

# FLYING LINES

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COTTAGE GROVE, OREGON 97424

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## DC CONTEST 4 TOOK FLYING GUST-0

Ah, the Northwest's winters! It took real gusto for Northwest Sport Race Drizzle Circuit competitors to hang in there at Contest No. 4, and those who did flew through all kinds of typical Northwest winter. The day was a display case of the good and bad of living and flying in a part of the country where the flying season lasts all year long for those with waterproof skin.

The day will be remembered as perhaps the worst day -- and one of the best -- upon which a Northwest contest ever has been held. Wind gusts that bent the trees over, rain showers that rained kittens and puppies if not cats and dogs, interspersed with periods of dry and calm, and even a little sunshine.

The weather was too much for some of the more conservative competitors and several people left early, but those who stayed generally survived with their equipment and sanity intact. After five years of winter racing, most of the fliers are prepared for all kinds of conditions.

The contest kept alive the championship hopes of Greg Beers in Northwest Sport Race and Dave Green in Super Sport Race, though neither won their premier events. Both remain vulnerable to a rush by the second place competitors in their respective events in the finale April 10, as usual at Portland's Delta Park.

The day started with the revival of Northwest Sport Combat, the low-key fun-version of the streamer-chasing competition. The wind made the flying interesting but the event came off without too many problems and gave the racers an indication that their planes would indeed penetrate the bumpy air.

Glenn Salter, using a very creative version of all-level flight (some of the greatest climbs and dives ever seen in combat) managed to slip through into first place, besting John Thompson in a final match that ended with one cut apiece and air time. Third place went to Mike Hazel and his \$1 flea market Shoestring, and fourth went to Will Namura's M&P Cardinal. All entries used the obligatory Fox .35 stunt and the two finalists used Sterling Ringmasters.

Competitors held a meeting before the racing started at which some proposed that the contest be canceled because of the weather conditions. Contest Director John Thompson, with one eye on the rule book and the other on the competitors who were prepared to race, made the somewhat unpopular decision to continue. The decision was made to reduce the number of planes per heat in sport race to increase safety.

As it turned out, one plane whacked the asphalt in a strong wind gust that caused it to barrel roll, but that crash of Steve Cole's Yak was the only wind-related mishap of the day. In fact, conditions gradually improved throughout the day until, by the time of the super sport racing, the wind was not a serious concern.

Dave Green captured the sport race in a split final race (two planes each in two 140-lap races. Dropouts and Cole's mishap had reduced the field to four planes, so the second round was canceled and the four went straight to the feature. Times weren't fast but the racing was clean and Green's 9:58 was a comfortable margin in front of Beers, who got second place points.

Rich Schaper powered to his first feature race this season in super sport, with his K&B/Bobcat combination. Again, times were relatively slow in super sport, including the 8:26 final winner. Green was second at 9:14. The super sport final took an hour because of a long delay caused by a decision made by the competitors involved to allow Green time to repair his airplane, which was damaged in a crash caused by a broken line in the first attempt at running the feature. The other two finalists shut down because of an ensuing line tangle. Green's mishap technically could have disqualified him but the usual Northwest sportsmanship prevailed and Schaper and Waemura decided to wait for the repair. The Green Minotaur could not be repaired (bellcrank pulled out on post-repair test) but the power and fuel systems were transferred to a backup Cro-Magnon SS and the race was re-flown.

Slow rat is the secondary event at the Drizzle Circuit finale in April (see "Where the Action Is" for details). Final circuit trophies will be awarded and the perpetual mammoth trophies for NWSR and NWSS will be handed on to the new winners.

DC#4, continued

Many thanks are deserved by Marge Schaper, who again provided fine food for the DC contestants with the proceeds going to Flying Lines. We now know that Marge is great with chili and hot dogs, and we can't wait to find out what will be next!

Here are the complete results of DC Contest No. 4:

NORTHWEST SPORT COMBAT (6 entries)

1. Glenn Salter, Seattle, Wash. -- 3 wins, no losses. Sterling Kingmaster, 42" span, Super Coverite finish, Fox .35 stunt, Zinger 8½x7 wood prop, Magnum plug, Sheldon's 15% nitro fuel, Perfect tank, Hot Rock handle.
2. John Thompson, Cottage Grove, Ore. -- 2-1.
3. Mike Hazel, Salem, Ore. -- 2-1 (incl. consolation).
4. Will Naemura, Portland, Ore. -- 1-2.

NORTHWEST SPORT RACE (5 entries)

1. Dave Green, Astoria, Ore. -- 9:58. Sterling Yak-9, Fox .35 stunt, other data unavailable.
2. Greg Beers, Vancouver, Wash. -- 10:19.
3. John Thompson, Cottage Grove, Ore. -- 10:20.
4. Glenn Salter, Seattle, Wash. -- Disqualified, over-run.

NW SUPER SPORT RACE (6 entries)

1. Rich Schaper, Kelso, Wash. -- 8:26. Bobcat, Kilsdonk design, 37½" span, 34 oz., balsa/plywood/spruce, Super Poxo/Monokote finish. K&B .35, 8½x7 epoxy glass prop, GloBee 2v Racing plug, Sheldon's 25% nitro fuel, fastfill, shutoff, Schaper uniflow 3½-oz. tank, Hot Rock handle.
2. Dave Green, Astoria, Ore. -- 9:14.
3. Will Naemura, Portland, Ore. -- 13:53.
4. Mike Hazel, Salem, Ore. -- 3:51 heat.

COMBAT PYRAMID

Round 1: Bill Varner d. Mike Hazel, Glenn Salter d. Dick McConnell, John Thompson bye, Will Naemura bye.

Round 2: Salter d. Hazel, Thompson d. Naemura.

Consolation: Hazel d. Naemura.

Final: Salter d. Thompson.

RACING HEAT WINNERS

NW SPORT RACE: Round 1: Dave Green (4:53), Greg Beers (5:06)

Round 2: Canceled, all entrants to feature.

NW SUPER SPORT RACE: Round 1: Rich Schaper (3:44), Will Naemura (4:20).

Round 2: Dave Green (3:50), Mike Hazel (3:51).

SERIES STATISTICS, 1982-83 NORTHWEST SPORT RACE DRIZZLE CIRCUIT

CHAMPIONSHIP POINT STANDINGS

<u>NORTHWEST SPORT RACE</u>		<u>NW SUPER SPORT RACE</u>		<u>FAST HEATS</u>		<u>RACE</u>
1. Greg Beers . . . . . 29	1. Dave Green . . . . . 24	NWSR: 4:27 -- Greg Beers (1)		NWSS: 3:24 -- Dave Green (1)		
2. Dave Green . . . . . 24	2. Rich Schaper . . . . . 19	<u>FAST FEATURES</u>				
3. John Thompson . . . . . 16	3. John Thompson . . . . . 12	NWSR: 8:48 -- Greg Beers (1)		NWSS: 7:17 -- Dave Green (3)		
4. Glenn Salter . . . . . 15	4. Mike Hazel . . . . . 11	<u>PRELIMINARY HEATS WON</u>				
5. Bill Varner . . . . . 10	5. Alan Stewart . . . . . 10	NWSR: 5 -- G. Beers, D. Green		NWSS: 7 -- Dave Green		
6. SKARE Team . . . . . 9	6. Will Naemura . . . . . 8	<u>PRELIMINARY HEATS FINISHED</u>				
7. Dick Peterson . . . . . 3	7. SKARE Team . . . . . 6	NWSR: 7 -- D. Green, G. Salter		NWSS: 8 -- Thompson, Green, Schape.		
8. Gene Page . . . . . 2	8. Dick Peterson . . . . . 4					
9. Rod Watson . . . . . 1	9. Bruce Guenzler . . . . . 1					
10. Drew DePauli . . . . . 0	Greg Beers . . . . . 1					
Steve Cole . . . . . 0						

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**WHERE THE ACTION IS**


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**UPCOMING ORGANIZED EVENTS**

Listed below are the control-line model aviation events currently known to Flying Lines. If you or your organization is sponsoring an upcoming event, contact FL now. All events listed here are AMA-sanctioned unless otherwise noted. There is no charge for listing here, and FL will distribute contest flyers free as well. All AMA-sanctioned events are open to all AMA members unless otherwise noted.

- May 15..... Kent, Wash --Seattle Skyraiders Spring Tune-up. Precision Aerobatics, (three classes plus junior novice), Sorta Scale. Boeing Space Center. Contest Director: Dave Mullens, 15559 Palatine Ave. N., Seattle, WA 98133 (206) 365-5436
- May 28&29... EUGENE, OREGON--- Northwest Regional ControlLine Championships Rat Race, Slow Rat Race, Goodyear, NWSR, NWSSR, Class I Mouse Race, Class II Mouse Race, AMA, FAI, 1/2A and Slow Combat, AMA precision scale, and profile scale, Class I, II, and Profile Carrier, Precision Aerobatics (three classes), Balloon Bust, 1/2A, A, B, D, Jet, Formula 40, and FAI Speed, Also: displays, concessions, camping hobby shop, party, rest room facilities, restaurant, airline connections. Site: Mahlon Sweet Airport, Eugene. Sponsor: Eugene Propspinnners in cooperation with other NW clubs. Prizes: Trophies and about \$2,000 of merchandise. Contest Director: Dave Green, 200 W Franklin Ave., Astoria, Oregon 97103 (503) 325-7005
- June 12..... ASTORIA, OREGON 1983 Clambash. Precision Aerobatics, Fast Combat, 1/2A Combat, NW Sport Race, NW Super Sport Race, Clam Scale, and Carrier (all classes) contact: Dave Green, 200 W Franklin Ave., Astoria, OR 97103 (503) 325-7005
- June 11&12.. WESTERN CANADIAN CL FAI ELIMINATIONS AND MEET FAI Speed, Formula 40 Speed, record ration speed, Precision Aerobatics, and Scale Site: Coquitlam model airport, Coquitlam, B.C. Contest Director: Bob Newman (604) 530-3916
- July????.... Kent, Wash.--- Boeing Hawks Air Fair. Will somebody please tell us what's going on, for a change?
- July 24..... SPANAWAY, WASH--- Seattle Skyraiders and Bill's Hobby Town Spanaway Spectacular. (tentative) Precision Aerobatics, Slow, Fast, and 1/2A Combat. contact: Dave Mullens, 15559 Palatine Ave. N., Seattle, WA 98133 (206) 365-5436
- Sept 10&11... KENT, WASH --- Raider Roundup/Washington State Control Line Championships, sponsored by the Seattle Skyraiders. FAI team race, Rat Race, NWSR, NWSSR, Class I & II Mouse Race, Balloon Bust,

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ACTION, continued

profile carrier, Class I-II carrier, slow, AA and AMA combat, precision aerobatics, sorta scale, sport or precision scale, Formula 40 speed, record-ratio speed. Trophies and merchandise. Site: Boeing Space Center. Contest Director: Dave Mullens, 15559 Palatine Ave., N., Seattle, WA 98133. (206) 365-5436.

October 8.....PORTLAND, Ore. -- Old-timers Fun-Fly, featuring several events to be announced later, 9:30 a.m.-2:30 p.m. site: Delta Park. Sponsor: Northwest Aeroliners. Information: Frank Macy, 5200 SE Jennings, Milwaukie, Ore., (503) 653-7436. Field available for Stuntathon practice after 2:30 p.m.

October 9.....PORTLAND, Ore. -- Stuntathon '83. Four PAMPA precision aerobatics classes, 9:30 a.m. Site: Delta Park. Sponsor: Seattle Skyraiders. Information: Don McClave, 7719 SE 28th Ave., Portland, OR 97202, (503) 771-8453. Contest Director: Dave Gardner, 8133 184th St. SW, Edmonds, WA 98020 (206) 771-4787.



HOOK

NOOK

navy carrier notes by orin humphries

Remember when we were kids? Our parents were forever saying, "Don't do thus and so or you'll get hurt." But we did it anyway. And one day we found out why they said that all the time. At that point, we said to ourselves, "By golly, if I do that, I'm going to get hurt." No, this column isn't on safety. It's on a trait everyone has, the habit of never really hearing something, like advice, until we say it to ourselves. Think about it. Fear not, fellow hookers, this won't be some kind of sermon. I don't listen to those any more than anyone else. This is about...

PRACTICE

A few years ago an old pro told me that we in our club would never get to be good at anything if we tried to do everything and never concentrated, just for a while, on one thing. Being like everyone else, it went in one ear and got lost or something.

But I got tired of always having something that needed changing on my carrier birds. I couldn't just go to the field and simply fly it, and then take it home and put it on the wall for another week. And I got tired of the fact that all of my carrier landings were actually a matter of chance; put the plane on a ballistic path, like a spear, from some place in the sky and hope the ropes would be under the bird when it impacted upon this planet. True, I hit the right planet 100% of the time...

I faced, the fact that I would have to put my sport racer and stunter aside and concentrate on carrier for a time, or there would never be an end to the poor results I was getting. After a year of only carrier, most of the problems were gone, landings vastly improved (I am now the pilot instead of an observer holding a handle), and I was about ready to go back to other flying areas, maybe sport race next. I will eventually do it all (well...) but I'll add them one at a time. And I've had to say this all to myself before I really heard it.

But there are two major deterrents to practicing carrier. That's why we are all such rotten pilots (c'mon, now, who among us is great?). Plywood decks destroy airplanes. Raise your hand if you've torn off a landing gear on the raised edge of a deck panel, or seen it. And arrested landings do a number on the bird eventually.

If we Spokane pilots show up at a contest someday and find a grass/crepe paper deck as in the rule book, we will thank you. We prefer them. Both of us.

We don't transport a deck any more. We set up a "landing zone" with a piece of old hose and all landings are aimed at that area. We don't string ropes, either. Why should we? You can shoot five to eight landings per flight, like touch and goes, instead of maybe four landings per day when the ropes are up. If you hit the zone, you made your arrested landing in principle, and no wear on the plane.

The hose marks only the inner edge of the deck and only the landing area. In fact, it marks only half a landing area. Think you couldn't hit only half a landing area? Right. Until you practice just a little. Surprisingly little.

I used to start practicing two months before the contest and then only rarely afterwards until next contest. One year I began in June practicing for the following May (Northwest Regionals). I couldn't get the bugs out of the plane and get proficient with just two months work.

Why half a landing zone? Two reasons. If you put up a big target, you'll spatter all over it, but if you put up a tiny one, you'll soon be making a small group. We practice under only the best conditions and with no pressure. In a contest, the weather is usually rotten and we are a bit pressed. The size of

HOOK NOOK, continued

our "group" (tire tracks area) will grow. That's no problem for us now, because we shoot for a small area and have a lot of deck left over in a real life contest.

I sometimes have stretched out a single rope with no bags on it and shot for it. Don't ask how I did... It's a great way to pressure yourself to improve. Keeps you humble.

It has helped me and my buddy immensely. But we had to say it to ourselves before we got serious about practice. I hope that you will hear yourself saying it someday, because I'm sure you will enjoy the results. Fair winds and following seas.

--Orin Humphries, 5208 N. Elgin, Spokane, WA 99208.

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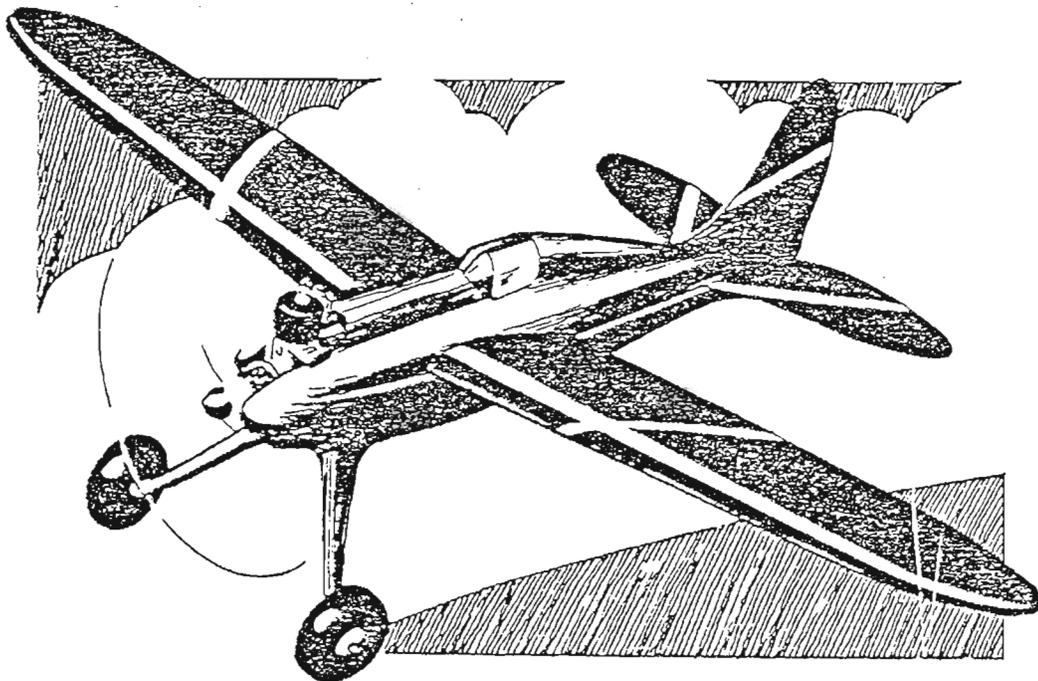
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DO-ER PRODUCTS, 1037 Eastman, Oshkosh, Wis. 54901. 44-45-46.

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# CUTS & KILLS

combat news by john thompson

In an earlier column we talked about the various approaches to beginning in the exciting sport of combat flying. We talked about which events to try first, how to go about acquiring the proper equipment, and what to expect in the way of costs and problems. Now that we've got ourselves to the point of having a stack of the proper airplanes, equipment, engines and tools, it's time to address the actual business of flying -- the part of combat about which the least is written.

The novice combat flier approaches his first contest with three areas of concern and apprehension. We will discuss one of those more than others, but we'll try to touch on the major theme linking all three of these questions -- or, more correctly, the answer that applies to all of them. First the answer: None of these concerns is worth the amount of worry the novice applies to them.

Now the questions:

1. How do I keep from crashing when the combat starts?
2. What do I do in a line tangle?
3. How do I plan my strategy?

After having stated the general theme of my answers to these questions (Relax -- it's no big deal), I will now discuss the problems in more detail.

## CRASHING

We'll tackle the subject of crashing first because it's the one about which we can give the least advice. Crashing is something, alas, which is simply a fact of life for the novice. There is no piece of advice that can be given that will keep a beginner from crashing frequently. However, we have observed that the tendency to crash does decrease with time -- and time itself is the best cure for crashitis. One unusual law of nature is that the transition from crashing a lot to hardly ever crashing seems to occur overnight. Just about the time you feel you'll never get the hang of flying combat, the crashitis will suddenly disappear. That is when your equipment will begin to last longer and your success rate begin to soar.

In the meantime, there are a few things you can do to reduce the frequency of your encounters with terra firma. First, and in keeping with our theme, quit worrying about it! As long with you fly with one eye on the ground, you'll hit it sooner or later. Any good strong-flying combat plane in 1/2A, FAI or AMA events will not crash by itself, even if it's out of control, if it's in some kind of turn with high enough altitude. What lesson does that teach us?

First of all, it tells us to fly high. If we lose control, or lose sight of the airplane (or can't tell by feel what it's doing), crank in some kind of turn control. The plane should stay where it is and loop until we find it and get it back under control. If our opponent wants to fly low, we'll let him. Chances are, he'll be more interested in coming after us wherever we are, and he'll come up to us.

Second, it tells us to concentrate on our opponent, not on our worries about crashing. Our opponent, we will presume, is a more experienced flier and he's not going to crash. If we're chasing him, we won't crash either. He may try to fake us into the ground, but we're not going to be fooled because if he gets that low, we're going to stay higher.

Again observing that a good combat plane won't crash from stalling or slack lines, we also know that we're pretty safe as long as we're either heading or turning in the direction of our opponent. It's when we're trying to be cute by being evasive or strategic that we're liable to let our minds get confused and turn us into the dirt instead of into the sky.

So, for the unlimited-design events, our rules of thumb are to relax, chase our opponent, stay high, and when in doubt, turn!

The rules of thumb are different when flying slow or sport combat because we can't depend on the airplane quite as much. Here we want to avoid consecutive sharp maneuvers because the plane will stall and fall from the sky or go slack on the lines. We want turns separated by sections of straight upright or inverted flight (even vertical down is OK, but not too much vertical climbing). We also pay particular attention to wind direction, and don't let our opponent draw us upwind if it's windy. Again, we concentrate on going where our opponent is, and that should keep us out of the ground along with our general high flying.

But all of this won't keep us from crashing, so we must be prepared for the inevitable wreck. That means our pit box must have the appropriate repair equipment. Besides the proper tools for engine bolts and prop nuts, etc., the box should contain a cyanoacrylate glue (Hot Stuff, etc.), a cannister of baking soda to help the glue stick, rubber bands, spare props, etc. Some strong postal tape, popsicle sticks, etc., can be useful if they don't take up too much space in the box. Then learn by practice how to make quick repairs. You'll be amazed at what junkpiles you can repair under pressure.

## CUTS & KILLS, continued

### LINE TANGLES

For many combat beginners, the fear of a line tangle causes ulcers. They're just at a loss to guess what they would do once the tangle starts. Again, some actual experience makes the fear go away. What to do in a line tangle is fairly elementary, but it is the subject of controversy because there are two schools of thought on proper etiquette.

First the technical analysis of a line tangle -- how we get into them and how we get out. A line tangle occurs when the planes loop around each other and do not reverse the process immediately with an 8-shaped maneuver. That's how we get in. To get out, we simply do loops in the opposite direction. Generally, one loop is simply referred to as a "wrap" and will come undone in normal flying. Two loops is a real tangle and takes some deliberate flying to get out of. As long as we remember how we get in, we can get out. Once we forget how we got in, then we're in trouble.

Here is where the schools of thought about what one should do begin to diverge.

One school of thought is that one should immediately turn one's attention to flying out of the tangle. Some fliers will begin a narrative of instructions: "Do outsides!" to lead the planes out of the tangle. Other fliers simply ignore the tangle and keep flying combat. (Remember, the planes will keep responding normally until there are quite a few wraps.)

Most fliers are somewhere in the middle, though I lean a bit toward the latter perspective. I believe it's OK to make at least an attempt to fly out of the tangle, but do not allow the tangle to become my primary concern. Here, then, is Thompson's First Law of Line Tangles: While you fret about tangling, your streamer is dangling!

Here is what I do about line tangles, and I think it's the safest course in terms of the overall objective of combat, which is to score cuts and kills:

I more or less automatically note the direction from which the tangle was entered, which is something that comes more natural as your flying experience increases. With that sense in mind, I usually will eventually reverse direction and fly back out of the tangle if I can do so without getting into a dangerous pattern of 8-shaped maneuvers, which a good opponent will notice and counteract. That means sometimes we'll go a couple of loops and then a couple of loops back out, always varying the routine, always keeping combat at the top of our priorities.

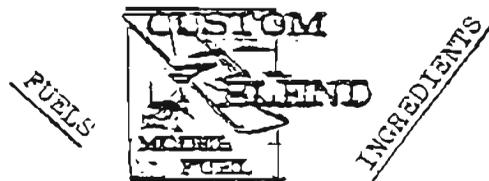
If we get into a tangle that we can't remember our way out of is when I become hard-core in my combat-first bias. When the other guy starts shouting instructions, I plug my ears (psychologically speaking) and refuse to pay attention. Those instructions will erase your concentration and set you up for a kill. I just aim that prop nut toward the other guy's streamer and forget the tangle. You'll either come out of it by accident or the situation will end in a crash or cutaway.

There are a couple of important rules to remember for the sake of sportsmanship and safety: If a bad tangle does occur, don't fly away from it; keep your plane in the same air space. Flying apart will guarantee a crash and could cause a line break or flyaway. If a crash occurs as a result of a tangle, here's what to do: If you are flying the plane that's still aloft, set up some consecutive figure 8s or loops one way and the other, while the other pilot unwraps the tangle. Do not start going around and around, because you'll mummify yourself with the other guy's lines and make it impossible for him to clear it. Likewise, if your plane goes down, don't run away. Stay there and untangle the mess. If you are in the pit crew, don't pick up the downed plane until the tangle is clear -- don't even go into the circle if you value your scalp.

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## CUTS & KILLS, continued

So the rule of thumb for tangles is: Don't lose sight of your objective of flying combat, and if you can't see the obvious path out of the tangle, forget it and fly combat.

### STRATEGY

More novice combat fliers have been beaten by their own strategy than by anything their opponents have done. The longer one flies combat, the less strategy one applies. Combat, particularly AMA and  $\frac{1}{2}$ A combat with their kills, is a basically non-strategic event. More strategy is involved in no-kill events like slow and FAI, but once again, the basic objectives are simple. Because of its speed, combat is very difficult to plan in advance; in fact, attempting to follow an advance plan is more likely to cause problems (i.e. crashes) than it is to help.

Because of the differences, we'll split strategy into two categories: kill and no-kill combat.

#### KILL COMBAT: AMA and $\frac{1}{2}$ A.

These events are very much like boxing in that the world's best strategy won't beat a single knockout punch. In this way, these events are examples of ultimate, divine simplicity. Kill or be killed. These matches very seldom go the entire five minutes for a "decision." Barring collisions and fatal crashes, they almost always end in kills. Defense is difficult and dangerous. That means, to twist a football term, the best defense is a good offense.

Some beginning fliers try to plan out some opening maneuver or flying style that will make them unpredictable and give them the upper hand, which is basically a defensive attitude. This is false preparation because it does not take the other flier into account. It is important to learn to never do anything every time, and not make your decisions independent of the other pilot.

There is only one effective kill combat strategy: Aim for the other string.

There is only one safe defensive position: Behind the other plane.

If your plane is behind the other plane and following it, and/or if you are aiming at the other string, you are doing the best possible strategic maneuvers you can make. All other factors, with the possible exception of being too predictable, are irrelevant. If you must make advance preparation, try to know the other pilot's style. Is there one particular thing he is very good or very weak at? Think about that, and then shove the information in the back of your mind. You can't plan your match based on it, but it might come in handy to know at mid-match.

#### NO-KILL COMBAT:

Much of what was said above holds true here. All things being equal, your best position is to be following and attacking, particularly early in the match when the score is even. However, in these events you are not aiming for the string but for the streamer. The objective is to score repeated cuts, instead of one single cut.

Some very confident fliers will attempt to give their opponent the entire streamer early in the match, sacrificing one cut in hopes of getting several back. If you think you're that good a flier, go ahead and try it; you probably don't need my advice. If you're not sure you can score two or three more cuts, I wouldn't recommend it.

Defense becomes a more viable option in no-kill events. If you can get ahead by two or three cuts, you can finish the match by keeping away from the other plane. Doing so with only one cut is risky because you're forced to assume the judges saw the cut -- and they do make mistakes. There are various kinds of defensive flying. One method is to fly low and inverted, but a good opponent will slip under you and make a turn and you've got a tangle that forces you back into combat. Another good method is simply to get behind the other plane and follow it -- it's the one place he can't attack you. Probably the best defensive flying method is to just run away. If the plane comes to your side of the circle, you fly to the other side. Wherever he is, you aren't, and vice versa. Make sure you're watching the opponent's plane and not just flying unpredictably or you'll fly in front of him.

#### GENERAL STRATEGIC FACTORS:

It is advisable in both kinds of combat to know the score. Remember who has the most air time and who has the cuts. The pilot may have trouble with the cuts if he is a beginner but the pit crew can help keep track. This data may help you decide whether to fly defensively in no-kill combat or whether to come up after a pit stop. Most fliers are sportsmanlike nowadays to come up whether they're ahead or behind, just to make a match of it, but beginning fliers may find it useful to use their down time to their advantage. Remember, down time counts against you in FAI.

Finally, to reiterate the general rules of combat apprenticeship: There is no substitute for preparation and practice; good, straight, light and strong planes, reliable engines, a well-planned and stocked pit box, and lots and lots of flying are the essential elements. And once the match starts, fly to win, not just to avoid losing!

--John Thompson, 1411 Bryant Ave., Cottage Grove, Oregon 97424



## AIR MAIL

COMMENTS.....NEWS.....VIEWS  
FROM THE FLYING LINES READER



DEAR FL:

A few items that may be of interest. Has anyone ever flown in a consistency race? Any engine, any prop, any plane, any fuel. Each contestant has one ounce of fuel. Prior to takeoff he tells the timer how long it will be between the time his wheels break ground and the time he touches down again. For main heat, fuel is increased to 3, 4 or whatever ounces. All models can race under this formula, including stunters. Good for getting folks interested or started in racing.

Am enclosing a copy of a thing I sent to John Grigg and others in the AMA. I strongly feel it would be helpful to look at the AMA's failure to define what a model airplane is -- and isn't. Allow me to offer the following:

---

### A FLYING MODEL AIRPLANE IS/ISN'T

IT IS: A small, light, inexpensive device which flies through the air, controlled by preprogramming or guided during the flight for the enjoyment of the flier/builder.

IT ISN'T:

- 1) Any craft over 10 lbs. (or 5kg).
- 2) Any craft over 12 ft. span.
- 3) Any craft costing over \$500 in 1982 money.
- 4) Any craft with an engine over 1.25 cu. in.
- 5) Any craft generating income outside the field of modeling.
- 6) Any craft not 51% constructed by the flier, excluding engine, wheels and prop.

---

The howls may start now. When finished, consider that the numbers I have offered are starting points and can be changed. It is insufficient to define a model only by weight. Several parameters are required. Failure to offer a comprehensive definition of a model will result in drones and RPVs continuing to be parked in the model airplane areas. And unless new young blood is brought into the hobby, your local hobby shop will soon run specials on Doan's Pills and Geritol. Too restrictive, you say? Bovine feces! FAI is highly restrictive and has not killed the spirit of innovation.

Most of us have had it jammed down our throats that "RC pays the bills" --right? Well, tell you what, go to your local library and get the November 1981 issue of Nation's Business, Page 95, column three, get it and read it. Am enclosing a Xerox copy for you to share. Now tell it to me again.

(Editor's Note: Here is the pertinent paragraph:

"The Hobby Industry Association says they (model aviators) spend about \$300 million a year on their avocation. That sum breaks down like this: Plastic kits, \$175 million; control-line kits, free-flight planes, gliders and rubber-powered planes, \$60 million; radio-controlled aircraft, \$40 million, accessories and fuel, \$15 million.)

Enclosing a couple of elderly cartoons from Air Trails/AAM you may wish to share.

--Doug Dahlke, 1037 Eastman, Oshkosh, Wis. 54901.

DEAR FL:

Hey...I really enjoyed being with that wild, wet and wacky group Sunday. It's the first DC I've attended, and was very impressed with the fun and comradeship. Particularly enjoyed the demonstration on "How to Be a Successful Pit Man." I'm still having trouble with names, but I think it was Bill Varner who showed us the 3-point Pit Slide and Rescue Routine. It was great, and just wish we had a camera at the time. Pat Webb said he'd never seen it done before with such "style and class."

Am delighted that Mike is going to pick up the lines for us in Model Builder. I hope he'll be able to handle the demand on his time; we really need him in there. I know he'll have the support he needs from each one of us.

One of the most impressive things I've noticed about control-liners individually and collectively is their unselfishness. They are always willing to help any way they can. Everyone that I've met is that way. What a great group.

If the opening for ad rep for FL is still available, I'd like to apply for the job. If it is, I'd like to help and will do my best...I've got a couple of ideas to kick around with you that may help the FL kitty a little bitty. Will write soon.

--Frank Macy, P.O. Box 548, Oregon City, Oregon 97405.

DEAR FL:

Well, I did it again. I wrote to Duke Fox and asked about rumors regarding the Combat Special. He wrote back that he had indeed revamped his dies and designed a special carb for the .36 Combat Special. This engine should be available in May at a tentative price of \$59.95. This takes the engine out of the machine shop conversion category and provides an over-the-counter readily available high-performance low-cost engine.

At 8 ounces it is considerably lighter than the conversions (OS .36, TWA and Supertigre .36). Also, parts would be readily available by raiding some combat fliers' parts bins.

Now some news:

I have recent information on the carrier records already set for 1983. Dave Wallick has a new profile record (tentative) of 318.5. This beats a score of 303.1 by Bill Melton, although Bill's score was not at an AA or higher meet and did not qualify for a record.

Pete Mazur holds the Class I record at 380.9 and Dave Wallick also holds the new Class II record at 427.3. These scores seem to keep climbing higher and higher. To get into the Navy Carrier Society top ten standings took a score higher than 254 in profile, 349 in Class I and 353 in Class II. That was just to get at the bottom of the list.

I have full-size diagrams for home-built 3-line control units if anyone wants them.

--Bill Skelton, Box 105, Warrenton, OR 97146, NCAC Dist. XI.

REAL AIR MAIL

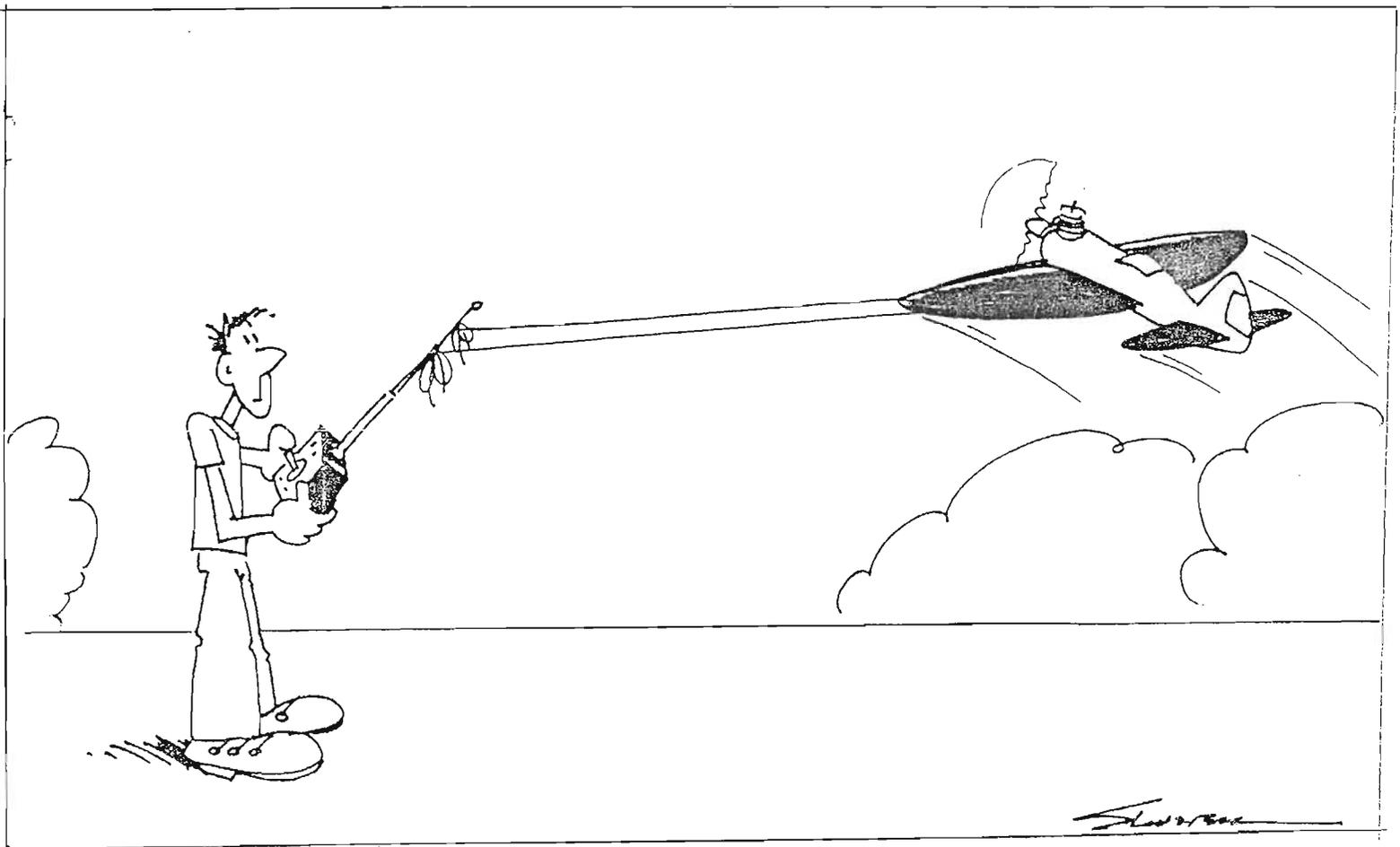
(Editor's note: The following letter is an inter-office memo among Flying Lines executive, reprinted here to give readers an insight into the high-level business that takes place between newsletter delivery dates.)

Ho John,

Laura told me that you called on Friday night, regarding something about an empty envelope, wondering what was supposed to be in it. This sounds silly to me, as I sent it from work, where I always operate in a superb efficient fashion. So why would I send you an empty envelope? The answer is that it was not empty. I simply wanted to send you a sample of the day's air from Salem. I thought this rather generous. Please let me know if you enjoyed it or not.

Regards, Mike.

(Editor's note: As it turned out, the air was not of very good control-line quality. We turned it over to Tom Opriva to use with his indoor free-flights.)



RULES PROPOSALS CONTINUE

The Academy of Model Aeronautics is now processing cross-proposals for 1984 rules changes. A number have been received by the FL editor, who is on the Control Line Contest Board. We'll try to list the cross proposals when they've all been received, if space permits. In the meantime, consult Model Aviation for information. Please send your comments to John Thompson at FL.

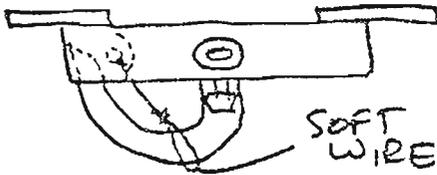
HOBBY SHOP DIRECTORY

FIRGROVE MODEL SUPPLY -- Radio Control, Control-Line and Gliders. 10611 136th St. East, Puyallup, Wash. 98373. (206) 845-7675. Owned by R.B. "Bob" Pfeiffer.

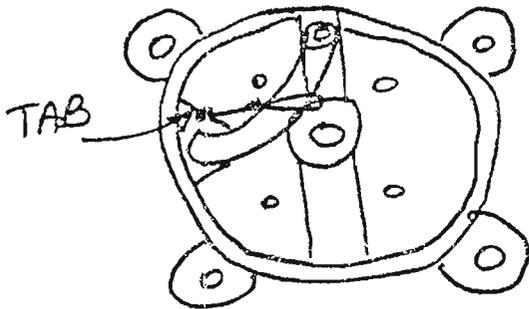
HERB'S SPEED & RACING PRODUCTS -- Speed pans, epoxy glass speed tops, and other supplies. Send SASE for info. 1621 M St., Merced, CA 95340. (209) 722-7836. Owned by Frank Hunt.

This item is stolen from the pages of the CL-RPM newsletter!

#1 TECH TIP OF THE MONTH - COURTESY OF BOB KAMPMANN ORANGEVALE, CALIF



CARTOON BY CHOP!



PROBLEM: FUEL LINE MOVES OUT OF POSITION ON REED VALVE MOTORS. USUALLY NOTICED DURING A RACE WHEN YOU ONLY GET 10 LAPS PER TANK!  
SOLUTION: USE A SMALL BURR IN A DREMEL TO GRIND A HOLE IN THE LOCATOR TAB INSIDE BACKPLATE. WIRE FUEL LINE INTO PLACE.

FLYING LINES

1411 BRYANT AVENUE  
COTTAGE GROVE, OREGON 97424

Flying Lines is produced monthly by a dedicated staff of volunteers interested in keeping lines of communication open between Northwest modelers. FL is totally independent of any organization, depending entirely upon support from subscribers, advertisers and donors.

FL is your link to the rest of the Northwest's control-line modelers. Help keep it alive by spreading the word. Wear your FL T-shirt and tell your buddies what it stands for. FL T-Shirts available at \$8 -- name your size and color.

Prices for subscriptions: \$5 for 5 issues and \$9.50 for 10 issues. Canada and Mexico: \$5.50 for 5 issues and \$10 for 10 issues. Overseas, \$10 for 5 issues and \$18 for 10 issues, U.S. funds, please. Premium subscriptions, \$25, U.S., Canada and Mexico only.

Advertising rates: \$6 per half page, \$4 per quarter page, \$1 for five lines of classified advertising. Hobby Shop Directory, \$15 per year.

Here is the FL staff:

Publisher....Mike Hazel Carrier.....Orin Humphries Speed.....Mike Hazel  
Editor.....John Thompson Aerobatics...Paul Walker Scale.....Orin Humphries  
Photo Editor..Bruce Guenzler Combat.....Gene Pape Sport.....Larry Miles  
Advertising..Frank Macy John Thompson Beginners..John Thompson  
Racing.....Mike Hazel

Staff opening: Engine columnist -- contact the editor!

# NORTHWEST REGIONALS '83

CONTROL LINE MODEL AIRCRAFT CHAMPIONSHIPS  
MAY 28 & 29 EUGENE . OREGON

Here's a report on the Regionals prep to date. I have event directors for everything but sport race, super sport race, rat, and mouse I & II. I have tentative director for combat and stunt. All other preps seem to be going pretty well. I have a report that field preps by the Propspinners are proceeding, or will be shortly.

There will be a couple of minor changes this year. The speed circle will open at 7:30 AM this year, instead of 8, as has been traditional. This is in the hopes of getting the speed boys all the flights they want and maybe finishing by 5:00. Hopefully this will also cut down the mad rush at 4:45.

The registration fee will be \$5 per event with a maximum charge of \$25. The junior and senior fees will be \$3 per event with a maximum of \$10. This is in hopes of covering the ever increasing cost of putting on the Regionals. Maybe this year we can show a profit.

There will be the hot dog roast at the campsite Saturday evening. More details on that later.

The garage sale idea is taking shape. If you fellers and gals have wondered how you could help Flying Lines, here's your chance. There will be a FL benefit sale following regeistration both days. Bring all your stuff that you would like to donate or sell on consignment. It doesn't have to be anything real expensive or fancy. Half a roll of solarfilm or a used x-acto knife would help. Also you might find something you have wanted all your life and never could find. The FL cut on the consignment articles will be 20%. So here's a way to help a very worthy cause and sell your stuff, too. If we can raise a couple hundred bucks we might not have to see the "we're broke" paragraphs in FL anymore. There will be labels at the table for the price stickers. The consignment stuff will have to have your name on it and your asking price.

I have a report that the Propspinners are negotiating for a tent or tarp of about 15 by 30 foot proportions. If anyone has a lead on a good one for a very reasonable price let John Thompson or Mike Hazel know. Sure would be nice to not have to fight the tarp ropes and poles this year.

.....Dave Green.....

CONTEST DIRECTOR: DAVE GREEN

200 W FRANKLIN, ASTORIA, OREGON 97103

# NORTHWEST REGIONALS '83

CONTROL LINE MODEL AIRCRAFT CHAMPIONSHIPS  
MAY 28 & 29 EUGENE . OREGON

*events: COMBAT*

*RACING*

*AEROBATICS*

*SPEED*

*SCALE*

*CARRIER*

*BALLOON BUST*

*plus DISPLAYS*

*\$ 2,000 of awards*



FREE SEATING FOR SPECTATORS

AMA "AAA" SANCTIONED

## SATURDAY

Profile Carrier..... 9:00 to 5:00  
 Class I Carrier..... " " "  
 Class II Carrier..... " " "  
 Goodyear..... 9:30  
 Slow Combat..... 10:00  
 AMA Rat Race..... 11:00  
 FAI Combat..... 12:00  
 Mouse Race I (Jr-Sr)... 1:30  
 Mouse Race I (Open)... 2:00  
 Profile Scale..... 2:00  
 Mouse Race II..... 3:00  
 AMA Slow Rat Race..... 4:00  
 FAI Team Race..... 5:00

## SUNDAY

Speed Classes: 7:30 to 12:00  
 &  
 ½A, A, B, D, Jet, FAI,  
 Formula 40 1:00 to 5:00  
 AMA ½A Combat..... 9:00  
 NW Sport Race (Jr-Sr)..... 9:30  
 NW Sport Race (Open)..... 10:00  
 Precision Aerobatics..... 10:00  
 AMA Fast Combat..... 11:00  
 NW Super Sport Race..... 12:00  
 AMA Scale..... 12:00 to 1:00  
 Balloon Bust (J-S)(0)..... 2:00 to 5:00

## SCHEDULE NOTES

- \* Registration is open from 8 AM to Noon on both days
- \* Event starting times will be held to close as possible
- \* Precision Aerobatics entrants check at registration for meeting
- \* AMA Scale entries should be in judging area at 10 AM
- \* Awards will be presented on Sunday immediately after 5:00

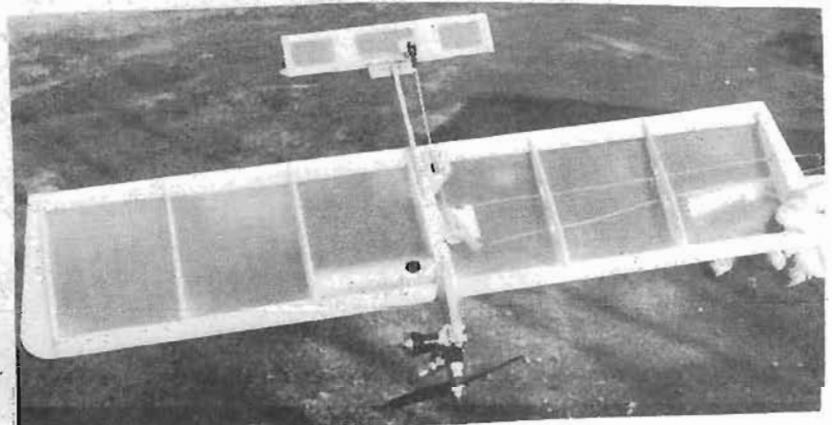
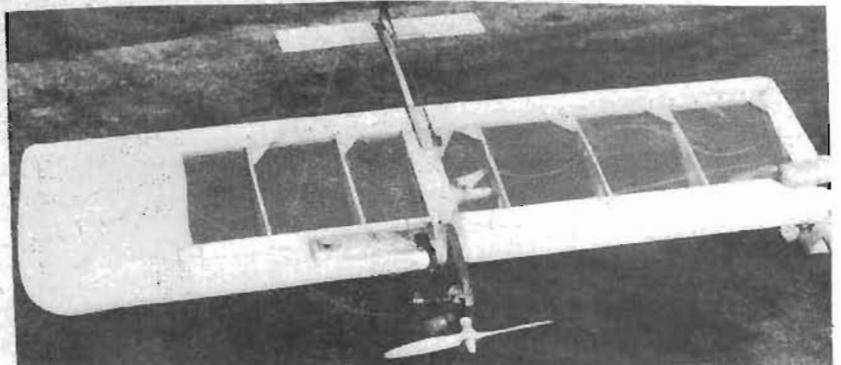
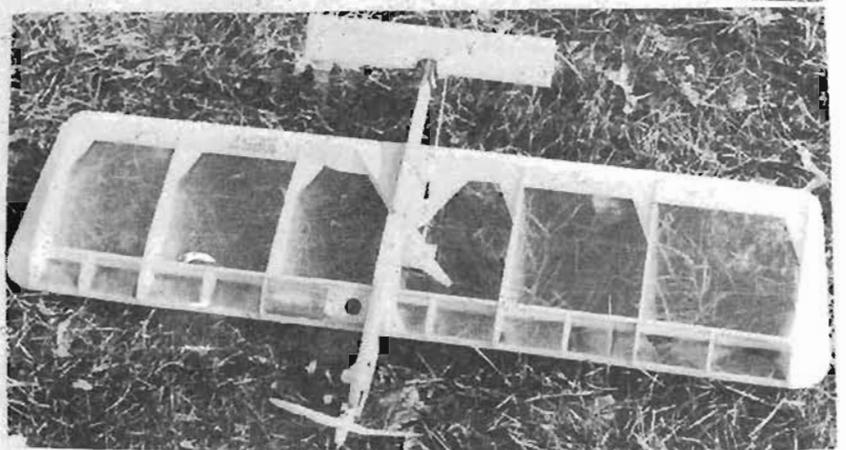
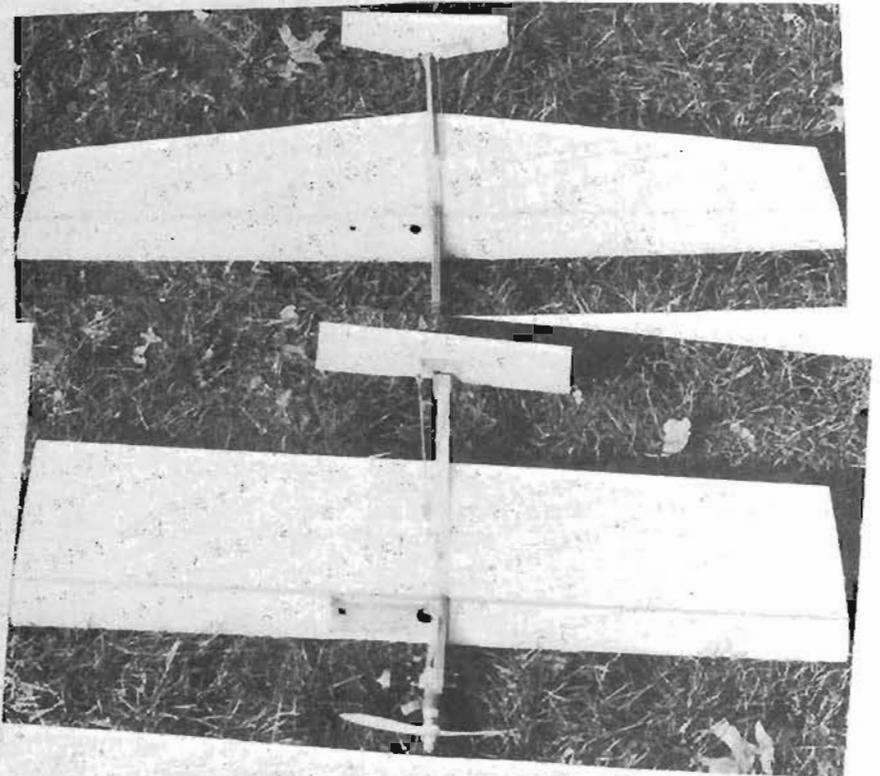
## RULES INFORMATION

- \* AMA events are per current rule book. Know the rules!
- \* NW Sport Race: Fox 35 stunt-no mods, stock profile kits, single wheel landing gear OK, no shutoff, no fastfill, suction feed, no hot glove. NW Super Sport Race: Plain bearing single bypass .36 maximum, AMA Slow Rat plane specs with outboard suction tank. Lines for both events are .018 x 60 multi-strand. Write the contest director for full rules.
- \* Profile Scale: Profile fuselage only, must represent actual plane, one entry per individual, documentation required on obscure aircraft. Write the contest director for full rules.
- \* All combat events except for ½A are flown double elimination.
- \* Precision Aerobatics flown in three classes; 0 to 300 points for beginner, 300 to 450 for intermediate and advanced, 450 plus for expert.
- \* Events that will be flown over grass circles are: Precision Aerobatics, NW racing events, combat, Carrier, Balloon Bust, and Profile Scale.

## OTHER INFORMATION

- \* AMA or MAAC membership is required of all participants. 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 approximately \$2,000.
- \* Contest site is Mahlon Sweet Airport, Eugene, Oregon
- \* There will be a benefit sale for Flying Lines newsletter with lots of miscellaneous modeling merchandise.
- \* Facilities: Overnite camping on the site is OK. RV rigs get directions for parking. Restrooms are in the tower building and the main terminal. A concession truck will be at the site most of each day. There is a restaurant in the terminal building, along with vending items.

CONTEST DIRECTOR: Dave Green, 200 W Franklin, Astoria, OR 97103 (503)325-7005



### COMBAT'S BABY BEAUTIES

Drizzle Circuit Contest No. 3's 1/2A combat event brought out the state of the art in the smallest of the combat planes. Top, taper-wing copy of (did we get this right?) Steve Hills foamie, flew better than most 1/2A tapers. Gene Pape's foam Pupfighter, ultra-quick build, layout and flying characteristics of Cheap Imitation. Tom Kopriva's Cheap Imitation copy. Bill Varner's foam l.e. plane. Dick Salter's Cheaper Imitation, lightened. Racing pics: Top. Roy Beers, right, and Loren Howard pit Greg Beers sport racer. Dick Salter, assisted by Beers, pits nifty SKAKE Super Sport. Alan Stewart releases super sport plane. Dick Peterson launches sport racer.