

# FLYING LINES



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## NEWS OF NORTHWEST CONTROL LINE MODEL AVIATION

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1073 WINDEMERE DRIVE NW  
SALEM, OREGON 97304

EDITOR: MIKE HAZEL

April 1986

# 72

Drizzle Circuit #4 Results

"Stunt Scene" by Paul Walker

"Flight School" by Jim LaBarge

"Racing Roundup" by Dave Green

Plus..... completely updated contest calendar

"I fly control line model planes,  
therefore I am".

(anonymous 20th century philosopher)

Subscribers: Please note the issue numbers listed on your mailing sticker. If the last number is circled, then this is your last issue! Please send in renewal promptly to ensure continuous service.

# COCKPIT CHATTER



NOTES FROM THE EDITORS' DESK

Contest season is just about to hit. Yes, I know we have had meets most all winter, but come the green of spring, activity starts to intensify and gets a bit more serious. Right now, the focus seems to be on tuning up for the summer season. As this issue is going to press, the sport racers are rallying at the fifth and concluding installment of the drizzle circuit. (look for full results next month) The following week the speed guys have their first warmup for the season, and one week after, is the big Spanaway tune-up for combat, stunt, and carrier. The first weekend in May, the VGMC bunch do their tuneup with sport racing and carrier. Get out to one or more of these meets and get the juices flowing!

In this issue, the contest calendar has had a few revisions and updates. Be sure to check those out. By the way, if you would like an extra copy of the contest calendar, just send a SASE or equivalent value for one. I usually run off a few extra to provide the local hobby shop with some. You might wish to do the same, to show just how much CL activity is happening around here. An extra copy might also be handy to hang up in the shop, so you don't have to rip your FL issue apart.

One topic that I would like to bring up, is that of the contest calendar. In the Dear Flying Lines section, we have a letter from Chris Peter, who hails from Tucson, Arizona. Chris is a member of the Cholla Choppers club down there, and edits an excellent club newsletter. Anyhoo, Chris writes to express concern that we should have an expanded contest calendar. If you remember a while back, we had a separate section listing out of NW area meets. This was dropped just a few issues ago. So, what we are asking here is for some input regarding this. The reason that I feel that this is important to bring up are two-fold. Firstly, Chris points out the need for communication to further CL activity. Secondly, would you believe that 20% of our readership is in the SW corner of this country? This is a significant number which is helping to pay the freight, so to speak, of keeping this publication going. The activity calendar is a vital part of our NL, and perhaps an expansion would serve to bolster up our readership. If the calendar was expanded, it could realistically only cover the Western U.S. The rest of our nationwide readership is spread so thinly to make it worthwhile doing anything out East. (sorry guys!) Okay, now let's hear from the rest of you!

Paul Gibeault called to alert us Yankees that we need to be aware of a few rule differences between U.S. and Canada competition events when entering the Vancouver Nats. First of all, there are no fuel limitations in the racing events. Bring your own. Also, don't bother showing up with your hot T.D. mouse racer, because it's reeds only! And that is done on 35 foot wires. Rat racers get to cruise in the final, coming down for only two pit stops. And the Goodyears (are there any out there?) fly on the old size .012 x 52 wires. There were some other differences, so you better order your CL rule book, as per issue #70.

**AIRMAIL**



**COMMENTS, NEWS, and VIEWS from FL READERS**

Dear FL.

I like your new format. Thought you'd like to know, since you seem to be fishing for compliments.

On the other hand, I'm disappointed that you dropped your out-of-town contest directory and I'll tell you why. Tucson, Arizona is a desert. Not just in the physical sense, but in the sense that we do not have any technological giants, any good hobby stores, no way to pass on information; I suspect there are pockets of control line fliers all around the country who live too far away from large activity centers to interact with "the big boys" and learn the fine points of the sport. These pockets of activity tend to be incestuous, with one or perhaps two people in the area doling out information, or shall we say the blind tend to lead the blind?

For me "Flying Lines" represented a way out. Especially when I first became acquainted with the magazine, I found it chock full of relevant data, plans, information and basic help for the beginner. The articles were written with the beginner in mind. (Later on I noted how the articles became more and more straight statistics, and has been the major reason I have been unable to find you more subscribers.)

With major magazines dropping control line features from their mastheads, and with the especially lousy racing articles coming from Model Aviation, it was almost an oasis I found in "FL". And for a while I saw input to you from around the country. Suddenly it became apparaent that there were lots of activities out there and what we lacked was a network. I thought and hoped, FL was going to perform that function. Publishing the out-of-town directory allowed us to communicate with and sometimes travel to very rewarding contests!

Forget MA for listings, first because until recently they have been unreadable, and secondly because I have the sneaking suspicion that less than 10% of the contests held are ever listed. In fact it took our club two years to get our activities published in MA, even though we always had "AA" or "AAA" sanctions! Don't ask me why this was so, but it was.

We need a national control line network. Very recently Morrie Leventhal and the SCCA boys have begun co-ordinating their contests and publishing a calendar of activities. He has agreed to include Arizona and New Mexico contests. Until we have a national publications, I ask you not to ignore our activities, wherever they occur.

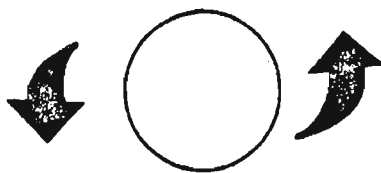
The Cholla Choppers are doing their bit to further control line activity. We reincarnated our newsletter, "Hanger Talk," which is distributed to all club members and interested parties. At the moment we have no fee for the magazine, although we encourage out of towners to send SASE, or send the club a donation. We are suffering a lot of growing pains, but soon expect to service Arizona, New Mexico, and Southern California. We publish contests directories for any activity we know of West of the Mississippi. Our major audience, we feel is the beginner and we encourage our columints to write "how to" articles. By the way, we accept them from any and all sources; pay is a free subscription.

Why do we encourage beginner articles? Two reasons: everyone can learn something even from a beginners article and it may spark controversy, which in turn leads to discussion and an over all expansion of the information base, sometimes known as learning.

You have an excellent publication. You have outstanding participation and you have a contest schedule which must be the envy of every other part of the country. You have no need for anyone outside your area and no need to service them; but we are all in the same bucket and I would like to see you support our activities and be the inspiration for creating a solid network of control liners. Put the out-of-town contests back in, please.

Announcement: Silverbell Park, Tucson, AZ. With a donation from the Cholla Choppers MAC the city of Tucson paved the fourth circle. If there is a finer facility between L.A. and Houston, we don't know of any. Please come to Tucson and fly with us.

Best Wishes, Chris Peter, editor "Hanger Talk", 1034 E. Adelaide, Tucson, AZ 85719



## ROUND & ROUND

By: John Thompson

"This is not an easy game. To be a champion, you have to invest a little extra."

--Pete Rose

There are champions and there are also-rans in every competitive endeavor. Natural talent sometimes gets certain individuals started toward success, but it doesn't take them all the way, and it doesn't keep them there.

One doesn't have to look very far in Northwest model aviation to spot the competitive champions -- the people who have invested a little extra in their particular competitive event and pulled themselves to the top.

Paul Walker, Dave Green, Norm McFadden, Howard Rush, Chris Sackett, to name a few.

None of these has gained fame and racks of trophies by neglecting any part of the competitive endeavor. They've done the research, built many airplanes, practiced extensively, and competed as often as possible. They've learned from their mistakes and from their successes.

One characteristic of all champions in our hobby. They see, and they listen. Watch them some time at a contest. More often than not, you'll find them, even now, asking questions of other competitors, studying their equipment. LISTENING.

And when they come to a contest, they are prepared. They have everything they need, well-organized and close at hand. Their engines start. Their planes do what's expected and nothing more. The champions are so familiar with their equipment that they could service it blindfolded.

Want to be a champion? Look around at what your competitors are doing. Do that and a little more. Invest a little extra.

TALK TO ME -- Round and Round still solicits letters from readers. We'll try to answer technical questions, pass along Sunday flying anecdotes, or just kick around general topics. The address is at the bottom of the column.

SHHHH -- A bill has been introduced in the Nebraska legislature to quiet down model airplanes. I know it's a taboo subject, but shouldn't we be looking at cooperating with the AMA's efforts to control sound levels before the government starts thrashing around in our circles? In spite of the loud protests against them, mufflers ARE feasible in virtually every CL competitive event, especially with some of the nifty new small, efficient mufflers now available. Think about it...rules time is coming up again.

MISSING IN ACTION -- Top Flite has discontinued the 5 1/4x4 nylon props that are popular with 1/2-A Combat fliers. A possible alternative is the new Tornado 5 1/2x3. We have some but haven't tried them yet.

SUIT-HAPPY -- John Grigg reports in MODEL AVIATION that someone recently sued a kit maker over an accident involving a kit that had been out of production for 10 years. The airplane involved had been built by one person, sold, modified for a larger engine, etc. The manufacturer won the suit but paid extensive legal fees.

SPONSORS WANTED -- The Eugene Prop Spinners seek sponsors for trophies in order to again provide an outstanding array of awards in 1986. A \$25 sponsorship gets sponsor's name on a set of three trophies for one event, your choice of remaining events. Send sponsorship and one or two alternative events to Prop Spinners President Mel Marcum, 2065 Providence St., Eugene, OR 97401.

WHOOPEE! -- A new Control-Line kit is coming on the market from a major manufacturer!!! Sig has announced plans to produce the Magnum, a 60-inch span, 700-square inch state-of-the-art stunter for .40 to .60. It's due out late summer or fall, at \$75. Congratulations, Sig, for producing a CL product that's in tune with the times.

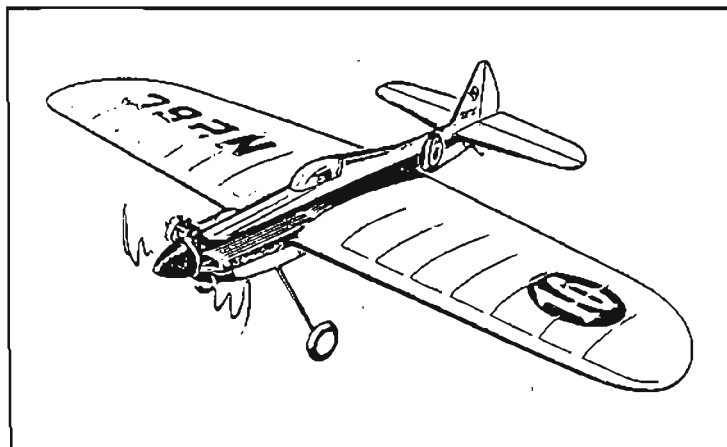
HURRAH! -- Fox Manufacturing Co. is planning to make a run of Combat Special .36 engines, even as we speak. In addition to the regular CS motors, Fox plans to make some special combat engines with 15 mm shafts and aluminum pistons. The latter are available only from the factory, at between \$80 and \$100. They're taking orders now.

TRIVIA TIME -- Nobody even attempted to answer last month's trivia question, so here's the answer: The question was, what was wrong with the decoration on Paul Walker's old Northwest Sport Race Shoestring Stunter? The name "Seahawker" was misspelled, to wit: "Seahwker." We're going from memory here, but we're sure Paul will correct us if we're wrong. Anyway, time for a new question:

An out-of-state flier once brought two identical stunt planes to the Regionals, one for a .35 and one for a .19. Who was the builder and flier of these beautiful airplanes?

First person to answer correctly gets his name mentioned in this space next month.

--John Thompson, 1505 Ash Ave., Cottage Grove, OR 97424.



THE SHOESTRING IS BACK!

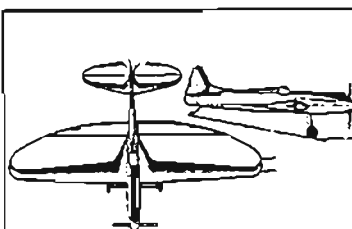
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22	23	26	29	30	32	33	35	36
37	38	39	41	43	44	45	46	47
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# THE DRIZZLE CIRCUIT

ROUND and ROUND In the RAIN?



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## CHAMPIONSHIPS UP FOR GRABS ON THE SUNSHINE CIRCUIT

PORTLAND, Ore. -- Championships remained in doubt in both Northwest Sport Race and Northwest Super Sport Race as the contestants head into the final contest of the Northwest Sport Race Drizzle Circuit April 13.

In fact, contestants through third place in both classes still cling to a mathematical chance that they could carry off the perpetual trophy at the end of the closest-fought series of the Drizzle Circuit's eight seasons.

Dave Green of Astoria, Ore., holds onto a slim six-point lead in Northwest Sport Race after a fourth-place finish in Contest No. 4. The Beers-Cole Racing Team of Vancouver, Wash., and Portland, Ore., and S&S Racing Team of Seattle, Wash., remain in the chase.

Green pulled into a first-place tie with John Hall in Super Sport Race by virtue of Green's win in Contest No. 4, which was held March 9 at Delta Park. Dick Peterson, six points back, could sneak into the winner's circle with the right breaks in Contest 5.

Contest 5, in Portland's Delta Park, promised to be one worth attending, whether you're a racer or simply interested in watching the Northwest's best show their skills. All stops will be pulled out as the contestants go for the gold.

Under the fourth straight umbrella of beautiful weather in Contest No. 4, the S&S Racing Team captured victory in Northwest Sport Race with a modest 9:13 time, besting Wayne Drake, Beers-Cole and Green in the feature.

Green had things his way in Super Sport, pulling to a relaxed 8:24 feature while John Thompson and John Hall battled mechanical troubles to finish far behind.

The day's secondary event, Northwest Sport Combat, was as smooth a combat event as could ever be found. True to the intent of the event, not a single airplane was destroyed or even seriously damaged. It's also interesting to note that all contestants had found the combination of a good-flying sport plane with a good-running Fox .35 stunt engine.

The Salter family made it a sweep, with Glenn taking first place, Rich taking second and Dick taking third.

Here are the complete results:

### NORTHWEST SPORT RACE (9 entries)

1. S&S Racing Team, Seattle, Wash. -- 9:13. Ringmaster, Fox .35. Pilot Rich Salter, pit crew Dick Salter.
2. Wayne Drake, Troutdale, Ore. -- 9:42.
3. Beers-Cole Racing Team, Vancouver, B.C./Portland, Ore. -- 10:07.
4. Dave Green, Astoria, Ore. -- Time unavailable (watch error).

### NW SUPER SPORT RACE (7 entries)

1. Dave Green, Astoria, Ore. -- 8:24. Minotaur, original, 34" span, 25 oz., balsa/spruce/maple/basswood construction, K&B Super Poxy/Econokote finish, K&B .35, Green rework, Dark Ages Racing Equipment 8.75x7.5 epoxy glass prop, K&B plug, DARE 3.5-oz. uniflow tank. Pilot Bill Varner, Pit Crew Dave Green.
2. John Thompson, Cottage Grove, Ore. -- 10:50.
3. John Hall, Puyallup, Wash. -- 11:23.
4. Dick McConnell, Seattle, Wash. -- 5:21 heat.

## HEAT WINNERS

### NORTHWEST SPORT RACE

ROUND 1: Beers-Cole Team (4:24), John Hall (4:48), S&S Team (4:32).

ROUND 2: Dave Green (4:46), Beers-Cole (4:25), S&S (5:05).

### NW SUPER SPORT RACE

ROUND 1: Dave Green (3:33), Beers-Cole Team (3:48), Glenn Salter (4:19).

ROUND 2: John Hall (4:17), John Thompson (4:51), Green 3:46.

### NORTHWEST SPORT COMBAT (5 entries)

1. Glenn Salter, Seattle, Wash. -- Ringmaster, Fox .35 (back-up sport racer).
2. Rich Salter, Seattle, Wash.
3. Dick Salter, Seattle, Wash.
4. Dick McConnell, Seattle, Wash.

### COMBAT PYRAMID

ROUND 1: Dick Salter d. John Hall, 1 cut. Byes to Dick McConnell, Glenn Salter, Rich Salter.

SEMIFINAL: G. Salter d. McConnell, 1 cut. R. Salter d. D. Salter, 1 cut.

CONSOLATION: D. Salter d. D. McConnell, 1 cut each and air time.

CHAMPIONSHIP: G. Salter d. Rich Salter, 1 cut each and air time.

### DRIZZLE CIRCUIT STANDINGS AND STATISTICS AFTER FOUR CONTESTS

#### NORTHWEST SPORT RACE

1. Dave Green . . . 36
2. Beers-Cole . . . 30
3. S&S Racing . . . 28
4. Glenn Salter . . 19
5. Dick Peterson . . 16
6. Wayne Drake . . 11
7. Gene Pape . . . 10
8. John Hall . . . 8
- Dick McConnell . 8
10. John Thompson . 7
11. Bob Hoffman . . 2
- Jeff Hinrichs . 2
13. D. Phillips . . 1

#### NW SUPER SPORT RACE

1. John Hall . . . 21
2. Dave Green . . . 21
3. Dick Peterson . . 15
4. John Thompson . . 14
5. S&S Racing . . . 12
6. Beers-Cole . . . 8
- Dick McConnell . 8
7. Glenn Salter . . 7

#### FAST TIMES

##### HEAT

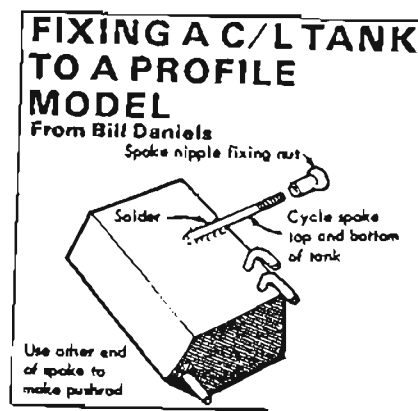
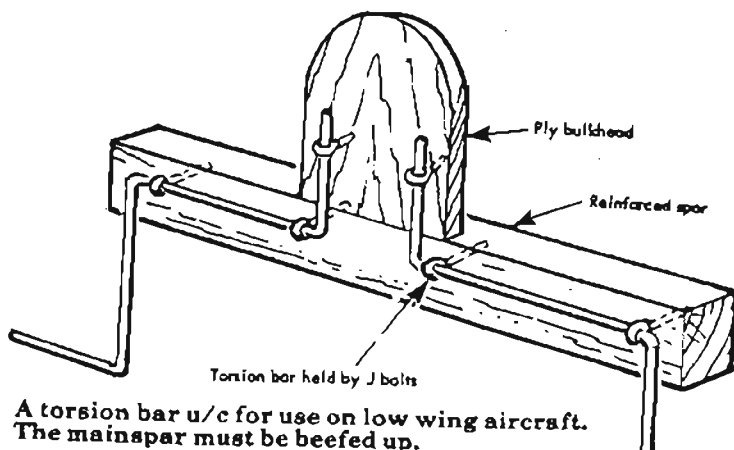
NWSR: 4:24 (Green, Ptrsn, BC)

NWSS: 3:26 (Dave Green)

##### FEATURE

NWSR: 8:53 (Beers-Cole)

NWSS: 7:46 (Dave Green)



from the ORBITING EAGLES Newsletter, Bob Furr, editor

## NORTHWEST COMPETITION STANDINGS

Standings in the Northwest Sport/MACA Combat category opened March 9 with the Northwest Sport Combat contest at Drizzle Circuit Contest 4. Racing standings also were juggled in that meet.

Flying Lines keeps track of performances of Northwest Control-Line model aviators in sanctioned AMA/MAAC Northwest competitive events. Information about the scoring system and preintouts of complete standings are available from the acting statistician, John Thompson, at 1505 Ash Ave., Cottage Grove, OR 97424. SASE, please.

Top fliers in events in which standings have changed, as of March 26, are:

### NORTHWEST SPORT RACE (3 contests, 29 entries)

1. S&S Racing Team	Seattle, Wash.	26
2. Dave Green	Astoria, Ore.	25
3. Beers-Cole Racing	Vancouver/Portland	17
4. Glenn Salter	Seattle, Wash.	15
5. Wayne Drake	Troutdale, Ore	8
6. Dick Peterson	Renton, Wash.	7

### NORTHWEST SUPER SPORT RACE (3 contests, 22 entries)

1. Dave Green	Astoria, Ore.	20
2. John Thompson	Cottage Grove, Ore.	16
3. John Hall	Puyallup, Wash.	13
4. Dick McConnell	Seattle, Wash.	8
5. Dick Peterson	Renton, Wash.	7
6. Beers-Cole Racing	Vancouver/Portland	6

### NW SPORT/MACA COMBAT (1 contest, 5 entries)

1. Glenn Salter	Seattle, Wash.	5
2. Rich Salter	Seattle, Wash.	4
3. Dick Salter	Seattle, Wash.	3
4. Dick McConnell	Seattle, Wash.	2

### OVERALL RACING (7 contests, 53 entries)

1. Dave Green	Astoria, Ore.	46
2. S&S Racing Team	Seattle, Wash.	26
3. Beers-Cole Racing	Portland/Vancouver	23
4. John Thompson	Cottage Grove, Ore.	16
5. Glenn Salter	Seattle, Wash.	15
6. Dick Peterson	Renton, Wash.	14
7. John Hall	Puyallup, Wash.	13
8. Wayne Drake	Troutdale, Ore.	8
Dick McConnell	Seattle, Wash.	8
10. Dick Salter	Seattle, Wash.	2

### OVERALL COMBAT (1 contest, 5 entries) @

1. Rich Salter	Seattle, Wash.	12
2. Dick Salter	Seattle, Wash.	8
3. Glenn Salter	Seattle, Wash.	7
4. Bill Varner	Astoria, Ore.	3
5. Dick McConnell	Seattle, Wash.	2

### JUNIOR OVERALL COMPETITION STANDINGS

1. Rich Salter	Seattle, Wash.	12
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### CONTESTS COUNTED

These standings include scores from the following contests. If an eligible contest has been held that is not listed here, the results have not been received by the statistician. Send results through FOURTH place and the number of entries in each event to John Thompson, 1505 Ash Ave., Cottage Grove, Ore. 97424.

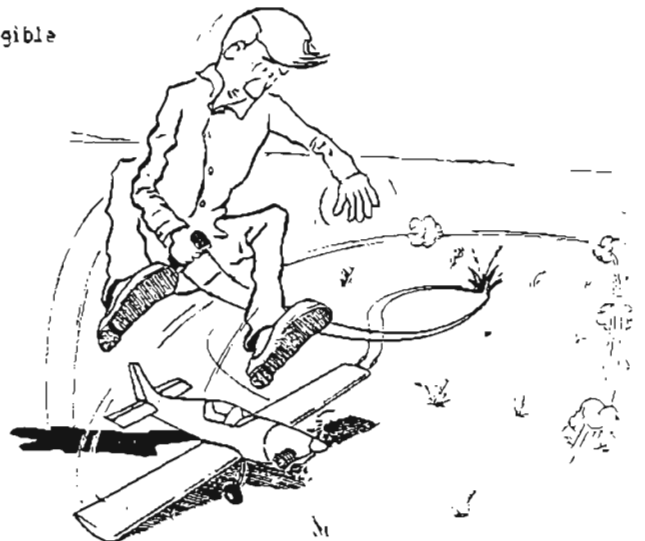
Northwest Sport Race Drizzle Circuit Contest 2, Jan. 12.

Northwest Sport Race Drizzle Circuit Contest 3, Feb. 9.

Northwest Sport Race Drizzle Circuit Contest 4, March 9.

\* When two or more class of competition are combined for a contest (i.e. Class I/II Carrier, Precision/Sport Scale), points scored are shown in the "overall" category only.

@ When a type of competition occurs which fits the general nature of the event but does not fall in a specific category (i.e. .15 non-FAI Combat), points are listed in the overall category only.





# **RACING ROUNDUP**

**FAI**

**MOUSE**

**RAT**

**SLOW RAT**

**GOODYEAR**

**NORTHWEST**

**by: DAVE GREEN**

For this installment of R.R. I thought I would pass on a few helpful hints and ideas that I have come upon in the last few years. Some you will know, hopefully, and some you will not.

For those of you who are new to hot gloves, .002 aluminum foil makes a perfect hot glove contact. Glue it to the plane with 5 minute epoxy and roll it flat with an X-acto knife handle. Tuck it under one side of the engine and you're ready to go.

When using lead for wingtips weight in a racing plane, flatten the lead and epoxy to the wingtip. Then use a self tapping screw through the tip, and into the lead to hold the wire tip skid firmly in place. Makes the skid removable and holds the weight securely.

When it becomes necessary to strengthen an area with glass cloth, try using K&B Superpoxy clear as an adhesive. Use it as you would glass resin. It comes out light, and on a clear finishes it makes 3/4 oz. cloth virtually invisible.

Speaking of epoxy finishes, when rubbing out an epoxy finish, and after going through the wet sanding with 600 grit, and the rubbing with Dupont polishing compound, try using Brasso brass polish as a final rub. Makes the finish shine real nice. Try a few drops of dish soap in the water when wet sanding. It helps the sandpaper slide easier.

If you are having trouble with dirt in your fuel, try using a coleman filter funnel to trap the dirt before it gets to your fueling bottle. Its especially important now that all racers are pulling fuel from the same jug at contests.

Before you close up the control systems inside the wing, put a little vaseline on the bellcrank bolt, the pushrod holes, and the leadout holes. Just dab a little on the part and use a heat gun to melt it so it runs into the holes. Makes the system last a lot longer.

While you're at it, be sure to secure the bellcrank bolt. Just wrap a little sewing thread on the bolt that sticks up above the nut. (you did remember to put the nut on didn't you?) Then zap it with a little hot stuff and it becomes permanent.

Well, I guess that's enough from Dave's Handy Hints department for this month. More next time.

By the way, if you have any ideas of your own on a subject for a column you would like to see, let me know at:  
200 West Franklin Astoria, Oregon 97103 (503) 325-7005  
Happy Flipping Dave Green

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# FLIGHT SCHOOL

by: Jim Labarge



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Building the first model.....

If you decide to build a balsawood first model or you went the PT-19 route and now want to build a balsa model you need to build it right to have success.

First off, READ the instructions provided with the kit you have chosen and follow them. A lot of time was spent preparing them and if you read and use them they will save you a lot of time and really they do help.

Second, find a flat, straight work surface to build on, warped or crooked models do not fly well. Kitchen tables, when used for building seem to incur the wrath of wives/mothers and besides, spaghetti on a model does not look good.

Here's a list of things that you need besides the kit to build that first model:

Building Board, a 12" wide by 3' piece of pine works well

Glues, 5 minute epoxy and Ambroid

Straight pins

Wax Paper, to cover board and plans

Hobby knife with #11 blade

Small draftsman's triangle

Balsarite Sealer

Small dope brush

Sand paper, 100/220

Wheels and retainers

Screws for engine

Cox .049, Babe Bee or

Black Widow (if you started with the PT-19 borrow its engine)

Once you have the kit of your choice and the list of materials you can start building.

A note of safety, always build and finish models in a well ventilated area, most of the glues and dopes have a pretty dangerous odor so don't take a chance.

A model only flies as straight as it's built so use your building board to pin the parts down while the glue dries. When installing the bellcrank and control system make sure that everything is securely fitted and doesn't bind in any way, remember, these parts are only control over the model, no control we crash. When assembling the various parts of the model use the triangle to make sure everything is straight and true. The wing and stab must be perpendicular to the fuselage or you might have a nasty surprise when you takeoff. Double or triple glue the joints of the wing, stab, rudder, and fuselage. Also, don't leave off the nylon tape and glue around the firewall. Again as the old saying goes: "When all else fails, read the directions."

When the model is assembled and dry use the 100 grit sandpaper to sand everything down, then use the 220 grit to smooth everything out. When the model is as smooth as you can get it give it a good coat or two of Balsarite to fill the grain of the wood and fuelproof the wood.

When the Balsarite is dry lightly sand with 220 grit and get out the dope. A good finish is as simple as taking your time to do it right. Most models of this size take 3 or 4 coats to really do the job right. I have used Sig dope or Aerogloss, both do an excellent job but they can't be used together. Don't mix dope types. Lightly sand between coats to remove the nubs and insure a good, smooth finish.

When the finish is good and dry, install the motor, wheels and retainers and get ready to start your engine.

Next time: Your engine and how to operate it.....

# COMBAT

## motore cipolla

TAIPAN PROPS  
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NEW-IMPROVED  
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CIPOLLA COMBAT .36 ABC-RE \$89.95  
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Weight: 195 grams (6.96 Oz.)

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Please add-\$3. shipping

MASTER COMBAT 2.5 AAC-SE \$79.95  
"SALE" PRICE....\$59.95

Technical features	
Stroke	14 mm.
Bore	15 mm.
Swept volume	2.48 CC.
Weight	165 g.
Power (COMBAT)	0.7 HP at 27,500 rpm

AL Kelly COMBAT PROPS  
RUSSIAN or ENGLISH... \$4.25  
AMA-(FAST)....\$4.50  
SLOW (coming soon!)

Std. Plug insert  
(Combat) \$3.95

Hi-Nitro  
Racing Head  
\$5.95  
(for std. plug)

combat plug  
\$1.49

Needle & assy. complete-\$2.99

Combat Head  
(stock)

## THE FLYING FLEA MARKET

BUY, SELL, TRADE

**WANTED:** Midwest "Aries" control line stunt kit, vintage mid 60's.  
Tom Lowe, 823 Kingston Lane,  
Crystal Lake, IL 60014

**WANTED:** Need needle valve assembly and venturi pipe. (Forster 29 rear intake glow, SN# 6539, Year 49/50)  
Paul Karr, 751 Gold Coast Drive,  
Fairfield, CA 94533

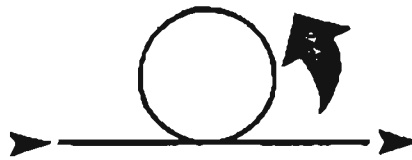
**WANTED:** Full size plan for Jim VanHoit's "Carousel" UC stunt r,  
March 1961 American Modeler and Harold Price's Tempest (date unknown)  
Ken Thompson,  
220 E. 95th Street, New York City,  
NY 10028

**FOR SALE:** K&B 5.8 engines, from a Spokane area hobby shop. Contact Orin Humphries if interested.  
N. 5208 Elgin, Spokane, WA 99205  
phone (509) 325-9773

**WANTED:** Control line kits old and new, will pay fair price. Interested in anything, will buy outright or trade. Would also like to hear from specialty shops, basement hobby shops, and kit collectors. Send a list of what you have or call.  
Mark St. George, 43 Summit Ave  
Westwood, NJ 07675  
phone (201) 664-4602

# STUNT SCENE

*Inverted anyone?*



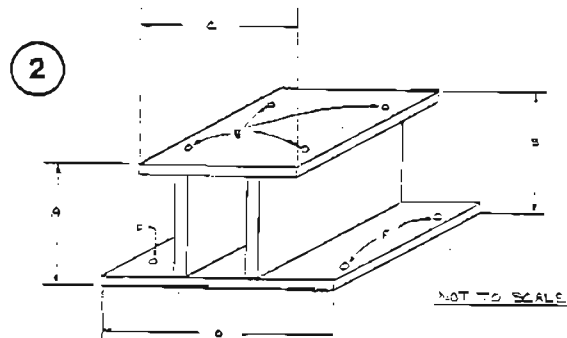
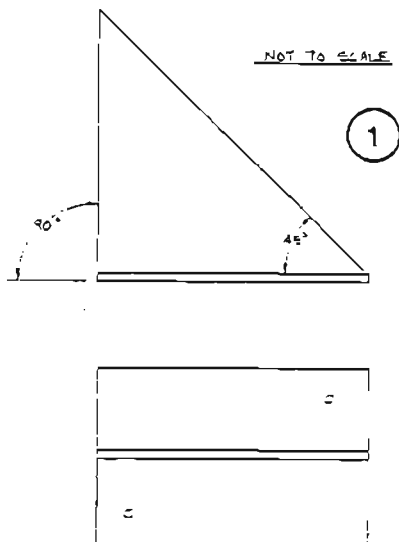
by: PAUL WALKER

Now that I am nearing completion of my World championships plane, it is time to look back at the new technique I used in its construction. The number one concern for any stunt plane is straightness. Are all the surfaces free of warps? Do all the pieces join together to form a plane that is perfectly aligned? These are things that are essential to the good performance of any plane. I have always wondered how I could do better than the previous methods I had used.

It seems that the answer has been right under my nose for years. I work for Boeing and occasionally, I have to go out to the factory to inspect certain aircraft while in the fabrication stage. While the sub-assemblies are being assembled they remain in a jig. When the subassemblies are assembled together they are in a jig. The whole craft stays in a jig until it structurally complete. Staying in a jig allows for "perfect" alignment every time. So why can't I build my model airplane the same way. There is one simple answer! I can and I did!

The total cost for the jig works was about ten dollars. It starts with a 4' x 8' x 1" sheet of particle board. I placed this on top of my existing work bench (which is quite stout). It was shimmed until completely flat in all directions. Several hours were spent insuring this point. Next, 30 jig braces were constructed from 1/8" plywood. (#1) Again, extra time was given to insure that all were exactly 90°. The holes are for wood screws to attach them to the particle board.

The next jig part is made from 1/4" model aircraft plywood. (#2). Be very careful to insure dimensions A and B are exactly the same to assure parallellism. Dimension C is made small enough to fit in your engine compartment. Holes E are made from a template of your engines mounting holes. "D" is sufficiently wide to allow screws to be driven into the particle board without interfering with the plate that holes "E" are in.



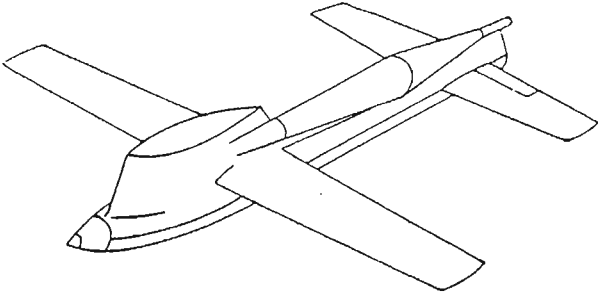
After these pieces are constructed, draw on the flat particle board a long straight line representing the fuselage center line. Now draw a line perpendicular to the fuselage center line about three feet long on each side of the center line. The intersection of these two lines should be approximately in the middle of the particle board. The second line drawn represents the flap hinge line provided it is a straight one. If yours is not, you will have to modify this procedure accordingly. In essence what you are doing is drawing a plan view of your plane on the particle board. Once the outline of your plane is all finished, start bolting the jig pieces to the board with wood screws. Mine was constructed with a foam wing which simplified the assembly. Both wing halves were completely finished first. Then the fuselage was started in the jig. The engine bearers, firewalls, and 1/16" ply side doublers were assembled then joined to the balsa fuselage sides and affixed to the board with the engine mount jig. The upper surface of the fuselage sides is straight and they are checked for being parallel to the board. Once the motor mounts and fuselage sides are parallel to the board, they are clamped into place.

Now, the remaining bulkheads are glued in place. (see the pix 1 & 2 on the photo page). Now the two wing halves are slid into position and glued. Additional jig pieces are used to align the wing into position. Picture number 3 shows the plane in this stage of construction. Make sure that the bellcrank and pushrod is in the wing before the two sides are glued together! Now install the remaining elements of the control system.

The rest of the top fuselage can now be finished. When finished, remove from jig, invert and re-align in jig. The lower half of the fuselage can now be finished. Once again remove from jig and re install upright. Set alignment (parallel to board) and clamp again. Now install horizontal stab and set with more jig pieces. The vertical stab and rudder are then glued in place. Now all the control surface fairings are installed. At this stage it can permanently be removed from the jig. What you should have is a perfectly straight plane in perfect alignment. This method may take a little more time, but when you install it in the jig inverted the first time and it drops right in, you know you have done it right, and it is straight! Good luck and keep 'em straight!

-----Paul Walker, 25900 127th Ave SE, Kent, WA 98031

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\*\*\*\*\* NORTHWEST CONTROL LINE SPEED RECORD TRIALS \*\*\*\*\*

APRIL 20, 1986

AMA "A" SANCTIONED

SITE: DELTA PARK    PORTLAND, OREGON

TIME: 10AM to 4PM

All rule book speed events flown. There are no awards for event placings, however there will be prizes. Each official flight earns one chance for the speed equipment drawing to be held at the end of the day. (fuel, props, pans, etc. etc.) Fees: \$5 for one event, \$10 for two or more events. \$2 charge for Formula 40 fuel. contest director: Mike Hazel (503) 364-8593

# WHERE THE ACTION IS

## UPCOMING ORGANIZED EVENTS

Following is a listing of all known control line model aviation events in the Northwest, as of 4-5-86. All meets are AMA or MAAC sanctioned. Contact the contest director for additional information.

- APRIL 20 -----PORTLAND, OREGON-----  
 NW Control Line Speed Record Trials  
 Events: All rule book speed events.  
 Site: Delta Park CD: Mike Hazel  
 (503) 364-8593
- APRIL 26-27 ---SPANAWAY, WASHINGTON-----  
 Spanaway Spring Tune-Up  
 Events: Old Time Stunt, Precision  
 Aerobatics- 4 PAMPA classes, Combined  
 Scale, Carrier I, Carrier II, Profile  
 Carrier, Balloon Bust, and Combat  
 classes: 1/2A, Slow, Fast, FAI, and  
 Fox-Doo. Site: Sprinker Recreation  
 Center, Tacoma. CD: Gary Byerley  
 20810 46th Avenue East, Spanaway, WA  
 98327 (206) 847-6589
- MAY 4 -----RICHMOND, BRITISH COLUMBIA---  
 V.G.M.C. Spring Opener  
 Events: "33-1/3", NW Sport Race,  
 Profile Carrier Site: Richmond  
 Field CD: Chris Sackett (604)  
 299-4500
- MAY 23-25 -----EUGENE, OREGON-----  
 NW Regional Control Line Championships  
 Events: RACING: Rat, Slow Rat, Mouse I,  
 Mouse II, Goodyear, NW Sport Race, NW  
 Super Sport Race; COMBAT: 1/2A, Slow,  
 Fast, FAI; PRECISION AEROBATICS: Four  
 PAMPA classes, Old Time Stunt; SCALE:  
 AMA precision, Profile; NAVY CARRIER:  
 Class I, Class II, Profile; Balloon  
 Bust; SPEED: 1/2A, A, B, D, FAI, JET, F40  
 Trophies and merchandise awarded thru  
 third place in all events. Largest CL  
 meet on the West Coast. Site: Mahlon  
 Sweet Airport (Eugene) CD: John  
 Thompson, 1505 Ash Avenue, Cottage  
 Grove, Oregon 97424 (503) 942-7324
- JUNE 8-----ASTORIA, OREGON-----  
 CLAM-Bash 1986  
 Events: NW Sport Race, NW Super Sport  
 Race, Class I Carrier, Class II Carrier,  
 Profile Carrier, 1/2A Combat, AMA Fast  
 Combat, Precision Aerobatics flown in  
 three PAMPA classes, CLAM Scale.  
 Site: Warrenton City Park. CD: Dave  
 Green, 200 W. Franklin, Astoria, Oregon  
 97103 (503) 325-7005
- JUNE 21-22 ----RICHMOND, BRITISH COLUMBIA---  
 NW Control Line Speed Championships  
 Events: All speed events flown Site:  
 Richmond field. CD: Henry Hajdik  
 (604) 526-9554
- JUNE 28-29 ----REDMOND, WASHINGTON-----  
 Bladder Grabber XI  
 Event: AMA Fast Combat flown triple  
 elimination. Awards worth thousands  
 of dollars. Site: Marymoor Park  
 Contact: Howard Rush, 8817 NE 137th,  
 Kirkland, WA 98033 (206) 823-6018  
 CD: John Salvin (415) 254-7720
- JUNE 28-29 ----KENT, WASHINGTON-----  
 Boeing Air Fair Stuntathon  
 Events: Precision Aerobatics flown in  
 three PAMPA classes, Old Time Stunt,  
 Junior Novice Stunt. Plus Stunt clinic  
 Site: Boeing Space Center- Kent  
 CD: Bob Emmett, 17972 W Spring Lake Dr,  
 Renton, WA 98055
- JULY 20-26 ----VANCOUVER, BRITISH COLUMBIA--  
 1986 Canadian Nationals  
 Events: Most all Control Line Events,  
 plus FF and RC. Contact: Mr. Brian  
 Dalling, 4214-W. 15 Ave, Vancouver, BC  
 Canada V6R 3A6
- AUGUST 30-31 --RICHMOND, BRITISH COLUMBIA---  
 V.G.M.C. Internats----- Tentative
- SEPT 13-14 ----KENT, WASHINGTON-----  
 Raider Roundup/Washington State Champs  
 Events: RACING: NW Sport Race, NW Super  
 Sport Race, Mouse I, Mouse II, Rat Race,  
 Sport Goodyear; COMBAT: 1/2A, Slow, Fast;  
 CARRIER: Class I, Class II, Profile;  
 Precision Aerobatics- four PAMPA classes  
 Balloon Bust; AMA Sport Scale, Profile  
 Scale, Formula 40 Speed, Record Ratio  
 Speed. Site: Boeing Space Center  
 CD: Dave Gardner, 17210 109th PL SE,  
 Renton, WA 98055 (206) 226-9667
- OCT 5 ----- RICHMOND, BRITISH COLUMBIA---  
 Vancouver Gas Model Club Racing Series  
 Event: NW Sport Race Site: Richmond  
 field CD: Chris Sackett (604) 299-4500
- NOV 9 ----- RICHMOND, BRITISH COLUMBIA---  
 Vancouver Gas Model Club Racing Series  
 Event: NW Sport Race Site: Richmond  
 field CD: Chris Sackett (604)299-4500

# NORTHWEST '86 REGIONALS

CONTROL LINE MODEL AIRCRAFT CHAMPIONSHIPS  
MAY 23-24-25 EUGENE . OREGON

*events: COMBAT*

*RACING*

*AEROBATICS*

*SPEED*

*SCALE*

*CARRIER*

*BALLOON BUST*

AMA "AAA" SANCTIONED

*\$ 2,000 of awards*



Come to the Northwest Regionals' 15th anniversary celebration!  
Don't miss the West's largest control-line model aviation meet.  
There may never be another one like it!

NORTHWEST REGIONALS 86 SCHEDULE & INFORMATION

FRIDAY Speed: ½A, A, B, D, Jet, FAI, F40 .....10:00 to 6:00

SATURDAY

SUNDAY

Profile Carrier.....9:00 to 5:00  
Class I Carrier..... " " "  
Class II Carrier..... " " "  
AMA Slow Rat Race.....9:00  
Old Time Stunt.....10:00  
Slow Combat.....10:00  
Goodyear.....11:00  
FAI Combat.....12:00  
AMA Rat Race.....12:00  
Profile Scale.....2:00  
Mouse Race I (jr).....2:00  
Mouse Race I (sr-op)...2:30  
Mouse Race II.....4:30

Speed.....8:00 to 11:30  
&  
1:00 to 5:00  
AMA ½A Combat.....9:00  
NW Sport Race (jr).....9:30  
NW Sport Race (sr-op)...10:00  
Precision Aerobatics....10:00  
AMA Fast Combat.....11:00  
AMA Scale.....11:30 to 1:00  
NW Super Sport Race....12:00  
Balloon Bust (j)(sr-op)..2:00 to 5:00

SCHEDULE NOTES

- \* Registration is open from 8AM to Noon on Sat & Sun. Friday speed entrants are to register with the event director.
- \* Event starting times will be held to as close as possible.
- \* Stunt and Scale entrants are to check at registration for any information regarding meeting or judging schedules.
- \* Awards presentation will commence on Sunday following completion of all competition.

RULES INFORMATION

- \* AMA events are per current 86-87 rule book. Know the rules!
- \* NW Sport Race: Fox 35 Stunt-no mods, stock profile kit airplanes or exact duplicates, single wheel landing gear OK, no shutoff, no fastfill, no hot glove, suction feed.  
NW Super Sport Race: Plain bearing single bypass .36 maximum, AMA Slow Rat plane specs with outboard suction tank. Both NW events use .018 x 60 multi-strand lines, and contest supplied 10% nitro fuel. Write the contest director for full 1986 rules.
- \* Profile Scale: profile fuselage only, must represent actual plane, one entry per individual, documentation required. Write the contest director for full rules.
- \* All Combat events except ½A are flown double elimination.
- \* Precision Aerobatics is flown in all four PAMPA classes.
- \* Events that are flown over grass circles are: Precision Aerobatics, Old Time Stunt, NW racing events, Combat, Carrier, Balloon Bust, and Profile Scale.

OTHER INFORMATION

- \* AMA or MAAC membership is required of all participants, this includes mechanics. AMA membership is available at registration.
- \* Only participants and officials are allowed in the flying areas. All others must stay outside of roped off or restricted areas.
- \* Absolutely no alcoholic beverages on the flying field during meet hours.
- \* Absolutely no parking on gravel areas in front of fenced fuel depots.
- \* Awards: Trophies and merchandise thru third place in each event and age grouping category. Value of awards is over \$2,000.
- \* Meet site is Mahlon Sweet Airport (municipal) Eugene, Oregon
- \* Facilities: Overnite camping on the site is OK. RV rigs please get directions for parking. Restrooms will be on the site. A concession truck will be at the site most of each day. There are additional facilities in the airport terminal building. Write for motel info.
- \* Participants assistance in keeping the flying site litter free will be greatly appreciated.

Contest Director: John Thompson, 1505 Ash Ave, Cottage Grove, OR 97424

phone (503) 942-7324



# Seattle Skyracers 1986

## "Spanaway Spring Tune-Up"

Saturday, April 26, 1986

Old Time Stunt            10:30am  
  
Carrier I  
Carrier II                10:30am  
Profile  
  
Combined Scale        12:00  
\* % of best possible score.  
  
 $\frac{1}{2}$ A Combat            10:30am  
Fast Combat            1pm

Sunday, April 27, 1986

Stunt -  
  
Beginner  
Intermediate        10am  
Advanced  
Expert  
  
Combat -  
  
Slow                    10am  
F.A.I.                after slow  
Fox-Dee              after F.A.I.  
  
Balloon Bust -  
  
Senior Open        1pm - 4pm  
Junior

$\frac{1}{2}$ A, Fast and slow Double Elimination. F.A.I. and Fox-Dee Single elimination.

Sprinker Recreation Center    14824 "C" South    Tacoma, WA.

Registration 9:30am

Entry Fee \$10.00 (includes first event)  
4.00 per event (maximum 18.00)

Trophies thru third place - 4 or more entrants.

"        "        second place - 3 entrants.

Honorable Mention Trophy - 1-2 entrants.

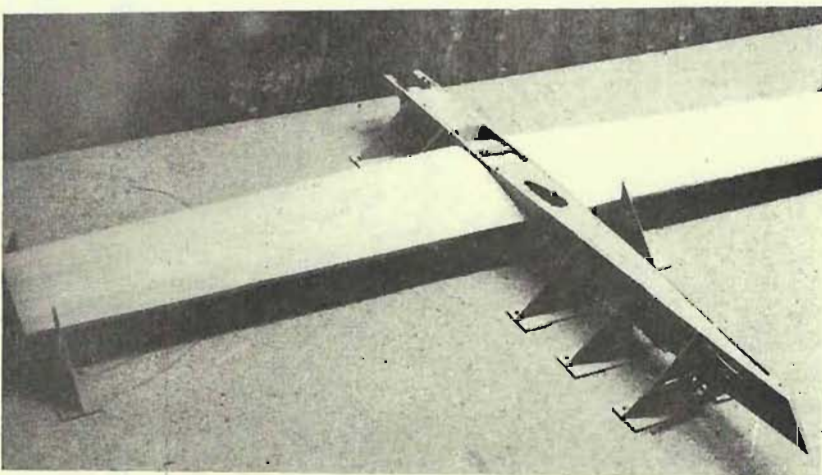
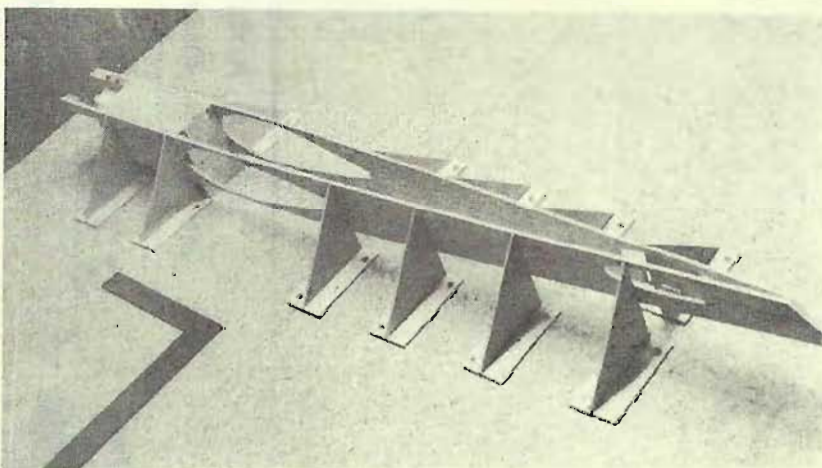
Field costs donated by:

" B&B Hobbies "

For more info. contact:

Gary Byerley  
20810 46th Avenue East  
Spanaway, WA. 98387  
(206) 8476589

\*\*\*\*\* No test flights before contest Saturday. \*\*\*\*\*



top left: "The Dirty Dozen"  
(participants at the March  
Drizzle Circuit in Portland)

top right: Sport Racing pits.

to the left, top to bottom  
( 1, 2, 3 )

Paul Walker's method of jig  
assembly ensures straight and  
accurate model assembly.  
See text.

FLYING LINES

APRIL 1986

FLYING LINES is produced ten times a year by a dedicated staff of volunteers interested in keeping lines of communication open between Northwest control line modelers. FL is totally independent of any organization, depending entirely upon support from subscribers, advertisers, and donors.

Prices for subscriptions: U.S.: \$6 for 5 issues and \$12 for 10 issues. Canada and Mexico: \$6.50 for 5 issues and \$13 for 10 issues. Overseas by surface mail: \$7 for 5 issues and \$14 for 10 issues. Overseas by airmail: \$12 for 5 issues and \$24 for 10 issues. U.S. funds, please. Make checks or money order out to FLYING LINES. FL subscribers may place personal ads in the classified section at no charge. For business advertising, contact the editor for rates and specifications.

The FLYING LINES staff:

Editor.....	Mike Hazel	Combat.....	John Thompson
Aerobatics.....	Paul Walker	Racing.....	Dave Green
Scale.....	Orin Humphries	Beginners.....	Jim LaBarge
Graphics.....	Jim LaBarge	Speed.....	Mike Hazel
Round & Round.....	John Thompson	Carrier.....	Orin Humphries
Sport.....	Larry Miles	Competition Stats..	John Thompson



1073 WINDEMERE DRIVE NW  
SALEM, OREGON 97304



FIRST CLASS MAIL