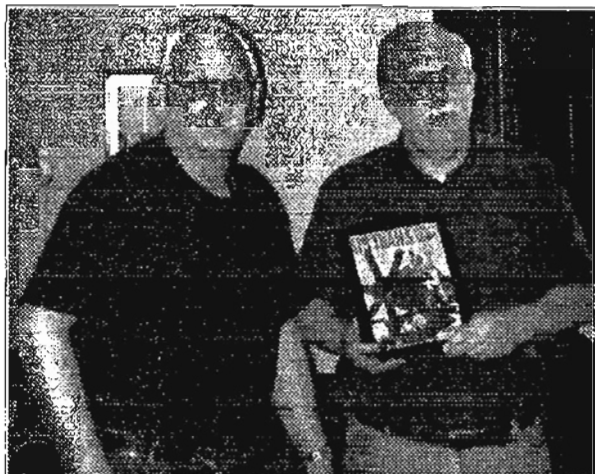
Many Northwest modelers attended the Northwest Model Expo in Puyallup, Wash., in early February. The turnout for the A.M.A. district XI meeting was kind of light. Chairing the meeting was Bruce Nelson, our AMA district vice-president.

One of the highlights of the meeting was presentation of the Hall of Fame Award to Francis Reynolds. Reynolds was a true pioneer in early control-line modeling, and is recognized as the innovator of symmetrical airfoils for stunt flying, and many other engineering feats.

Wes DeCou is AMA's flying site coordinator for the Western states. He spoke on the general subject of flying site acquisition, citing some interesting stories regarding victories and losses in that arena.

Carl Maroney from AMA headquarters spoke about the new issue of requiring AMA charter clubs to provide a set of club bylaws with their renewal. (This will be required for 2003). This new requirement is primarily driven by the AMA's wish not to be embroiled in any more lawsuit situations regarding how clubs conduct their business with their members. It was made emphatically clear that the AMA does not wish to dictate how clubs conduct their business, but having a proper set of bylaws in place will ensure smoother club operation if certain problems arise. (Watch for more information on this).

A couple of interesting things came up: It was noted that our District XI was the largest of all in geographic terms. Hey, after all we do have Alaska! Our district had the largest percentage of member growth of all the districts (15%). And another note was that the results of a recent survey of leader members found that the single most important issue mentioned had to do with flying site issues, by a 5 to 1 margin.



The Northwest Skyraiders, the Puget Sound area control-line club, held their annual banquet Feb. 16. President Mike Potter (right) gave Ron Canaan the 2001 Service Award for his tireless efforts to get the club a flying field. Howard Rush photo

In further news, the A.M.A. executive council is studying it's election process. I would urge any District XI members who have some thoughts on this to contact me.

— Mike Hazel, District XI Associate Vice-President, 1073 Windemere Drive N.W., Salem, OR 97304, ZZCLSpeed@aol.com

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Round & Round

The Control-Line
modeler at large

By John Thompson

Modeling thought for the month:

"If you can distinguish between good advice and bad advice, then you don't need advice."

— Van Roy's Law

A head in the clouds ...

I would like the contest season to begin *now*.

Yes, right now, as this is written, on Feb. 24, 2002. I have just returned from the flying field (where was everybody?).

Mr. Stooze and I put up four stunt flights. I went out there planning to tweak and trim, and ended up after the first flight deciding that all that needed trimming was the pilot.

There was not enough wind to find a direction. It was about 60 degrees. (Where *was* everybody?)

It took four flips to start the plane for four flights. The engine was running perfectly now that I am using the 10/10/10 racing fuel as recommended by Tom Dixon. (It has a little bit of a 2-4 break. A very interesting thing: On the inverted downlegs (vertical eight, hourglass), the engine backs off almost as if you had let off the throttle — less power just when you want less, a sort of braking effect). Light Wave was flying as well as it has so far, and I'm gaining confidence in it.

And, of course, with no judges around, I scored my pattern at about 500 or so.

Well, no, but things are definitely improving. Now I am once again able to start thinking about what the maneuvers look like instead of just wondering if the engine is going to run through the pattern. Actually practicing stunt flying, making some notes, etc. (Lap time: 4.91 to 4.99; engine run, 6:59. Fly more top on square maneuvers (thanks, Scott!). Stop doing those perfect landings — you're wasting them on practice flights.)

Yep, I want the contest season to begin now, before the Oriental is done (trim is going on the finish now) and a whole new set of problems crops up.

Of course, my combat program is in disarray. Eventually, I have to drag out enough 80mph equipment to make a contest. Racing? I guess we'll pull the planes off the wall if a contest happens.

But after a year of frustration, stunt things

seem to be going well.

And it looks like it will be quite a contest season. Last year was the "last" Regionals, but here comes another one. Stunt, carrier and 80mph combat in Portland. Big-money(!) diesel combat in Arlington, Wash. Bladder Grabber! Central Oregon stunt. Salem Summer meet. New, improved Fall Follies. Others being added to the schedule all the time.

What a great hobby this is! Best of luck to all in the 2002 contest season!

New achievement awards

Two new types of awards to be given out at the 31st Northwest Control-Line Regionals should generate some extra suspense and interest at the trophy presentation.

The Grand Championship trophies have been retired, due to the excessive bookkeeping stress they place on the Regionals registration crew. However, new awards will replace them: Event championship awards for each category. There will be awards for the top competitor in stunt, racing, speed, scale, carrier and combat.

And there will be one extra-special award that is totally new: a "Best of Contest" award.

This trophy will be given to the one airplane that represents an outstanding achievement by the entrant. This could be from any category: An outstandingly finished stunt or scale plane, a record-setting speed or carrier plane, a technologically advanced racer.

From the past, this gets us thinking about Paul Walker's B-17 stunter, Lenard Ascher's inverted mini-rat Class II Mouse Racer, Howard Rush's carbon-fiber combat planes, Dave Williams' home-built 1/2-A speedsters, Grant Hiestand's electric/electronic scale planes, and so forth.

The event championships will be awarded on the basis of points scored within the category — much simpler to figure than the old grand championships, and likely to be more fair in representing achievement for all fliers.

The Best of Contest Award will be selected by a committee from nominations provided by the event directors.

Just another reason why the 31st Regionals promises to be a special treat!

Send comments, questions and topics for discussion to John Thompson, 2456 Quince St., Eugene, OR 97404. E-mail JohnT4051@aol.com. World Wide Web: <http://members.aol.com/johnT4051/NorthwestCL.html>.

Where the action is!

Coming events in Northwest Control-Line model aviation

April 20-21

Fourth annual **Jim Walker Memorial CL Fun Fly**. Site: Delta Park, Portland, Ore. Saturday: Old Time Stunt; Classic Stunt; .15, Profile, Class I, Class II and Golden Age Carrier. Sunday: Precision Aerobatics, 80mph Combat. For info, contact Scott Riese, (503) 246-8867, SRiese5283@aol.com

May 4-5

Big Money Nostalgia Diesel Combat Contest, Arlington, Wash. Site: Take Exit #206 Smokey Point from Interstate 5 and go East 1 mile on 172nd St. Turn left on 51st Ave at the light and the site is on the left. Park on the grass. Standard Northwest Nostalgia Diesel Combat Rules. Five rounds plus finals. \$20 entry. \$1,000 prize money. Camping and motels close by. Contact Mel Lyne, e-mail: mlyne@sea-to-sky.net Telephone: (604) 898-5581.

May 5

PAC Carrier/Racing meet for all classes of Navy Carrier and .15 Nostalgia Race. Rice Mill Road site, Richmond, B.C. Contest starts at 10 a.m. Info: Contact Chris Cox at (604) 596-7635, ccox1@telus.net.

May 24-25-26

Northwest Control-Line Regionals, Albany Municipal Airport, Albany, Ore. Aerobatics: 4 PAMPA classes, OTS, Classic. Combat: Vintage Diesel, 80mph, 1/2-A, all triple elimination. Navy Carrier: .15. Profile, Class I, Class II. Racing: Mouse I (J-S)(O), Mouse II, Rat, Slow Rat, Goodyear, NW Goodyear, NW Sport (J-S)(O), NW Super Sport, Flying Clown, Quickie Rat. Scale: Precision, sport, profile. Speed: 1/2-A, 1/2-A Proto, A, B, D, FAI, Jet, Formula 40, .21 Sport, .21 Proto, NW Sport Jet. For info, contact *Flying Lines* or Contest Director Craig Bartlett, (541) 745-2025 or e-mail scaigbart@yahoo.com

June 29-30

Bladder Grabber triple-elimination AMA fast combat tournament, Harvey Field, Snohomish, Wash. For info contact Jeff Rein at Jeffrey.Rein@PSS.Boeing.com.

July 6

Lucky Hand Fun Fly, Bill Riegel Field, Sa-

lem, Ore. Fly any plane or planes you want, any way you want. Every flight gets a playing card. Best poker hand wins a prize. Contest Director Mike Hazel, (503) 364-8593 or ZZCLSpeed@aol.com

July 21

Central Oregon Lawn Darts Third Annual stunt contest, Field of Dreams, Redmond, Ore. Precision Aerobatics. For info, contact Nils Norling, 281 7th St., Metolius, OR 97741, or e-mail hogrider@crestviewcable.com

July 27

PAC Classic for Northwest Sport Race, Clown Race and Carrier. Rice Mill road site, Richmond, B.C. Contest starts at 9 a.m. Contest Director: Keith Varley, (604) 327-4932.

July 28

Western Canadian Stunt Championships for Old-Time Stunt and four PAMPA classes of precision aerobatics. Rice Mill road site, Richmond, B.C. Contest Director: Chris Cox, (604) 596-7635, ccox1@telus.net.

Aug. 3-4

VGMC Can-Am Speed Champs, Upper Coquitlam River Park, Coquitlam, B.C. For info, contact Paul Gibeault, pgibeault@telus.net

Aug. 24-25

WOLF Summer Meet, Bill Riegel Field, Salem, Ore. Racing, Precision Aerobatics, 80mph combat; details TBA. Contest Director Mike Hazel, (503) 364-8593 or ZZCLSpeed@aol.com

Sept. 21-22

Oregon CL Speed Championships, Bill Riegel Field, Salem, Ore. Contest Director Mike Hazel, (503) 364-8593 or ZZCLSpeed@aol.com

Oct. 5

Nostalgia Diesel Combat, Arlington, Wash. Site: Take Exit #206 Smokey Point from Interstate 5 and go East 1 mile on 172nd St. Turn left on 51st Ave at the light and the site is on the left. Park on the grass. Standard Northwest Nostalgia Diesel Combat Rules. Five rounds plus finals. Contact Mel Lyne, e-mail: mlyne@sea-to-sky.net Telephone: (604) 898-5581.

Oct. 12-13

Fall Follies, Bill Riegel Field, Salem, Ore. Racing, Precision Aerobatics, possibly something else. Details TBA. For info contact *Flying Lines*.

Your contest date, 2002 ???

It's not too early to get your 2002 contests listed in the "Where the Action Is" calendar. Send the information to *Flying Lines*.

The Flying Flea Market

Classified advertisements — FREE for *FL* subscribers

KIT SPECIALS: Hobby Fastener kit specials — Southwick Skylark, \$129.99; McFarland Shark 45, \$114.99; Tucker Special, \$99.99. FREE UPS GROUND SHIPPING — Continental U.S. Eugene Toy & Hobby, (541) 344-2117, www.eugenetoyandhobby.com.

WANTED: Looking for .15, .19 or .29 glow engine, rear intake, side or rear exhaust. Dick Kuilaas, 815 Yakima St., Wenatchee, WA 98801.

BRODAK KITS FOR SALE: Pathfinder list \$80, now \$64; Cardinal list \$80, now \$64; Oriental list \$76, now \$60. Please add \$6 S&H. J & J Sales, P.O. Box 99, Waitsburg, WA 99361. Phone (509) 337-6489. E-mail ukeyman@altavista.net

FOR SALE: Harter's 1/2-A Peanut speed kit. \$60. Mike Hazel, (503) 364-8593.

FOR SALE: 2 Ea. Nelson 15 ABC FIRE, Exc., just back from Henry Nelson (new bearings, etc.) Used for FF and combat, U.S. \$135 or both for \$260; 1 Ea. Nelson 15 ABC FIRE longstack, C/W spinner, exc., low time used for GY, U.S. \$130; 1 Ea.

NIB Irvine .15 MK 2 GY/FF Version, P/L chromed & fitted by Dye, fitted Nelson head, large venturi & pressure backplate, U.S. \$150; 1 Ea. NIB Irvine .15 MK 2 or speed, C/W spinner, P/L chromed and fitted by Dye, 4.9mm pipe stinger, U.S. \$185; also many excellent Irvine .15 parts for sale: heads, shims, spinners, P/L, venturis. Write for details & prices. 1 Ea original version Cyclon .15S FAI piped speed engine, Mint cond. in orig. handmade wood box W/ plexiglass top, C/W factory pan, prop, spinner, shutoff, tank & spare parts, also C/W Doc package for collectors, U.S. \$200; 1 ea. NIB Russian Cyclon .40 ABC pylon (RIRE) C/W, gorgeous 2-1/4-inch spinner, minipipe, head wrench, U.S. \$275. Paul Gibeault, 54-5380 Smith Drive, Richmond, B.C. Canada V6V 2K8, phone (604) 526 3386.

WANTED: K&B 4.9 engines and parts. Also early version of Veco Tom Tom kit. Craig Bartlett, (541) 745-2025.

AEROBATICS INTEREST GROUP: Right now — as in **TODAY** — is the very best time to join PAMPA! Your \$25.00 will see a full year's worth of the world's best CL-specific magazine (at 100-plus pages we no longer call it a newsletter!) dropped in your mailbox. Send check or money order to: Shareen Fancher, 158 Flying Cloud Isle, Foster City, CA 94404.

FOR SALE: Vintage original model airplane plans circa: 30's to 70's. Rubber-FF-UC-RC-CO2-Jetex. Send #10 SASE for list to: Jerry Campbell, 2355 SE 43rd, Portland, OR 97215-3713, phone 503-233-2194.

WANTED: Fox .35X and .36X parts. Also SuperTigre .35 parts. Chuck Matheny, (360) 659-0155.

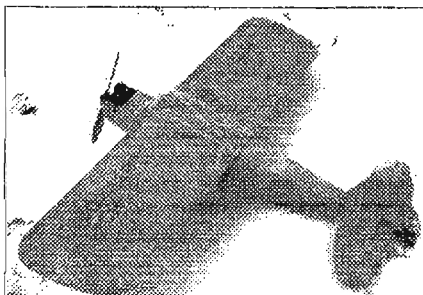
COMBAT INTEREST GROUP: Miniature Aircraft Combat Association offers national newsletter with technical articles, organizes national events, keeps national combat standings, and much more. Send \$15 dues to MACA, c/o Gene Berry, 4610 89th St., Lubbock, TX 79424.

NAVY CARRIER INTEREST GROUP: Navy Carrier Society offers newsletter with technical articles, organizes national events, keeps national standings and more. Contact NCS, c/o Bill Bischoff, 2609 Harris, Garland, TX 75041. Online: President Bill Calkins at clflyer@tbcnet.com.

RACING INTEREST GROUP: National Control Line Racing Association offers newsletter with technical articles, organizes national events, keeps national standings and more. Contact NCLRA, c/o Dave McDonald, P.O. Box 384, Daleville, IN 47334. Online: <http://members.aol.com/DMcD143>

HELP WANTED: Northwest Regionals 2002 field setup, registration, event judges, general assistance before, during and after the contest. Contact the *FL* editor to volunteer.

YOUR AD HERE: Remember, classified ads are free to *Flying Lines* subscribers. Send yours in today for publication in the next edition.



Nils Norling of Metolius, Ore., recently finished this Boxcar Chief for Old-Time Stunt. It's powered by a Torpedo .32. Nils Norling photo

Northwest Rules update

Presented here are the current official rules for all Pacific Northwest control-line special competition categories. These rules have been approved by Northwest model aviators as coordinated by *Flying Lines* newsletter. For more information about the Northwest rules, contact the *Flying Lines* editor. Extra copies of the rules are available at any time from *Flying Lines*.

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

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.

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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. Airplanes and the entire control systems shall undergo a pull test of 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 as follows:

4.1. Fuel capacity is restricted to 1 ounce, with a +5% tolerance, 31cc maximum.

4.2. 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.

4.3. All tank vents are limited to a maximum size of 1/8-inch outside diameter. A spring-loaded pinchoff device capping the overflow vent on a uniflow tank is permitted.

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. Cheek cowls are prohibited. Wheels must be at least 1 inch in diameter, and be spaced laterally about 7 inches.

7. **Prohibited equipment:** Hot glove electrical contact systems, fast-fill setups and fuel shutoffs are prohibited. Shutoffs may be installed on the plane for test-flying, but must be bypassed during races.

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. Preliminary heats may be 7-1/2 minutes if agreed to by a majority of contestants or required by contest time constraints. Records shall not be established for heats less than 15 minutes. There shall be either two or three pilots in heat races. At least three aircraft shall advance to the feature race. The decision on the number of feature entries shall be made by the event director in advance before the start of any preliminary heats. If more than three planes advance to the feature, races will involve at least two and no more than three airplanes.

jmt/cbbb/FL/rev:6-10-94/4/15/96*

rev1-10-98* rev2-12-99*

* ballot

RULES FOR NORTHWEST GOODYEAR RACING

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.
 - AME/Norvel:** Any aircraft version.
 - Fox:** Any aircraft version.
 - K&B:** Any aircraft version.
 - Cox:** Any aircraft version.
 - Conquest:** Any aircraft version from K&B, Cox or RJL
 - Enya:** Any aircraft version.
 - O.S.:** Any aircraft version.
 - Magnum XL-15A**
 - MDS:** Any aircraft version.
 - Mecoa Wildcat EP15**
 - Moki:** Any aircraft version.
 - MVVS 15 DFS/R**
 - MVVS 15 GFS/R**
 - Picco:** Any aircraft version.
 - Supertigre:** Any front-intake version
 - Thunder Tiger GP15**

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.

mwh/jmt 3-27-93 // revFL 1/20/99* revFL12/1/99*
*ballot

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.

oh/jmt/4/16/93

RULES FOR NORTHWEST 80MPH COMBAT

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. **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.
5. **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.

6. **SCORING:** Per AMA Combat.

jmt/FL/1-21-94/rev:2-18-94/6-10-94/4-15-96*

* ballot

NORTHWEST SPORT JET SPEED

All AMA rules from the control line-general and control line speed sections shall be applicable, except as follows:

1) AIRFRAME:

1.1 Any design configuration and construction method is permissible so long as the contest management considers the model to be safe and sound.

1.2 The engine and engine mounts shall receive a 30 pound pull test.

1.3 The control system must be mounted external to the normal aircraft contours. This includes the bellcrank, leadouts or control lines, pushrod, and elevator horn. No more than one inch of the leadouts or control lines can be enclosed by the leadout guides.

1.4 The maximum weight of the aircraft in ready-to-fly condition, but not including fuel shall be 40 ounces.

2) LINES & PULL TEST:

2.1 The model must be flown on two single strand steel control lines of .018 inch minimum diameter. The distance between the centerline of the fuselage and the center of the control handle grip shall be a minimum of 60 feet.

2.2 The model and entire control system, lines and handle shall receive a 32G pull test.

3) ENGINE:

3.1 The allowed jet engines are the Dyna-Jet (standard or Redhead), Bailey Sport Jet, and the O.S. II-G.

3.2 It is required that the engine shall be in stock condition internally. No material may be removed or added to the engine, except as follows:

a. **Engine head:** Part or all of the head fins may be removed. Holes may be drilled into the head for purposes of engine mounting. Valve face may be lapped as needed for routine maintenance. Engine cowling is permitted, but the front of the cowl must be behind the intake throat.

b. **Flowjector:** Fuel feed holes may be drilled out to larger size, or filled and redrilled. (holes allowed in original location only) A short piece of metal tubing may be installed into the tire pump connection to facilitate quick removal of the air supply hose. Alternatively, the threads on the tire pump connection may be filed off, or filled in so as to make a smooth surface to facilitate quick removal of the air supply hose.

c. **Metering Jet:** Any metering jet may be used, and may be located anywhere between the tank and the flowjector.

d. **Tailpipe:** A stock tailpipe with ignition plug in place must be used. (starting ignition may be by means of a starting probe). Repaired tailpipes are permissible, provided stock dimensions have been faithfully adhered to. The front surface of the tailpipe (combustion chamber screw ring) and the lock ring may be lapped.

e. **Reed Valve:** Any commercially available valve may be used.

3.3 Interchanging of parts between the above listed engines is permissible.

3.4 Fuel delivery to the engine shall be by suction, no pressure feed is allowed.

4) FUEL:

4.1 Fuel used shall be the A.M.A. formula: 80% methanol & 20% propylene oxide.

5) OTHER:

5.1 Timing will be for 1/2 mile (7 laps).

5.2 All other general rules for control line speed flying (attempts, number of models, competition flying from pylon, timing of flights, etc.) shall be applicable.

5.3 Builder of the model rule is not applicable to this event.

5.4 Entrant of the model shall either be the pilot, or shall start the engine.

mwh2000

RULES FOR .15 NOSTALGIA DIESEL COMBAT

1.1. Engine: Any production .15 c.i.d. maximum diesel having a single ballrace or plain bearing, non-Schneurle, iron piston/steel cylinder.

1.2 Only suction fuel systems are permitted.

1.3 The propeller must be a Grish Tornado 8" x 6" White Nylon Flexi prop. The diameter must remain at 8", balancing may be done by sanding one blade face.

2.1 Aircraft: A nostalgia combat model must be a design which was in common use or kitted prior to December 31, 1970. It must have been designed for a .15 cu in engine.

2.2 Models must be an accurate plan view of the original. The following alterations are permitted:

- Addition to or omission of sheeted areas. Omission of vertical fins.
- Changes to airfoil or internal structure. Additional booms or substitution of wire for wood, or vice-versa.
- Recessing engine into leading edge.
- An upright engine mount may be changed to side mount.
- A balanced elevator may be changed to a conventional, and vice-versa.

The elevator must retain the original outline.

Such changes must be done using constructional techniques that were commonly used at the time the model was in use. Carbon, Kevlar or boron fiber is not permitted. Modern adhesives and coverings are permitted.

2.3 The following alterations are not permitted:

- Foam construction may not be used. Exterior controls may not be used.
- Metal motor mounts may not be used. Any changes to the original plan view except those outlined in 2.2 are not permitted.

The CD may decide to not accept a model which has been altered from the original design outline.

3.1 Pull test: 25 lb.

4.1 Lines shall be a minimum .015" diameter, stranded type, with a length of 52'-3" measured from the handle grip to the fuselage, plus or minus 6 inches.

5.1 Speed limit: 64 mph = 7.0 seconds/2 laps towing a streamer.

6.1 Number of models. One model per match. 3 models maximum per contest.

7.1 Pit crew. Two pit crew are allowed per contestant. A contestant may start his own engine.

8.1 Officials: A contest shall be run by a circle marshal who shall be the overall timekeeper, plus one scorer per contestant.

9.1 The match: One minute for engine starting and launching. The 5-minute match clock is started as the second plane launches or at the end of the one minute, whichever comes first. The match lasts 5 minutes.

Engines must be started by hand.

9.2 Scoring: One point is deducted for each second a contestant's plane is on the ground during the 5 minute match. 50 points are awarded for each cut of their opponent's streamer or string with knot. There are no kills.

The match shall continue after a mid-air collision or line break. Lines may not be changed during a match.

10.1 Contest Procedure: Each contestant shall compete in 5 rounds. 2 points for a win, 1 point for a tie, 0 for a loss. The top 4 flyers will then compete in 2 semifinals and a final to determine the winner.

10.2 Combat Site: A 5 foot radius pilots circle and a concentric 65 foot radius safety circle.

ml/jt/FL5/00p/ballot#164

QUICKIE RAT (NCLRA 1998 RULES)

1. OBJECTIVE: To provide a racing event that may easily be flown "three up" and which employs relatively inexpensive and easily constructed control line racing models. To encourage and promote the success of the "average" control line flyer in control line racing competition.

2. GENERAL:

2.1 Applicability: All rules from the Unified Control Line Racing Rules apply to this event except as modified, appended or specified here.

2.2 Maintenance: It is imperative that the performance level of this event be maintained such that it is always possible to safely race "three up" on stranded lines. If at any time it is felt that the event must be changed from the three up format for safety concerns or that solid lines are required, then the event rules should be immediately modified so as to reduce the aircraft performance level. It is recommended that this event be reviewed by the National Control Line Racing Association on a yearly basis. As a guideline, if nominal speeds surpass 105 MPH (17.14sec/7 laps), then the allowable venturi (part 4.7.1) should be reduced by 0.010". The sport of three up control line racing should be preserved at all costs even if individual equipment is temporarily obsolete.

3. MODEL SPECIFICATIONS:

3.1 Models will be of profile construction only. Refer to profile definition in Control Line General section. The use of cast pan or metal engine crutch is not allowed.

3.2 The control system, consisting of leadouts, bellcrank, pushrod and control horn will be totally exposed and external to normal airplane contours. The leadout wires will not be recessed into the wing, the pushrod will not be mounted inside the fuselage, nor will the bellcrank be allowed to be mounted inside the fuselage. The leadout tip guides may be inset into the wing but should not be more than 1/2 inch in length.

3.3 The line connections to the model will be external to the aircraft wing tip.

3.4 The fuel tank shall be totally outboard of the centerline of the crankshaft of the engine.

3.5 Pressure fuel systems are not allowed, with the exception that the fuel tank vent tubes may be directed into the airstream.

4. ENGINE SPECIFICATIONS:

4.1 Maximum total displacement shall be 0.4028 cubic inches (6.6cc). Engines must be production units assembled from factory available production parts. Engines and parts must have been produced in quantities greater than 500 and all must be or have been available through normal retail outlets in the USA. 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 except as noted in the following paragraphs. No material or part may be added except as noted in the following paragraphs under this section.

4.2 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, 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. In addition, chrome plating of a production cylinder is allowed.

4.3 The glow plug must have a thread dimension of 1/4-32.

4.4 The engine must be of the front intake configuration. All air for the combustion process must come through the crankshaft. Altering nominal sub-port induction, timed holes in the case and sleeve or other techniques to circumvent the requirement that all air come through the specified venturi opening are not allowed.

4.5 Only single by-pass port engines are allowed. The engine as purchased and as used shall be of the single by-pass configuration. No schneurle or PDP porting is allowed.

4.6 No ABC or AAC piston/sleeve configurations are allowed.

4.7 No variable area carburetors shall be allowed. Each engine shall be equipped with a venturi and spraybar meeting the following restrictions.

4.7.1 The venturi shall have an inside circular bore of not more than .315". The venturi will maintain this diameter for at least 0.25" at the throat of the venturi where the spraybar will be located at the midpoint of the area.

4.7.2 The spraybar assembly will be located precisely through the centerline of the venturi bore and shall have a constant circular cross section of diameter not less than 0.155" for the portion in the throat of the venturi.

4.8 No tuned pipes, mufflers or exhaust extensions are allowed.

4.9 The complete engine/venturi/spraybar system shall weigh less than 10.5 ounces.

5. FUEL SPECIFICATION:

5.1 The fuel for this event shall be supplied by the contest organizers and shall contain not more than 10% Nitromethane not less than 20% lubricant and the rest shall be methanol.

6. RACES:

6.1 Each contestant shall be allowed at least two qualifying heat races.

6.2 Qualifying heat races shall be 70 lap races with one required pit stop. It is suggested that only the best time of the two qualifying attempts be used as the basis for advancement to the finals.

6.3 Finals race shall be 140 lap races with three mandatory pit refueling stops.

6.4 All races shall be run with no less two or more than three flyers, races should be flown three up.

7. LINES:

7.1 Shall be minimum of two .018 diameter multi-strand only, and length shall be 60 feet plus or minus 6" as measured from center line of handle to center line of fuselage.

7.2 Pull test 35 Lbs.

8. FLYING REGULATIONS:

8.1 All flying shall be done between 6 and 20 feet altitude.

9. SPECIALTY ITEMS:

9.1 Shutoffs: allowed; fuel shutoffs are recommended for safety.

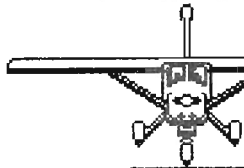
9.2 Hot gloves: allowed

9.3 Prop: open

NCLRA 12/99 ed/jm

The 31st annual...

Northwest Control-Line Regionals



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The Northwest Control-Line Regionals

Albany Municipal Airport, Albany, Oregon

SCHEDULE OF EVENTS

FRIDAY

Speed (all classes) Noon-5:30
Carrier (all classes) Noon-5
Vintage
Diesel Combat Noon
Northwest Goodyear Noon
Mouse Race II 2:30
Slow Rat Race 4 p.m.

SATURDAY

Speed (all classes) 8:30-5:30
Carrier (all classes) 9 a.m.
Old-Time Stunt 9 a.m.
80mph Combat 9 a.m.
Mouse Race I (Jr.-Sr.) 9 a.m.
Mouse Race I (Open) 10 a.m.
NW Super Sport Race 12:30 p.m.
Classic Stunt 1 p.m.
Rat Race 2 p.m.
Clown Race 3 p.m.

SUNDAY

Speed 8:30 to noon
Precision Aerobatics 8:30 a.m.
Carrier (all classes) 9-4
Scale static judging 9 a.m.
1/2-A Combat 9 a.m.
AMA Goodyear 9 a.m.
NW Sport Race (Jr.-Sr) 11 a.m.
NW Sport Race (Open) 11:30 a.m.
Scale flights Noon-4:30
Quickie Rat Race 2 p.m.
Contest ends at 4:30, award ceremony at 5 p.m.

SCHEDULE NOTES

Registration Friday 10 a.m.-5 p.m., Saturday and Sunday 8 a.m.-noon.

Absolutely no engine running before 8 a.m. any day.

RULES INFORMATION

- AMA events are per new **2002-2004 rule book**, except as noted below. **Know the rules!**
- Official Northwest Rules will be used for the following events: *NW Sport Race, NW Super Sport Race, NW Goodyear, Flying Clown Race, 15 Carrier, 80-mph combat and Northwest Sport Jet Speed. Quickie Rat will use NCLRA rules.* For complete rules, write John Thompson, 2456 Quince St., Eugene, OR 97405, JohnT4051@aol.com. **Not knowing the rules is no excuse — get a copy now!**
- *COMBAT* — 80mph and 1/2-A Triple-elimination if time permits; Diesel five rounds if time permits.
- **FLYAWAY SHUTOFFS required in 80mph: Failure of a shutoff results in disqualification from the event.** Be sure that yours works!
- Precision Aerobatics Model Pilots Association rules will be used for *Old-Time Stunt* and *Classic Stunt*.
- **Safety things required in all events.**
- Contestants may at some times be required to assist in timing or judging.

OTHER INFORMATION

- AMA or MAAC membership required for all participants. AMA membership available at registration.
- Only participants and officials allowed in flying areas. All others must stay outside roped-off or restricted areas.
- Absolutely no alcoholic beverages on flying field during meet hours.
- Awards — Trophies and merchandise through third place in each event and age grouping, and first through third place. **New:** Event champion trophies for each category! **Approximate value of awards: \$3,000.**
- **Product vendors contact Contest Director for permission and site info.**
- Primitive camping allowed on site (no hookups). Get directions from contest officials. Commercial camping/RV locations nearby.

FOR MORE INFORMATION, CONTACT:

Contest Director Craig Bartlett, 205 N.E. Cedar Lane, Corvallis, OR 97330 — (541) 745-2025
e-mail scraigbart@yahoo.com

The Northwest Control-Line Regionals are sponsored and produced by the Northwest Regionals Management Association in association with *Flying Lines* newsletter and Northwest control-line clubs.

Combat Cornucopia

Combat
news and
views by
Mel Lyne

(EDITOR'S NOTE: There's been quite a bit of combat activity this winter. This edition of the combat column starts off with some up-to-date reporting by Mel on winter activities, and then the regular technical column follows.)

Practice/Training at Arlington.

Well, guys and ladies, that was an unbelievable turnout Feb. 3 in wet 50-degree weather. Talk about keeners! Congratulations to all who came.

The basic intent of the practice was to get in a flying day after the winter's cabin-fever/building-fever period, and to get a bunch of new people out flying.

Diesel practice was the core activity. Bob Huber was there bright and early, followed by Mel, Jody Taylor, Jeff Riechel, Paul Dranfield and Bob Nelson ... all flying diesels. Buzz and Jeff Rein (with the whole family) arrived and tested some Fasts and 1/2As, and even had a F2D match. Jeff's 7-year-old daughter Katy had a flight on a diesel trainer. She did very well. Ben Mullen (only his second control-line day) from Lynden arrived and put up lots of flights on the Warlord he just finished. Now he's got the "Orcrist" plan for his next project. Jeff Riechel had a couple of Turncoats to trim out, dug a few holes, but didn't bust anything. Then Patrick and Sparky Swesey showed up and put in numerous diesel trainer flights. These guys are keen. Mike Rule and son Casey started flying their new diesels, a Kanible and a Splinter, plus a couple of glows. After a few trainer flights, Casey, Patrick and Sparky were confidently doing loops by day's end. Next arrivals were Ralph Simonds with Sarah and Alex. All of them putting in flights on their Ralph-built diesel models. Jim Booker showed up and put up some 1/2A flights along with Mike Rule. And Bob Nelson finally got around to flying diesels. He's had the engine for five years and now he has two good planes. His PAW .15 looks to be an exceptionally fast one. Says he just loves it. Some of the diehards flew until dark. Even though we got wet (showers all through the day), there was no real wind, and everybody had fun. There were numerous dorks in the soft turf throughout the day,

with Jody Taylor being the day's "divot champ." But I don't recall seeing a single broken model.

Next practice/training was at Richmond, B.C., on Sunday, Feb. 17. The next one at Arlington will be about two weeks later. Date confirmation will follow.

Dbat props

Grish appears to have stopped prop production. Since last June Grish has told us that he was refurbishing the prop molds. We have had 50 props back-ordered with him and Tower Hobbies. Since Christmas, Grish has not replied to our e-mails or phone messages. Tower Hobbies and others are out of stock of the 8 x 6 Flexi nylon which we use in D/Bat.

For the May contests and the foreseeable future we are allowing the use of any commercial 8x6 props other than carbon, glass, Kevlar etc. It is a low-tech nostalgia event, and the hi-tech expensive props don't belong in it. Cheap is nice! The props must remain untrimmed at 8 inches diameter.

Balancing can be done by sanding a blade face.

The Grish props were great because they almost never broke in dorks. The yellow nylon Kavan 8x6 (made in Germany) is available in a number of hobby shops. With testing we have found these props to be the next best.

They don't break in dorks. But they do occasionally twist a blade at the hub, making the prop inefficient. All plastic props such as Master, APC and wood props are guaranteed to break in a dork.

(This illustrates one of the arguments against specifying equipment by brand name in formal rules. Also, if there is a speed limit, why do we restrict the prop at all? Since this situation is likely to continue, a formal proposal to modify the dBat rules via the Flying Lines proposal/balloting process would be a good idea. — editor)

The 64mph speed limit (7.0 seconds for two flat laps towing a streamer) will be enforced. So get out and do some speed checks. On March 2 at Arlington I will have water-resistant streamers (who says its gonna rain?) available for fliers to use. To slow the engines a tad, I use a sliver of popsicle stick stuffed into the venturi between the spraybar and the venturi wall. Ask me for a sample sliver when you see me.

Proposed future practice days are Sunday, March 17 at Richmond and Sunday, April 7 at Arlington. Let me know if any of you want Saturday at Arlington instead. We'll try and accommodate

the majority. March 30-31 is Easter, which is out for many of us. If anyone wants a special practice day, send me an e-mail and we'll see if we can set it up. If you have a site, that's even better.

Don't forget the May 4-5 Big Money D/Bat at Arlington.

Combat Equipment Tips

1. Pressure fuel systems.

Always wear protective eyewear when working near pressure fuel systems. Keep a water jug close by for emergency eye flushing. Methyl Hydrate (alcohol) attacks the optic nerve and blood-rich membranes surrounding the eye. It is vitally important to flush fuel from eyes immediately if there is an accident.

Used 2-ounce syringes can usually be bought quite cheaply from your local veterinarian. Before you use them, install a 1/2-inch-long sheet metal screw near the top of the body. This prevents the plunger from being accidentally forced out of the body.

On your bladder line install a pinch clip. Make this by taking a large size Perfect line connector, soldering the sliding sleeve to lock it up in the middle position, and sawing through it at the center. This makes two handy pinch clips. These are easier to operate than hemostats and don't get lost since they are permanently on the bladder feed pipe.

2. If you have items that are easily lost in the grass, such as hemostats, line reel clamps, glow plug wrenches etc, tie a small piece of fluorescent flagging tape to them.

3. If your knees aren't as young as they used to be you'll appreciate a kneeling pad used by gardeners. For less than \$4, one of these foam pads can make the kneeling chores servicing planes in the pits a lot easier.

Mel Lyne can be reached in care of Flying Lines or at mlyne@alpha.sea-to-sky.net

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On Lines

By Jim Cameron

Show Team Update

Did you know that there are only three Control-line show teams in the Nation? I think it's very cool that we have one of them.

As Bill Darkow stated in one of his last articles, we had a great summer. In our first year we did nine shows. We performed at the Rose Festival Air Show, Pearson Air Museum, Olympic Flight Museum and the Portland International Raceway, to name a few. The team combines air shows (or museums), flying models, hanging out with flying friends, and teaching kids.

If anyone is interested in being on the Show Team, contact Bill Darkow. You don't have to be on the Show Team to fly at one of the events. I can list any AMA member as a "guest pilot." We would like to see anyone who is interested in this kind of flying come join us. It was very nice last year because we had 20 people on the roster. This was great because every team member didn't need to show up to every event. Even with 20 on the roster we had 90 percent participation.

Last summer most of us just used planes that were already built. Some of us are talking about using three-line equipment and three- or four-up flying with long streamers. We would like to make the show more exciting for the public.

So far we haven't had to change much equipment to make it useful for the Show Team. At most of the events we have been able to fly all day. The pilots can bring any equipment.

At this time we are working on the calendar of events for next summer. When we get the dates and places on paper we will submit them to *Flying Lines*. This will make it easy for everyone to pick the events they can participate in. We would have done this last year but we were still learning and the summer went by very quickly.

If anyone has an idea for an event you can contact Bill Darkow or myself.

Jim Cameron can be contacted in care of Flying Lines or at iflycontrolline@hotmail.com. Bill Darkow can be contacted in care of Flying Lines or at romodlr@aol.com.

The Real 'Dirt'

Some tight lines from the bad boy of CL flying, "Dirty Dan" Rutherford

Building for Stunt 2002

While it may rightfully be assumed that those of us who fly Stunt exclusively have precisely targeted our next project, it seems to me as if there are a number of people out there who feel the need for a model to either just get started or the occasional Stunt contest.

If you're in that category, there are a number of ways to jump. There are lots of neat kits out there, even ARF models such as the locally produced "Ukey 35" series that is certainly a quick and easy way to get in the air with a model capable of flying the entire pattern.

But first remember that Stunt planes tend to live long and useful lives, that many Northwest Stunt contests offer Old-Time Stunt, Classic and Precision Aerobatics. (The 2001 Roundup also offered P-40 — profile models with up to a 40 installed — but I see no strong support for this event at other contests.)

With above in mind, makes sense to maximize the return on building time by whacking out something that can be used in multiple events. A Ringmaster (the original kit design, referred to as an "S1") is such a model. It is not merely legal for OTS, it has been proven to be a kick-ass design. The OTS pattern is stuffed full of round maneuvers, something the Ringmaster does well. It can of course be used in Classic, although we must be honest here and say that you'll be competing for highest-scoring profile while gaining valuable experience. It would be ideal in P-40. For Precision Aerobatics, the same Ringmaster will easily do all Beginner PA maneuvers, would be very competitive in Intermediate, a mid-pack effort against today's Advanced crowd. Your initials would have to be PW for this design to be taken seriously in Expert.

Think about this: At the past Roundup a flier could have tossed a Ringmaster and a quart of fuel in the car, flown in OTS and Classic on Saturday, P-40 and his chosen flavor of PA on Sunday. At the very least, by the time PA came around one would have the needle set perfectly. One contest, four events, a minimum of eight flights. In an age

of specialization we don't see this kind of versatility often.

Unless you come up with a particularly good kit, one with real good, real straight wood, contact Pat Johnston. He has just completed his own set of CAD-generated plans for the S1 Ringmaster. I have seen and used Pat's plans in other projects, you'll really like his work. Call him at (208) 887-0803.

For power you've got choices. Emil Kovac used to just rip everybody in OTS with an O.S. 15FP bolted to his quite light Ringmaster. Any of the O.S. 20FP, 25FP (discontinued but still around), 15LA, 25LA motors would be fine. My personal choice would be a Fox 35. Just about the right amount of power, more importantly the right kind of power. Sure, the Fox bangs pretty hard, better build a strong, vibration-resistant front end. But the Fox makes for a period-correct model, the latest production run has resulted in what are easily the best Fox 35s ever, they are easy to handle and can be used in future models.

(Please note that a Fox 35-powered Ringmaster, with a simple change of tank and prop, and assuming you don't throw after-market accessories at the motor, would also be competitive in NW Sport Race. I don't know if anyone has ever taken versatility this far, but the opportunity does exist for some crossover between events.)

Back to engine choices, there are more people fiddling with four-strokes for Stunt models. I am told that either the O.S. Surpass 26 or the Saito 30 are ideal for models like the Ringmaster. The 26 seems a bit chunky at 9-3/4 ounces with muffler. Saito's 30 comes in at 9-1/4 ounces without muffler, plus it carries a little more displacement. Agreed, both of these powerplants are heavier than a stock Fox 35. But the Fox typically gets a muffler bolted on, heavier head, heavier back door, in many cases an aluminum spinner. So while the compromise might be tail weight on a four-stroke powered Ringmaster, you'd have a unique and effective model, one that could also be used to stealthily fly quietly at the local park or school grounds. For what it's worth, I view this combination as hard to resist.

Tanks are frequently a problem when it comes to profile models like the Ringmaster, but I think yet another solution — possibly the best yet — has come to my attention. Dave Shadel, Performance Specialties, (775) 265-7523, imports the line of Tetra tanks, this including a version that has a soft bladder placed within the usual hard shell of nylon. The bladder is a relaxed unit, no pressure. Referred to as "Bubbles" (sic) fuel tanks, the idea is to load fuel only — no air whatsoever — in the bladder. (Yes, as with many "new" items, Jim Walker did it first. Reference: Canopy containing balloon tank on the 1/2A Firebaby.) As fuel is consumed, a vent on the tank shell allows air pressure to collapse bladder right down to the fuel pickup. Or one can run muffler, pipe, even crankcase pressure to this vent, pressurizing the area around the bladder. Very popular in RC Pylon racing, these guys do in fact pressurize the tank with muffler pressure, although I suspect we will be better off simply using suction feed.

Regardless of that, note that the primary problem with fuel tanks on profile models is the fuel getting all foamed up with air. But with these Tetra tanks there is no air — or at least should not be if the instructions are followed — in the fuel. No foaming. Just good, clean runs. With little, if any, warning that you are about to run out of fuel ...

These tanks are available in a wide range, the most attractive to us being 3-, 4-, 5-1/4- and 6-ounce sizes. In these sizes the tanks are all 48mm wide, 41mm high, call it 1-7/8" by 1-5/8". Length is the only variable, running from 71mm for 3-ounce, 122mm for 6-ounce tanks.

Always go *bigger than required* with these tanks. For example, a Fox 35 normally gets a 4-ounce tank. But with Tetra tanks you do not want to get into a situation where the tank must be filled to absolute capacity. For one thing, the bladder can be stretched a bit, giving light pressure and thus a false setting at launch. The vent/pressure fitting sometimes will poke a hole in the bladder if it is forced into that corner of the tank. Better to go with a 5-1/4-ounce tank, short-fill the thing with a syringe.

Regardless of your chosen model, we look forward to seeing an increasing number of NW CL fliers dropping in at the Stunt circle.

Dan Rutherford can be contacted in care of Flying Lines.

News from the Northwest Skyraiders

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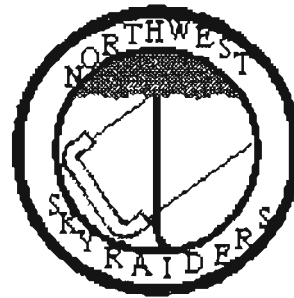
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EXPO REPORT

Chris Gomez reports on the expo activities:

The Expo went well. I feel that the booth looked great. We need more photos for the picture board. There was a great turnout on Saturday and not too bad on Sunday, for being Super Bowl Sunday. The raffle earned \$118.00 for the club flying site war chest. The plane, a classic stunter, "Feno"



was completely built by **Ron Canaan**, painted by **Chris Gomez** and donated to the club. We will be looking members to donate for next years' raffle. Thanks to all members who have donated. Flying demos were a little weak this year — we will work on it for next year. **Dave Gardner**, assisted by **Jeff Byers**, put on great show on Sunday between rain storms (aerobatic rain dance!) and it looked like **Dave** was having fun too! Saturday we had the new trainer out. **Nick Stratis** called people out of grandstands to fly!

It looked like everybody had fun — that's all that counts!

We got one new member at the booth, **Donald Farr**, from Kent. Welcome aboard, Donald!

FLYING SITE REPORT

Ron Canaan reports that response is a little slow at this time of year. The Emerald Downs site is still "iffy," since Emerald Downs has rented the space to the Seattle Auto Auction, for the time being. We can still fly out there on a random basis, but the car folks are paying the bills, so they get to say who gets to be where and when. Riverwalk Park still has political issues, but only enough to prevent us from developing the site, not to keep us from flying there. For paved surface flying, the field at Clover Park Technical College is still

available on weekends, which is most of our available flying time anyway.

Flying site maps were worked up by Mike Potter and Ron Canaan (I believe) for the Expo booth. We need copies of these maps (all three sites, if possible) on a handout sheet, to take to the hobby shops. They'll always get the question, "where do I fly" when being shown the benefits of CL flying.

As an aside, the winner of our Expo drawing for the RTF Feno Classic Stunter works for Seattle Auto Auction! Are we feeding the hand that bites us?

WEBSITE REPORT:

Our website address, www.nwskyriders.org, is noted in the header bar of the newsletter, for general reference. Remember, it's not just the club's site, it's a living document, a work in progress, which belongs to all of us. If you have any ideas for display, or links to other sites, let us know. Ron Canaan's son is doing the webmaster work for us, but it might be good if one of us could pick up this job, to keep it current. At this time, Ron is the point guy, but he is not a computer guy, so don't expect him to answer any technical questions!

HOBBY SHOP REPORT:

From Steve Helmick:

I've been dealing with Ultimate Hobby Shop (formerly Wagner's) in Auburn, and getting to know "The Ozzie," who is the manager, Bruce de Chastel. I recalled the name from several years of subscribing to *Airborne*, the Australian model magazine; his family is a hobby shop dynasty in the Brisbane area. He stocks PowerMaster fuels, including the 29% all castor stuff, but the key thing is that he once said that he would get anything we want for CL (or FF?), and I'm working up to suggesting that he stock some good CL kits, like Brodak Pathfinder (both sizes) and the Flite Streaks.

If you stop in, make sure Bruce knows you're CL (and FF) fliers. He said a couple of things you may find interesting. The shop is one of a small chain, and the store in Portland has some Brodak stuff in stock but down there, it hasn't sold well. Bruce is going down to Portland tomorrow and will bring some back. I suggested the various Flite Streak and Pathfinder kits, and dopes, but of course it depends on what they have in Portland.

For those of you who live in Oregon, pay a visit to Ultimate Hobby in Jantzen Beach, nearly right across I-5 from the Delta Park flying field.

The other thing wuz that Bruce said he'd just ordered (for himself) a dozen Mejzlik combat models (presume the slow version), and he will be flying 80 mph Combat! Realistically, some of the Mejzlik models may end up in the shop, for sale, RTF, which could be a very good thing for CL in the PNW. I don't know about you, but I think this is all WAY COOOL! :)

Oh, I did take my Ozzie guest by Ultimate so they could practice Oz-talk. Apparently they had met once in Queensland. Got an earful of BS, anyway. It wuz Grite, Mite!

Skywriter editor's comments:

To reinforce what Steve has said, I met the owner of Ultimate Hobbies at Expo. He had commented on the lack of turnover of CL items, as well. I visited their Portland store last week to see what he had; he was surprised to see that of all the "one of everything from Brodak" inventory, he had 3 kits left! I talked to him about a cooperative effort, where I /we would make a list of essential items for new CL flyers (engines, kits, lines, handles, hardware, etc.) and they would stock it in both their Portland and Auburn stores.

Please note that these comments and efforts are not to pit one retail hobby shop against another; it's just like our flying site efforts — we need to cultivate several options if we want our part of the hobby to grow and survive. --DG

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Danger, danger! Time to renew!

You don't want to miss an issue. Here are the subscribers on the bubble with this issue: Preston Briggs, Ken Burgar, G.K. Campbell, Bob Dash, Bruce Duncan, Jim Green, Chuck Matheny, Bob Parker, Paul Rice, Dave Royer, Dan Rutherford.

FLYING LINES

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