



NEWS OF NORTHWEST CONTROL-LINE MODEL AVIATION

1073 Windemere Dr. NW, Salem, OR 97304

Editor: Mike Hazel

OCTOBER / NOVEMBER 1991

ISSUE #93

In this issue.....

- * Hook Nook, by Joe Just
- * Scale, by Orin Humphries
- * Round & Round, by John Thompson
- * NW Competition Standings
- * Record Review: .15 Carrier
- * Updated Competition Records
- * Contest Reports:
 - C.B.B.B. Racing 9-7-91
 - Raider Roundup 9-14&15-91
 - Desert Carrier Bash II 10-5&6-91
 - Really Racing 10-12-91
 - Fall Follies 10-13-91
- * And More Good Stuff!



Greetings..... Welcome to this issue, and welcome new FL subscribers. We have quite a few starting with this issue. However, we are far from saturated. Please pass on the word, twist your non-subscribing flying partner's arms, and get them signed up!!!!!!!

What a fall it has been! Super flying weather for lots of contests. Just as this is being written, the real NW fall has fell. Temperatures in the 50's, and wet stuff.

Speaking of fall, several NW records have fell during the course of the last two month's contests. They are marked (*) on the updated records roster. Congratulations are due for Paul Gibeault, who set an AMA record for a 50-lap Mouse I race at the Nationals. His time was a cookin' 2:18. Paul is outside of our NW records region, but since he competes regularly with us, all you Mousers had best sharpen up, as his record is well above our local performance.

Flying Lines has established an important piece of criteria for qualifying racing records. It is now required that at least 50% of the record-pace flight must have traffic. That is for instance, if you beat the record in a 140-lap race, another plane must have completed a minimum of 70 laps while you were still racing. This is to eliminate the unfair advantage of a solo-racing situation. As a result of this, Henry Hajdik's NWSR feature record has been retired. That category is now wide open.

We say goodbye to Dick Peterson, who is moving to Anchorage, Alaska sometime in December. Dick's move is employment related, like most moves. He has closed down his Motors & Memories business, a long time supporter of NW CL events, and important source of supplies. Dick promises to get down to at least the Regionals and Roundup next year.

C.B.B.B RACING MEET, Richland, Washington, September 7

MOUSE RACE CLASS I (7 entries)

- 1) 7:13 Joe Rice
- 2) 8:12 Ron Hale
- 3) 9:35 Nitroholics RT
- 4) 3:56 (heat) Joe Campbell

NW SPORT RACE (6 entries)

- 1) 10:16 John Hall
- 2) 11:32 Nitroholics RT
- 3) 12:54 Joe Rice
- 4) 137 laps Ron Hale

NW SUPER SPORT RACE (6 entries)

- 1) 8:08 John Hall
- 2) 8:35 Nitroholics RT
- 3) 10:07 Don Stewart
- 4) 5:06 heat Joe Campbell

YOUR FIRST CARRIER ENGINE..... Now that we (hopefully) have gotten you to building your first profile carrier plane, it is time to consider just what powerplant to tack on up front. Well, we could recommend a real "belch-fire eight", but we wont. One of the most important things to consider is that you are just getting started in this phase of the sport, and the climb to the top of the rankings will take some time. What we are looking for at this point in your learning process is reliability, and dependability. No matter what engine you begin with, these two factors are the most important.

At this point don't be seduced into believing that you need the most powerful racing engine you can find. If you start this way you will find that carrier can be very demanding not only with your time, but also with your wallet. Sure, most of the "pros" you read about are using the top of the line stuff, but that is in your future when you attempt to set national records, not getting your feet wet as a novice. (no pun intended)

Our suggestion is to look for something used, perhaps an older SuperTigre .35 G series. You may even find one of your combat buddies has one laying around that is no longer in use. Find yourself a reliable RC fan to help you get the carb set correctly and you are on your way. At the last two nats, I've seen very good results from an old McCoy 35RC. What you want is an easy starting engine that can throttle down to a reasonable slow speed. I personally have used several older Max .35's with more than good results. Any of these engines are readily available.

If you think you need a new engine, then by all means start with either a Max FP, or for just a few dollars more I recommend the new SuperTigre .34H helicopter engines that are set up for regular aircraft use. This particular engine starts very well, has good throttle response, has more power than I can use at this time, and is priced OK.

Spend some time with your new engine on the bench. Get to know it well, particularly in adjusting the carb. Use several types of fuel and props until it just seems to fit your needs. Don't worry about getting the engine to "scream" yet, this will be counter productive. Plan on running your engine just a little on the rich side, and look for good throttle response through therange of carb throw, rather than extremely low RPM's.

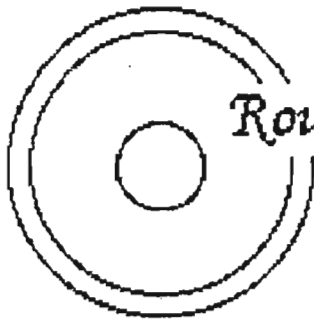
Keep one simple idea in mind and you won't go wrong. In carrier you have to fly seven laps quickly, and seven laps at a low speed. If you flame-out because you are extending the engines capabilities, you have lost any chance of competing at a fair level. I am going to stick out my neck here a little and say that unless you are an engine expert, with a complete machine shop stay away from the following engines. They are great engines but not what you need at this time..... K&B 5.8, TWA, and believe it or not any conversion of the Fox combat special. You will be much more successfull here in the Northwest if you take the K.I.S.S. principle to heart..... Keep It Simple Sam (No body that flies control line is stupid)

Next time..... Flying your first Carrier plane, setting up that 3rd line, other lies and half truths.

Have you ever wondered what the product promotion people are trying to say when you read their ads in the magazines? Ordinary language does not do justice to the wonderful things they discover in the object of their acclaim, and so they have developed a special language that cannot be completely understood by the average reader unless you have a translation. I offer the following interpretive guide.

| | |
|---------|--|
| New | its a different color than previous design |
| All New | parts not interchangeable with the previous design |

| | |
|---------------|---|
| Exclusive | it's an imported product |
| Unmatched | almost as good as the competition |
| Rugged | too heavy to lift |
| Lightweight | lighter than rugged |
| Futuristic | there is no reason to look like this |
| Revolutionary | it's different from our competitors |
| Redesigned | previous faults corrected, we hope |
| Handcrafted | machine operator doesnt wear gloves |
| Distinctive | a different color or shape than the competition |



Round and Round

The Control-Line
modeler at large

By John Thompson

HEY, THINGS ARE happening on the control-line scene in the Pacific Northwest!

Take, for example, the Tri-Cities.

Never been there? Well, you're missing some fine control-line contest action.

You can be forgiven for not knowing about it. I wasn't either until Mike and I got so intrigued with the contest notices and results coming out of the Eastern Washington desert that we threw the Nitroholics Racing Team gear in the pickup and headed off for Richland on the spur of the moment on a recent Friday night.

When you go to a contest in a new place, you never know what to expect. What's the site like? Do these guys know how to put on a race, much less put on a contest? Will there be any body to compete with or are we just making a 6-hour trip to pick up a carload of trophies?

Well, as regards the Columbia Basin Balsa Bashers, the answers are all very satisfactory!

We attended the September racing contest, which was laid out on a single circle on a very smooth parking lot at an athletic complex not far from the control-line site of the 1989 Tri-Cities Nats. The complex has a beautiful expanse of grass on fields that can be reserved for other types of competition when necessary.

These guys do indeed know how to put on a contest with the essential ingredients: First and

foremost, they make the competitors feel welcome. Next, and just as important, the contest is run in a competent fashion.

And there was indeed some fine competition and, no, we didn't have to haul a lot of trophies. No gimmes here!

(OK...Glenn Salter is probably going to show you a very embarrassing videotape anyway, so we have to get our side of the story in on that Class I Mouse debacle: We've already bragged to everybody that would listen about our record preliminary heat time, and how we were going to destroy the feature record. The story of that second pit stop goes something like this: "Egad, we've blown a plug! There, a new plug's in. Aaarggghh — still no light!!! The battery must be bad. Ran and got another battery. What??!! Still no light!!! Dadgum, this plug must be bad, too! Changed plugs — EYYAHHHH!! STILL no light! Now what? OH, yeah. Blush. Turn the spare battery ON! One wind of the spring and away we go to a dashing third-place finish.

(Epilogue: What was the real problem? Close inspection in the workshop revealed a break in battery clip wire in an obscure place, hard to spot in the heat of competition. Well, that's racing!)

The Bashers gave out some very creative trophies (i.e.: a little airplane caught in a mousetrap for guess what event?).

The main thing they gave out was the strong impression that

this is a place worth going back to — and the Nitroholics definitely will be back. If you haven't been there, check out the FL contest calendar and put the next event on your schedule.

Congratulations to Paul Rice, Don Stewart, Mac Ryan, Ron Hales and the rest of the Bashers for making a real contribution to the Northwest CL scene. And watch out on the contest circle for some real up and coming young fliers, including Pat and Joe Rice, Todd Ryan and others!

Battery problems seemed to be a recurring theme for the Nitroholics in September.

Another battery lead broke during another Class I Mouse final at the Raider Roundup in Kent, Wash., a week after the Richland racing meet.

This time, Fine Human Being Roy Nakano saw the harried Nitropitman run for the spare battery and came to the rescue with one that was all hooked up to its lead. The time saved kept the feature intact and we finally got that first-place trophy — though not the record. Well, that'll keep us coming back.

Have you picked up on the lesson here yet? If you don't give your equipment some regular maintenance, it's going to break down on you when you need it most. Contests aren't won just on the circle at the contest site. They're also won in the workshop and on the practice field. If you forget about that, you end up getting reminded at the worst

times.

So now, everyone put this newsletter down for a while. Go into the workshop and take a good look at your battery cords. Does it look fine. Well, even if it looks fine, if it's been in use for two years, REPLACE IT!

Now look at your flying lines. Wiggle the control horns on your airplanes. And keep up that kind of thing until you've gone through everything in your stable of competitive equipment. When you're done, you'll have won yourself some contests in the future — or at least eliminated one more way of losing them. (Do this regularly!!!)

OK, are you back? Fine...let's talk about the Raider Roundup.

You'll find the results elsewhere, but you won't see how hard a lot of people worked under adverse circumstances to put on this major contest. The Seattle Skyraiders need some help: They need workers and they need support from competitors.

The Northwest Regionals has

not been a one-club activity for many years. Workers come in from all over to make it a success. The Raider Roundup is nearly as large a contest, and has been almost entirely put on by the Skyraiders. It's time to make this a true championship contest and get some workers in to take off some of the strain.

How long has it been since YOU worked at a contest? If you have to think about the answer, it's your turn! Get in touch with the Skyraiders and see what you can do in '92!

(By the way: Literally as this was being written, the mail arrived with the latest edition of the Skywriter, edited by Steve Scott. As one who receives nearly all of them, I can tell you that this is one of the nicest looking and most informative club newsletters in the country. It's worth the price of membership in the Skyraiders. If you're interested, contact Steve at 11422 97th Ave. Ct. E, Puyallup, WA 98373.)

A lot of ideas were kicked

around at the 1991 contest and I think you'll see some improvements next year.

There was some talk in Kent about winter activities. Prospects for a Drizzle Circuit look pretty dim, but there's a likelihood of at least one major winter meet, possibly in the Portland area. Check out your rain gear!

By the way, don't put away that carrier plane just yet. Craig Bartlett of the Eugene Prop Spinners is planning a carrier contest for Dec. 7 in Eugene. Current plans are for a full carrier schedule, and also some scale competition. See the contest calendar for information.

Comments, brickbats, questions, etc.: John Thompson, 1145 Birch Ave., Cottage Grove, OR 97424.

(And let me slip in a shameless plug: Anybody who sends me a photo of their favorite airplane has a good chance of being rewarded by seeing it appear in Model Builder magazine. Send one copy to Mike Hazel for Flying Lines, and another view to me. You'll be famous.)



The Flying Flea Market

Classified advertisements — FREE for FL subscribers

Many back issues of FLYING LINES are available for nominal cost. Send your request for list to FL

FOR SALE Plans for Flying Clown, as used in Clown race event. \$4.00
John Hall, 227 Mt. Circle Drive,
Sumner, WA 98390

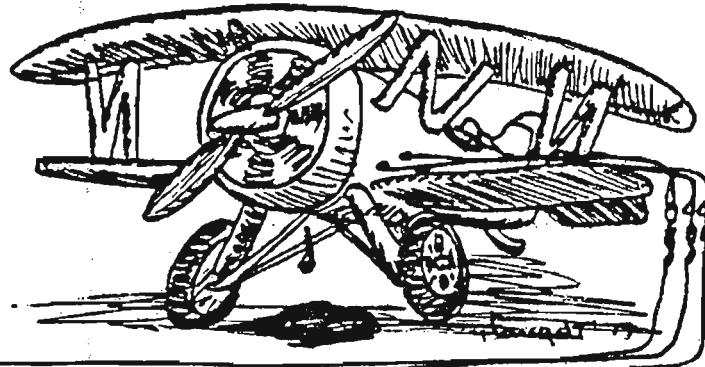
WANTED: Sterling Navion kit. Contact John Thompson, 1145 Birch, Cottage Grove, Oregon 97424

FOR SALE: Odd assortment of unused APC propellers. Sizes from 8 to 10 inches. 9 props in all, only \$7.50 postpaid.
Mike Hazel, 1073 Windemere Drive NW,
Salem, Oregon 97304

CONTROL LINE

SCALE

by orin humphries



The mail box is quiet, so I guess everyone is busy or contented at present. I guess we'll get on with things.

Wouldn't it be nice if the wind never blew when we brought out or scale models? Wish we could pass a Law of Nature to that effect.. But, lacking that, just how do you

FLY IN THE WIND

Part I of this piece will deal with the problem statement and power requirements. Part II will deal with what the pilot does. The problem is the ever changing wind direction. Lets define the dead upwind position (the wind is in your face) as 12:00, and the wind at your back is the 6:00. There are also three speeds we need to clarify. The ground speed is obviously how fast the plane moves over the ground. The wind speed is relative to the ground, and the calm air speed is for the plane and is the chordwise flow of air on the wing which is the lift producing component. What happens to the airplane as it proceeds around the circle?

On the side of the circle where there is a headwind component the wind speed and the calm air speed are additive. You have the maximum chordwise air flow, wind over the wing. On the tailwind side the wind speed and calm air speed are subtractive. The chordwise flow is minimized. The airplane will thus have a tendency to climb part of the time and approaches a stalled condition during the rest. At the points where the wind is from one wing tip toward the other the crosswind component is spanwise and does not contribute to lift. For the sake of discussion lets say the ground speed and chordwise flow are 45 mph at the 6:00 spot, and you are trying to fly in a 12 mph wind.

As you fly from the 6:00 toward the 3:00 positions the headwind component will slow the aircraft's ground speed to around 35 mph or so (the plane's inertia will allow it to penetrate a bit), while the chordwise flow will be near the sum of the calm air speed and the wind speed, perhaps 55 mph. The plane will try to climb like a homesick angel. What should you do about that? Tune in again next month. The minimum ground speed occurs around the 2:00 spot and begins to increase after that.

Nearing the 12:00 the plane will have a chordwise flow around 42 to 43 mph and a ground speed somewhere near 38 to 40. Not being right on the numbers from simple sums and such is, again, due to the plane's inertia. Now the trouble starts. Proceeding to the 9:00 the wind over the wing falls to the difference between the calm air speed and the wind speed, to the mid 30's. The plane is stalling, your nose is high, and the altitude is winding down.

From here to the 6:00 the ground speed has been increasing (since leaving the 12:00) and the plane will return to the 45 mph speed both through the air and over the ground. The cycle begins again. Having barely survived the stall this time, what should you do to limit that on the next go 'round? Next month is piloting, this month is: Power Requirements.

During the portion between 11:00 and 8:00 the plane needs the ability to accelerate strongly to maintain the chordwise airspeed. The tailwind is reaching a maximum, cutting your lift, and you need to speed up. The difference in chordwise flow from the 2:00 to the 8:00 is something like from 55 to 35 mph. That's asking a lot of your plane. We traditionally don't have enough power to get the airflow back up in the space between 11:00 and 8:00. Why? Why do we choose the engines we do?

History shows that in the '50s scale airplanes had engines only strong enough for the very best of days. This was probably since most modelers began as rubber power Free Flighters. Engines improved and in the '60s Control Liners found that if the R/C guys suggested a .19 on a plane, C/L planes should maybe go for a .35. That was a good step in the right direction, but it only got us up to 10 mph winds. In the '70s all the C/L scale companies went out of business and we were left with converting Top Flite kits and such. Here's where we made the same old mistake. We took their suggested engine sizes again.

You see, R/C planes have so much more sky to fly around in that turning downwind doesn't bother them as much. So what if they lose fifty feet in the turn? We don't have the luxury. We need a huge ability to accelerate when we turn downwind and that means we have to have much larger engines than they do. We should just throttle back in other parts of the circle.

Using no more than high school physics I have calculated what we need for windy days. Lets assume a ten pound airplane (so you can simply ratio this with your plane's weight), you are at the 12:00 spot, and have a chordwise wind component of 40 mph. In order to accelerate to where you gain 10 mph of wind heading toward the 9:00 with its tail wind problem and within that distance, you will need .54 hp. Not much, you say? We're not there yet. That's .54 hp usable for thrust alone. After studying our propellers for two years both I and the U. of North Carolina find that our sport props have an efficiency of 50% on average. I know you want to believe it's higher, but this is the sad truth. They use half of the power they get just to thrash around in the air. In order to have .54 hp left for thrust you have to feed the prop 1.08 hp. And it gets worse. If you put a factory single expansion chamber muffler on it you will lose up to 1/3 of your power. Tongue mufflers are worse than that. We are now up to 1.62 hp and counting. Manufacturers report the power at the best rpm, say 16,800, and the power available at our rpm of around 12,000 is usually about .7 of that. Thus, our ten pound airplane needs a reported power of 2.3 hp. Sixty percent of that would be required for a six pounder, or 1.38 reported. As a rule of thumb I recommend you exceed a tenth of a cubic inch displacement, two cycle, for each pound of aircraft weight. A nine pound Top Flite kit should have a .90 to a 1.08. You may cut the power requirement 30% if you use a volume tuned "magic" muffler. Yes, they are sizable.

I flew in the '87 Nats in Precision and Sport Scale with winds that never got below 15 mph. My experience in flying in the wind produced a trophy in both events against much better planes. How many trophies have been won sitting on the ground on the windy days?

With this and what I will pass on about wind flying piloting next month, there is no reason why you should sit out those days. You can beat other planes just by being prepared for bad days. With knowledge and equipment you can lose the fear of poor conditions.

Orin Humphries, 19805 48th Ave. W., A101, Lynnwood, WA 98036, 206-776-5517

FROM THE FLYING LINES MAILBOX

To My Modeling Friends,

I want to publicly thank each of you for your friendship, encouragement and prayers during my recent time of need. The surgery was successful (obviously) and recovery is on schedule. In other words.....too slow. I am feeling excellent even though not yet lifting weights. (However, I am up to pressing a 6 pound block of balsa).

The letters, phone calls, cards, donations and all simply overwhelmed me. I've been at a loss for words, having felt that saying thanks wasn't quite enough. The meaning of thanksgiving, gratitude and appreciation swells within me day and night. So now, from the depth of my heart, I say "Thank You"..... each and every one of you.

..... Frank Macy

Hi Mike,

With regards to FLYING LINES, I think it's excellent, keep up the good work. (That goes to John Thompson, too!)

Regarding NW Pit Stop: For what it's worth I suggest you define pit stop as we do in Team Race. That is: 10 laps without a pit stop e.t., 10 laps with a pit stop (in middle) e.t.; and "lost time" (difference) is pit stop time. This is slightly more accurate than your way, plus it's easier to time.

Possibly you may want to vary the actual lap number so that MPH readings are easier to obtain, i.e. 60' lines 7 laps, 52' lines 8 laps. Myself, I like 10 laps, although to get MPH readings requires slightly more figuring. MPH readings for racers are really quite useless in reality since racing is NOT speed. Elapsed time for 10 laps is very useful; I can calculate a "real" race time from that. Which is why you never hear a T/R flier say "I go 110 mph". You'll always hear "I go 19.0 for 10" (or whatever).

If I had my "druthers" (which I don't), I would have only AMA racing events. I would not attempt to legislate equipment or dollar value since this always fails. However, I would have several different groups within the classification.

i.e. For Rat Race:

| | |
|-----------|---------------------------------|
| Class I | 70 laps in 3:00 or less. |
| Class II | 3:20 |
| Class III | 3:40 (could use slow rats here) |
| Class IV | 4:00 |
| Class V | 4:20 (could use sport racers) |

Or, something similar- much like stunt. Goodyear would be the same.

The contestant would be required to state in advance their class and expected race time. If you go faster, you then get bumped to the next class the following meet. The major problem is somebody has to keep records or each contestant could carry a pocket race card that lists times done in official contests. This would then not require major paper work.

I could go on about my "vision" of the ideal race system, but nows not the time. My view of the extra unofficial racing events is that some restrictions are regressive i.e., no shut-offs, although this is minor. My major complaint, is some events allow for very poor flying tactics. I feel one of the benefits of racing is that it should teach flyers how to fly crisply (by the rules), not sloppily and haphazardly.

This last point is much more caused by:

1. Poor pre-race pilots meetings. Pilots must be made aware of exactly what is being watched, i.e. walking backside of circle, blocking, whipping on passing, etc.
2. Event director not really knowing what to look for, and lack of confidence.
3. Event director wishes to be a nice guy, and doesn't feel like making waves and so makes very few if any calls.

Short of the master racers like Mike Hazel giving instructions or a seminar to others, not a whole bunch can be done here, which is a shame. It is also a shame that the experienced racers don't coach the lesser racers and especially juniors more. I sure would like to see a coach for every junior in mouse race for example. And why shouldn't these coaches be the open fliers waiting around?

Much like Free Flight, where it's fly once, time once, I would like to see a similar idea for Mouse, GY, NWSR, etc. (some areas to do this already.) What do you think, can you use an idea or two above, or is this just more rhetoric?

.....Paul Gibeault

Ed: Thanks for your views, Paul. Your comments regarding sloppy competition, and the need for some coaching is right on. The kids seem to respond better to this than the adults! Racing in general could use a major overhaul, but where to start? Interest in the NW could be much stronger, too much of the activity is of the hacker variety. Racing is a fun, objective, and definitive modeling event that deserves to see more NW fliers take it seriously. ... Racers, what say you?????????????

NW Competition Standings

Flying Lines' compilation of event placings by Northwest modelers competing in Northwest region contests

The following points total include all but the Eugene meets in October.

MOUSE RACE CLASS I

MOUSE RACE CLASS I (5 contests, 28 entries)

| | |
|-------------------------|----|
| 1) Joe Rice (Sr) | 23 |
| 2) Joe Campbell | 17 |
| 3) Ron Hale | 11 |
| 4) Nitroholics | 8 |
| 5) Kevin Magnuson | 7 |
| 5) Rich McConnell | 4 |

MOUSE RACE CLASS II (2 contests, 6 entries)

| | |
|-------------------------|---|
| 1) Nitroholics | 3 |
| 2) Joe Rice (Sr) | 2 |
| 3) Rich McConnell | 1 |

CLOWN RACE (5 contests, 46 entries)

| | |
|----------------------------|------|
| 1) Joe Rice (Sr) | 46 |
| 2) Ron Hale | 34 |
| 3) Dave Schultz (Sr) | 16.5 |
| 4) Bill Fisher | 13.5 |
| 5) John Hall | 13 |
| 6) Mike Rule | 11 |
| 7) Don Stewart | 10 |
| 8) Bill Darkow | 7 |

NW SPORT RACE (5 contests, 36 entries)

| | |
|-------------------------|----|
| 1) Joe Rice (Sr) | 16 |
| 2) John Hall | 14 |
| 3) Tom Strom | 11 |
| 4) Dennis Mathews | 10 |
| Todd Ryan (Jr) | 10 |
| 6) Tim Strom (Jr) | 9 |
| Ron Hale | 9 |
| 8) Henry Hajdik | 8 |
| 9) Ron Salo | 6 |
| 10) SHT | 5 |
| Mike Rule | 5 |
| Nitroholics | 5 |

NW SUPER SPORT RACE (4 contests, 24 entries)

| | |
|----------------------|----|
| 1) John Hall | 11 |
| Rich McConnell | 11 |
| 3) Nitroholics | 9 |
| 4) Don Stewart | 8 |
| 5) SHT | 6 |
| Joe Campbell | 6 |
| Tom Strom | 6 |
| 8) Bill Fisher | 4 |
| 9) Mike Rule | 3 |
| Frank Boden | 3 |

OVERALL RACING (24 contests, 146 entries)

| | |
|----------------------------|------|
| 1) Joe Rice (Sr) | 90 |
| 2) Ron Hale | 54 |
| 3) John Hall | 38 |
| 4) Nitroholics RT | 25 |
| 5) Richard McConnell | 23 |
| Joe Campbell | 23 |
| 7) Mike Rule | 20 |
| 8) Bill Fisher | 19.5 |
| 9) Don Stewart | 18 |
| 10) Tom Strom | 17 |

CLASS I CARRIER (2 contests, 5 entries)

| | |
|-------------------------|---|
| 1) Terry Miller | 3 |
| Bob Parker | 3 |
| 3) Rich McConnell | 2 |
| 4) Roy Beers | 1 |

CLASS II CARRIER (2 contests, 3 entries)

| | |
|-----------------------|---|
| 1) Shawn Parker | 2 |
| John Hall | 2 |

.15 CARRIER (3 contests, 7 entries)

| | |
|----------------------------|---|
| 1) John Hall | 7 |
| 2) Orin Humphries | 3 |
| 3) Dave Schultz (Sr) | 1 |
| Ron Hale | 1 |

PROFILE CARRIER (3 contests, 19 entries)

| | |
|-------------------------|----|
| 1) John Hall | 19 |
| 2) Tom Strom | 11 |
| 3) Terry Miller | 7 |
| 4) Jim Fuller | 4 |
| Richard McConnell | 4 |
| 6) Mike Hazel | 3 |
| Joe Just | 3 |
| 8) Joe Rice (Sr) | 2 |

OVERALL CARRIER (11 contests, 38 entries)

| | |
|-------------------------|----|
| 1) John Hall | 31 |
| 2) Tom Strom | 11 |
| 3) Terry Miller | 10 |
| 4) Rich McConnell | 8 |
| 5) Jim Fuller | 4 |
| Joe Just | 4 |
| Kevin Magnuson | 4 |
| 8) Orin Humphries | 3 |
| Bob Parker | 3 |
| Mike Hazel | 3 |

OLDE TYME STUNT (5 contests, 25 entries)

| | |
|----------------------------|----|
| 1) Richard McConnell | 18 |
| 2) Don McClave | 12 |
| 3) Bill Tucker | 9 |
| 4) John Hall | 8 |
| 5) Joe Campbell | 7 |
| 6) Bob Emmett | 3 |
| Jim Fuller | 3 |
| 8) Steve Scott | 2 |
| Ron Hale | 2 |
| 10) Todd Ryan (Jr) | 1 |

PRECISION AEROBATICS (10 contests, 43 entries)

| | |
|-------------------------|------|
| 1) Bob Emmett | 22.5 |
| 2) Barrie Shandel | 13.5 |
| 3) Dave Mullens | 12 |
| 4) Paul Walker | 10.5 |
| Bob Parker | 10.5 |
| 6) Rich McConnell | 7.5 |
| 7) Rich Brannen | 7 |
| 8) Jim Fuller | 5 |
| 9) Al Resinger | 4.5 |
| John Thompson | 4.5 |
| Chris Cox | 4.5 |

NOSTALGIA STUNT (3 contests, 20 entries)

| | |
|-------------------------|----|
| 1) Don McClave | 14 |
| 2) Bob Emmett | 12 |
| 3) Rich McConnell | 9 |
| 4) Greg Davis | 6 |
| 5) Chris Cox | 5 |
| 6) Joe Dill | 4 |
| 7) Barrie Shandel | 3 |

OVERALL STUNT (18 contests, 88 entries)

| | |
|----------------------------|------|
| 1) Bob Emmett | 37.5 |
| 2) Richard McConnell | 34.5 |
| 3) Don McClave | 26 |
| 4) Barrie Shandel | 16.5 |
| 5) Dave Mullens | 12 |
| 6) Paul Walker | 10.5 |
| Bob Parker | 10.5 |
| 8) Chris Cox | 9.5 |
| 9) Bill Tucker | 9 |
| 10) Jim Fuller | 8 |
| John Hall | 8 |

OVERALL SCALE (5 contests, 17 entries)

| | |
|--------------------------|---|
| 1) Bill Darkow | 7 |
| 2) Fred Cronenweit | 4 |
| 3) Jim Fuller | 3 |
| 4) Bob Parker | 1 |

JUNIOR BALLOON BUST (2 contests, 4 entries)

- 1) Tim Strom 3
- 2) Wes Mullens 2
- 3) Todd Ryan 1

BALLOON BUST (2 contests, 23 entries)

- 1) Roy Nakano 16
- 2) Rich McConnell 15
- 3) Dave Mullens 7
- 4) Mike Hazel 6
- 5) Randy Schultz 5
- 6) Joe Campbell 4

OVERALL SPEED (13 contests, 60 entries)

- 1) Joe Rice (Sr)..... 29
- 2) Jerry Thomas 15
- 3) Brent Hazel (Jr) 14
- 4) Jeff Cleaver 6
- Chris Sackett 6
- 6) Joe Campbell 4
- Chris Hazel (Jr) 4
- 8) Dave Cleaver 3
- Chuck Schuette 3
- Loren Howard 3

1/2A COMBAT (3 contests, 17 entries)

- 1) Tom Strom 11
- Dick Salter 11
- 3) Don Stewart 5
- 4) Tony Huber 4
- Mike Rule 4
- Todd Ryan (Jr) 4
- 7) Buzz Wilson 3
- Roy Nakano 3
- Joe Rice (Sr) 3
- 10) Joe Campbell 2

FOX 35 COMBAT (2 contests, 15 entries)

- 1) Roy Nakano 14
- 2) Chris Cox 8
- 3) Randy Schultz 6
- 4) Frank Boden 5
- Tom Strom 5

OVERALL COMBAT (9 contests, 95 entries)

- 1) Tom Strom 61
- 2) Paul Vallins 46
- 3) Roy Nakano 17
- 4) Dick Salter 14
- 5) Don Stewart 11
- 6) Joe Campbell 9
- 7) Ron Hale 8
- Frank Boden 8
- Chris Cox 8
- 10) Randy Schultz 6

DESERT CARRIER BASH II, Richland, Washington, October 5 & 6, 1991

MOUSE RACE CLASS I (6 entries)

- 1) 6:26 Joe Campbell
- 2) 6:31 Joe Rice
- 3) 9:17 Rich McConnell
- 4) 29 laps Kevin Magnuson

PROFILE CARRIER (5 entries)

- 1) 233.14 John Hall
- 2) 203.65 Rich McConnell
- 3) 175.42 Joe Just
- 4) 168.28 Joe Rice

NW SPORT RACE (5 entries)

- 1) 9:50 Joe Rice
- 2) 11:02 Todd Ryan
- 3) 11:22 Ron Hale
- 4) 15:49 Bill Fisher

CARRIER CLASS I & II (4 entries)

- 1) 229.97 Kevin Magnuson
- 2) 199.37 John Hall
- 3) 187.29 Rich McConnell
- 4) 165.21 Joe Just

CLOWN RACE (10 entries)

- 1) 239 laps Joe Rice
- 2) 225 Ron Hale
- 3) 88 Dave Schultz
- 88 Bill Fisher

OLDE TYME STUNT (3 entries)

- 1) 269.5 Rich McConnell
- 2) 233 Ron Hale
- 3) 124 Todd Ryan

.15 CARRIER (2 entries)

- 1) 185.26 John Hall
- 2) 52.73 Ron Hale

RECORD RATIO SPEED (5 entries)

- 1) 114.7% -Sr .21 Joe Rice
- 2) 94.4 Jr. 21 Chris Hazel
- 3) 88.9 Op Jet Jerry Thomas
- 4) 88.2 Jr. 21 Todd Ryan

PROFILE SCALE (1 entry)

- 1) Jim Fuller

SPORT SCALE (2 entries)

- 1) Jim Fuller
- 2) Bob Parker

FOX 35 COMBAT (8 entries)

- 1) Chris Cox
- 2) Roy Nakano
- 3) Randy Schultz
- 4) Frank Boden

1/2A COMBAT (6 entries)

- 1) Tom Strom
- 2) Dick Salter
- 3) Tony Huber
- 4) Buzz Wilson

NW SPORT RACE (11 entries)

- 1) 9:06 Tom Strom
- 2) 9:30 Dennis Mathews
- 3) 9:55 Tim Strom
- 4) 10:04 John Hall

NW SUPER SPORT RACE (6 entries)

- 1) 7:43 Tom Strom
- 2) 7:48 John Hall
- 3) 9:07 Nitroholics RT
- 4) ? Frank Boden

CLOWN RACE (6 entries)

- 1) 237 laps Joe Rice
- 2) 217 John Hall
- 3) 113 David Schultz

MOUSE RACE I -Jr. (3 entries)

- 1) 9:36 Todd Ryan
- 2) 58 laps Wes Mullens
- 3) 47 laps Tim Strom

MOUSE RACE I Sr-Op (3 entries)

- 1) ? Nitroholics RT
- 2) ? Joe Rice
- 3) ? Joe Campbell

MOUSE RACE CLASS II (3 entries)

- 1) 12:22 Nitroholics RT
- 2) 14:04 Joe Rice
- 3) 16:08 Rich McConnell

BALLOON BUST -Jr (2 entries)

- 1) 294 pts Wes Mullens
- 2) 258 Tim Strom

BALLOON BUST Sr-Op (7 entries)

- 1) 651 pts Dave Mullens
- 2) 503 Mike Hazel
- 3) 439 Randy Schultz
- 4) 433 Joe Campbell

.15 CARRIER (1 entry)

- 1) 193.75 John Hall

PROFILE CARRIER (6 entries)

- 1) 217.31 John Hall
- 2) 188.10 Tom Strom
- 3) 185.54 Jim Fuller
- 4) 183.65 Mike Hazel

CLASS I CARRIER (2 entries)

- 1) 183.07 Rich McConnell
- 2) attempt Bob Parker

CLASS II CARRIER (2 entries)

- 1) 180.36 Shawn Parker
- 2) attempt John Hall

PREC. AEROBATICS/ Beg-Int (6 entries)

- 1) 362 Rich Brannan
- 2) 344 Jim Fuller
- 3) 323 Gary Nelson
- 4) 209 Steve Scott

PREC. AEROBATICS/ Advanced (9 entries)

- 1) 430.5 Bob Emmett
- 2) 416.5 Dave Mullens
- 3) 412.5 Bob Parker
- 4) 392.5 Chris Cox
- 392.5 Barrie Shandel

NOSTALGIA STUNT (6 entries)

- 1) 434 Bob Emmett
- 2) 406 Chris Cox
- 3) 396 Rich McConnell
- 4) 375.5 Barrie Shandel

OLDE TYME STUNT (5 entries)

- 1) 286 Don McClave
- 2) 202.5 Rich McConnell
- 3) 135 Jim Fuller
- 4) 114 Steve Scott

GRAND CHAMPIONS

- 1) 28 pts Tom Strom
- 2) 26 John Hall
- 3) 16 Chris Cox

PREC. AEROBATICS/ Expert (2 entries)

- 1) 508 Randy Schultz
- 2) 488.5 Paul Walker

EQUIPMENT IN-USE, RAIDER ROUNDUP 1991

One of the reporting features in the Flying Lines of long ago, was including details of the winner's aircraft. This is our first return of that feature. Some notes are in order, however. When ye olde editor made up the survey form, he neglected to include a space for the aircraft name/design. Consequently, this report may indicate that Joe Bellcrank built his plane from a kit, but we don't know what it is! Sorry 'bout that! Note number two: The contest ran overtime, and some of the winners did not show up until after the awards presentation. Many of those winners did not opt to return the forms provided.

CLASS I CARRIER: Rich McConnell, Seattle, WA. Kit aircraft, dope and silk finish, 43 inch wingspan, 390 square inches, J-Roberts controls, Sullivan 6 ounce tank with uniflow venting, landing gear installed in wing. Brat 28 engine, Fox std long glow plug, RedMax 25% fuel, Top Flite 8x6 prop

CLASS II CARRIER: Shawn Parker, Seattle, WA. Scratch built aircraft. K&B finish G-S 3 line controls. Wingspan 44 inches. Original 6 ounce tank. Design is a Mauler. SuperTigre 65 speed engine, Fox idlebar plug. 10% nitro/25% castor oil fuel, 10 x 7 Rev-Up prop, J-Roberts handle.

PROFILE CARRIER: John Hall, Summer, WA. Goldberg P-40 kit, balsa, plywood, silk covering, kit converted to Helldiver design. Pactra dope finish. wingspan 43 inches, 390 square inches. G-S 3 wire bellcrank. Dubro 4 ounce plastic tank, with custom uniflow clunk pickup. Weight 2 lb, 12 oz. No lineslider or other control features--hook elevator, throttle only. K&B 5.8 engine with OS 4BK carb and own custom adaptor, and K&B muffler. Fox Miracle glow plug, RedMax 25% fuel, APC 9 x 7 prop, G-S handle

.15 CARRIER: (see this months record review)

SPORT SCALE: Jim Fuller, Fallon, NV Hawker Hurricane from kit. 57 inch wing. J-Roberts controls, Sullivan 10 oz tank, Special features: Goldberg retracts, navigation and landing lights, drops bombs. O.S. 50 RC engine, K&B glow plug, own 7% nitro fuel. Master Airscrew 11 x 6 prop. J-Roberts handle

PROFILE SCALE: Jim Fuller, Fallon NV Sterling Hellcat, Formula U finish. 44 inch wingspan. J-Roberts controls. Veco 4 ounce tank. SuperTigre 35RC, K&B glowplug, 7% nitro fuel. Master Airscrew 10x6 prop. J-Roberts handle.

SPEED: Joe Rice, Richland, WA (21 Sport speed) Scratch built plane from fiberglass, basswood, balsa, mag pan. Black Baron epoxy finish. 21 inch wingspan, 52 square inches; 9 inch tail with 21 square inches. Two line bellcrank. Weight 21 ounces. Own tank NovaRossi 21 car engine. K&B glowplug, 10% contest fuel, Mike Hazel glass 6x6 prop. Sig handle. pilot: Joe Rice

Jr. Balloon Bust: Wes Mullens, Seattle, WA Scratch built original plane 38 inch wingspan, Fox fuel tank

OP Balloon Bust: Dave Mullens, Seattle, WA Ringmaster, Monokote and Imron finish. Fox 35 Stunt engine, Fox tank.

NOSTALGIA STUNT: Bob Emmett, Renton, WA Plane built from kit plans, conventional balsa structure, silkspan and Sig dope finish, 45 inch wingspan. Sig controls, weight 31 ounces, Homebuilt 3½ ounce uniflow tank. Fox 35 engine with ST needle valve. Hobby Shack RC glow plug, 10% nitro/20% castor fuel. 9 x 6 Zinger prop. E-Z Just handle Black Tiger design. .015 x 58' line.

ADVANCED P.A.: Bob Emmett, Renton, WA Plane built from kit parts, and modified. Sig Super-Cote dope finish. 54 inch wingspan, 545 square inches. Sig controls, 51 ounces. Homebuilt 4.6 ounce uniflow tank. O.S. 40 FP, stock, with ST needle valve. Hobby Shack RC glow plug, 10% nitro/20% castor fuel. Zinger 11 x 5 prop. .015 x 62 lines, Martine handle.

EXPERT P.A.: Randy Schultz, Seattle, WA Plane scratch built from plans, from balsa, carbon fiber. Monokote-Superpoxy finish. 650 square inch wing. Own 7 ounce tank, with uniflow muffler pressure. 61 ounce weight. SuperTigre 60 engine, Thunderbolt RC glow plug, Taffinder 10% fuel, Bolly 11½ x 6½ prop. .018 x 70 lines, own handle.

Jr. Mouse I: Todd Ryan, Pasco, WA Scratch built from balsa, plywood. Dope finish. 18 inch wingspan, 51 square inches, 9 inch span tail, 15 square inches, 11 inch length. Cox .049 Black Widow, parts swapped for better fits. Cox glowhead, K&B 1000 fuel, 5 x 3 prop, E-Z Just handle. Pilot: Todd Ryan, Pitcrew: Joe Campbell

Op MOUSE I: Mike Hazel/John Thompson, Salem/Cottage Grove, OR Scratch built "Little White Mouse" design. balsa, plywood. Kustom Kraftsmanship modified Cox 049. Cox glowhead, Taffinder 40% nitro fuel. Pilot: Hazel, Pitcrew: Thompson

MOUSE II: Mike Hazel/John Thompson, Salem/Cottage Grove, OR Original design, balsa, maple, ply profile construction., Epoxy finish. Cox TD 049, Dave Green fastfill pressure tank, Cox high compression head, Taffinder 40% nitro fuel, 5x5 glass prop. Pilot: Thompson, Pitcrew: Hazel

CLOWN RACE: Joe Rice, Richland, WA Flying Clown design, Monokote covering, Aerogloss dope finish. Homemade 1 ounce tank, suction venting. Fox 15 BB, stock. K&B long glow plug, 10% contest fuel .015 x 52 lines, Sig handle, Pilot: Joe Rice, Pitcrew: Paul Rice.

Aerobatics highlights Eugene October meet

WEATHER WAS perfect (ah, what's a little wind?) and the turnout was good for the fifth annual Fall Follies precision aerobatics contest in Eugene, Ore. on Sunday Oct. 13.

Ten fliers showed up for Northwest stunt's season-ender, a pleasant way to wind down the year with some low-key flying before the skies turn grey.

The turnout was the only disappointing part of the companion contest, the second annual Really Racing meet on Saturday, Oct. 12.

Various conflicts ranging from work (silly reason) to drag racers (serious fun) kept some of the regular fliers away, but those who showed up did make a good day of racing out of it.

As usual, there were no entries in Rat Race or Slow Rat race, a further comment on the state of AMA racing in the region (and perhaps the country).

The pit stop championship event was dropped for lack of entries. On Sunday, the Fox .35 combat event also was dropped, as the only two possible competitors had enough of a day of stunt and decided not to fly the combat event.

Taking the events in order of their occurrence, here are the results of the Really Racing/Fall Follies weekend.

MOUSE RACE CLASS I (2 entries)

- | | |
|---|------|
| 1. Nitroholics Racing Team, Portland/Cottage Grove, Ore. | 7:57 |
| 2. Jim Cameron, Portland, Ore. | 9:07 |

MOUSE RACE CLASS II (2 entries)

- | | |
|----------------------------|-------|
| 1. Nitroholics Racing Team | 17:49 |
| 2. Jim Cameron | 19:81 |

NORTHWEST GOODYEAR (1 entry)

- | | |
|---------------------------------|-------|
| 1. Morris Gilbert, Eugene, Ore. | 12:04 |
|---------------------------------|-------|

SCALE RACING (GOODYEAR) (1 entry)

- | | |
|-------------------|-------|
| 1. Morris Gilbert | 17:47 |
|-------------------|-------|

NORTHWEST SPORT RACE (5 entries)

- | | |
|----------------------------------|----------|
| 1. Nitroholics Racing Team | 12:02 |
| 2. Jim Cameron | 13:49 |
| 3. Morris Gilbert | 14:01 |
| 4. Don Chandler, Corning, Calif. | 101 laps |

NORTHWEST SUPER SPORT RACE (4 entries)

- | | |
|-----------------------------|-------|
| 1. Jim Cameron | 10:10 |
| 2. Nitroholics Racing Team | 11:04 |
| 3. Jim Fuller, Fallon, Nev. | dnf |
| 4. Don Chandler | dnf |

BEGINNER PRECISION AEROBATICS (2 entries)

- | | |
|---------------------------------|-----------|
| 1. Don Chandler | 55 points |
| 2. John Laidle, Kirkland, Wash. | 111 |

Judges: John Thompson, Gerald Schamp

INTERMEDIATE PRECISION AERO. (2 entries)

- | | |
|---------------|-------|
| 1. Dave Royer | 327.5 |
| 2. Jim Fuller | 312 |

Judges: John Thompson, Gerald Schamp

ADVANCED PRECISION AEROBATICS (3 entries)

- | | |
|------------------------------|-------|
| 1. Bob Parker, Renton, Wash. | 462.5 |
| 2. Jim Cameron | 321.5 |
| 3. Mel Marcum, Eugene, Ore. | 185 |

Judges: John Thompson, Mel Marcum

EXPERT PRECISION AEROBATICS (3 entries)

- | | |
|---------------------------------|-------|
| 1. Paul Walker, Kent, Wash. | 551.5 |
| 2. Bob Emmett, Renton, Wash. | 482 |
| 3. Gerald Schamp, Lebanon, Ore. | 453 |

Judges: John Thompson, Mel Marcum

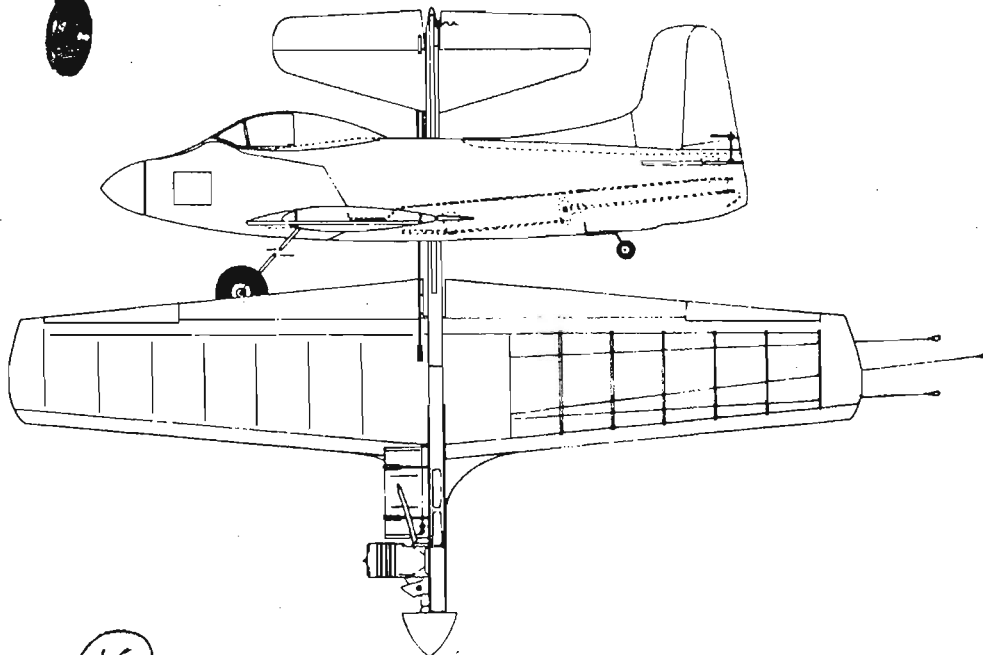
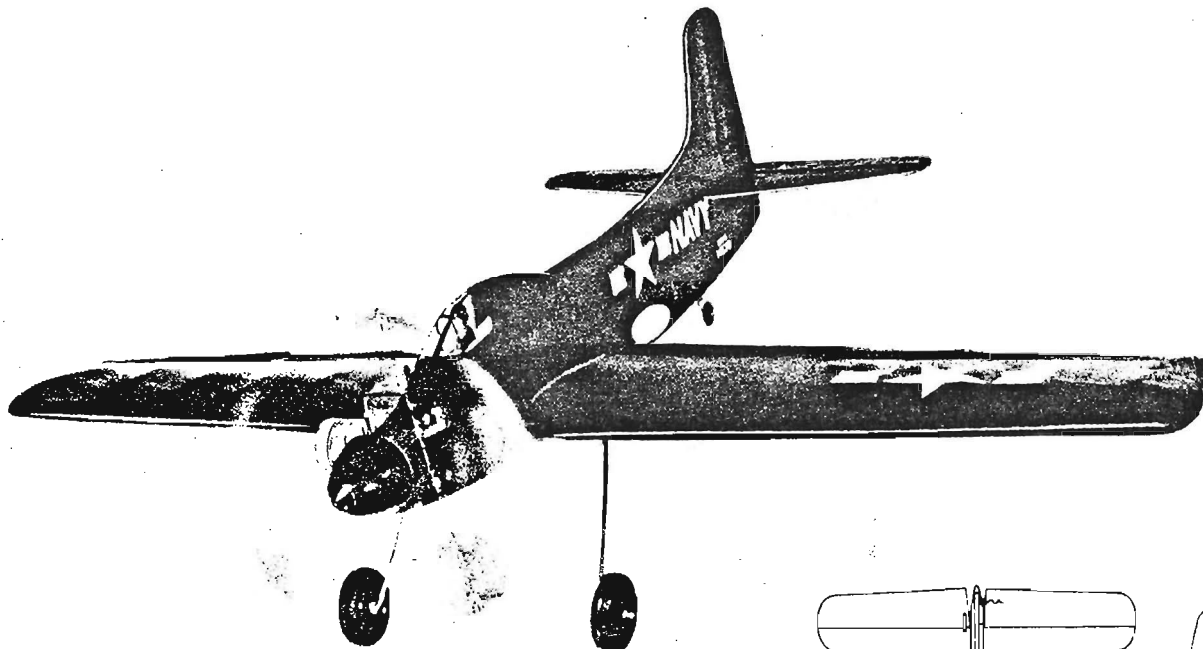
RECORD REVIEW

One of the newer events being flown in the region is .15 Carrier. The rules are quite simple: .15 size engine, no scale points, no moveable controls on plane other than elevator, .012 x 52½ lines, and a 70 mph "speed limit". Oh, and engine mufflers OK.

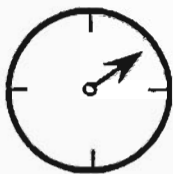
John Hall of Sumner, WA recently upped the mark in this event to 193.75 points. This was accomplished at the Raider Round-Up on September 14th. The score is comprised of a 64.22 mph high speed, 21.70 mph low speed, and a 100 point landing.

The aircraft used is a Sterling Skyshark, a kit which was originally designed to take up to a .40 size engine. Construction is typical profile configuration of plywood and balsa. John used silk covering with a Pactra dope finish. The wingspan is 34 inches, with 224 square inch area. The horizontal tail spans 12 inches, with an area of 42 inches. A J-Roberts 3 wire control system is used. The tank is a 2 ounce capacity Dubro plastic unit, which has been modified with the addition of a uniflow clunk pickup. The all-up weight is 31 ounces.

The engine used is a stock Cox Conquest 15, with muffler. A Fox miracle glow plug was used, and the fuel was RedMax 40% nitro. Propellor used was a Master Airscrew 7 x 6.



three-views and pic
from kit plans



Northwest Competition Records

Record performances established between Northwest CL modelers in sanctioned competition

* NEW RECORDS

| | | | | |
|-------------------------|--------|-----------------|----------|----------------|
| 1/2A SPEED | 112.17 | Bruce Duncan | 7-7-91 | Richmond, B.C. |
| A SPEED | 181.56 | Chris Sackett | 6-29-85 | Richmond, B.C. |
| B SPEED | 187.66 | Chris Sackett | 6-22-86 | Richmond, B.C. |
| D SPEED | 203.71 | Loren Howard | 5-27-90 | Eugene, OR |
| * JET SPEED | 205.40 | Jerry Thomas | 10-12-91 | El Monte, CA |
| * FORMULA 40 | 156.19 | Marty Higgs | 9-22-91 | Coquitlam, BC |
| 21 SPORT SPEED | 136.83 | Chuck Schuette | 7-7-91 | Richmond, BC |
| * FAI SPEED | 179.75 | Chris Sackett | 9-22-91 | Coquitlam, BC |
| 1/2A PROFILE PROTO | 83.63 | Paul Wallace | 3-29-81 | Eugene, OR |
| * MOUSE RACE I -50 lap | 2:51 | Hazel/Thompson | 9-7-91 | Richland, WA |
| * MOUSE RACE I -100 lap | 6:26 | Joe Campbell | 10-5-91 | Richland, WA |
| MOUSE RACE II -75 lap | 3:40 | Dave Green | 5-24-86 | Eugene, OR |
| MOUSE RACE II -200 lap | 10:04 | Hazel/Thompson | 9-19-87 | Kent, WA |
| AMA SCALE RACE -70 lap | 4:22 | Clarence Bull | 5-24-86 | Eugene, OR |
| AMA SCALE RACE -140 lap | 9:02 | Clarence Bull | 5-24-86 | Eugene, OR |
| SLOW RAT RACE -70 lap | 3:56 | Dave Green | 4-14-85 | Portland, OR |
| SLOW RAT RACE -140 lap | 7:14 | Dave Green | 4-13-86 | Portland, OR |
| RAT RACE -70 lap | 2:40 | Dick Salter | 7-22-86 | Richmond, BC |
| RAT RACE -140 lap | 5:46 | Dick Salter | 7-22-86 | Richmond, BC |
| FAI TEAM RACE -100 lap | 3:48 | Knoppi/McCollum | 1986 | Pecs, Hungary |
| FAI TEAM RACE -200 lap | 7:49 | Knoppi/McCollum | ? | ? |
| NW SPORT RACE -70 lap | 4:00 | Bruce Duncan | 5-12-87 | Richmond, BC |
| NW SPORT RACE -140 lap | | | | |
| NW SUPER SPORT -70 lap | 3:14 | Dave Green | 4-13-86 | Portland, OR |
| NW SUPER SPORT -140 lap | 7:03 | Dave Green | 3-8-87 | Portland, OR |
| * CLOWN RACE -15 minute | 239 | Joe Rice | 10-5-91 | Richland, WA |
| CLASS I CARRIER | 318.3 | Roy Beers | 9-13-86 | Kent, WA |
| CLASS II CARRIER | 330.25 | Orin Humphries | 9-19-87 | Kent, WA |
| PROFILE CARRIER | 238.44 | Bob Parker | 9-19-87 | Kent, WA |
| * .15 CARRIER | 193.75 | John Hall | 9-15-91 | Kent, WA |
| AMA ENDURANCE | 18:37 | Wesley Mullens | 8-15-87 | Kent, WA |

SKYRAIDERS

3 X 1

NOVEMBER 3, 1991

CARKEEK PARK



**ENTRY FEE \$10.00 FOR ALL THREE EVENTS
REGISTRATION BEGINS AT 9:00 A.M., FLYING AT 10:00 A.M. PROMPTLY**

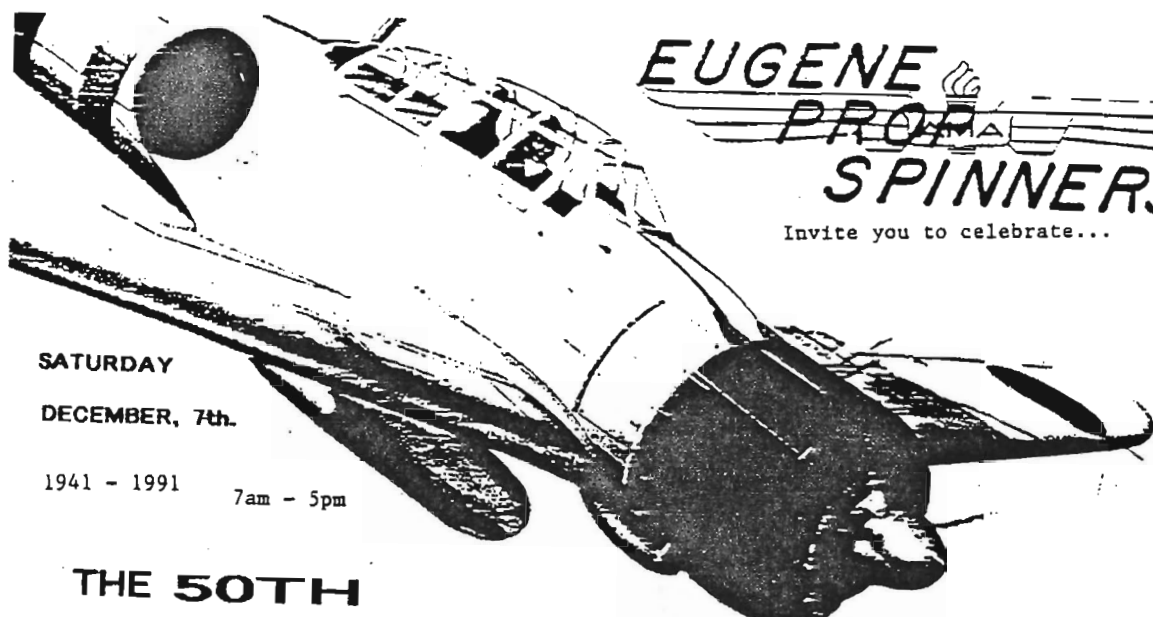
**CONTEST DIRECTOR: RANDY SCHULTZ, 243-1353
SAME PLANE AND ENGINE TO FLY THREE EVENTS:**

*** N.W. SUPER SPORT RACE**

*** STUNT**

*** BALLOON BUST**

**NO SUBSTITUTIONS IN THE EVENT OF A CRASH!
TROPHIES THROUGH THIRD PLACE FOR OVERALL CUMULATIVE WINNERS.
FIRST PLACE TROPHIES FOR EACH EVENT.
IN THE EVENT OF A TIE, THE CONTESTANT'S STUNT SCORE WILL BE MULTIPLIED
BY HIS SPEED SCORE IN M.P.H. FOR THE BALLOON BUST EVENT.
EVERY ONE WELCOME, AMA MEMBERSHIP REQUIRED.**



EUGENE PROFMA SPINNERS

Invite you to celebrate...

SATURDAY
DECEMBER, 7th.
1941 - 1991 7am - 5pm

THE 50TH PEARL HARBOR DAY

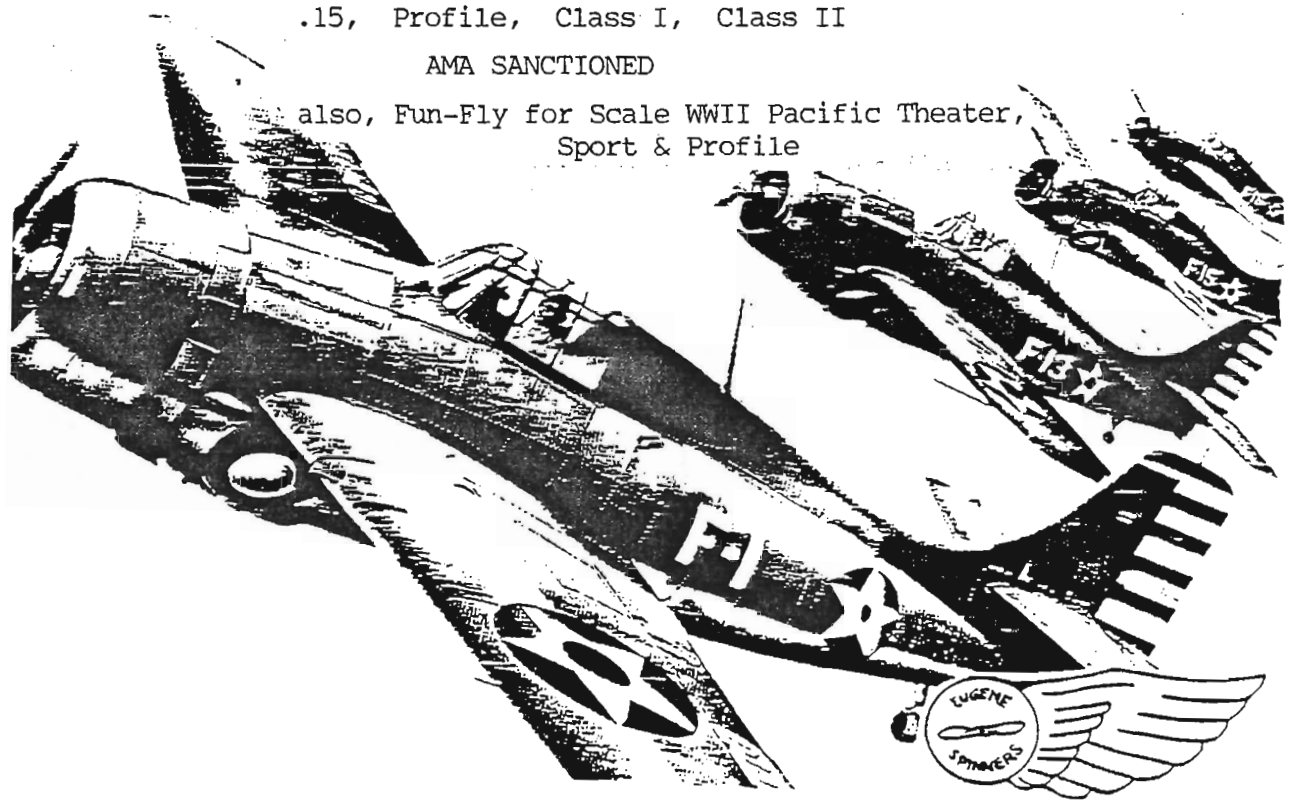
CONTROLINE CARRIER MEET

ALL CARRIER, ALL DAY, ALL CLASSES

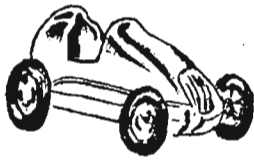
.15, Profile, Class I, Class II

AMA SANCTIONED

also, Fun-Fly for Scale WWII Pacific Theater,
Sport & Profile

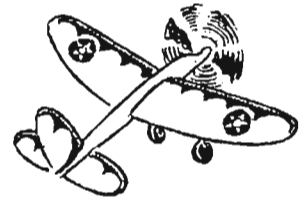


CONTEST DIRECTOR: Craig Bartlett AMA 20025
205 NE Cedar Lane
Corvallis, OR 97330
(503) 745-2025



AMERICAN JUNIOR

AIRCRAFT
HISTORICAL SOCIETY



PRESENTS ITS 1st ANNUAL MODELERS SWAP MEET



Haul out your old airplanes,
cars, boats, engines, and
any related items and
bring 'em on out!

"No Host
Refreshments"

• SEE PART OF THE AMERICAN
JUNIOR AIRCRAFT MUSEUM COLLECTION

DOOR
PRIZES!

• WIN A BEAUTIFUL A-J FIREBALL WITH
IGNITION ENGINE AND OTHER RAFFLE PRIZES!

• AUCTION AND RAFFLE AT 3:00 PM

ADMISSION \$1.00 TABLES \$3.00 and \$5.00

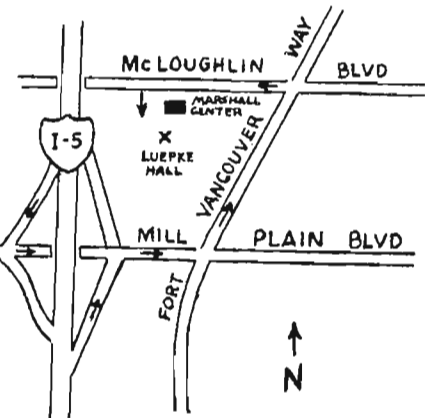
MUSIC
OF THE 40's

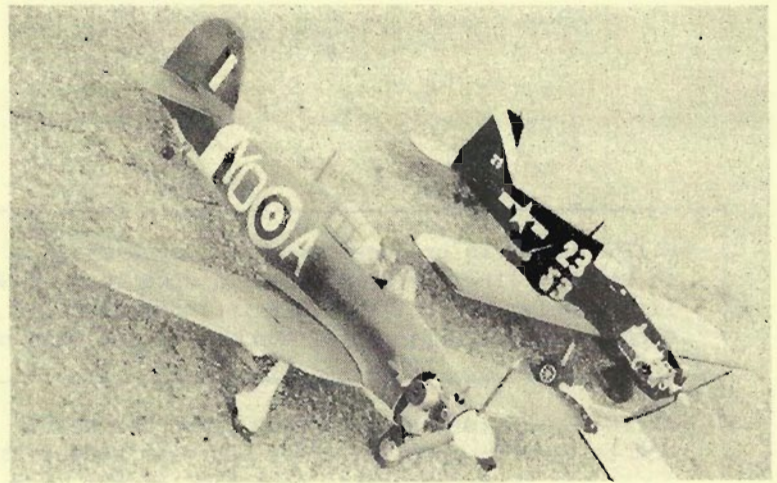
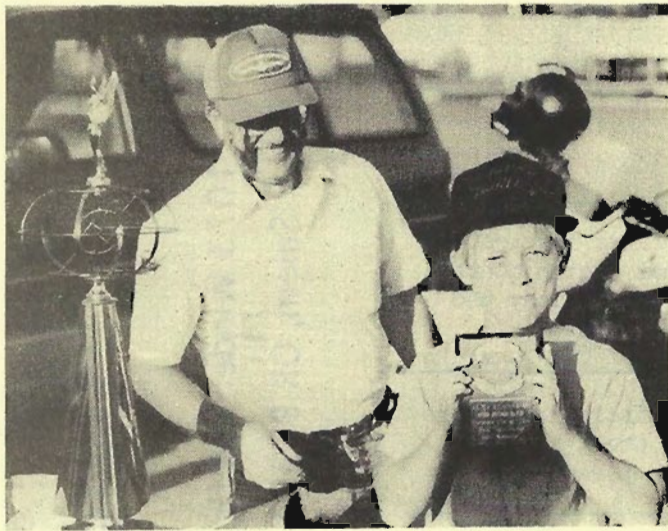
FUN!

FOR MORE INFO CONTACT:
DON ANDERSON ph.(503) 667-2196

DECEMBER 7th, 1991
10:00 AM - 4:00 PM

At the: MARSHALL CENTER
RUDY LUEPKE HALL
1009 E. McLOUGHLIN BLVD.
VANCOUVER, WA.





1991 RAIDER ROUNDUP !!!!!
 (pix- from top left, clockwise)

C.D. Joe Dill awards trophy to Chris Hazel
 Pair of top placing Scale birds belong to
 Jim Fuller. Hawker Hurricane and Hellcat.
 Randy Schultz on the practice circle.

John Thompson during P.A. official flight.

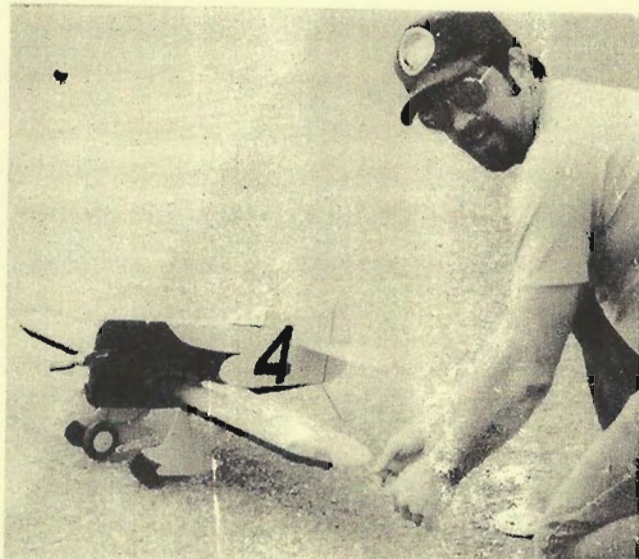
Hard working Skyraider, Bob Parker, takes
 a rest behind the Roundup perpetual trophy

John Hall hooks up lines on profile GeeBee

Frank "von" Boden with good locking foam
 wing 1/2A combat. Note bladder in wing cutout

Wes Mullens helps Pops (Dave Mullens) prep
 stunt ship. Dave took second place in
 advanced precision aerobatics. Hey Dave,
 nice hat! Wonder how many other Flying
 Lines caps are still out there?

 FL special offer: Like to have the original
 photo seen on the photo page? Just send a
 self-addressed stamped envelope to FL.
 First come-first served, obviously.



FLYING LINES

1073 Windemere Dr. NW
Salem, OR 97304

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

FLYING LINES is published nine times per year. Subscription rate for USA is \$14.50, and \$18.00 for Canadian subscriptions. Check or money order may be made payable to FLYING LINES. U.S. funds, please.

RUSH TO:

FIRST CLASS MAIL