

**JANUARY / FEBRUARY 1999  
ISSUE #153**

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**NORTHWEST RULES ISSUE**

*Also in this issue.....*

*Stunt Stuff, by Chris Cox*

*Round & Round, by John Thompson*

*First Edition of 1999 NW Contest Calendar*

*NW Regionals Flyer*

*Updated NW Records*

*Final 1998 Competition Points Standings, and More!*

Greetings, and welcome to our first issue of this new year! As you can see by reading the header, we are doing a feature that we do just about every year..... the rules issue. All of the current NW region rules are scattered throughout the issue. Also included are the special Floatplane rules that will be used at the Regionals.

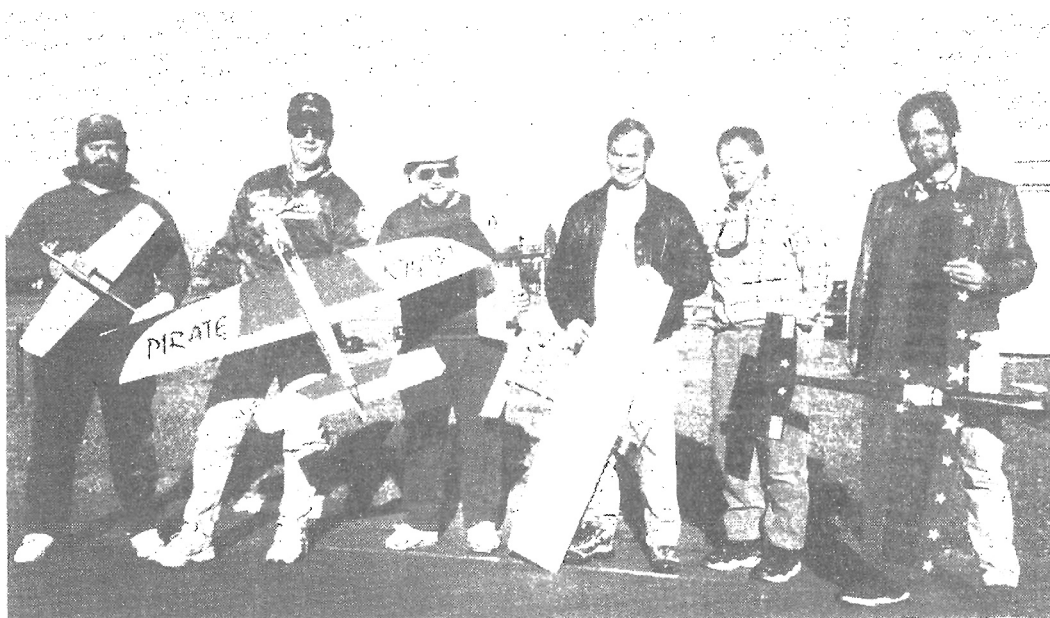
Many thanks to the NW clubs who have gotten out their contest schedules with plenty of advance

notice. Check out the calendar, plenty of action on tap.

If you are a peruser of websites, then check out Fred Cronenwett's site. As you know, Fred is our scale columnist, and has also worked at formulating rules for the Floatplane flying at the Regionals. His site even includes up to the minute weather conditions in Roseburg! Here it is: <http://www.geocities.com/CapeCanaveral/Cockpit/3188/ControlLine.html>

Ok, enough from me, now get reading!

*BELOW: Some of the participants at the NW's first meet of the year, January 3rd in Salem, Oregon  
L to R: Mark Wahlster, Jerry Eichten, Mike Hazel, Mark Hansen, Gary Harris, Joseph Matta (John Thompson photo)*



# Schnieder Cup ROW Scale Racing

## 1.0 General

Open to all flying scale models of aircraft flown during the Schnieder Cup Air Races flown between 1913 and 1931. Models may be Profile or full bodied scale. Models must be able to float without any help from the pilot. Only one model may be entered by each participant.

## 2.0 Power

There are no restrictions to the types of power plants that may be employed. Reciprocating engines may not exceed .4200 cubic inches for 2-stroke engines and .7500 for 4-stroke engines. Electric power may be used, limited to 21 cells for single engine setups and 28 cells for twin engine setups.

## 2.1 Muffler Requirements

Reciprocating engines must be equipped with a muffler. Tuned pipes are not allowed.

## 3.0 Control Line Requirements

The distance from the handle to the centerline of the fuselage must be 56 feet +/- 6 inches. Minimum wire diameter must be maintained per Control Line Precision Scale rules (see AMA rule book)

## 4.0 Contest Schedule

The model may be handled by an assistant after the taxi laps to return the model to the start of the pond for takeoff. The engine must be shut down and restarted between taxi laps.

## 4.1 Flight Points

- |   |             |
|---|-------------|
| A) Slow Speed Taxi Lap and water handling, from start of pond to end of pond  | 0-20 points |
| B) High Speed Taxi Lap, from start of pond to end of pond (get floats on step, but don't takeoff).  | 0-20        |
| C) Takeoff  | 0-20        |
| D) 10 Level Laps  | 0-20        |
| E) Timed High Speed Laps timed in seconds. Convert seconds into MPH and then divide by 1.600 to obtain high speed bonus points. (examples below)<br>( 80 mph - 29.987 seconds=50 pts; 70 mph - 34.271 seconds= 43.4 pts, etc. ) |             |
| F) Touch and Go   | 0-20        |
| G) Landing  | 0-20        |

## 4.2 Scale Outline Points (static judging)

Model will be judged from 15 feet using Control Line Sport Scale rules. 100 points maximum may be earned as follows:

- |                             |  |
|-----------------------------|--|
| Accuracy of Outline         | 40 max points for full bodied models; 25 max points for profile models |
| Craftsmanship               | 30 points maximum  |
| Finish, Color, and Markings | 30 points maximum  |

## 4.3 Total Score

The total score will be the combination of the flight, static, and high speed bonus points.

- |                         |           |
|-------------------------|-----------|
| Maximum flight points:  | 120       |
| High speed point bonus: | Unlimited |
| Maximum static points:  | 100       |

# Open Seaplane ROW Rules

## 1.0 General

Open to any and all control line model airplanes. Models may be profile or full bodied. Models must be able to float without any help from the pilot. The model does not have to be equipped with throttle control or be a scale model of an actual aircraft designed to fly from the water.

## 2.0 Power

There are no restrictions to the types of power plants that may be employed. Maximum weight of model may not exceed 20 pounds.

## 2.1 Muffler Requirements

Reciprocating engines must be equipped with a muffler.

## 3.0 Control Line requirements

The distance from the handle to the centerline of the fuselage must be proper length to allow the model aircraft to fly from the ROW pond without hitting the banks. Minimum wire diameter must be maintained per Control Line Precision Scale rules. (see AMA rule book).

## 4.0 Contest Schedule

The model may be handled by an assistant after taxi lap (if used during flight) to return to the model to the start of the pond for takeoff. The engine must be shut down and restarted between taxi laps. The total points for this event are judged during flight. There are 3 mandatory options: Takeoff, 10 level laps, and landing. There are 6 optional options which may include any of the following:

Wingover	Reverse Wingover	Inside Loop
Inverted Flight	Outside Loop	Inside Square Loop
Outside Square Loop	Triangular Loop	Horizontal Eight
Horizontal Square Eight	Vertical Eight	Hourglass Figure
Overhead Eight	Fourleaf Clover	Taxi from Start to End of Pond
Multi-Engine	Throttle Control	Flaps
Retractable L.G. or Floats	Other Mechanical Features	Bomb Drop
Touch and Go	Banner Pickup or Tow	Parachute Drop
45 Degree High Flight	Banner Tow	Banner Release
Torpedo (must land in pond)		

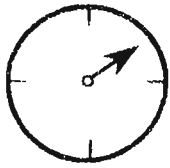
"Taxi" and "Touch and Go" count as Two options. This is designed to allow Scale like aircraft with limited options to obtain 6 options with a single engine aircraft and throttle only functions.

## 4.1 Flight Points

A) Takeoff	0-20 points
B) 10 Level Laps	20
C) Option #1	0-20
D) Option #2	0-20
E) Option #3	0-20
F) Option #4	0-20
G) Option #5	0-20
H) Option #6	0-20
I) Option #7	0-20

## 4.2 Total Score

The total score will be the combination of the 3 mandatory and 6 optional options for maximum total points to be 180.



# Northwest Competition Records

Record performances established between Northwest CL modelers in sanctioned competition

No, there haven't been any new records set lately, but there are a couple of corrections. Plus, just thought it timely at before the start of the competition season to give you a reminder of what to shoot for.

Note that there are still a couple of vacant slots. Hey, when will someone set an "A" record with a Goodyear? (hint, hint)

The corrections to make here are the performances that Todd Ryan did at the AMA Nats last summer. He broke Marty Higg's old mark for 70 lap Scale Race which had stood since the '89 Richland Nats. He also set new marks in both of the Slow Rat Race categories, erasing the standards set by the Hazel/Thompson team (Nitroholics) back in '92 and '93.

1/2 A SPEED	110.34	MIKE HAZEL	9-06-98	TACOMA, WASH.
A SPEED				
B SPEED	168.47	RON SALO	6-14-97	KENT, WASH.
D SPEED	183.41	BOB SPAHR	7-14-95	RICHLAND, WASH.
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	152.87	CHUCK SCHUETTE	7-20-97	COQUITLAM, B.C.
FAI SPEED	179.54	CHRIS SACKETT	8-17-97	COQUITLAM, B.C.
1/2 A PROFILE PROTO	101.60	CHUCK SCHUETTE	5-26-96	ROSEBURG, OREGON
21 PROTO SPEED	133.03	CHRIS SACKETT	5-25-97	ROSEBURG, OREGON
NW SPORT JET SPEED	151.97	DICK SALTER	5-03-98	SALEM, OREGON
MOUSE RACE I -50 LAP	2:17	STEPHEN COX	8-23-97	SALEM, OREGON
MOUSE RACE I -100 LAP	4:40	PAUL GIBEAULT	9-05-98	COQUITLAM, B.C.
MOUSE RACE II -75 LAP	3:32	WILL NAEMURA	5-23-98	ROSEBURG, OREGON
MOUSE RACE II -200 LAP	10:00	JAMES COX	5-24-97	ROSEBURG, OREGON
AMA SCALE RACE -70 LAP	3:01	TODD RYAN	7-15-98	MUNCIE, INDIANA
AMA SCALE RACE -140 LAP	7:47	JOE RICE	5-25-96	ROSEBURG, OREGON
NW GOODYEAR -70 LAP	4:00	JOE RICE	5-22-98	ROSEBURG, OREGON
NW GOODYEAR -140 LAP	8:01	JULIE RICE	5-27-95	EUGENE, OREGON
SLOW RAT RACE -70 LAP	2:47	TODD RYAN	7-16-98	MUNCIE, INDIANA
SLOW RAT RACE -140 LAP	5:49	TODD RYAN	7-16-98	MUNCIE, INDIANA
AMA RAT RACE -70 LAP				
AMA RAT RACE -140 LAP	5:38	TODD RYAN	5-24-98	ROSEBURG, 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	8:30	TODD RYAN	7-25-98	RICHMOND, B.C.
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:	308	TODD RYAN	6-14-97	KENT, WASHINGTON
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	314.00	TODD RYAN	5-23-97	ROSEBURG, OREGON
.15 CARRIER	234.00	TODD RYAN	9-19-98	KENT, WASHINGTON
AMA ENDURANCE	39:56	MARK HANSEN	7-12-98	SALEM, OREGON

records as of 10-01-98

## 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.

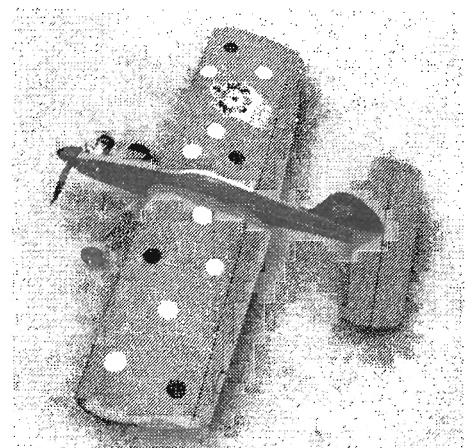
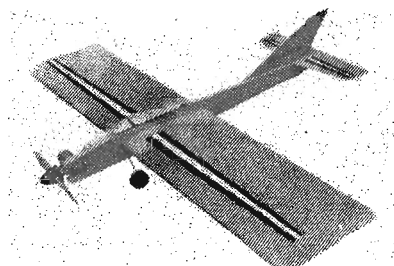
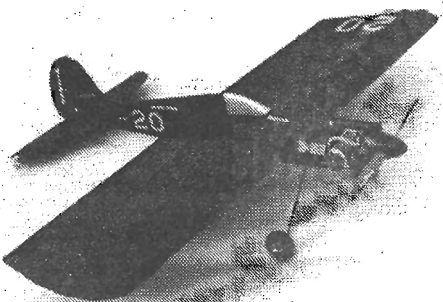
7. **Pull test:** The plane and entire control system shall undergo a pull test of 35 pounds.

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.

# NORTHWEST FIREBALLS PRESENT SPRING RACING TUNE-UP AND NORTHWEST CARRIER CHALLENGE

APRIL 24, 1999  
At East Delta Park, Portland, Oregon

Flying to Begin Promptly at 10:00am. and Events to be held in the Following Order:

- > Mouse Class I JSO
  - > NW Flying Clown Race JSO
  - > NW Sport Race JSO
  - > NW Super Sport Race JSO
- Carrier Flying To Starts at 10:00am

- > NW .15 Carrier JSO
- > Profile JSO
- > Class I & II Combined JSO

Prize Table for All Entrants, Who Place Third Or Better, in any Event.

\$5.00 for Each Event, \$20.00 Maximum,  
Junior/Senior \$10.00 Maximum.

For more information contact contest director Gary Harris at, (503)324-3450, or racing event director Mark Hansen at, (503)234-971

*Safety Thong required in all events*

# Northwest Precision Aerobatics

Primer

And

Five Rounds of Nostalgia

Diesel Combat

April 25, 1999  
East Delta Park, Portland, Oregon

- > PAMPA "Precision Aerobatics" to begin promptly at 9:00am
- > Combat to begin at 9:00am. For a complete list of rules for "Nostalgia Diesel Combat", Contact event director Mark Hansen at (503) 234-1971, e-mail at Fastcombat@aol.com
- > For further information please contact contest director Gary Harris at (503) 324-3450
- > All events flown JSO  
Prize table for all entrants who place third or better \$10.00 for Each event and a Maximum of \$20.00.  
Junior/Senior, \$5.00 for Each event, \$10.00 Maximum

# NORTHWEST CONTROL LINE CONTEST CALENDAR

**THE FOLLOWING LISTING IS A SUMMARY OF ALL KNOWN A.M.A. AND M.A.A.C. SANCTIONED EVENTS AS OF 2-04-99. 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 REVISIONS AND TENTATIVE DETAILS. CONTEST FLYERS CAN ALSO BE INCLUDED AT NO CHARGE, ON A SPACE AVAILABLE BASIS.**

**MARCH 13**

**RICHMOND, B.C.**

EVENTS: CARRIER (ALL CLASSES), P.A.C. SLOW RACE  
SITE: RICE MILL RD SPONSOR: PACIFIC AERMODELLERS  
CONTACT: MIKE CONNER (604) 465-7277

**APRIL 10**

**BRITISH COLUMBIA**

EVENT: NOSTALGIA DIESEL COMBAT SITE: TBA  
CONTACT: ADRIAN DUNCAN (604) 941-9409

**APRIL 24**

**RICHMOND, B.C.**

EVENTS: NW SPORT RACE, .15 SPORT RACE, NW FLYING  
CLOWN RACE SITE: RICE MILL ROAD SPONSOR:  
PACIFIC AERMODELLERS CONTACT: PAUL DRANFIELD  
(604) 826-3326

**APRIL 24 & 25**

**PORTLAND, OREGON**

EVENTS: MOUSE RACE I, NW FLYING CLOWN RACE (BEG.  
& EXP CATEGORIES), NW SPORT RACE, NW SUPER  
SPORT RACE, .15 CARRIER, PROFILE CARRIER, CARRIER  
CLASS I & II COMBINED, OLD TIME STUNT, NOSTALGIA  
DIESEL COMBAT, AJ FIREBALL STUNT SITE: DELTA  
PARK SPONSOR: NORTHWEST FIREBALLS CONTACT:  
GARY HARRIS (503) 324-3450

**MAY 8**

**BRITISH COLUMBIA**

EVENT: NOSTALGIA DIESEL COMBAT SITE: TBA  
CONTACT: ADRIAN DUNCAN (604) 941-9409

**MAY 8 & 9**

**SALEM, OREGON**

RACING & SPEED TUNE-UP

EVENTS: B TEAM RACE, MOUSE RACE I, NW SPORT  
RACE, NW FLYING CLOWN RACE, AMA GOODYEAR, AMA  
RAT RACE, SPEED: 1/2 A, 1/2 A PROFILE PROTO, FAI, A,  
.21 SPORT, .21 PROTO, B, FORMULA 40, D, JET, NW  
SPORT JET. SITE: BILL RIEGEL MODEL AIR PARK  
SPONSOR: WESTERN OREGON CONTROL LINE FLYERS  
CONTACT: MIKE HAZEL, 1073 WINDEMERE DRIVE  
NORTHWEST, SALEM, OREGON 97304; (503) 364-8593;  
ZZ CLSPEED@AOL.COM

**MAY 15**

**RICHMOND, B.C.**

EVENTS: CARRIER (ALL CLASSES), PROFILE STUNT  
SITE: RICE MILL ROAD. SPONSOR: PACIFIC  
AERMODELLERS CONTACT: MIKE CONNER (604) 465-7277

**MAY 28 - 30**

**ROSEBURG, OREGON**

NORTHWEST CONTROL LINE REGIONALS

EVENTS: PRECISION AEROBATICS (BEG, INT, ADV, EXP),  
OLD TIME STUNT, CLASSIC STUNT, AMA FAST COMBAT,  
SLOW COMBAT, 80 MPH COMBAT, 1/2 A COMBAT,  
VINTAGE DIESEL COMBAT, PROFILE CARRIER, CLASS I  
CARRIER, CLASS II CARRIER, .15 CARRIER, MOUSE RACE  
I, MOUSE RACE II, RAT RACE, SLOW RAT RACE, AMA  
GOODYEAR, NW GOODYEAR, NW SPORT RACE, NW  
SUPER SPORT RACE, NW FLYING CLOWN RACE, B TEAM  
RACE, AMA PRECISION SCALE, SPORT SCALE, PROFILE  
SCALE, SPEED: 1/2 A, 1/2 A PROFILE PROTO, FAI, A,  
.21 SPORT, .21 PROTO, B, FORMULA 40, D, JET, NW  
SPORT JET, SCHNEIDER CUP FLOATPLANE, OPEN  
SEAPLANE. SITE: ROSEBURG REGIONAL AIRPORT  
SPONSOR: N.W.R.M.C. CONTACT: CRAIG BARTLETT,  
205 NE CEDAR LANE, CORVALLIS, OREGON 97330  
(541) 745-2025

**JUNE 12 & 13**

**KENT, WASHINGTON**

STUNT-A-THON 99

EVENTS: PRECISION AEROBATICS, CLASSIC STUNT, OLD  
TIME STUNT, SITE: BOEING SPACE CENTER FIELD,  
SPONSOR: SEATTLE SKYRAIDERS

**JUNE 19 & 20**

**TACOMA, WASHINGTON**

NORTHWEST CL SPEED CHAMPIONSHIPS

EVENTS: SPEED: 1/2 A, 1/2 A PROFILE PROTO, FAI, A,  
.21 SPORT, .21 PROTO, B, FORMULA 40, D, JET, NW  
SPORT JET. SITE: CLOVER PARK TECHNICAL COLLEGE  
SPONSOR: SEATTLE SKYRAIDERS

**JUNE 26 & 27**

**SEATTLE AREA**

BLADDER GRABBER

EVENT: AMA FAST COMBAT SITE: TBA

**JULY 10**

**BRITISH COLUMBIA**

EVENT: NOSTALGIA DIESEL COMBAT SITE: TBA  
CONTACT: ADRIAN DUNCAN (604) 941-9409

**JULY 11 - 16**

**MUNCIE, INDIANA**

A.M.A. CONTROL LINE NATIONALS



# SUBSCRIPTION EXPIRATION DEPARTMENT

This is the last issue for the following subscribers:

BOB EINHAUS, LOREN HOWARD, RATSO MAGOO

Please send in your renewal today! Don't let the next action-packed issue be delayed!

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**JULY 17**

**SALEM, OREGON**

**FUN FLY / CONTEST**

EVENTS: DETAILS TENTATIVE SITE: BILL RIEGEL  
MODEL AIR PARK SPONSOR: WESTERN OREGON  
CONTROL LINE FLYERS CONTACT: MIKE HAZEL (503)  
364-8593

**JULY 24 & 25**

**RICHMOND, B.C.**

**P.A.C. CLASSIC**

EVENTS: CARRIER (ALL CLASSES), NW FLYING CLOWN  
RACE, NW SPORT RACE, GOODYEAR, OLD TIME STUNT,  
PRECISION AEROBATICS (BEG, INT, ADV, EXP), SCALE  
SITE: RICE MILL ROAD SPONSOR: PACIFIC  
AEROMODELLERS CONTACT: KEITH VARLEY (604)  
327-4932

**JULY 31 & AUG 1**

**COQUITLAM, B.C.**

**CAN-AM SPEED CHAMPS**

EVENTS: SPEED: 1/2 A, 1/2 A PROFILE PROTO, FAI, A,  
.21 SPORT, .21 PROTO, B, FORMULA 40, D, JET, NW  
SPORT JET SITE: UPPER COQUITLAM RIVER PARK  
SPONSOR: VANCOUVER GAS MODEL CLUB CONTACT:  
RON SALO (604) 599-8301

**AUGUST 14**

**BRITISH COLUMBIA**

EVENT: NOSTALGIA DIESEL COMBAT SITE: TBA  
CONTACT: ADRIAN DUNCAN (604) 941-9409

**AUGUST 14**

**TACOMA, WASHINGTON**

**TAILHOOK '99**

EVENTS: PROFILE CARRIER, CLASS I & II CARRIER, 15  
CARRIER. SITE: CLOVER PARK TECHNICAL COLLEGE  
SPONSOR: SEATTLE SKYRAIDERS

**AUGUST 21 & 22**

**SALEM, OREGON**

**WOLF 3RD ANNUAL SUMMER MEET**

EVENTS: NW SUPER SPORT RACE, NW SPORT RACE,  
MOUSE RACE I, AMA GOODYEAR, NW FLYING CLOWN  
RACE, CLASSIC STUNT, PRECISION AEROBATICS (BEG,  
INT, ADV, EXP), 80 MPH COMBAT, SPORT SCALE,  
PROFILE SCALE SITE: BILL RIEGEL MODEL AIR PARK,  
SPONSOR: WESTERN OREGON CONTROL LINE FLYERS  
CONTACT: MIKE HAZEL (503) 364-8593

**AUGUST 29**

**COQUITLAM, B.C.**

**VGMC RACING CLASSIC**

EVENTS: MOUSE RACE CLASS I, NW SPORT RACE,  
SITE: UPPER COQUITLAM RIVER PARK SPONSOR:  
VANCOUVER GAS MODEL CLUB CONTACT: RON SALO  
(604) 599-8301

**SEPTEMBER 11 & 12 KENT, WASHINGTON**

**RAIDER ROUNDUP**

EVENTS: STUNT, RACING, SCALE, COMBAT (DETAILS  
TBA) SITE: BOEING SPACE CENTER SPONSOR:  
SEATTLE SKYRAIDERS.

**SEPTEMBER 18**

**SALEM, OREGON**

EVENTS: ALL SPEED: 1/2 A, 1/2 A PROFILE PROTO, FAI,  
A, .21 SPORT, .21 PROTO, B, FORMULA 40, D, JET,  
NW SPORT JET. SITE: BILL RIEGEL MODEL AIR PARK  
SPONSOR: WESTERN OREGON CONTROL LINE FLYERS  
CONTACT: MIKE HAZEL (503) 364-8593

**SEPTEMBER 26**

**BRITISH COLUMBIA**

**P.A.C. PIONEER DAY**

EVENTS: DIESEL STUNT, PIONEER STUNT, WHIP SPEED  
SITE: TBA CONTACT: MEL LYNE (604) 898-5521

**OCTOBER 9**

**BRITISH COLUMBIA**

EVENT: NOSTALGIA DIESEL COMBAT SITE: TBA  
CONTACT: ADRIAN DUNCAN (604) 941-9409

**OCTOBER ?????**

**?? OREGON**

**REALLY RACING & FALL FOLLIES**

EVENTS: MOST RACING CLASSES, AND PRECISION  
AEROBATICS. DETAILS TBA

**NOTE: THIS IS OUR FIRST DRAFT OF THE YEAR  
FOR OUR CONTEST CALENDAR. IF YOU SEE  
ANY ERRORS, OR THERE ARE ANY CHANGES  
PLEASE CONTACT FLYING LINES ASAP. WE  
ALSO NEED SOME INFORMATION GAPS FILLED.**

## NORTHWEST SPORT JET SPEED - 1998

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.

## 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.

For information, contact: John Thompson

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

\* ballot



Julie and Joe Rice battle it out in Combat

(Gary Harris photo)

**The Scoreboard**  
 Northwest control-line  
 competition standings.

## Todd Ryan Competitor of the Year — again!

At what point do we declare the emergence of a competitive "dynasty"? It may be about that time in the case of Todd Ryan.

Yes, to nobody's surprise, Todd, of Pasco, Wash., extended his string of seasons as Competitor of the Year by topping all fliers in Northwest standings points in 1998.

(Yes, alert readers will note that the name of the honor has changed from "Mr. Competition," in reflection of the fact that the standings now include fliers of both sexes.)

The closest modeler giving chase this year was the very active Mel Lyne of Garibaldi Highlands, B.C., who piled up 71 combat points along with 19 in racing and 12 in stunt, to total 102.

That was still 37 points behind Todd's scored of 139 points in three event categories — racing, Navy carrier and stunt. Interestingly, Mel had points as part of a racing team as well as individual points. Had his points been consolidated, it would have been an even closer race yet for the Mr. Competition title.

Overall, the number of people scoring points in competition was up slightly from 1997. A total of 90 individuals scored points (which means they placed in the top four at an AMA-sanctioned competition in AMA District XI or a MAAC-sponsored event in British Columbia. In 1997, 85 individuals scored points. As always, many more fliers participated who did not score points. And this year's final list includes quite a few new faces — always a good sign for control-line model aviation!

It's always interesting to analyze the year-end standings in terms of participation in the various events. In 1998, racing was the most active event, with 32 individuals scoring standings points in nine separate contests — almost the same participation numbers as in 1997, despite a drop in

the number of contests.

Stunt competition came next with 29 people scoring points in either Precision Aereobatics, Old-Time or Classic Stunt, down six from 1997 despite an increase in the number of contests from seven to eight.

However, such slight variations mean very little since the totals count those *placing* in contests, not overall participation. In general, it appears that participation was nearly the same or slightly up across the competitive board in 1998 compared with 1997.

Nine juniors scored points in 1998. With the Cox twins moving into the senior ranks, the way was open for a new junior champion. It was Travis Eshpeter of British Columbia, who scored 14 points in Vintage Diesel Combat.

Anyone who would like a printout of the complete 1998 Competitor of the Year standings for 1998 can get one by sending a stamped, self-addressed envelope to the standings coordinator. The address is at the bottom of the column.

It's 1999 now and time to remind contest organizers to keep track of standings through fourth place in all of your sanctioned contests, and send those results to *Flying Lines* for calculation in the standings.

Final standings in each 1998 event have not changed since the last publication of each category in *Flying Lines*, so the last printed version stands as final for 1998. You can look up the standings in your FL collection, or send a S.A.S.E. to the address below for a complete printout.

Following are the Final 1996 Competitor of the Year rankings. Initials after the names indicate the events in which points were scored.

- C=Combat.
- NC=Navy Carrier.
- R=Racing.
- S=Speed.
- SC=Scale.
- ST= Precision, OTS or Classic Stunt

### 1997 OVERALL STANDINGS

1. Todd Ryan — NC, R, ST	139
2. Mel Lyne * — C, R, ST	102
3. Dan Rutherford — ST	94
4. Mike Conner — C, NC, R, ST	85
5. Nitroholics Racing Team — R	63
6. Paul Gibeault — R, S, ST	56
7. Troy Lyne — C	54
Rick Meadows — C, NC, R, SC, ST	54

9. Jeff Rein — C	53
10. Stephen Cox — R	50
11. James Cox — R	49
12. Mike Potter — NC	44
13. Ron Howell — R	43
14. Don McClave — ST	42
15. Ken Burdick — C	40
16. Shawn Parker — NC, SC	38
17. Joe Rice — R	36
18. Jerry Eichten — ST	35
John Leidle — ST	35
20. Keith Varley — ST	33
21. Dick Salter * — C, S	30
22. Paul Walker — ST	28.5
23. Mark Hansen — C, NC, R	25
24. Will Naemura — R	23
Bob Parker — ST	23
Chris Cox — ST	23
27. Buzz Wilson — C, ST	22
Tom Strom * — C	22
29. Alice Cotton-Royer — ST	21
30. Paul Dranfield — C	19
31. Mike Hazel * — S	17
S&S Racing Team — R	17
33. Scott Riese — ST	16
Gary Haris — C	16
35. Travis Eshpeter — C	14
Jerry Thomas — S	14
37. Tasha Howell — R	13
Chris Sackett — S	13
Emil Kovak — ST	13
40. Melvito Elito Team — R	12
Craig Woolford — C	12
Frank Boden — NC, R	12
43. Michael Nelson — R	11
Greg Nelson — R	11
45. Bob Spahr — S	10
Howard Rush — C	10
Chuck Schuette — S	10
Ron Salo — R, S	10
49. Mac Ryan — R	8
Max Boyd — R	8
Dave Pelletier — C	8
Remy Dawson — C, R	8
Nathan St. John — R	8
Travis Morgan — R	8
55. Dave Shrum — R	7
Dennis Matthews — NC, R	7
Rich McConnell — C, R	7
58. Dave Finnie — ST	6
Loren Howard — NC, S	6
60. Bill Darkow — NC	5
Nils Norling — R, ST	5
62. Roy DeCamara — ST	5

Bob Emmett — ST	5
64. Gerald McHale — SC, ST	4
Larry Hyder — R	4
Roy Beers — NC	4
Jeff Kemp — C	4
68. Bruce Hunt — ST	3
Scott Dorsey — R	3
Jesse St. John — R	3
Jim Green — C	3
Randy Powell — ST	3
Kirk Hagman — R	3
Hube Start — ST	3
75. Jim Johnson — ST	2
Harold Youds — SC, ST	2
Bruce Tharpe — SC	2
Chris Gomez — SC	2
Matt Sanders — C	2
Nick Stratis — SC	2
John Thompson * — C	2
82. Lee Uberbacher — ST	1.5
Jack Pitcher — ST	1.5
84. Craig Bartlett — S	1
Jim Fuller — SC	1
John Hall — NC	1
Ronald Canaan — SC	1
Chris Hazel — S	1
Barrie Shandel — NC	1

\* Also scored points with a team entry.

*Flying Lines* keeps track of standings in all AMA rulebook and Northwest official events, in all Northwest sanctioned contests.

Your *FL* editors do their best to keep up on the results, but contest directors can help keep the standings up to date by making sure to send the results to *FL* immediately after the contest. When you send your report to AMA, remember to send the results to *FL*, too. If you spot any errors, please let us know.

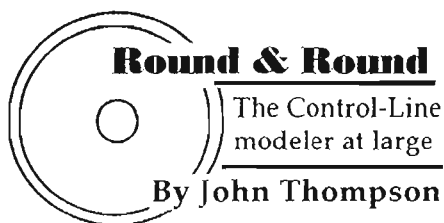
Results must include the placing in each event through fourth place and the report also must list the number of contestants in the event, in order for the point standings to be counted accurately.

Also, please include in your report the hometown of the contestants. Only Northwest residents are counted in the standings (AMA Dist. XI and British Columbia). The score of each contestant also should be listed for general reporting purposes and for checking against the Northwest records, another popular *FL* feature.

Send results to statistician John Thompson at the address listed below.

Remember, only results that we receive can be counted, so send them in. If you flew in a contest that doesn't appear to be counted, contact the contest director or *FL* and let us know.

Send contest results, corrections and other correspondence regarding Northwest Competition Standings to John Thompson, 2456 Quince St., Eugene, OR 97404, e-mail johnT4051@aol.com. For a printed copy of complete standings for any event, send a self-addressed, stamped envelope.



Modeling thought for the month:

*"Nothing wilts faster than laurels that have been rested upon."*

— Carl Rowan

## New NWG engine list approved by Northwest ballot

The votes are in and the new Northwest Goodyear Engine list, valid for 1999, has been approved.

Discussions have been going on for a couple of years now about the NWG engine list, which was drawn up in 1993. The purpose of the original list was to include all affordable engines while excluding the ultra-expensive engines. Such a list also had the effect of keeping speeds below the AMA Goodyear level.

Pretty much every engine except the Nelson and Rossi brands were allowed by the 1993 list. But a number of other .15 engines came into the marketplace in the 1990s, and the list was ready for revision.

During 1998, Northwest fliers proposed a variety of engines for inclusion on the list, and a ballot was included in the past two issues of *Flying Lines* to allow participants and potential participants to express their opinions on the subject. Once again, the Nelson and Rossi engines were not included. The engines on the list were in the sub-\$100 price range, and most were in the power range of the already-allowed Conquest or below.

Northwest rules proposals generally elicit ballots only from a small number of committed and involved fliers. This proposal pulled in votes from a large percentage of the active fliers in Northwest Goodyear, so although the numbers are small they represent a good cross-section of actual racing fliers.

Out of 10 engines proposed, nine were approved; one was rejected on a split vote. Interestingly, the vote was not unanimous on any of the engines proposed. (A couple of engines drew

no "no" votes, but in both cases there were abstentions.)

Rules for Northwest Goodyear are identical to AMA Scale Racing except that the power plant is limited to specific engines, and .015 stranded wires are allowed.

Below is the list of engines that will be allowed for 1999. Numbers in parentheses after an engine indicates that was added by this ballot — the numbers indicate the vote totals.

### Engines permitted for 1999:

- AME/Norvel: Any version (10-1)
- Fox: Any version
- K&B: Any version
- Cox: Any version
- Conquest: Any version
- Enya: Any version
- O.S.: Any version
- Magnum XL-15A (12-0)
- MDS: Any version (10-2)
- Mecoa Wildcat EP15 (11-1)
- Moki: Any version (10-2)
- MVVS 15 DFS/R (10-3)
- MVVS 15 GFS/R (10-2)
- Picco: Any version (10-3)
- SuperTigre: Front intake versions
- Thunder Tiger GP15 (12-0)

The engine proposal that was not approved was the Fox .15bbABC (using after-market piston/liner), though the vote was close, five yes to six no. The Northwest rules coordination system allows for proposals to be brought up for consideration by anyone. Based on experience in the coming year, the Fox ABC issue could be brought up again or any other engine could be proposed for addition.

A copy of the full Northwest Goodyear Rules for 1999 is included elsewhere in this issue.

Other rules covered by the Northwest rules coordination system via *Flying Lines* ballot include: Northwest Sport Race, Northwest Super Sport Race, Flying Clown Race, 80-mph combat, .15 Carrier and Northwest Sport Jet Speed. An effort is under way to develop a coordinated set of rules for Vintage Diesel Combat.

*Send comments, questions, and topics for discussion to John Thompson, 2456 Quince St., Eugene, OR 97404. E-mail John4051@aol.com. World Wide Web: <http://members.aol.com/JohnT4051/NorthwestCL.html>*

## 1999 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 version.

**Fox:** Any version.

**K&B:** Any version.

**Cox:** Any version.

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

**Enya:** Any version.

**O.S.:** Any version.

**Magnum XL-15A**

**MDS:** Any version.

**Mecoa Wildcat EP15**

**Moki:** Any version.

**MVVS 15 DFS/R**

**MVVS 15 GFS/R**

**Picco:** Any version.

**Supertigre:** Any front-intake version

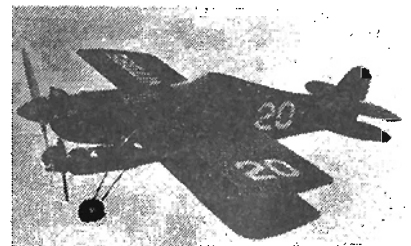
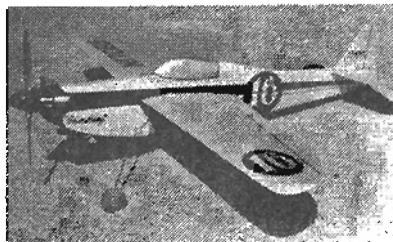
**Thunder Tiger GP15**

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.

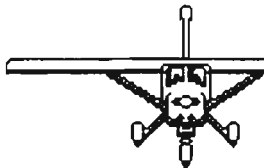
**5.** Pull test will be 25 pounds.

mwh/jmt 3-27-93 // revFL 1/20/99



The 28th annual...

Paul Agerter Northwest  
**Control-Line Regionals**



May 28-29-30, 1999

The West's *biggest*  
control-line model aviation event

**IMPROVED SITE AND SCHEDULE!**

With 43 events and 138 trophies, the Northwest Regionals provides the largest selection of CL competition events and awards available in a single contest in North America.

You can compete  
in these great championship events:

- AEROBATICS — 4 PAMPA classes, Old-Time Stunt and Classic stunt!
- COMBAT — AMA, Slow, 1/2-A, 80-mph, Vintage Diesel (Shutoffs required in AMA, Slow and 80)!
- NAVY CARRIER — Profile, Class I, Class II and .15 carrier!
- RACING — Mouse I&II, Rat, Slow Rat, Goodyear, NW Goodyear, NW Sport, NW Super Sport, Clown, B-Team!
- SCALE — AMA Precision, AMA Sport Scale and Profile Scale!
- SPEED — 1/2-A, 1/2-A Proto, A, B, D, FAI, Jet, Formula 40, .21 sport, .21 Proto, NW Sport Jet!
- JUNIOR EVENTS — Northwest Sport Race, Class I Mouse Race!
- FLOAT-PLANE — Schneider Cup and Open Seaplane, plus scale flights on the pond!

**Enjoy The Regionals at Roseburg Regional Airport!**

Improved site with newly repaved smooth surface, ... Ample parking  
Camping and RV space ... Rest rooms ... On-site hobby shops ... Food concessions  
Registration, vendors and modelers' meeting place inside an airport hangar!

Hotels and restaurants nearby!

TROPHIES ... MERCHANDISE PRIZES ... GRAND CHAMPIONSHIP TROPHIES  
*Camping and practice circles at Douglas County Fairgrounds, off Interstate 5 at Exit 123*

A SATURDAY NIGHT BANQUET WITH SLIDE PROGRAM ON OSHKOSH AND RENO EVENTS

**Be sure to check the back of the flyer** for details of the new, improved schedule. The flying site at Roseburg Regional Airport is just off Interstate 5 Exit 125 in north Roseburg.

Contest Director Craig Bartlett, 205 N.E. Cedar Lane, Corvallis, OR 97330  
(541) 745-2025



# The Paul Agerter Northwest Control-Line Regionals

Roseburg Regional Airport, Roseburg, Oregon

## SCHEDULE OF EVENTS

<u>FRIDAY</u>	<u>SATURDAY</u>	<u>SUNDAY</u>	
	Mouse Race I (Jr.) 8:30 a.m.	Prec. Aerobatics *	8:30 a.m.
Speed (all classes) 12-5	80-mph Combat 8:30 a.m.	Scale flights †	8:30-4
Scale and Schneider floatplane flights † Noon-4	Carrier (all classes) 8:30-5	Speed (all classes)	8:30-4
	Speed (all classes) 8:30-5	Floatplanes † +	8:30-5
	Floatplanes † + 8:30-5	AMA Combat	8:30 a.m.
	Old-Time Stunt * 9 a.m.	Goodyear	8:30 a.m.
Slow Combat Noon	Scale static judge 9 a.m.	Slow Rat Race	9:30 a.m.
Diesel Combat # After Slow	Mouse Race I (SO) 9:30 a.m.	NW Sport Race (Jr.)	10:30 a.m.
Northwest Goodyear 12:30	Classic Stunt * 12:30 p.m.	NW Sport Race (S-0)	11 a.m.
Carrier (all classes) Noon-5	Mouse Race II Noon	NW Super Sport	2 p.m.
Flying Clown Race 2 p.m.	1/2-A Combat 2 p.m.		
B-Team Race After Clown	Rat Race 2 p.m.		

## SCHEDULE NOTES

Registration is open Friday from 10 a.m.-5 p.m., Saturday and Sunday 8 a.m.-noon. Early entry encouraged.

\* *Precision, Old-Time* and *Classic aerobatics* entrants and scale entrants check at registration for meeting info.

# *Diesel combat* will be flown in five rounds beginning Friday and continuing all weekend as time allows.

† *Scale flights*: Floatplanes scale flights: Friday on the pond. Non-floatplane flights: Sunday at the Fairgrounds

+ *Open* and *Schneider flights* Saturday and Sunday 8:30-5 on the pond. Scale floatplane flight judging Friday only.

## RULES INFORMATION

- AMA events are per new **1999-2001 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, Northwest Goodyear, Flying Clown Race, B-Team Race, .15 Carrier, 80-mph combat, Northwest Sport Jet Speed and Floatplane events*. For complete rules, write John Thompson, 2456 Quince St., Eugene, OR 97405. **Not knowing the rules is no excuse — get your copy now!**
- **COMBAT** — All events except Diesel flown double-elimination. **FLYAWAY SHUTOFFS REQUIRED for AMA, 80mph and slow combat per AMA rules** ... For *Vintage Diesel Combat* rules, contact Combat Director Jeff Rein, 14326 102nd Ave. N.E., Bothell, WA 98011.
- Precision Aerobatics Model Pilots Association rules will be used for *Old-Time Stunt* and *Classic Stunt*.
- *Navy carrier* — Mufflers optional. No tuned pipes, Magic mufflers OK.
- **Safety thongs required in all events.**
- Contestants may at some times be required to assist in timing or judging.

## OTHER INFORMATION

- For information about floatplane activities, call Dave Shrum, (541) 672-8893.
- 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 grand championship trophies. **Approximate value of awards: \$3,000.**
- Overnight camping and RV space is available on or near site. Rest rooms, restaurant, etc., are nearby. Food concessions and hobby shops will be on site most of each day. Souvenir T-shirts, sweatshirts!

## FOR MORE INFORMATION, CONTACT:

Contest Director Craig Bartlett, 205 N.E. Cedar Lane, Corvallis, OR 97330 — (541) 745-2025

## OFFICIAL HOTEL:

Windmill Inn, (800) 547-4747, Mention "Northwest Regionals" for special room rate.

## 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. 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.

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# Stunt Stuff

By Chris Cox

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## Molded Top and Bottom Blocks

Tired of tracking down and paying big bucks for a block of primo four pound balsa, only to carve away 98% of it for a top or bottom block? Yes? Well friends, let's mold them instead! Much like fogging with an airbrush, it only sounds difficult. In reality, it is a cinch.

Start off with your super straight fuselage crutch and tack glue a block of 10 or 12 pound balsa or a piece of high density blue or pink foam onto the top and bottom. I tack glue every 2 or 3 inches along the fuselage. If you only tack glue adjacent to the bulkheads, the fuselage will tend to bow in some what as you sand, causing a slight scalloping between bulkheads. Now carve, whittle, and sand away to your heart's content until you arrive at the desired shape. For the top block where a turtle deck is involved, you will need to make two molds, front and back.

Once satisfied, pop the blocks off the fuselage. Lay a strip of 3/16" tape on top of the block (the curved side) full length down the centre-line. Using a band saw, cut on each side of the tape, removing a 3/16" strip from the centre of the block. Sand each side lightly and glue back together. If you use foam as I do, glue the mold onto a piece on 1/2" plywood to give some rigidity to the mold. When the glue has set, some light sanding will

be in order to arrive at a nice rounded section.

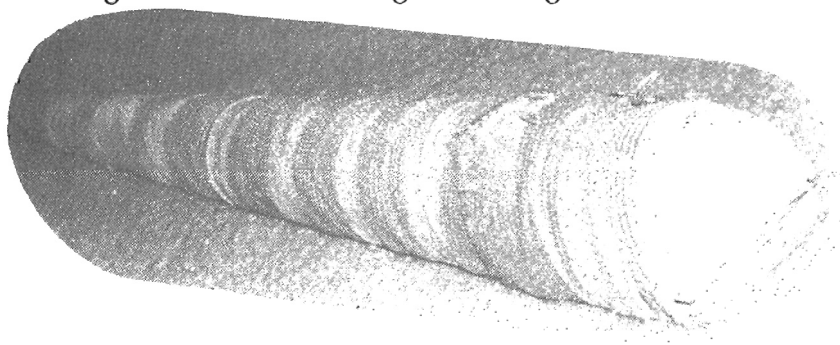
Now take a sheet of 3/32" (1/16" tends for distort and 1/8" is too heavy) four pound balsa and soak in a tub of hot water for an hour or so. Some people recommend ammonia for this, but I haven't found it necessary. When good and saturated, lay the sheet on top of the mold and wrap on tight using a stretch bandage like the ones you often see wrapped around peoples knees. I wrap it pretty tight to ensure the balsa forms exactly to the mold. In certain cases, such as around the nose of the airplane, you may have to cut a few thin wedges in the balsa in order to negotiate the compound curve. Simply re-glue later. Secure the bandage and put the assembly aside for a day or two.

When you can wait no longer, remove the bandage and pop the sheeting off the mold. Wow! You will need the do a little trimming to fit the formed block to the fuselage, but once done, it will be a perfect fit.

Don't worry about the impressions the bandage left in the balsa, these will sand off easily once glued to the fuselage. Also, rather than gluing a few bulkheads inside the form for added rigidity, try CA'ing a couple of 1/2" strips of .5 ounce carbon veil where the bulkheads would normally go. This stiffens the structure big time!

Depending on the weight of the previous blocks you used to use, and your hollowing abilities, you should find these molded blocks to be as light or lighter than any you used before. Be sure to hang onto the molds should you plan to build several models of the same type.

*Send comments and questions to Chris Cox,,  
11693 72A Ave., Delta, B.C. Canada V4C 1B3; e-mail  
cox@direct.ca*





# The Flying Flea Market

Classified advertisements — FREE for FL subscribers

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## RULES FOR NORTHWEST .15 CARRIER

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 disp Muffler pressure allowed. Mufflers 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, 6 inches; with a diameter of .012 inch or larger.
5. All AMA general rules, CL and Navy Carrier rules shall apply unless specifically addressed above.

## NW FLYING CLOWN RACE 200 LAP CLUB

(as of November 1998)

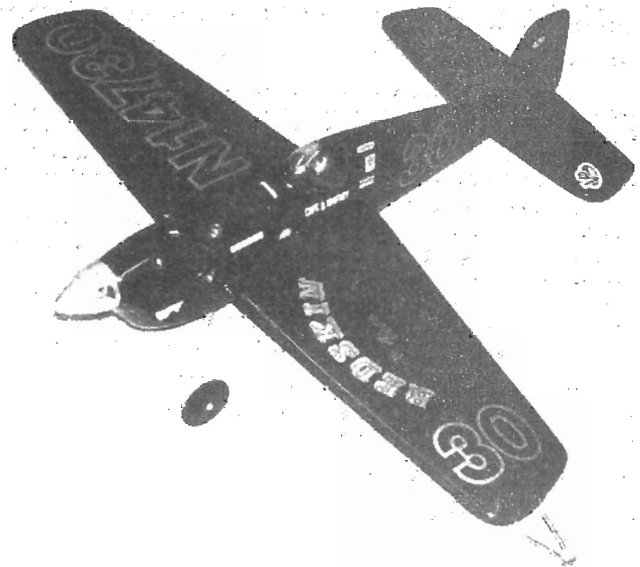
The order of the names is the order that 200 laps was first achieved. The number of laps shown is the best performance by each individual to date.

Joe Just	203	10-27-90
Don Stewart	209	10-27-90
John Hall	219	3-20-93
Joe Rice	296	3-15-97
David Schultz	203	10-5-91
Ron Hale	225	10-5-91
Kevin Magnuson	219	3-15-92
Jim Welch	204	3-15-92
Todd Ryan	308	6-14-97
Bill Fisher	218	3-20-93
Julie Rice	272	10-8-94
Bill Darkow	232	10-2-93
Nitroholics Team	285	8-22-98
Rich McConnell	227	5-7-94
Euan Edmonds	252	10-7-95
Pat Johnston	262	10-8-94
Mike Connor	273	4-18-98
James Cox	265	9-19-98
Stephan Cox	293	9-13-97
Rick Meadows	291	7-25-98
Paul Dranfield	222	3-24-96
Curtis Ryan	268	7-25-98
Scott Davis	229	4-14-96
Aaron Olsen	215	5-4-96
Derrick Meadows	266	7-27-96
Jim Giles	226	10-5-96
S&S Racing	251	5-23-97
Paul Gibeault	281	7-26-97
Cleaver Bros. Team	222	10-11-97
Ron Howell	264	7-25-98
Mark Hansen	257	8-22-98



Pictured above: Keith Trostle (left), and Bob Whitney with their 'B' Team Race ships. Keith's plane is the "Scrambler", and is powered by O.S. .25 FPS. Bob's "Redskin" has ETA .29

Below: Another view of Bob's "Redskin". Nice looking racing ship. This was a popular Veco kit way back when, and is now a highly sought collector's item. If you find one, copy the plans, and save the kit!



# FLYING LINES

1073 WINDEMERE DRIVE NW  
SALEM, OREGON 97304

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