

FLYING LINES



NEWS OF NORTHWEST CONTROL LINE MODEL AVIATION

1073 WINDEMERE DRIVE NW
SALEM, OREGON 97304

EDITOR: MIKE HAZEL

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C O C K P I T C H A T T E R

(notes, nuts, gnashing, and nitpicking from the editor's desk)

I'm pleased to announce that we have had a couple of good souls that have volunteered to assist on the FL staff. (thank goodness, now I will have a modeling thing to be thankful for this holiday).

John Thompson, who wears some different hats on the staff, reports that Dick McConnell has stepped forward to take the competition stats job after the first of the year. While this won't really make any real change at the FL headquarters workload, it will sure help out John, who will continue his regular Round and Round column, along with the Combat news. Thanks Dick!

Another position that has been filled that will greatly assist ye olde editor, is that of a typist. This will reduce the workload of having to convert as much longhand or other material that simply needs to be retyped. By the way, all you contributors and potential contributors, don't hold back if you can't type. We welcome all materials. We would sure rather have to put the words back on pages again, rather than wait for almost non-existent "copy-ready" material.

Oh, our volunteer here is Bob Kampmann. Bob hails from the Sacramento, California area and has never attended our NW Regionals (shame!) so few of you know him. I have known Bob for a number of years, our modeling escapades have included some interesting activities round the old racing circles.

Well, that leaves two areas for people to take on a "hat". One is the speed columnist position. If you don't hurry up and volunteer, I guess I'll have to write another one soon. The other (of which I hold little hope for), is photo editor. Our last photo editor on the staff was Pete Bergstrom, who did a great job while it lasted. Hey, someone get the word to Pete to re-up his subscription! He has missed some great Stunt photos. Well, I guess that's the news in that department.

The subscriptions just keep coming in. The word must get on the grapevine somehow, where some of these people hear about FL, I'm not sure. There haven't been any magazine mentions for awhile. Some of the new subs come in on subscription forms that went out in Doug Taffinder's catalog. (thank you, Doug!)

Our total readership has increased only a bit over the last year. The NW roster is about the same, but the "outskirt" readers seem to turn-over more, and geographically are really fanned out. Would you believe this rag is distributed in 31 states and 2 provinces? Believe it! We once again encourage all readers to participate in this CL modeler's communication network. Input, criticism (not too much!), and information is always welcomed. One service that most everyone can find useful at one time or another, is the classifieds section. Again, this service is free for personal ads (no businesses).

Has everyone read Tom Dixon's "Controline, State of the Sport" article in the November issue of Flying Models? If you haven't you should. I know that issue is now slightly dated, but find one if you haven't already. Anyhow, Tom makes what I feel is an accurate assessment of several problems that our hobby segment have in relationship to the industry. He makes several good suggestions in raising our consciousness, and even perhaps our attitude and maturity about the whole thing.

Those of us who tend to throw rocks at the RC demi-gods, well, maybe we should at least throw smaller rocks some of the time. I do however, encourage you to save the big ones for the "demise of CL" doom-sayers. I have 0% tolerance for folks that work on an agenda of self fulfilling prophecy.

THE DRIZZLE CIRCUIT

ROUND and ROUND In the RAIN?



Report by Dave Green, D.C. Coordinator

It's Drizzle Circuit time again! Time to participate in the Northwest's answer to trivial pursuit! (just kidding, folks) Seriously, due to the lack of input from the people up North, we will have all the races in Portland again this year. The calendar is tentatively as follows:

Dec. 14	NWSR, NWSSR, Mouse Race Class I	CD: Dave Green
Jan. 11	NWSR, NWSSR, Sport Goodyear	CD: Dick Salter
Feb. 8	NWSR, NWSSR, $\frac{1}{2}$ A Combat	CD: Gene Pape
March 8	NWSR, NWSSR, NW Sport Combat	CD: Mike Hazel
April 12	NWSR, NWSSR, AMA Rat Race	CD: Wayne Spears

You will notice a few changes this year on the secondary events. NW Sport Goodyear is just like AMA Goodyear, except no Nelson or Rossi engines are allowed. Rat Race was substituted for Slow Rat, as it was decided that Slow Rat was a basically duplicated event at the DC. Most of the fliers use their SS planes anyway.

There have been a couple of proposals to help stop the massaging of Fox 35's that has allegedly been going on.

One is to take each competitor's motor and, after scribing their AMA number on it, toss it in a bag. Each competitor would pull out an engine and what you get is what you run. Presumably anything you break you would replace.

The other is to institute a claiming rule. You could buy that honking motor of the winners for the price of a new Fox 35. What do you think? Let me know. If I don't hear anything we will run the DC as we have in the past. It's up to you.

..... Dave Green, 200 W. Franklin, Astoria, OR 97103 (503) 325-7005

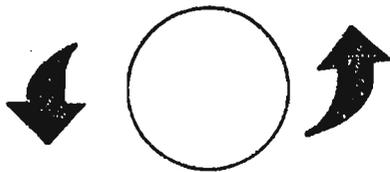
Here is some more Drizzle Circuit information for the uninitiated. First of all, as the title implies, we race rain or shine. Secondly, the primary events, NW Sport Race, and NW Super Sport Race are flown for the entire season. There are two separate sets of awards for each of those events, which are awarded at the end of the season, based upon participants performance as a total. This is in the form of points, which total up as one place or participates through the season. Obviously, the key here is to place as high as possible in as many meets as possible.

Besides the season end trophies (perpetual type), each meet also will feature nominal awards for that meet's placings. The alternating secondary events are included to provide some extra interest.

The site is at Delta park in Portland. The secondary event is flown first at about 9 AM. NWSR is next at 11 AM, and NWSSR follows that.

This is a great event to participate in, or just spectate. Many novice racers have cut their racing teeth in the DC, and more experienced racers have finely honed their skills.

Come and join in the fun! For more information about any meet, or more about the administration of the circuit, contact Dave Green.



ROUND & ROUND

By: John Thompson

IT'S HANGAR-FLYING TIME

The days are shorter, the sunny Sunday flying days are fewer, and if we have any sense at all we're getting busy on building next season's airplanes.

Those of us who like to fly and compete all year along are getting ready for the Drizzle Circuit, opening in December.

Everyone's personal building and winter flying schedule is different. As I write this, I am eagerly anticipating an unusual Friday flying session with a couple of Prop Spinners at Mahlon Sweet. Somehow our days off match at this odd time. Trouble is, what to fly? No contest to prepare for; the Stunt plane has tank gremlins, my combat planes are, er, resting. Well, we'll drag out something and make a day of it.

If you're all caught up on competition building and looking for something else to build during the winter...or if you're a stunt flier puzzling over what new trick to try next season, you might want to take a deep breath and spring for one of the new Sig Magnum kits.

I gave up on the stunt project that I had under way after determining that the wing was excessively affected by gravity. I decided to take a whack at a Magnum and found one at a discount price at Eugene's Toy & Hobby, a FL advertiser. At retail, or direct from Sig, it \$75, but you can do better at your local shop or by mail through ET&H.

It is clearly one of the best model airplane kits I have seen, with a number of innovative ideas. The instruction book alone is probably worth the price of the average CL kit. In order to avoid the usual "die-crunching" problem, Sig has not attempted to die-cut the thicker pieces of wood. Instead, they have printed the shapes on the wood as a guide for cutting them out on your jigsaw.

The foam wing is well made, though, Combat builders probably could give Sig some pointers that might speed up the building process even more. Nonetheless, it's a fine job of dealing with that medium.

The plane is large, and intended for a .40 to .60, so care will be necessary in making it accept my OS 40FSR.

I've only just begun construction, so I can't give you a complete report, but it looks like a fine success for Sig Manufacturing Co.

UNPRINTABLE -- That's my reaction to the spectre of politics that is rearing its ugly head in the Academy of Model Aeronautics leadership again. What's the matter with some of those guys, anyway? If you've been reading MODEL AVIATION, you know what I'm talking about. Who the hell is Dave Peltz, anyway, and why does he think California should get more AMA money than the five-state District XI (that's ours)? Why am I getting mail from six guys who want to be president of AMA? Is it that prestigious a job, to be the head flack-taker from 100,000 people, most of them crabby RC fliers? And here's mail from Jim McNeill, executive vice president, blasting John Grigg for trying to disband the Safety Committee and its advisory boards. These guys work together and they sound like enemies. If all this makes your stomach turn like it does mine, write these guys and tell them to shut up and go flying. Makes me feel glad we've got a level-headed guy like Ed McCullough in Dist. XI. Be quiet, John, you're starting to sound like one of them.

SCALE MAIL -- England modeling friend Charles Windows occasionally sends me copies of AIRCRAFT MODELWORLD, which I could make available to anyone out there who wants to see them. The magazine is geared toward plastic model builders but has extensive photos and drawings of all kinds of odd scale planes, particularly European dinosaurs that many on this side of the creek may be unfamiliar with. Since I'm not a scaler, I usually just look through the magazines and toss them, but I'm going to start saving them so that scale people can get the value out of them. Write me at the address below and I'll send you what I have on hand.

NO GO -- Combat fliers in the area who were aware that I was putting in a rules proposal to change the penalty for losing parts will wonder why it's not in the current cycle's list of proposals. Unfortunately, the process of mailing it around for endorsements ran past the Sept. 1 deadline and it didn't make this rules cycle. I'm planning to re-submit it for the 1990 rules cycle. Thanks to Gene Pape and John Salvin for their endorsements...we'll make it next time. The proposal was to make the penalty for losing parts in CL Combat be forfeiture of the match instead of the present disqualification from the contest. This is to reflect the fact that there are many possibilities for loss of parts that are no fault of the contestant and should not cause him to exit the entire contest. An example, from personal experience, is the disintegration of a plane caused by a thrown prop blade. Some contests (such as the Bladder Grabber) already are being run under the proposed rule.

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

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NORTHWEST SPORT RACE

1st MEL LYNE 8:47
2nd HENRY HAJDIK 9:39
3rd FRANK BODEN 11:51

BALLOON BURST

1st DAVE EVANS 1052 Pts
2nd MEL LYNE 867 Pts
3rd FRANK BODEN 277 Pts

OPEN STUNT

1st RAY MATHIS 410 pts.
2nd DAVE BREDEFELD 337 pts
3rd RON UNDERHILL 335 pts

SCALE

1st JIM McCURRACH 350 pts
2nd ROY WEST 330 pts
3rd WADE WEST 316 pts

COMBINED CARRIER

1st BOB PARKER 219.7
2nd ROY WEST 208.5
3rd RICK WALLACE 192.8

15 COMBAT

1st LYN MURRAY
2nd TRAVIS LYNE
3rd GREG DAVIS

SLOW COMBAT

1st MEL LYNE
2nd FRANK BODEN
3rd DAVE EVANS

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B.C. BELLCRANKER PRIZED SECRETS REVEALED

(concocted by Greg "Wicked" Wornell)

This week, "Screaming Streamers" magazine takes a cold, hard look at the hottest thing to hit combat circles since shaft-cunning became the rage, the B.C. BELLCRANKERS. And just what is it that causes so many of the world's foremost combat big guns to live in constant fear of THE B.C. BELLCRANKERS -- that oh-so Dreaded Canadian Contingent? For the answer, we checked out the team's latest book, "ROUND AND ROUND AND ROUND AND ROUND AND ROUND AND ROUND AND ROUND AND..." The following are excerpts from the book, reprinted with their permission.

ROUND AND ...
(or Building That World-Class Combat Team You've Always Dreamed Of)

CHAPTER (1) PERSONNEL

First off, get yourself some quality personnel -- the very best and loudest you can possibly find. All of them must, of course, have minds like steel traps, but also, they MUST be able to hoot, holler, and wail at several hundred decibels. (Give their jaws a pull-test to be sure.) Let's look at some of those personalities that make the BELLCRANKERS such a force to be reckoned with:

Lyn "Mad" Murray :

ASSETS:

When we ran into this guy, we thought he had only nerves of steel. But, after 24 hours of wittling away with a hacksaw on his forearm, we found we were wrong. This guy has nerves of Bocon Filament. Immediately we knew he was BELLCRANKER material.

SHORTCOMINGS:

Can't seem to remember UP from DOWN on the control handle for more than one match at a time, so we must be constantly reminding him. Idiot labels on the handle have been to no avail.

Greg "Demon" Davis :

ASSETS:

Anticipation is the specialty here. On a good, sunny day, this guy can anticipate any maneuver an opponent might vainly attempt about 10 minutes in advance. Experience has proven this to be just about the right amount of warning.

SHORTCOMINGS:

Can never seem to resist those silly, embarrassing, and disqualifying maneuvers before the horn has a chance to go off. The combat impulse appears to be jammed too thoroughly into his brain.

Kelly "Killer" Crozier :

ASSETS:

Devastating flying tactics is Killer's specialty. The awesome spectacle of his flying causes most opponents to drop their jaws in utter horror, easily distracting them and allowing Killer to neatly take the match.

SHORTCOMINGS:

Nerves. The stress and anxiety, coupled with the thrill and excitement, of the combat meet can overwhelm him at times. He can become so jumpy we have to strap him into his lawn chair with bungy cords between matches to keep him from injuring himself.

Greg "Wicked" Wornell :

ASSETS:

Master of optical illusion. Wicked cleverly masquerades about as a no-mind, but when the horn goes off, he transforms into a bastion of concentration and strategy. Most opponents are polished off before they know what hit them.

SHORTCOMINGS:

He really is a no-mind -- has trouble even remembering his own name, so he often misses his matches entirely. Taping his mouth shut for a change offered little improvement.

CHAPTER (2) THE EQUIPMENT

To be a winner, you need superb equipment. That's why every plane in the B.C. BELLCRANKER arsenal is a finely tuned piece of combat machinery. Here's how you build 'em: First, choose yourself a suitable hunk of foam, preferably not the mattress kind. Then, carefully shape the wing. Some people use a hot wire, but we prefer a good blowtorch. Next, add all the little bitty pieces, and wrap the thing up in some clear plastic stuff like Saran Wrap. Finally, glue on some exotic composites (like carbon fibre and kevlar) in conspicuous places so your planes looks high-zoot, and, viola, you're done.

As for quantity, you will usually need a full gaggle of planes per person per meet, according to our experience. However, if you are a particularly inept flyer, perhaps as many as a giga-gaggle may be necessary.

Now, on to the engines. First thing you must do is put as many bubbles as possible in the heads of those Foxes. We are usually all pooped out after two, so we tend to have your basic double-bubble-bobble heads. (The bobble is the plug, silly). The next thing you HAVE to do is DREMEL the snot out of your engine. I mean, WAIL on the thing with the most viscous attachment you can get your eager little hands on. When you have a nice big heap of aluminum and steel filings on your workbench, you can then stop. The engine is done.

CHAPTER (3) THE BATTLE PLAN

Crucial to every successful combat endeavour is "the battle plan." Never leave home without it. We prefer the "Strategy Sheet" approach. See Figure 1. This allows us to use a whole hoard of dastardly strategies, and ensure we never use the same strategy twice in one meet. Each team member simply has to initial the strategy he plans to use at each round, using the posted sheet. Those of us having difficulty writing our initials, just use an "X".

CHAPTER (4) THOSE EXTRAS

Those little extras help to ensure that the team stays on top. Some of our favorites include:

The T-shirts (battle dress), customized with each team member's battle name helps to avoid the confusion that results when we forget our own names. The only better solution would be to have the names stamped directly onto our foreheads with a branding iron.

The song (see figure 2) serves as a source of much mindless amusement during the long car rides to and from meets. This also warms up our lungs for full-scale wailing when we arrive at our destination.

Finally, the blood-red "Dreaded Canadian Contingent" sign serves three important purposes:

- (1) it causes the opposition to wither in their boots on sight,
- (2) it helps us find our equipment again after each match, and
- (3) it gives us something to lean against and just look good.

Well, that's about it. Good luck and good bellocracking. See you 'round and 'round and 'round and 'round and

Greg "Wicked" Wornell spills the castor beans on how the dreaded Canadian Contingent does Combat business! Now that you have been given the business, round up some of your flyin' buddies and form your very own Combat team!

FIGURE 1

B.C. BELLCRANKERS BLADDER GRABBER XI STRATEGY CHART													
#	STRATEGY	MATCH											
		1	2	3	4	5	6	7	8	9	10	11	12
1	BELLCRANK the bastard.												
2	Do lots of roundy-roundies.												
3	Dangle one foot in the air outside pilot's circle to distract judges when opponent is about to make a cut.												
4	Tie opponent's shoelaces together, then give a solid but deft elbow to his abdomen.												
5	Grab his "down" control line and give a mighty yank.												
6	Cut off his streamer before he knows what hit him.												
7	Toy with opponent for a while, then go in and cut the dirtbag's streamer right off.												
8	Take a good pair of garden shears to opponent's control lines a few seconds into the match.												
9	Dazzle the opposition with square maneuvers and hourglasses at the beginning of the match, then go in and neatly cut off his whole streamer.												
10	Have pit crew huck a meat cleaver at opponent's airplane when the horn goes off.												

FIGURE 2

THE BATTLE HYMN OF THE BELLCRANKERS

Now a-here we go-a just a marchin' down the street,
Singing Doo-wah-ditty, ditty-dum, ditty-doo,
Gotta find our way to this-a high-zoot combat meet,
Singing Doo-wah-ditty, ditty-dum, ditty-doo,

Looks good, <looks good>. Looks fine, <looks fine>.
Looks good, looks fine. Ah shit, we missed the sign.

Now let's beat the pants off of all those big guns,
Singing Doo-wah-ditty, ditty-dum, ditty-doo,
Geez they look good, I think I just got the runs,
Singing Doo-wah-ditty, ditty-dum, ditty-doo,

Looks good, <looks good>. Looks fine, <looks fine>.
Looks good, looks fine. I think I'm gonna lose my hind.

We got the Duke Fox engines with the double-bubble heads,
Singing Doo-wah-ditty, ditty-dum, ditty-doo,
I should have practised choppin' up them streamers instead,
Singing Doo-wah-ditty, ditty-dum, ditty-doo,

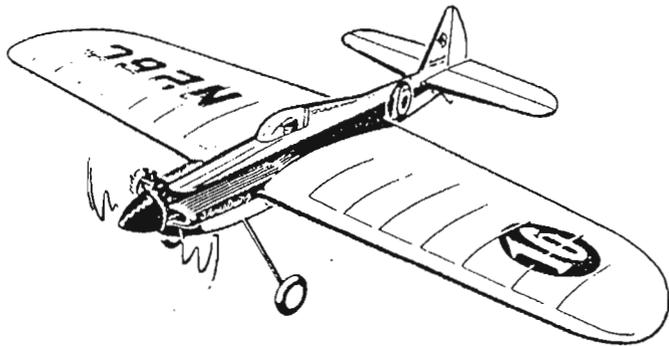
Looks good, <looks good>. Looks fine, <looks fine>.
Looks good, looks fine. I think I'm gonna lose my mind.

Well my plane took off, but I stuck it in the ground,
Singing Doo-wah-ditty, ditty-dum, ditty-doo,
It seems the goddamn handle was upside-down,
Singing Doo-wah-ditty, ditty-dum, ditty-doo,

Looks good, <looks good>. Looks fine, <looks fine>.
Looks good, looks fine. Hope I got him on air-time.

At last, I met a little streamer and I followed it 'til night,
Singing Doo-wah-ditty, ditty-dum, ditty-doo,
But some guy cut my lines, now my plane's out of sight,
Singing Doo-wah-ditty, ditty-dum, ditty-doo,

Looks good, <looks good>. Looks fine, <looks fine>.
Looks good, looks fine. Hope I get it back in time....



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3/32 x 2	.40	1/16 x 3/8 .10
1/8 x 2	.43	1/16 x 1/2 .14
3/16 x 2	.49	3/32 x 1/4 .10
1/4 x 2	.56	3/32 x 3/8 .12
1/32 x 3	.37	3/32 x 1/2 .16
1/20 x 3	.37	1/8 x 1/8 .08
1/16 x 3	.37	1/8 x 1/4 .11
3/32 x 3	.44	1/8 x 3/8 .12
1/8 x 3	.54	1/8 x 1/2 .18
3/16 x 3	.62	3/16 x 3/16 .11
1/4 x 3	.73	3/16 x 3/8 .17
5/16 x 3	.86	3/16 x 1/2 .22
3/8 x 3	.88	1/4 x 1/4 .16
1/2 x 3	1.10	1/4 x 3/8 .19
3/4 x 3	1.65	1/4 x 1/2 .21
1/16 x 4	.58	1/4 x 3/4 .34
3/32 x 4	.70	1/4 x 1 .40
1/8 x 4	.80	5/16 x 5/16 .21
3/16 x 4	.93	3/8 x 3/8 .27
1/4 x 4	1.10	3/8 x 1/2 .32
3/8 x 4	1.85	3/8 x 3/4 .42
1/2 x 4	2.25	3/8 x 1 .52
Matched Sheets 42"		1/2 x 1/2 .36
3/32 x 4	1.00	1/2 x 3/4 .46
1/8 x 4	1.08	1/2 x 1 .58
3/16 x 4	1.20	5/8 x 5/8 .48
1/4 x 4	1.31	3/4 x 3/4 .67

Balsa Triangles 36"

1/4 x 1/4	.25
1/20 x 3	.49
1/2 x 3	.49
1/2 x 1/2	.35
3/4 x 3/4	.46
1" x 1"	.55

LIGHT 4-6 LB. WOOD 36"
Excellent for stunt & combat

1/4 x 3	.76
1/4 x 3	.85
3/8 x 3	1.15
1/2 x 3	1.39
3/4 x 3	2.20
1" x 3	3.00
3/16 x 3	.78
1/4 x 3	1.17
3/8 x 3	1.17
1/2 x 3	1.17
3/4 x 3	1.17
1" x 3	1.17
1/16 x 4	2.75
3/32 x 4	3.60
1/2 x 4	2.2
2 x 2	3.25
2 x 3	4.35
3 x 3	4.95
3 x 4	6.88

Balsa Planks 36"

1 x 1	.86
1 x 2	1.50
1 x 3	2.00
1 x 4	2.80
1 1/2 x 3	2.75
1 1/2 x 4	3.60
2 x 2	2.25
2 x 3	3.25
2 x 4	4.35
3 x 3	4.95
3 x 4	6.88

Tapered Sheets 36"

1/4 x 2	.65
1/4 x 3	.85
3/8 x 2	.68
3/8 x 3	.98
1/2 x 3	1.20

Basswood 48"

3/16 x 3/16	.26
3/16 x 1/4	.30
3/16 x 3/8	.38
3/16 x 1/2	.46
1/4 x 1/4	.60
1/4 x 1/4	.42
1/8 x 3/8	.49
1/4 x 3/4	.80
3/8 x 3/8	.60
3/8 x 1/2	.70
3/8 x 3/4	.90
1/2 x 1/2	.90
1/2 x 3/4	1.00

Pine Sticks 36" 48"

1/8 x 1/8	.13
1/8 x 1/4	.16
1/8 x 3/8	.20
3/16 x 3/16	.17
3/16 x 3/8	.23
3/16 x 1/2	.30
1/4 x 1/4	.26
1/4 x 3/8	.30
1/4 x 1/2	.34
3/8 x 3/8	.37

Hard Maple 18"

1/4 x 3/8	.40
3/8 x 3/8	.45
3/8 x 1/2	.50
3/8 x 3/4	.58
1/2 x 3/4	.69

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20-1/8 x 3 x 36	6.85
20-1/16 x 4 x 36	10.20
20-3/32 x 3 x 36	8.45
15-3/32 x 4 x 36	9.55
15-1/8 x 3 x 36	7.15
10-1/8 x 4 x 36	5.75
16-3/16 x 3 x 36	9.00
20-3/16 x 4 x 36	8.10
10-1/4 x 3 x 36	6.30
10-1/4 x 4 x 36	8.90
10-3/8 x 3 x 36	8.50
5-3/8 x 4 x 36	6.25
5-1/2 x 3 x 36	5.40
5-1/2 x 4 x 36	8.55
10-3/32 x 4 x 48	8.45
5-1/8 x 4 x 48	4.85
5-3/16 x 4 x 48	5.85
5-1/4 x 4 x 48	6.25

Spruce Sticks 36" 48"

1/8 x 1/8	.15
1/8 x 1/4	.18
1/8 x 3/8	.20
3/16 x 3/16	.25
1/4 x 1/4	.31
1/4 x 3/8	.36
3/8 x 3/8	.45
3/8 x 1/2	.55
1/2 x 1/2	.60
1/2 x 3/4	.68

3 Ply Birch 48"

1/64 x 12	5.25
1/32 x 12	4.25
1/16 x 12	4.35
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FLIGHT SCHOOL

by: Jim Labarge



Your Engine, how, why, what.....

This section on engines is going to take for granted that the reader is a total novice who has never been around or used model engines. Controlline engines are no different than any motorcycle or car engine in that all engines need three things to run, Air, fuel, ignition. Since we have decided we are going to use the Cox .049 ignition is as simple as a glowworm, make that a glow plug. Now there are engines that ignite their fuel with a sparkplug just like a car, but for modeling, especially Controlline beginners they are not a good idea. A glow pug is nothing but a coil of platinum or similar metal that when heated by a battery or burning fuel ignites the next cylinder of fuel. If your engine won't pop or try to run 9 times out of 10 it's the battery or glow plug. A fresh battery and a good glow plug and you should see a bright orange glow. If not try a new battery, or glow plug, or sometimes both.

Now that we have ignition, do we have fuel? On the Cox motors a needle valve setting of $3\frac{1}{2}$ turns open is a good starting point. Make sure you fill your tank with good clean, fresh fuel. Cox fuels, Fox Missile Mist, or K&B 1000/5000 are all good fuels for an .049. CAUTION: All model fuels are poisonous and extremely flammable. We use a fuel extremely close to the fuel that an Indy 500 car uses and you know how bad the fires can be from spilt fuel. Never leave fuel around a battery, around children, and don't use any kind of flame near the fuel. You can't see an alcohol fire, be careful.....

Air is brought into the engine by the turning crankshaft so unless you are in a vacuum or the air intake is plugged air is no problem.

Before we hook up the battery and try to start the engine, let's talk about props for a bit. Most '049's run well with a $5\frac{1}{2}$ -6" prop with 3-5" of pitch. Too small and no power, to big and the engine can't swing it. Another thing about props, they are people eaters, NEVER get in the path of or inline with a prop. One thing about the Cox motors we are discussing is that they have a spring starter, so a beginner can wind it up and be out of the props way. Some engines are nasty and always hungry for fingers. I have a couple of Super Tigre square venturi engines that will bite almost every time. A prop is just like a knife so stay out of the way.....

Okay, let's fuel the engine, hook up the glow clip and give it a try. Sometimes you have to squirt a bit of fuel in the open cylinder port as a priming, not much, just a few drops will do. If everything goes right, a wind of the starter, release and your engine will start. You will notice that it runs kind of slobbery and slow, DON'T touch the needle valve....we have to let the engine break in and the best way to prevent damage and do it right is to run 4 or 5 tanks through it before we try to tweak the valve and lean out the engine. Don't try to speed up the breakin with any compounds, it will ruin the engines tolerances. Cox measures the cylinder/piston fit in millionths of an inch. Any damage to these and the engine won't run.....

After these breakin tankfuls we can begin to tighten the needle valve until the engine runs as fast as possible on the ground, the best way to know if you have it set right is to get someone who has some experience to check it for you.

Keep your engine clean, feed it good fuel, and respect the prop and your engine will give you years of service.

Next time.....Butterflies and that first flight.....

—————
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FALL FOLLIES IS LAID-BACK FLYING DAY IN THE SUN
Contest director's report by John Thompson

The second Eugene Prop Spinners Fall Follies, Oct. 12 at Mahlon Sweet Airport, Eugene, was an enjoyable flying day with a better turnout of precision aerobatics fliers than in its first go-round.

The weather cooperated with a beautiful day. Unfortunately an odd mixture of circumstances caused some manpower problems for the host Eugene Prop Spinners, so the officiating became a cooperative effort in both stunt and FoxDoo Combat. Prop Spinners President Mel Marcum, driving force behind the meet, was home with an injured foot elevated on doctor's orders. Contest Director John Thompson had to leave before it was over due to a change in his work schedule, handing the baton to assistant CD Mike Hazel. You get the idea.

But the contest itself went so well, and the day was so made for flying, that the competitors stayed on the field long after the official flights were over, flying and comparing notes.

Perhaps the most remarkable event of the day was Don McClave's return to Combat flying after about 30 years' absence.

Don was a last-minute replacement on the handle of John Thompson's FoxDoo (Fox stunt .35 engine with Goldberg Voo Doo airplane) for the double-elimination contest with Dave Childs, the only other competitor.

The stunt fliers laughed, but McClave and Childs immediately hooked up in a classic duel. The first match ended with Childs winning on cuts 3-2. They went right back at it, had another good match with Childs coming out on top.

Now we know...McClave can fly something other than the stunt pattern!

Because there were only seven entries through four classes, precision aerobatics fliers decided to combine the PAMPA classes into beginner-intermediate and advanced-expert.

McClave, the only bona fide expert in the group, predictably nailed down first with a 545 and then passed his second flight.

However, the rest of the advanced-expert group had a real shootout, exchanging positions until Jack Pitcher turned in a solid 424 to take second place. Gerald Schamp and George Mickey were almost a tossup, Schamp taking third with a 350 over Mickey's 345.

In beginner-intermediate, Jason Huntress topped the field with a 322.

Thanks are in order to Mike Hazel, Don McClave and Gerald Schamp for assistance with official duties and to all who made the trek to Eugene for the contest.

Here are the complete results:

ADVANCED-EXPERT PRECISION AEROBATICS (4 entries)

1. Don McClave, Portland, Ore. -- 545. Megatation, Fancher/McClave design, 61" span, 62 oz., balsa/plywood/carbon fiber construction, Formula U/Monokote finish, adjustable controls and tip weight. Supertigre .60, Bolly 12x6 fiberglass prop, GloBee RC long plug, SST domed head, FHS Custom Blend 10% nitro/25% castor fuel, .182 Dixon venturi, 7-oz. Robbert uniflow suction tank, .018x70 braided lines.
2. Jack Pitcher, Gresham, Ore. -- 424.
3. Gerald Schamp, Albany, Ore. -- 350.
4. George Mickey, Seattle, Wash. -- 345.

BEGINNER-INTERMEDIATE PRECISION AEROBATICS (3 entries)

1. Jason Huntress, Seattle, Wash. -- 322. Top Flite Tudor, Monokote. OS 40FSR, Zinger 11x6 wood prop, Red Max 10% nitro fuel, Huntress inboard suction tank, .015x65 braided lines, Huntress handle.
2. John Thompson, Cottage Grove, Ore. -- 283.
3. David Royer, Portland, Ore. -- 257.

How do you get to the top of Mt. Everest? I don't know of any tours, and they haven't built an elevator yet. I guess you just have to work very hard at it. So far, there is only one

WAY TO THE TOP

If we really wanted to we could get the carrier rules changed so we could take turns standing in the center and throwing our wallets at the deck instead of working long and hard to achieve success with the trophies and all as we presently must (with only rare exceptions). I know this is ridiculous, this wallet stuff, guys, but think about it.

You see, I have some very good friends (at least until they read this, I suppose...no offense guys, I know it takes more than my imperfect opinion to make the world go around) who are heading down a path I frankly wonder about a bit. Three of my buddies have bought whiz-bang engines, and I would like to just mull over the results that I've seen of this so far. I surely don't want to offend anyone, but I do want to examine this strategy.

One fellow, the first to buy the Whiz-Banger, was relatively new to carrier. At a certain Nationals in the not-too-distant past he brought it new in the box to the contest to break it in. He didn't get anywhere with it then, but the next year I hear he set a profile record with it. But the year after that his equipment was a mass of problems. The home-made throttle bellcrank he put in didn't put out enough throttle rod travel to operate the carburetor through its full range. Well, I helped him jury-rig it and get into the air and he finished ahead of me, but it was nowhere close to his record.

I can't help but feel that the record was a matter of luck. He was new enough that he didn't know enough about basic equipment and here he was trying to operate fancy equipment.

Another fellow racked up a very impressive four-first-places at a certain Nats not too long ago, and he put all the time and work into those events to earn the trophies. He is good. Then he wanted to add a first in carrier, but he didn't have the time required. Solution... buy a Whiz-Banger. I have yet to hear that this has made him king of the hill around there.

Finally, there's the old friend who bought the latest Whiz-Banger and broke it in at Eugene the night before the contest. He was in Carrier when I was a pup, but he was away from it for a while. His knowledge was not kept up to date in the lay-off time for he had more pressing concerns. So, when he returned (he is doing great in other areas) he had trouble with the hot engine. It died on takeoff and splashed 180° from the launch point three times. He didn't know that you can't operate a suction-fed carburetor with a minimum throat area above around 22 mm² in Carrier with out having your engine die on takeoff. Mr. Perry covered that in a column in MODEL AVIATION about two Januarys ago or thereabouts. How many of you readers know why you can't go over 22mm²?

So, here we have a range of experience between these good men, and they all tried to be successful with a hot engine that was, in the end (so far) not the answer.

Money doesn't buy trophies, equipment that is beyond us doesn't win them...so far, the only legal tender in the winners' circle (with the occasional fluke) is experience and sometimes-hard work.

So if I know it all, hows come I'm not champion of the Universe and Wyoming? I know, I know...

And now my Apple II screen is showing two incoming warhead tracks from the north and one from the west. Think I'm going to boogy to the bunker! See ya.

Orin Humphries

HOOK NOOK

CARRIER NOTES

by: ORIN HUMPHRIES

AIRMAIL



COMMENTS, NEWS, and VIEWS from FL READERS

Flying Lines,

It has been a while since I last wrote. Anyway I really wanted to renew my subscription. It is great to see that one section of the Good Old USA is still doing fair.

That is pertaining to control line. What with all the support that it gets. Our courts and governments have done quite a bit to try and kill our sport. I heard from a well known manufacturer that they may discontinue production of the few kits they have. The fear of a devastating lawsuit is the culprit. All because some person tries to fly a control line plane without reading the warnings in the kit and on the box.

Are control line flyers an insurance risk? I have had my share of cut fingers pitting racing and combat engines. Also nothing like breaking in a new engine without a good heavy leather glove. Electric starters are very hard on engines if they are not broken in.

Also I have seen people get hit by models and I have even hit a pit man during a race. The reason I hit the pitman was he did not pull his plane out on the grass during a pit stop. That was in our rules because of the circle we flew on. The other time I saw someone hit was a shared accident. The pilot forgot to step back to the center of the circle and the spectator did not keep his eyes on the plane. Lucky for him only the outboard wing hit him. Also there were a few prop marks on his left cheek. Needless to say the stunt competitor was out of the competition. The spectator had a terrific head ache with no concussion.

I do not want the hobby to be killed because of some person not heeding the common sense rules. But, next time at the field watch what is going on. I have even got some people upset at me because I got onto them for an unsafe act. Remember we are playing with toys. That propellor on the engine is nothing more than a sophisticated saw blade. Those lines are very good conductors of electricity, static or real.

My flying season is slowing down because of the unpredictable weather. So I am busy getting ready for next season. I am building new equipment and repairing some of the old. By the way, I have been selected to be the navy carrier event director for the 1987 Lincoln Nationals. As far as I know the dates for the Nats are July 11 thru 18.

So I would like to see all of the Northwest navy carrier flyers there. It is a great big model meet and a terrific way to see how to improve your equipment and flying skills. What better way to spend part of your vacation than to have at least two days of navy carrier flying. Also I have found all carrier flyers very easy to chat with if they aren't having trouble.

If and when they ever go to the Northwest for a model airplane nats, I will be there. All for now.

..... John E. Holliday, 10421 West 56th Terrace, Shawnee, Kansas 66203
(ED. NOTE: Thanks for the news, and the sobering safety reminders.)

Dear Mike,

Please extend my subscription to Flying Lines for another year. Enclosed is a check for \$12. Also, would you please correct the spelling of my name on the Flying Lines roster? We look forward to receiving each issue of Flying Lines and enjoy it very much. Keep up the good work. Thank you.

..... Glenn C. Birch, 5224 East Drive, Everett, WA 98203
(ED. NOTE: Oops, sorry for the spelling miss-steak!)

Dear Flying Lines,

Thanks for a great magazine. I eagerly watch my mail each month for FL. My primary interests are speed, A, B, .21 Sport, and am trying to learn aerobatics.

..... Lyle Spiegel, 50 Prospect Ave., Newton, Mass. 02160

Dear Flying Lines,

Here's my \$12 for 10 more issues. Thanks for the reminder. Thanks also for the warning on the new muffler rule proposal. It hasn't even been in Model Aviation yet! Trying to put a muffler on my K&B 5.8 powered profile carrier should really be fun! Also, just what is a muffler? Does a tuned pipe qualify? Hows about a magic muffler? What about one of those small Bobby Hunt type stunt mufflers? I'm also not thrilled about trying to find a muffler for my Rossi 15 to fit in my Goodyear. After reading Paul Walker's write up of the World Champs, I can only conclude that either the AMA didn't send any officials to the World Champs (It's only control line, not RC), or they sent a gutless wonder.

Anyone with a brain should know that the Russians and any communists stick together to insure a communist win, and there's a very good chance that French or Italians will vote with them. This sort of thing has been going on for years at the Olympics. Even though the Russians are well paid professional modelers, I'd bet the winning Russian couldn't make the top 20 at our nats with good judging.

..... George Lieb, 5202 Emeline Street, Omaha, Nebraska 68157

Hi Mike,

As a control line flyer I've often heard about the Flying Lines newsletter but I've never seen a copy. So please enter my name on your subscription list.

I hope you have a lot of navy carrier coverage, as this is my main interest. Also, I'm just getting started in mouse and slow rat racing. Please send the current issue ASAP.

..... Gabe Manfredi, 601 NW Selvitz Rd., Port St. Lucie, FL 33452

(ED. NOTE: Welcome aboard!)

Dear Mike,

Enclosed is my check for \$12 for the next 10 issues of Flying Lines. Enjoyed reading the last 10 issues as they are keeping us here on the East Coast informed of what is happening in CL out there. Keep up the good work.

..... Norman Liversidge, 38 Cobbetts Pd Rd., Windham, NH 03087

Hi Ya Mike,

Recently retired from the Boeing Co. after 45 years - 5 months..... of bondage!! For a while I'll bleed internally and be as desitute as a mutilated malamute!

Now have 1016 engines- only 3 new engines so far this year- so I am cutting down?! (ED. NOTE: Congratulations on becoming a freed man. Oh, don't stop collecting engines, you're on the second thousand!)

..... R.F. "Steve" Stevenson, 8326 17th Ave NW, Seattle, WA 98117

Dear Flying Lines,

Hi, me again. Just wanted to let everyone know that I still have all of those Fox 25's for sale. I still think they would work great to fit in more racers in the circle.

I had an opportunity to watch some of the racing activity at the Raider Roundup. However, since the weather was so bad, I just stayed in the car. You people actually fly in the rain? Is this Drizzle Circuit thing for real, or just a joke. Come on, racing in the rain all winter? I guess if I am to show you guys how to do it right, I'll have to acclimate myself.

I am now moved up in the area, but am still waiting for my racing equipment to be shipped. I have some real high-tech stuff, and NASA wanted to copy a couple of ideas that I have come up with. Naturally, I can't share anything about this. Hopefully the government won't classify my own equipment, or I won't be able to smoke all of you, at least not as easily.

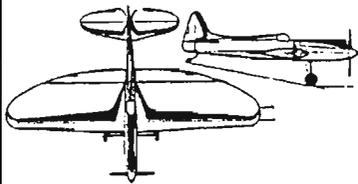
..... SlackRat Magoo, (no address given)

(ED. NOTE: What have you been smoking?)

FLY AWAYS

random tips and ribs from the FL workshop floor

- Have you taken care of your AMA voting duties? Election ballots are due just about the time your issue here hits.
- "Suitable for Framing". A reminder that competitors establishing a NW competition record receive a certificate acknowledging the performance.
- Better late than never, is this congratulations to Eugene Toy & Hobby in celebrating their 53rd year in business this last Sept.
- Doc Passen reports that Cippolla has new engines coming out.... a new version 36 and 15 combat motors, plus a high performance 29.
- Speaking of engines, latest list from Glen Dye (Mr. TWA), still features many custom engines for just about every high performance event.
- The V.G.M.C. group have a lot of club activities going on. Among them are: $\frac{1}{2}$ A Snapper contest, which is a beauty and flying event using the forementioned 50's nostalgia design.
- Also on tap from the V.G.M.C. is "NW Nostalgia .15 Sport Race". (miniature Ringmasters?)



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THINKIN' LINCOLN

NATS dates for 1987 are July 11-19
SITE: Lincoln, Nebraska

The big news is the new Free Flight site, less than 10 miles from the other activities!!! Not only is the site close, but it is a much better site situation than Free Flight has had for some time.

The Radio Control facilities at Lincoln are among the most attractive the NATS has had. The Control Line site at Lincoln is possibly the best NATS Control Line site available today.

The dorms at Lincoln are the best the NATS has ever had! And there are not only many motels but a variety of price ranges to choose from!

With the great site and great accommodations, it's no wonder that everyone is **THINKIN' LINCOLN**.

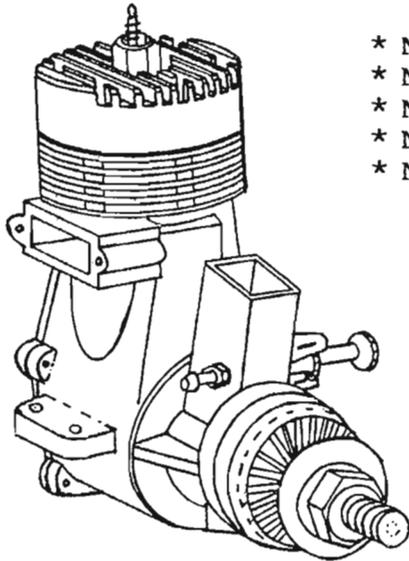
Watch the January issue of MODEL AVIATION for more information.

FOX "COMBAT SPECIAL" MK-VI .36

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FEATURING.....

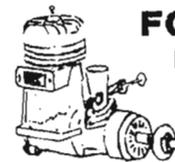
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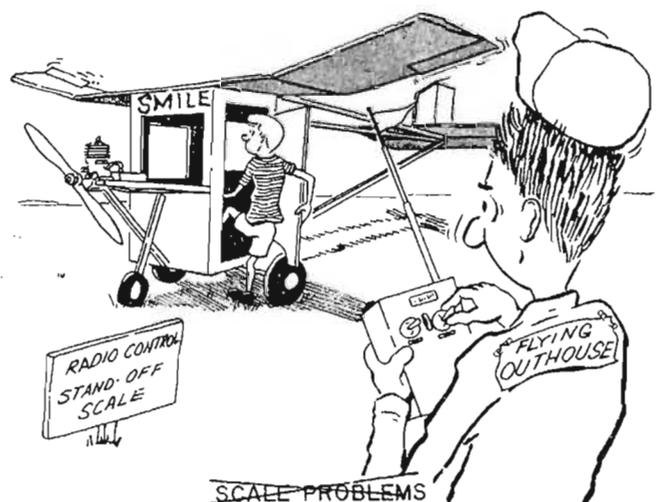
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don't want to risk a
bell crank failure.



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WILL WIN AN ALL-EXPENSE-PAID TRIP AROUND
THE BLOCK **PLUS**: ONE YEAR'S SUPPLY OF
PATS ON THE BACK!! (OFFER VOID WHERE PROHIBITED)



"BLOWN AND VOSS HA 140"

"R.C. HIGH-TECH!"



Don McClave with ST .60 powered "Megatation". Placed 14th at Nationals.



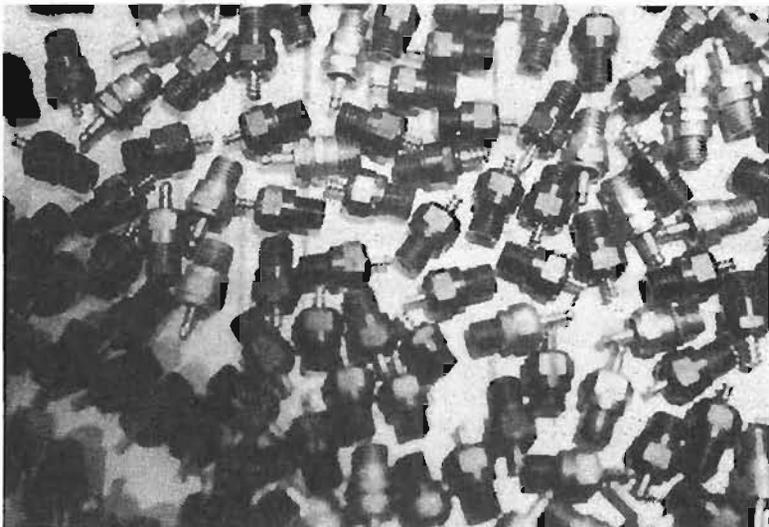
Jack Pitcher went from Beginner to Advanced class in one season with this Sig Twister. O.S. FP 40 engine



Gerald Schamp with his "Initiation", uses O.S. 40 FSR power.



You saw it here first!! Don McClave is taking a "warm-up" flight with a Voodoo after 30 year layoff from combat flying.



"Off the top of my head" Dept. To ensure well rounded event coverage, we have included a pictorial results summary of some speed and racing.

(photos by D. McClave and M. Hazel)

FLYING LINES

NEWS OF NORTHWEST CONTROL LINE MODEL AVIATION



1072 WINDYBREE DRIVE NW SALEM, OREGON 97304

EDITOR: MIKE HAZEL

26 NOV

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