

FLYING LINES



NEWS OF NORTHWEST CONTROL-LINE MODEL AVIATION

1073 Windemere Dr. NW, Salem, OR 97304

Editor: Mike Hazel

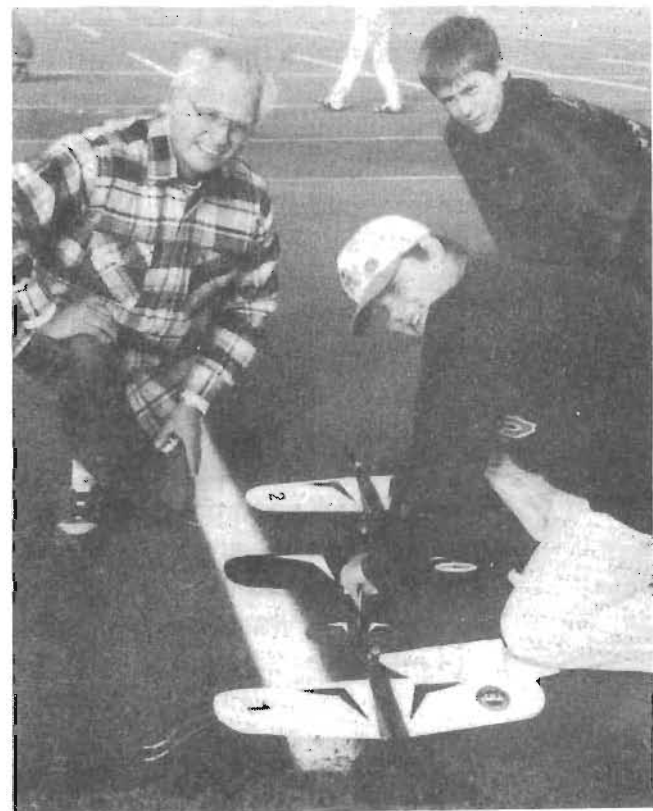
NOVEMBER 1994 ISSUE NUMBER 126

In this issue..... Round & Round by John Thompson, Hook Nook by Joe Just, Sonic Props by Orin Humphries, Updated Competition Records, Contest Results, etc. etc. etc.

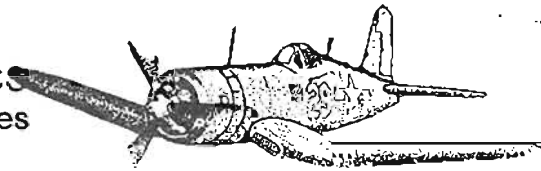
Greetings, fellow CL fans! This issue is a little late because of: (choose one or more) 1) scheduling problems 2) editor's mental block 3) the computer crashed 4) the editor is busy building models 5) lost track of time 6) couldn't decide where to start. Actually, there is a little truth in all of these choices. Since we are running a little behind, a choice was made to get out a quick small issue. The December issue will be a biggie, and will include the year-end competition points standings, and the announcement as to who gets their name on the perpetual trophy.

Believe it or not, there is one more CL contest scheduled for this year. No flyer in this issue, so here are the bare bone facts: CL Speed contest, Salem, Oregon December 2 & 3, 1995. Contest Director: Mike Hazel. This contest will take place providing the asphalt circle at the Salem club's flying site has been completed. Write or call the C.D. beforehand. (phone: 364-8593)

Mouse Racing was very heavily entered by all ages at the Really Racing meet in Eugene. (see results this issue). In left photo, Larry Hyder makes an elevator check on one of the many entries from Madras, Oregon. Right: Dave Shrum poses with a couple of his young proteges from Roseburg, Oregon.



SPECIAL TOPICS
by Orin Humphries



Yours truly has been out of touch for too long. As I get active again, my column focus shifts from a single area in modeling to a wider range of subjects. Sometimes it will coincide with the subject of another columnist, but not usually.

Let's talk **SONIC PROP TIPS**. A couple of Regionals back, my close friend, Paul Gibeault, was picking my engineer (for those of you who don't already know) brain on the subject of propellers. We had been corresponding at length on this subject and he needed some clarification. Paul said some smaller engine classes in Speed hit RPM's high enough to have the tip speeds calculate out at Mach 1. His face was the picture of "How can this be, in light of all we've heard about loss of efficiency at that speed?"

The bottom line is, "All of aviation is a trade-off". Let's look at the details without making engineers of the readership.

The first thing you need to know is the differences between the realms of sub- and supersonic flows. It can be summed: "Almost nothing is the same" between the two. An example: My son is into shooting and was complaining about hollow point bullet design for supersonic muzzle speeds. "Bullets with no hole in the front end have to be more accurate than hollow points," quoth he.

"Not so, Son of mine. You can't apply what you know about subsonic flows here, because everything changes. The attached bow shock and the stagnated air in the hollow point prevent the rest of the flow from 'seeing' the presence of the hole."

One thing you need to know is the location of the aerodynamic center on an airfoil shifts aft a whole bunch when the foil goes sonic. On a subsonic airfoil the aero center is a hair ahead of 25% chord. On a sonic foil it is at 50%. It is crucial that a practitioner know this. The point of maximum thickness must be located near the aero center unless you are talking laminar flow designs (and other related) for subsonic foils. Make that, "can be" for subsonics and "must be" for supersonics. The only real mistake a Speed person can make is to know that at a certain radius the blade becomes sonic and still shape it with the max thickness near 25%. You must blend the blade shape from subsonic to sonic in the appropriate region.

The final point is knowing where the blade flow will become locally sonic. The emphasis is on "locally sonic". Why is it that no commercial airliner cruises faster than Mach .85? Only an eyelash above there, the local flow over the wing goes sonic. You remember, "The flow over the top of the wing is faster than below it". Your rule of thumb must be that by the time your calculated total speed of a point on your blade reaches that figure, your local flow is likely to be sonic. This means you must begin blending your max thickness point from 25%c to 50%c before then. Keep it at 50%c from there to the tip.

Paul was complaining because of all the times he'd heard about the loss of efficiency when prop tips go sonic. There are numerous examples of props that do quite well with sonic tips. Many Lockheed L-1011's, McD-D MD-10's, all

Airbus A320's, and some B 747's have fans that make a droning noise as they approach you. This sound changes as they pass to a more typical jet sound. You are hearing the sonics off the fan tips at first. Many light private and commercial aircraft also have sonic prop tips. Just think back. The Cessna is climbing out on takeoff. As it approaches you the sound is a quite loud droning. Just after it passes the sound changes to that of a piston engine exhaust. It goes, "aaaaaaaaaaaaAAAAAAAAAH,buh,buh,buh, buh,buh,buh,buh,buh". The droning is the sonics and the rest is the muffler. Don't most airshow Stearmans, etc., sound that way? Such prop gearing is banned in Europe for exceeding noise limits.

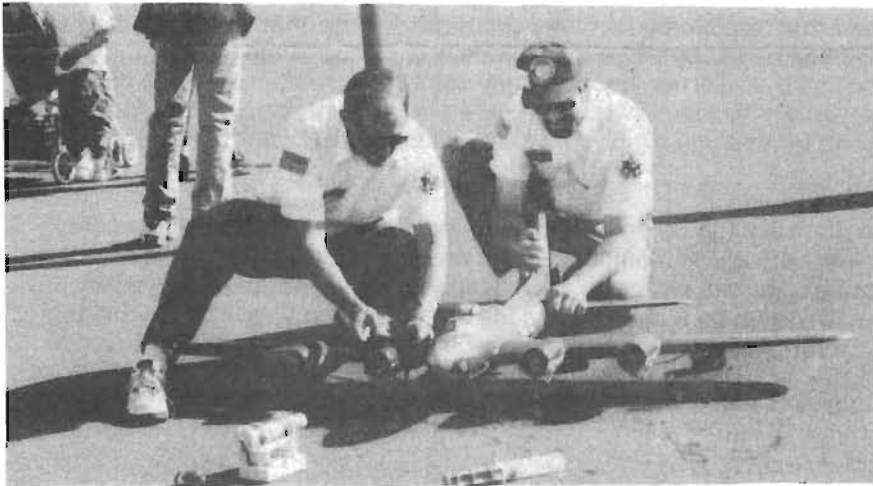
Sonic prop tips are everywhere. The designers have traded off a little efficiency in one area for a gain in another. The overall trade is one of gain if they did it right. That's the bottom line. *Look at your stop watch and decide*, and quit worrying if your tips are sonic. I missed you guys.

SUBSCRIPTION EXPIRATION DEPARTMENT

This is the last issue for the following subscribers: **BOB EINHAUS, GARY HARRIS, GARY NELSON.**

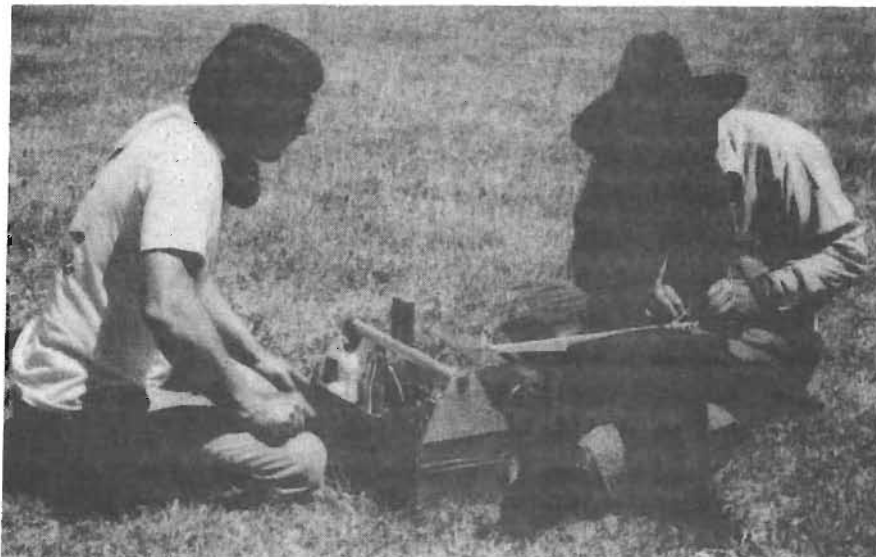
This is the next to last issue for the following: **ALAN OLSEN, PAT JOHNSTON, JACK PITCHER, WILL NAEMURA, RON SALO, L R SELF, PAUL ZISK, DON STEWART, BUZZ WILSON, CLARENCE BULL, DON CHANDLER, BRUCE GUENZLER, WAYNE GNUSCHKE, WAYNE ESAUK.**

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Left: John Hall hangs on, while Paul Walker checks engine RPMs on the B-17 stunter with tach, and adjusts needle valve. Paul flew this plane to the delight of many spectators at the Hoquiam Aviation Day event. (Hazel photo)

Below: Tweed Manley watches Norm McFadden prep fast combat plane at the NW Regionals in Eugene. Then they both fly! (Gary Harris photos)



From the mail I have received it's obvious that people are at least reading FLYING LINES! We thank all that responded to our article about the Tri-Cities Nats. The big news in Carrier flying in the Northwest is word out of Seattle that Tri-Cities flyer Todd Ryan has surpassed the long standing national record for Senior Profile! Our congratulations go to the Ryan family for their outstanding accomplishment. The 295 plus score is a tribute to perseverance and skill, but more importantly it is a reflection of both Todd and his father Mac's approach to the hobby / sport of control line competition.

Three years ago, on a very hot July fourth get together, Todd flew a Carrier plane for the first time, as he became hooked on Carrier, he decided that there was only one way to excell, and that was to see what the 'big' guys were doing and to imitate that. By keeping an open mind, and more importantly approaching the event slowly he gradually improved to the point where he is at today, a national record setter!

Sometime ago in an editorial in this paper, John Thompson noted the very low scores that were prominent in the Northwest in Carrier, and further stated that here was the discipline that could or should be targeted for improvement. Well, Todd has done just that. Is this the only way to approach Carrier competition for most of us? Perhaps not. Many of us simply do not want to push the envelope far enough to be competitive on a national level, nor do we want to spend the time and effort, not to mention the money, that it takes to become one of the "big guys". Herein lies the real beauty of Carrier competition. You simply don't have to reinvent the whell to have Carrier become a great event here in the Northwest. The event is designed for competition in any level you want to compete in.

For the last several years I have been fortunate in being able to "sell" you on the idea of trying Carrier as an additional event for your consideration. I have in the past, and will reiterate here that the event is open to many different approaches. If you want to invest what it takes you can become nationally competitive, if you don't want to, the event still offers enough challenges to the individual to become one of the most intriguing events we have.

It is somewhat disconcerting to receive mail that seemingly revolves around a feeling that many have, that somehow Carrier competition has somehow been ruined by those that compete at the top of the heap at the AMA nats. Often I will hear or read that some won't take up Carrier because they don't like some phase of the sport as they view it in reading or seeing the top competitors fly the event as is needed to place nationally. But for some reason I can't seem to convince the talker or writer that you simply don't have to be a Bill Bischoff, Bill Melton, or Pete Mazur to have fun with the event.

If you don't like a MO-1, don't fly one! If you don't like the 60 degree attitude that it takes to get the high score in low speed, don't fly it! If you feel that line sliders are a detriment, don't build one! If you don't like the idea that it takes huge amounts of practice time to become like the big guys, then simply fly the event the way you like it against guys like Mike Hazel, or myself, who will never be a challenge to the "pros". I don't know of anyone that appears to have more fun than Mike does with that lead sled he flies, and isn't that the real object of Carrier competition.....having fun? However, if you want, like Todd to push further and take a shot at what it takes to break a national record, go for it! All the complaints that are voiced are simply keeping you away from having fun with the rest of us.

..... Joe



Here is the turnout for the Combat and OTS contest in Tri-Cities last June (Tina Pesenti photo)

CONTEST RESULTS

Hoquiam, Washington Aviation Days Carrier Meet, Sept. 23, 1995

Profile Carrier (5 entries)

1)	Todd Ryan	279.29
2)	Alan Olsen	240.32
3)	Mike Hazel	198.43
4)	Mike Potter	91.33

.15 Carrier (3 entries)

1)	Todd Ryan	220.96
2)	Alan Olsen	189.65
3)	Bill Darkow	186.55

Class I Carrier (3 entries)

1)	Todd Ryan	286.31
2)	Loren Howard	191.41
3)	Mike Hazel	176.27

Class II Carrier (2 entries)

1)	Loren Howard	315.85
2)	Mike Potter	254.58

Carrier Bash VI, Richland, Washington, October 7 & 8, 1995

Mouse Race I (3 entries)

1)	Joe Rice	5:16
2)	Todd Ryan	6:53
3)	Julie Rice	3:16 heat

Flying Clown Race (6 entries)

1)	Todd Ryan	301 laps
2)	Joe Rice	254
3)	Euan Edmonds	253
4)	Julie Rice	233

NW Sport Race (4 entries)

1)	Todd Ryan	9:22
2)	Julie Rice	9:35
3)	Joe Rice	10:14
4)	Euan Edmonds	18:53 heat

Old Time Stunt (4 entries)

1)	David Thompson	285
2)	Todd Ryan	279
3)	Charles Edmonds	25
4)	Joe Just	DNF

Profile Carrier (4 entries)

1)	Todd Ryan	296.15
2)	Alan Olsen	227.43
3)	Euan Edmonds	203.51
4)	Jason Just	185.59

.15 Carrier (3 entries)

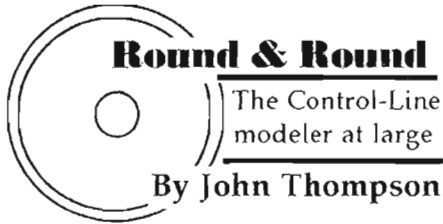
1)	Todd Ryan	217.17
2)	Alan Olsen	198.52
3)	Jason Just	DNF

Class I Carrier (1 entry)

1)	Euan Edmonds	177.27
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"FLY MODELS FOR FUN", says the banner pulled by Bill Darkow's .40 powered profile ship. Flew at the Hoquiam Aviation Day model event in September.
(Hazel photo)



Modeling thought for the month:

"If you have only one nail, it will bend"

— Bowersox's Law of the Workshop

Fall Follies a fine finish for '95

It was a typical October weekend in Oregon — sunshine and the crisp air around 65-70 degrees. A full day of racing, followed by a full day of precision aerobatics, capped off the 1995 contest season in Eugene in fine fashion on the weekend of Oct. 14-15.

As usual, the precision aerobatics portion of the contest was well attended by Oregon stunt fliers, but the turnout for the racing portion of the contest was disappointing.

What made the Saturday racing contest worth while, however, was a spectacular turnout of youngsters for the junior division of Class I Mouse Race. The 12 kids, from Madras and Roseburg areas (as well as the Cox family from Delta, B.C.) had a great racing competition. There were lots of heats, very few mishaps, and lots of experience gained rapidly.

Roseburg Prop Spinner Dave Shrum also ran a Jumpin' Bean race for his troop of students, and separate prizes were awarded in that event. It was quite impressive to see a dozen or so brightly colored JB's spread out on the field ready to race.

The Eugene Prop Spinners went to some extra effort this year to provide nice trophies and some small merchandise prizes for all of the events. Added to the cost of reserving the field, servicing the rest rooms, the sanction, fuel, and other costs, the two-day event cost some \$400, of which less than half was recovered from entry fees.

That raises some questions about whether we can continue to have the October contest as we have for the past six years, without better support from the racing community. We hope to hear from some of the competitors over the coming month about whether this contest is of value and might be supported in the future. Contact your RR columnist at the address below.

Precision aerobatics flying was good, despite

some steady wind that came up during the second round. Alice Cotton-Royer of Portland captured her first win in Advanced, and Jack Pitcher of Gresham was the Expert of All Experts.

In all, 29 people or teams entered the Really Racing/Fall Follies, 11 in aerobatics and 18 in racing. A great time was had by all who participated.

Here are the results:

MOUSE RACE I (Jr.) (12 entries)

- | | |
|-------------------------------------|-------------|
| 1. James Cox, Delta, B.C. | 5:44.53 |
| 2. Stephen Cox, Delta, B.C. | 5:53.50 |
| 3. Travis Morgan, Madras, Ore. | 6:16.66 |
| 4. Dawndee Brittain, Roseburg, Ore. | 3:30.25 ht. |

MOUSE RACE I (Sr.-Open) (2 entries)

- | | |
|--|---------|
| 1. Nitroholics Racing Team
(Thompson/Hazel), Eugene/Salem | 37 laps |
| 2. Larry Hyder, Madras, Ore. | 35 laps |

MOUSE RACE II (3 entries)

- | | |
|--------------------------------|-------------|
| 1. Nitroholics | 11:39 |
| 2. David Shrum, Roseburg, Ore. | 18:07 |
| 3. Mark Knigge, Roseburg, Ore. | 5:06.31 ht. |

AMA GOODYEAR (1 entry)

- | | |
|---------------------------------|---------|
| 1. Morris Gilbert, Eugene, Ore. | 88 laps |
|---------------------------------|---------|

SLOW RAT RACE (1 entry)

- | | |
|----------------|------|
| 1. Nitroholics | 7:34 |
|----------------|------|

RAT RACE (1 entry)

- | | |
|----------------|---------|
| 1. Nitroholics | 7:30.75 |
|----------------|---------|

NORTHWEST SPORT RACE (2 entries)

- | | |
|-------------------|-------|
| 1. Nitroholics | 11:45 |
| 2. Morris Gilbert | DQ |

NORTHWEST SUPER SPORT RACE (1 entry)

- | | |
|----------------|------|
| 1. Nitroholics | 7:25 |
|----------------|------|

FLYING CLOWN RACE (2 entries)

(15-minute feature)

- | | |
|----------------|----------|
| 1. James Cox | 208 laps |
| 2. Nitroholics | 139 laps |

BEGINNER PRECISION AEROBATICS (1 entry)

- | | |
|-----------------------------------|------|
| 1. Ryan Dean, Klamath Falls, Ore. | 89.5 |
|-----------------------------------|------|

INTERMEDIATE PRECISION AERO (0 entries)

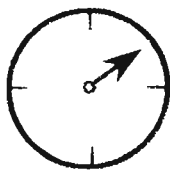
ADVANCED PRECISION AERO (6 entries)

- | | |
|---------------------------------------|-------|
| 1. Alice Cotton-Royer, Portland, Ore. | 487.5 |
| 2. Jim Dean, Klamath Falls, Ore. | 463 |
| 3. Terry Dean, Klamath Falls, Ore. | 441 |
| 4. Dave Royer, Portland, Ore. | 435 |

EXPERT PRECISION AEROBATICS (4 entries)

- | | |
|------------------------------------|-------|
| 1. Jack Pitcher, Gresham, Ore. | 555.5 |
| 2. Chris Cox, Delta, B.C. | 543 |
| 3. Gerald Schamp, Sweet Home, Ore. | 541.5 |
| 4. Don McClave, Portland, Ore. | 539 |

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



Northwest Competition Records

Record performances established between Northwest CL modelers in sanctioned competition

Just when you thought we were done with this for the year! The last couple of meets yielded four new records. We have a new venue for records set, that being in Hoquiam, Washington. At their September Carrier meet, Todd Ryan bumped his .15 Carrier record to 220+, a 9 point gain. The rest of the reported records were set at the October Desert Carrier Bash in Richland, Washington. On the Racing circle, Joe Rice retired the Cleaver Team's 100 lap mark in Mouse Race, the new 5:16 mark beating the old one by 7 seconds. Then later in the day, Todd Ryan breaks his old record in Flying Clown Race, blasting through the 300 lap barrier, by one. The next day, Todd took his new Profile Carrier record up by another half point.

1/2 A SPEED	99.78	BRUCE DUNCAN	5-29-94	EUGENE, OREGON
A SPEED	184.16	BOB SPAHR	7-11-95	RICHLAND, WASH.
B SPEED	158.53	RON SALO	7-13-95	RICHLAND, 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	147.97	CHUCK SCHUETTE	9-12-93	KENT, WASHINGTON
FAI SPEED	179.31	CHRIS SACKETT	7-11-95	RICHLAND, WASH.
1/2 A PROFILE PROTO	92.56	CHUCK SCHUETTE	9-2-95	COQUITLAM, B.C.
21 PROTO SPEED	123.58	CHRIS SACKETT	9-17-95	KENT, WASHINGTON
MOUSE RACE I -50 LAP	2:43	JOE RICE	10-3-92	RICHLAND, WASH.
* MOUSE RACE I -100 LAP	5:16	JOE RICE	10-7-95	RICHLAND, WASH.
MOUSE RACE II -75 LAP	3:40	DAVE GREEN	5-24-86	EUGENE, OREGON
MOUSE RACE II -200 LAP	10:04	HAZEL/THOMPSON	9-19-87	KENT, WASHINGTON
AMA SCALE RACE -70 LAP	3:25	MARTY HIGGS	7-20-89	RICHLAND, WASH.
AMA SCALE RACE -140 LAP	8:48	JOE RICE	7-17-93	LAWRENCEVILLE, IL
NW GOODYEAR -70 LAP	4:12	JOE RICE	5-30-93	EUGENE, OREGON
NW GOODYEAR -140 LAP	8:01	JULIE RICE	5-27-95	EUGENE, OREGON
SLOW RAT RACE -70 LAP	3:10	HAZEL/THOMPSON	5-30-93	EUGENE, OREGON
SLOW RAT RACE -140 LAP	6:38	HAZEL/THOMPSON	10-17-92	EUGENE, OREGON
AMA RAT RACE -70 LAP	-----	-----	-----	-----
AMA RAT RACE -140 LAP	6:32	HAZEL/THOMPSON	10-22-94	EUGENE, OREGON
FAI TEAM RACE -100 LAP	3:36	KNOPPI/McCOLLUM	6-84	SHANGHAI, CHINA
FAI TEAM RACE -200 LAP	7:40	KNOPPI/McCOLLUM	6-84	SHANGHAI, CHINA
NW SPORT RACE -70 LAP	4:00	BRUCE DUNCAN	5-12-87	RICHMOND, B.C.
NW SPORT RACE -140 LAP	8:48	TODD RYAN	10-8-94	RICHLAND, WASH.
NW SUPER SPORT -70 LAP	3:14	DAVE GREEN	4-13-86	PORTLAND, OREGON
NW SUPER SPORT -140 LAP	7:03	DAVE GREEN	3-8-87	PORTLAND, OREGON
* FLYING CLOWN RACE, LAPS: 301		TODD RYAN	10-7-95	RICHLAND, WASH.
CLASS I CARRIER	318.30	ROY BEERS	9-13-86	KENT, WASHINGTON
CLASS II CARRIER	330.25	ORIN HUMPHRIES	9-19-87	KENT, WASHINGTON
* PROFILE CARRIER	296.15	TODD RYAN	10-8-95	RICHLAND, WASH.
* .15 CARRIER	220.96	TODD RYAN	9-23-95	HOQUIAM, WASH.
AMA ENDURANCE	18:37	WESLEY MULLENS	8-15-87	KENT, WASHINGTON

records as of 11-01-95



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FOR SALE: EXTRA PARTS FROM BRAND NEW K & B 65 SPORTSTER: MUFFLER COMPLETE, \$12; CARB \$15. ITEMS POSTPAID. MIKE HAZEL, 1073 WINDEMERE DRIVE NW, SALEM, OR 97304

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