FLYING LINES

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FLASH!

DATE CHANGED FOR APRIL DRIZZLE CIRCUIT CONTEST

The finale of the Northwest Sport Race Drizzle Circuit, in Eugene, Ore., was inadvertantly scheduled for Easter Sunday. To avoid that conflict, the contest is tentatively being postponed until one week later, April 18.

Mark the new date on your calendar, racers, and be on hand for the last DC race and the awarding of circuit trophies.

Remember, the new date for the finale is April 18, Mahlon Sweet Airport, Eugene, Ore.

DRIZZLE CIRCUIT OPENER -- FAST GOING IN THE RAIN

True to tradition, the Northwest Sport Race Drizzle Circuit opened with rain in Portland. It's also tradition that the weather is nice in Astoria, Yakima and Eugene, and not too bad in Seattle. If Portland's "drizzle" sets the tone, it should be in the 80's and ealm everywhere else.

Yes, it rained in Portland, and the steady rain -- not drizzle -- made the competitors so cold that Contest Director Rich Schaper's camp stove was the center of activity most of the day. By the time Super Sport Race started, everyone not involved in that event, plus a couple who were entered, deserted. That left a manpower shortage that made it difficult to finish, but the intrepid competitors did just that.

In spite of the fact that everything usually is slower in the rain, the contest was finished at a reasonable hour. Everyone left jumped into the showers at Delta Park and then adjourned to a pizza parlor to re-fly the contest. After three previous years of Drizzle Circuit experience, the competitors by now know that you always take a change of clothes to a winter contest. Some will be adding rain g ear to their collections soon.

The Dec. 13 contest did indeed kick off the fourth annual winter racing circuit. Contests are scheduled for January in Seattle, February in Astoria, March in Yakima and April in Eugene. See "Where the Action Is" for details. Each contest features Northwest Sport Race and Northwest Super Sport Race, along with a secondary event or two. Points scored in the sport racing classes build toward season championship trophies.

In spite of the inclement weather, the racing itself demonstrated that the competition will be excellent this season. After one race, here are our predictions: Best times in sport race will be slower but racing will be closer. Super sport race will feature extremely close racing and rapidly improving speeds.

The rain and damp air seemed to help rather than hinder the s peeds. Pitmen were slow and clumsy but air speeds were good enough to provide two records -- one in Class I mouse race and one in Super Sport.

It was already raining when the mouse racing started, with the preliminary heat record for the Northwest being broken in the first heat. John Thompson turned a 2:38 time, clipping three seconds off Bill Varner's old standard. Thompson ended up winning with a 5:52 feature race, just two seconds off the current Northwest record held by Varner. Thompson, of Cottage Grove, Ore., used a brand new Little White Mouse with a Kustom Kraftsmanship .049.

Class II Mouse race was a three-plane affair with Dave Green winning in a time of 10:02, using a well-worn Midwest Super Mouse and Tee Dee.

Dick Salter was going around the place chuckling and grinning broadly after winning Northwest Sport Race with a time of 10:29. This is the same Dick Salter who holds the sport race feature record at 8:40. Dick retired his "Killer" Fox .35 to let the rest of us catch up, and then still topped the pack. "You don't have to be fast, just consistent," he declared.

Second place went to John Clemans, a new name on the entry list but not a newcomer to the racing game. Clemans was Rich Schaper's pitman in the 1979-80 season when Shaper finished second overall. John decided to put his own name on the books this year with a new Ringmaster/Fox combination.

Dave Green showed everyone his tail in super sport, serving notice that if it's really a race to 100 mph, he's way ahead. Turning about 98 mph with a K&B .35 on his new Minotaur design, Green won with an 8:00 time and a record 3:51 heat. Naturally, discussion at the pizza parlor centered around how the

OPENER, continued

rest of us are going to catch that speed. Second went to last year's champ Mike Hazel, and third to Rich Schaper of Kelso, Wash., who returned to racing after a year's layoff.

Super sport truly was a race for the hearty, since the weather had driven the helpers away. Timing problems ended up making some split heats, with two in one and the third running solo. Interestingly, except for Schaper and Alan Stewart, the entries were all new-breed SS planes designed slow-rat style from the ground up. That shouldn't keep any competitors out, since the good ol' Ringmaster still works fine, and the scratch designs are simple. All the current users are eager to share their designs to get others going.

Point standings still are within reach of everybody, too, since the bad weather kept entry low enough to keep anybody from piling up high points. In fact, the field of SS had shrunk to five by the time racing started.

Bad conditions aside, the race ended with optimism about the quality of the events and all competitors were looking forward to the next stop on the road, the Boeing Space Center in Kent, Wash., Jan. 10.

Here are the complete results:

CLASS I MOUSE RACE (6 entries)

1. John Thompson, Cottage Grove, Ore. -- 5:52. Little White Mouse (Frank Scott design), Kustom Kraftsmanship/Cox .049, 14" span, 5 3/4 oz., balsa, spruce, bass, polyester resin/epoxy finish, KK monoline button bellcrank, 5x4 Tornado prop, KK plug, fine-thread needle valve, fastfill, spring starter, Klause/Cox tank, Sheldon's 50% nitro fuel.
2. Mike Hazel, Salem, Ore. -- 7:03.
3. Rich Schaper, Kelso, Wash. -- time unavailable.
4. Joe Just, Yakima, Wash. -- 5:12 heat.

CLASS II MOUSE RACE (3 entries)

1. Dave Green, Astoria, Ore. -- 10:02. Midweat Super Mouse, Cox TD .049, other data unavailable.
2. Bill Varner, Astoria, Ore. -- 51 laps.
3. Joe Just, Yakima, Wash. -- no start.

NORTHWEST SPORT RACE (8 entries)

1. Dick Salter, Seattle, Wash. -- 10:29. Ringmaster, Fox .35, 42" span, balsa, Newkirk prop, K&B plug, Sheldon's 10% nitro fuel, uniflow TKO Racing 2-oz. tank.
2. John Clemans, Kelso, Wash. -- 10:50.
3. John Thompson, Cottage Grove, Ore. -- 11:13.
4. Dave Green, Astoria, Ore. -- 14:25.

NORTHWEST SUPER SPORT RACE (5 entries)

1. Dave Green, Astoria, Ore. -- 8:00. Minotaur (original), K&B .35. Dark Ages Racing Equpt. mechanical fastfill tank and shutoff, other data unavailable.
2. Mike Hazel, Salem, Ore. -- 8:56.
3. Rich Schaper, Kelso, Wash. -- 10:48.
4. John Thompson, Cottage Grove, Ore. -- 4:11 heat.

HEAT WINNERS

CLASS I MOUSE RACE: John Thompson, 2:38. Rich Schaper, 3:13.
CLASS II MOUSE RACE: Feature only.
NORTHWEST SPORT RACE: Round 1: John Clemans, 5:43. Dave Green, 5:11.
Round 2: Thompson, 5:13. Green, 5:13.
SUPER SPORT RACE: Round 1: Schaper, 4:46. Green, 3:51.
Round 2: Mike Hazel, 4:08. Schaper, 4:46.

CHAMPIONSHIP POINT STANDINGS*

*Drizzle Circuit standings only, not to be confused with overall NW standings.

NORTHWEST SPORT RACE

1. Dick Salter . . . 8
2. John Clemans. . . 7
3. John Thompson . . 6
4. Dave Green. . . . 5
5. Bill Varner . . . 2
   Alan Stewart. . . 2
7. Joe Just. 0
   Dick McConnell. . 0

SUPER SPORT RACE

1. Dave Green. . . . 5
2. Mike Hazel. . . . 4
3. Rich Schaper. . . 3
4. John Thompson . . 2
5. Alan Stewart. . . 0

AD RATES

Advertisements in Flying Lines help support the newsletter and the control-line hobby. Prices are $6 for a half-page ad, $4 for a quarter page, and $15 a year for hobby shop directory listings, and $1 for five lines of classified advertising. Also available, staple-in brochures (price negotiable based on weight). Club contest flyers stapled in free of charge.

NW COMPETITION RECORDS

RECORD PERFORMANCES ESTABLISHED BETWEEN NORTHWEST MODELERS IN SANCTIONED COMPETITION

The opening of the Northwest Sport Race Drizzle Circuit in Portland last month brought down two racing records, the first change in records since September.

Dave Green turned a 3:51 heat in super sport race to indicate even faster racing to some during the winter. However, the heat will earn Green only an asterisk in the records because it was set in solo racing conditions due to a manpower shortage. Since current speeds indicate the record won't stand long, the asterisk should soon be erased. Green seems to have the inside track toward accomplishing that task.

The other Northwest record was set by John Thompson in Class I mouse race, a 2:38 preliminary heat. The time replaces Bill Varner's 2:41.

Readers of this column should note that some records may be wiped out by AMA rules changes that take effect this month. We currently are reviewing those rules changes. This will be the last listing of the records outdated by new rules.

Flying Lines keeps track of best performances by Northwest modelers in AMA-sanctioned competition. Some documentation is required for records claimed in out-of-region contests. All AMA events and the regional events listed below are scored.

One other note of interest: Due to the regular participation of one Montana resident, and the likelihood of others from that area joining him, Flying Lines will in 1982 begin scoring performances of Montana residents. This change reflects a decision to expand boundaries of Flying Lines' definition of "Northwest" to include all of AMA Region XI. Montana and Alaska are now added to Oregon, Washington, Idaho and British Columbia for purposes of scoring records and standings. AMA and Northwest regional rules will apply to all records.

Here are the records as of Jan. 4, 1982:

½A MOUSE CLASS I	50-lap: 2:38 (John Thompson)	100-lap: 5:50 (Bill Varner)
½A MOUSE CLASS II	75-lap: 3:54 (John Thompson)	200-lap: 9:21 (Bill Varner)
GOODYEAR	70-lap: 3:28 (Dave Green)	140-lap: 7:42 (John Thompson)
SLOW RAT	70-lap: --	140-lap: 10:41 (Dick Salter)
RAT RACE	70-lap: 2:29 (Mike Hazel)	140-lap: 4:53 (Mike Hazel)
FAI TEAM RACE	100-lap: 3:51.07 (Knoppi-McCollum)	200-lap: --
NW SPORT RACE	70-lap: 4:23 (Dick Salter)	140-lap: 8:40 (Dick Salter)
NW SUPER SPORT	70-lap: 3:54* (Mike Hazel)	140-lap: 7:54 (Dave Green)

½A SPEED: 88.2 mph (Paul Wallace)	FAI SPEED: 143.37 mph (Chris Sackett)
½A PROTO SPEED: 83.63 (Paul Wallace)	FORMULA 21: --
A SPEED: 125.82 (Mike Hazel)	FORMULA 40: 148.58 (Scott Newkirk)
B SPEED: 153.00 (Mike Hazel)	JET SPEED: 190.2 (Chris Sackett)
D SPEED: --	PROFILE NAVY CARRIER: 208.9 (Marty Phillips)
	CLASS I NAVY CARRIER: 268.98 (Terry Miller)
	CLASS II NAVY CARRIER: 320.9 (Loren Howard)

* Solo flight heat time of 3:51 turned by Dave Green.

NW COMPETITION STANDINGS

FLYING LINES' COMPILATION OF EVENT PLACINGS BY NORTHWEST MODELERS COMPETING IN NORTHWEST REGION CONTESTS

May we have the envelope, please...

Yes, fliers, it's time to award the winners of the "Top Dawg" awards in Northwest Control Line model aviation competition for 1981. Flying Lines has compiled the final standings in each event for the year.

As you know, Flying Lines keeps track of Northwest modelers' performances in Northwest contests during the year. To show up in the standings, a modeler must place in the top four of any common competitive event. The number of entries in the event determines the number of points scored. First place is equal to the number of entries, second is the number of entries minus 1, and so on through fourth. Only AMA-sanctioned contests are scored.

Here are some interesting statistics from 1981: Forty-eight separate Northwest fliers placed in Northwest events, compared with 46 in 1980. There were 96 contests (one contest is defined as one holding of one event, so a model meet could contain a number of separate contests as far as the standings are concerned, compared with 65 contests in 1980. There were 484 entries, compared with 365 in 1980.

Those figures indicate growth both in participation and activity, as well as the fact that more fliers are ending up in the winners' circles. Good news for control-line competition!

STANDINGS, continued

This is also the time of the year when we figure up the overall competition standings and announce "Mr. Competition" (or "Ms.") of the year. Yes, folks, you may have guessed it -- DICK SALTER of Seattle, Wash., won going away with 137 points, Dick competed in nine different categories, with the most success in Northwest Sport Race, topping that category.

Some other statistical trivia: John Thompson of Cottage Grove, Ore., won the title of "No. 2 but trying harder" by competing in 10 events for a second place overall and the widest diversity of involvement.

Last place went to veteran Don Schultz, who scored one point by coming in third in a three-entrant competition in precision aerobatics. Welcome back, Don.

There was one event that had no top Northwest competitor. AMA slow rat race drew eight entries in its only running at the Northwest Regional Championships -- none of the entries were from the Northwest. That situation will be remedied in 1982, we suspect.

There were standings for the first time in FAI Team Race and AMA scale, two events that arose from the murky past this year after a long time gone. Scale, in fact, with its brothers "sorta," CLAM, and profile seems to be making a comeback, along with speed, which also showed an upswing.

As in past years, racing was the big draw with 163 entries in 40 contests. Northwest Sport Race was the biggest individual event, with 97 entries in 14 contests. The biggest of the macho muscle events was AMA combat with 7 contests and 63 entries. Rat race drew 20 entries in 3 contests -- and all strong competitors. The biggest of the low-budget beginner-type events was ½A combat with six contests and 46 entries.

We're already watching 1982 events for the current year's standings. For 1982, our standings will take in Alaska and Montana as well as Oregon, Washington, Idaho and British Columbia. Addition of the two states officially expands FL's definition of the "Northwest" to all of AMA District XI.

Here are the final 1981 standings:

OVERALL COMPETITION
(96 contests, 484 entries)

1. Dick Salter	137
2. John Thompson	114
3. Dave Green	110
4. Bill Varner	91
5. Mike Hazel	80
6. Dave Mullens	78
7. Gary Byerly	69
8. Dick McConnell	53
9. Gene Pape	48
10. Ken Burdick	43

RAT RACE
(3 contests, 20 entries)

1. Bill Varner	14
2. Dave Green	6
3. Ken Burgar	5
4. Ken Burdick	4
5. Dick McConnell	2

FAI TEAM RACE
(1 contest, 2 entries)

1. SKARE team	2
2. Mike Hazel	1

½A COMBAT
(6 contests, 46 entries)

1. Will Naemura	22
2. Gene Pape	21
Bill Varner	21
4. Ken Burdick	18
5. John Thompson	17

AEROBATICS
(20 contests, 71 entries)

1. Max Thue	19
2. Dick McConnell	18
3. Paul Walker	17
4. Rick Railston	15
5. Dave Mullens	11
6. Rich Porter	10
7. Don McClave	9
8. Rich Schaper	8
9. George Mickey	7
10. Dave Green	5

OVERALL RACING
(40 contests, 163 entries)

1. Dave Green	101
2. Dick Salter	88
3. John Thompson	85
4. Mike Hazel	68
5. Dave Mullens	56

SUPER SPORT RACE
(11 contests, 72 entries)

1. Mike Hazel	41
2. Dave Mullens	32
Dave Green	32
4. John Thompson	30
5. Dick Salter	20

GOODYEAR
(5 contests, 13 entries)

1. Dave Green	4
2. John Thompson	1
Shawn Parker	1
Dick McConnell	1
KB Team	1

OVERALL COMBAT
(22 contests, 140 entries)

1. Bill Varner	49
2. Gene Pape	48
3. Gary Byerly	47
4. Will Naemura	42
5. Ken Burdick	39

SLOW COMBAT
(7 contests, 26 entries)

1. Gary Byerly	14
2. Dick McConnell	10
3. Dick Salter	9
4. Lowell Paddock	5
5. George Mickey	4
Rick Wicklander	4
Bill Varner	4

PRECISION SCALE
(1 contest, 4 entries)

1. Orin Humphries	4
2. Dick Salter	2
3. Max Thue	1

NORTHWEST SPORT RACE
(14 contests, 97 entries)

1. Dick Salter	76
2. John Thompson	42
3. Dave Mullens	32
4. Dave Green	25
5. Gary Byerly	20

MOUSE RACE CLASS I
(4 contests, 32 entries)

1. Dave Green	21
2. Mike Hazel	18
3. John Thompson	11
4. Bill Varner	8
5. Joe Just	7

MOUSE RACE CLASS II
(4 contests, 17 entries)

1. Bill Varner	15
2. Dave Green	13
3. Paul Wallace	2
4. John Thompson	1
Joe Just	1

AMA COMBAT
(7 contests, 63 entries)

1. Phil Granderson	29
2. Norm McFadden	28
3. Gene Pape	27
4. Gary Byerly	25
5. Bill Varner	24

FAI COMBAT
(2 contests, 5 entries)

1. Dick McConnell	3
2. Dick Salter	2

OVERALL SCALE
(4 contests, 22 entries)

1. Dick Salter	12
2. Max Thue	9
Dan Cronyn	9
4. Russ Wilcoxson	7
5. Orin Humphries	4

STANDINGS, continued

OVERALL CARRIER
(5 contests, 25 entries)
1. Loren Howard . . . 14
2. Dick Salter. . . . 12
3. Wayne Spears . . . 9
   Bill Skelton . . . 9
5. Stan Johnson . . . 6

SPEED (combined)
(13 contests, 37 entries)
1. Scott Newkirk . . . 11
2. Paul Wallace. . . . 9
3. Mike Hazel. 8
4. Gene Bartel 7
5. Chris Sackett . . . 6

PROFILE CARRIER
(4 contests, 19 entries)
1. Dick Salter . . . 12
2. Bill Skelton. . . 9
3. Loren Howard. . . 8
4. Stan Johnson. . . 6
5. Wayne Spears. . . 5

SPORT/PROFILE SCALE
(3 contests, 18 entries)
1. Dick Salter . . . 10
2. Dan Cronyn. . . . 9
3. Max Thue. 8
4. Russ Wilcoxson. . 7
5. Mike Hazel. . . . 1

SCALE CARRIER
(1 contest, 6 entries)
1. Loren Howard . . . 6
2. Orin Humphries . . 5
3. Wayne Spears . . . 4
4. Terry Miller . . . 3

STUNT SCENE

by paul walker

MORE ON TRIM (PROPS)

Now that you are satisfied with the basic trim of your stunt plane, it is time to have some fun. There are several avenues to pursue. They are as follows: line length, elevator to flap relationship, engines, and props. These aspects of trim are the most fun and interesting for me, but can also be very frustrating.

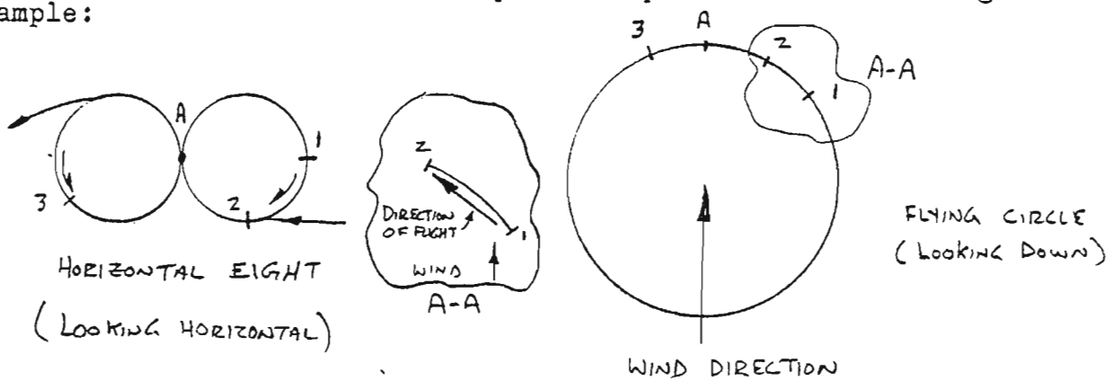
Any one of the previously mentioned changes can change your basic trim, requiring further trim changes. Generally once in basic trim, these further changes will not change the basic trim too much. This month, we will discuss the effect on trim by the changes of different props. Significant changes in performance can be had by the use of the right prop. There will be no discussion on the theory of props, but just personal experiences I have found to be true over the years. These include the areas of 1) diameter, 2) pitch and 3) shape.

The diameter of the prop has a direct effect on the flying speed of the plane. The larger the diameter, the slower you can fly and still maintain line tension. Also, the plane will groove in maneuvers better. The problem with the large diameter is that the corners will slow down. This may be possible to recover by re-adjusting your basic trim. Conversely, a smaller diameter prop will require the plane to fly faster to stay tight on the lines. They will turn a quicker corner but now will groove less. Unfortunately, to see these increases (decrease in speed) with larger diameters, it requires a monster motor to turn it. Normal ST .46 powered planes turning an 11x6 when replaced with an OS .40 FSR can turn up to a 14x6 prop. This difference (or even a change from 11x6 to 13x6) will make a big difference in speed. The lap times might go from 5.2 sec/lap to 6 sec/lap. Unfortunately, the smaller engines are very limited as to the size of prop that they can turn.

The pitch of the prop also effects the performance. On most stunt planes, the pitch is somewhere between 5 and 7". Assume for now that you are all trimmed out with a 6 pitch prop. Now, a 5 pitch prop (same diameter) is put in its place. The first (and obvious) thing that has to be done is that the engine will have to be run faster to produce the same line tension. I have found that a smoother pattern can be produced with a 5 pitch as opposed to higher pitch props. Theoretically, the 5 pitch prop should accelerate better than the higher pitch props. I have not found this to be true.

The speed at which we are flying probably is not fast enough to produce enough efficiency in the prop. Once a hard corner is turned, they don't accelerate back to speed as quick. This forces you not to turn such a hard corner, thus producing a smoother pattern. Another advantage is the fact that they don't wind up as much in the wind. Wind up is the increase in speed of the plane when positioning the plane in such a position that the wind has a component in the same direction as the plane is pointed towards the ground.

An example:



A horizontal eight. Entry (Point A) is directly down wind. At point 1, the plane is pointed directly down at the ground. But, between 1 and 2, the wind now has a component in the same direction as the direction of travel. This will increase the speed of the plane. This is most noticable from point 1 to 2 as the plane is also being worked upon by gravity, tending to increase the speed also.

The important point is that the plane is pointed right towards the ground. From point 2 to point A is the same except that the plane is pointed uphill, and this tends to slow it down. A 5 pitch does minimize this effect. On the other hand, a 7 pitch will make this effect more pronounced. This can make for downright exciting flying in the wind. Although, in the calm to mild breeze, a 7 pitch will pull harder, fly slower and accelerate from a hard corner better. But don't fly it in much of a wind. So a compromise is in order. A 6 pitch prop is a good compromise between wind-up and acceleration.

And finally, the blade shape has an effect also. Generally, the narrow blades will produce a sharper, quicker corner. They do not pull as hard as a wide blade, though. The wide blades will produce better vertical performance, but the corners will not be as sharp.

Following is a guide to prop selection to start your trimming procedure.

Most .29s . . . 9x6 to 10x6.
Most .35s . . . 10x6.
Most .40s . . . 10x6 to 11x6.
Most .45s and .46s . . . 11x6

This is just a beginning reference point to start with. When I trim, I try every imaginable prop I can come up with, because you never know when you are going to hit on something. So experiment around with different props and see what a difference they can make.

--Paul Walker, 25900 127 Ave. S.E., Kent, WA 98031.

PROFILES

In every hobby there is someone described by his peers as a "true gentleman of the sport." In Pacific Northwest model aviation, there is no person the title fits better than Don McClave, that ever-smiling ambassador of the precision aerobatics fraternity. FL is proud to feature Don McClave in our "Profiles" column.

Though we know him as a stunt flier, often seen caressing that venerable Stiletto through the pattern, others outside the hobby know Don as a former ski racer, as well as a current tennis player, fly fisherman, and during the day a bank executive.

McClave, 40, resides at 7719 S.E. 28th Ave., Portland, Ore., with his wife Chris and children Susan and Andrew. Andrew, by the way, is a budding flyer himself. Don is affiliated with the Seattle Skyraiders, though he helps put on Portland contests in the absence of an active club there.

His modeling career began in 1953 both in control-line and outdoor free flight. He competed during the 1950s and flew at three national champ-

PROFILES, continued

ionships, retiring in 1961. He did not take up the handle again until 1980. Among his many flying successes are second place finishes in B speed at the 1959 and 1960 nationals, a second in ½A speed in the 1959 Nats, and the title of Northwest high-point champion in 1957 and 1959. He won Nordic at the 1961 King Orange Internationals in Miami and was Montana "Air Youth State Champion" in 1959 and 1960.

To further detail our biography, here is Don's own commentary in response to FL's questionnaire:

"As you know, I began flying toy planes again last year after having kicked the habit in 1961. Some things have changed; some haven't.

"My first contest, in 1953, was the Plymouth qualifier (the last year Plymouth sponsored these meets). I took second in combat with a Fox .35-powered Ringmaster. The next year Ringmasters were obsoleted by a "hot" flying wing called the "Half-Fast" by a new designer called Bill Netzeband. It did 75 mph!

"In 1954 I won my first stunt contest with a DeBolt "All-American," then quit stunt to concentrate on speed and free flight.

"I went to my first Nationals in 1958 at Glenview Naval Air Station and took 6th in D speed. I met Bill Wisniewski, Warren Kurth and Gerry Thomas that year, all of whom were very helpful. Yes, Gerry won jet speed that year, too!

"In 1959, at the Nationals at Los Alamitos Naval Air Station, I nearly won B speed, finishing second, and was also second in ½A speed. The B speed director that year was Vic Garner, who as I recall created a furor by enforcing the whipping rule against the previous year's national champion, Jim Payson. Vic was right, by the way.

"That was the year Bill Wisniewski build his first .15 racing engine and began developing the tuned pipe. His performance then, as now, was awesome.

"In 1958, I was fortunate enough to see George Aldrich win the last of his national stunt titles and saw a newcomer win junior stunt -- Bill Werwage! In 1959, Bob Palmer regained the title.

"In 1961, my last year of competition before college studies got the better of me, I flew A-1 Nordic at the King Orange meet in Miami. Gerry Ritz, then world champion, was there, and I was lucky enough to beat him for meet high time in a 25-30 mph wind. Probably my biggest thrill in modeling to that point, along with my first Nats trophy.

"The equipment available now is so much better than the "old days" that there's no comparison. The competition is much keener, too, all of which makes the hobby even more enjoyable.

"However, one thing hasn't changed. Sportsmanship among modelers is still incredible -- better than nearly any activity I can think of. And that's what makes it all fun."

Don added a P.S. to his letter, which we can't resist passing along:

"A skinny little kid used to come out and watch us fly in my home town, Great Falls, Mont. Pretty soon, he began flying, too, but I lost track of him more than 20 years ago. Last year we were reacquainted at the Regionals. His name is Rory Tennison."

The sportsmanship Don speaks of is never more evident than around his pit area at any Northwest stunt contest. And, you can tell by the above narrative that the conversation is fascinating, too. Take FL's advice and take time to meet Don McClave if you haven't already. You'll find it a rewarding experience.

WHERE THE ACTION IS

UPCOMING ORGANIZED EVENTS

Listed below are the coming events in the Northwest for control-line model aviation. If you know of any not listed here, please remind the organizers to get us the information so the rest of the world can get the word. Don't wait until the last minute -- give us as many months lead time as possible.

FL will list any Northwest modeling event -- including contests, shows, or fun-fly events. Flyers will be stapled into the newsletter if an adequate supply is provided. All contests are AMA sanctioned unless otherwise noted.

Feb. 14.....ASTORIA, Ore. -- Northwest Sport Race Drizzle Circuit Contest No. 3. Rat Race, 9 a.m., Northwest Sport Race at 11 sharp, followed byNorthwest Sport Race. Racing points accumulate for circuit trophies. Site: Port of Astoria. Contest Director, Dave Green, 200 W. Franklin Ave., Astoria, Ore., 97103. (503) 325-7005.

ACTION, continued

Feb. 28.....EUGENE, Ore. -- Flying Lines Third Annual ½A Funday. ½A speed, ½A proto speed, ½A stunt, ½A combat, ½A mouse race Classes I&II. Merchandise prizes. Any profit benefits Flying Lines. Site: Mahlon Sweet Airport. Contest Director: John Thompson, 1411 Bryant Ave., Cottage Grove, OR 97424. (503) 942-7324.

March 21.....MERCED, Calif. -- Racing and speed contest sponsored by Frank Hunt. More details to come. Contact Frank Hunt III, 551 Brookdale Dr., Merced, CA.

April 18.....EUGENE, Ore. -- Northwest Sport Race Drizzle Circuit Contest 5. ½A combat at 8:30 a.m., NWSR at 11, NWSS to follow. Final circuit trophies to be presented. Merchandise prizes. Site: Mahlon Sweet Airport. Fee: $3 for one event, $2 each additional. Contest Director: John Thompson, 1411 Bryant Ave., Cottage Grove, OR 97424. (503) 942-7324.

NEW DATE!!

May 29-30.....EUGENE, Ore. -- Northwest Regional Controline Championships. AMA rat race, slow rat race, Goodyear, Northwest Sport Race, Northwest Super Sport Race, Class I Mouse Race, Class II Mouse Race, AMA combat, slow combat, ½A combat, FAI combat, precision aerobatics (2 PAMPA classes), profile carrier, Class I-II carrier, AMA scale, profile scale, ½A speed, A speed, B speed, D speed, Jet speed, Formula 40 speed, FAI speed. At contest site: camping, rest rooms, restaurant, concessions, public address, RV parking. Motels near by. Major airline connections witnin walking distance. Contest Director: Mike Hazel, 1040 Windemere Dr. N.W., Salem, OR 97304.

NEW YEAR'S PREDICTIONS, RESOLUTIONS, ETC.

Well, as usual FL's editors have started out the year with resolutions to get last year's winter building projects done this winter, soon as we finish the 1979 leftover projects. Yes, guys, I have moved the rat racer from the back bench to the "this year" bench. Sorry, stunt friends, the Geisecke Nobler is still at the bottom of the pile. Somewhere in Salem is a nearly done slow rat, if we can just find where we left the engine. On, and on, and on. Sound familiar.

And here we are, almost the middle of the month and January FL's not done. Holidays, contests, and jobs can do that to you! Our FL resolution is to not go bonkers trying to do all this, and win the world championships in fast combat too (get up off the floor, guys, a joke's a joke, but enough, already!).

Through this fog of competing interests and concerns, we will offer some predictions from 1981, based on our observations of current trends:

* The Northwest Sport Race Drizzle Circuit will be the best ever in terms of competition. Already, the Fox .35 engines are running at almost identical speeds and the Super Sports are locked in a very fast, very close and very professional-looking duel. Congratulations to the racers who have made this a fine event, and invitations to those who haven't tried it yet.

* Some strong newcomers, like Ken Burgar of Bremerton, Wash., will continue to breath new life into the hobby.

* Control-line enthusiasts will turn increasingly to the small garage businesses which are taking over the manufacture of important accessories that have been abandoned by the big RC-oriented companies. A full line of kits, tanks, mufflers and other hardware is now available, if you know where to look for them.

* The Northwest Regional Controline Championships will be even bigger than last year's banner contest. Re-scheduling will better utilize field facilities for a smoother production. Beginners and sport fliers will enjoy the new balloon bust. Large contingents have already announced plans to attend from California, Canada and most other Western states. Sideshows will please spectators.

PREDICTIONS, continued

National magazines will provide even broader coverage than last year. There will be even more than last year's $1,400 worth of prizes, and the FL anniversary bash will be a legendary event.

* The Boeing meet will slip silently beneath the waves, increasing attendance at other summer bashes such as the Astoria CLAMbash and Seattle 'Raider Roundup. With one year's experience under the belt, the Roundup will be even bigger and better.

Now, if we may be permitted, a few other predictions ranging from the indisputable to the incredible:

* Somebody will remind Rich Porter that combat rules require counter-clockwise takeoffs, and he will be Ambushed at the Eugene ½A day.

* A Northwest combat flier will win the AMA Nats.

* Phil Granderson will fly a practice stunt pattern, using a new plane with a name we can't print here. He will not enter any mouse races.

* Gary Stevens will be seen from a distance at a contest.

* Bob Carver will build an airplane, and open another crate of engines.

* Marty Phillips will return from retirement to set a new profile carrier record, then disappear again.

* Rory Tennison will sponsor a contest in Montana.

* Chris Sackett will set a new record for most jet flights in one day.

* The long-awaited Contest Director's Association will get started, as soon as the FL editor gets around to contacting all those who've expressed interest. Hang in there, I'll get to it soon!

* Jim Zehrung will capture the record for ½A multi-engine inverted speed.

* There will be no Northwest entries in any Goodyear race, and the event will be forgotten until a fossil of a Rossi .15 is discovered by archaeologists in the year 4,095.

* Dick Salter will be the top racer for 1982, followed by SKARE, DART, NRT and ... ?

* Carrier fliers will begin working on a new cycle of rules changes.

* Somebody will sponsor an FAI combat contest, preceded by a six-day seminar on rules, penalties, helmet fashion and circle etiquette.

* Howard Rush will design a new combat airframe, obsoleting 209 wing cores. All his time will then go into developing Kevlar lines.

* Paul Walker will require eye surgery after drawing 4,09,875 tiny circles on his new stunt plane.

* Tim Gillott will finish third again at the Regionals and move to Astoria to join the DART team in rat race.

* Flying Lines will be banned from library shelves for publishing the name of Gary Byerly's latest combat plane, which he got from Phil Granderson.

* Dick McConnell will buy a Fox Combat Special, build a Rotation Station and win the Bladder Grabber.

* All line connectors will be banned from Navy carrier, with square knots the only acceptable connector.

* Mike Bogan will sign on as Dave Mullens' regular racing pilot, and helmets will become standard equipment in racing pits.

* Sterling will market a foam-winged Ringmaster.

* Orin Humphries will win scale at the Canadian Nats, using a "Lizard Plane."

* Flying Lines will get new subscribers in Argentina, Kenya and Moclips, Wash. The newsletter will be mentioned in Model Airplane News.

* Except for Flying Lines, the modeling press will be swept by a new concept -- larger than full-scale. Covers will abound with RC models that are twice the size of the original airplanes. The trend will be called Elephant scale and many kits will be produced.

* Thousands of letters will pour in asking for FL never to waste space on January predictions again. The feature will be discontinued.

Save this list and see if, by January of 1983, the predictions come true.

HOBBY SHOP DIRECTORY

WASHINGTON

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.

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HERB'S SPEED AND 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.

ON BEING PREPARED
By Joe Just

In article after article we read the sage advice of experts about preparing to win at contests. We learn how to set up engines, finish that stunter for maximum points, balance the props, practice the pattern, pit stop, arrested landing, etc., etc. All this advice is great and really speaks for itself in wins or good placings.

However, I'd like to take a look at being prepared in light of a feature that a beginner needs more than winning -- that being freeing up his time at a contest.

Nothing is more frustrating than being approached by a new friend that would like to chat about a new project of his and not having a minute to talk because you didn't replace a broken needle valve at home and you're up right away -- no time to talk as you hurridly change the cussed assembly and get it in wrong, too.

The race is about to start and your engine is barely running. No amount of fiddling seems to work -- you race anyway and look like a fool and before the next heat you frantically tear down the engine trying to desparately find the problem, forgetting you really wanted to check out the local hot shot's setup while his plane sits in the pits. Your next heat is a complete bust because you hurriedly put the sleeve in backwards and the thing won't run at all, and in your frustration you forget you were going to ask "Jack the Pro" a bunch of "how do you do it" questions.

So -- on and on all the problems add up and continue until your only memories are those of frustration and embarrassment.

Gentlemen, all of the above problems and more have afflicted me because I failed to be prepared. I've spent more time kneeling on my rug in last-

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BEING PREPARED, continued

minute repairs and getting things ready than I have in either flying or talking and learning! I have no message of winning, but I have a list of things to do that will give you time at a contest to browse around, talk, make friends and learn.

1. Don't over-extend -- fly just one or two events in a day. If you're a novice, one can be more than enough.
2. Make a list of things to get done and equipment needed a month ahead of the contest.
3. Don't show up at a contest with an untried plane.
4. Practice starting engine several days before contest -- check out fuel lines, tank and all bolts and connections.
5. Make sure you take the right lines and connectors.
6. Try out all new accessory equipment one week before contest -- fuel, batteries, fuel lines, etc.
7. Get in a practice flight at least a half hour before your event.
8. Pull-test plane at home a week before contest (gives enough time to make panic replacement).
9. If the meet is more than 200 miles away, try to get there the night before -- be fresh.
10. Because you're prepared for your event, plan on spending time briwsing and talking and picture taking.

To all my new and old friends, my most humble apologies for ignoring them, avoiding them and not getting to know them better because I haven't followed any of the above.

--Joe Just, 713 Crescent, Sunnyside, WA 98944

SUNDAY FLIER

by larry miles

In the last column a method was presented for easily obtaining a set of tapered wing ribs and a promise to continue with what to do with those ribs in the next column. Well, I'm going to hedge on that statement (see what you get for trusting me?) as it seems more reasonable to look at some more general considerations that affect wing design before getting into specifics. So that's what we'll do this time, look at those general considerations and hoefully return to the specifics next time.

Given two identical planes in every respect except for weight, which one will turn the tightest, have the most desirable glide ratio, be the most responsive to control inputs and generally be the most fun to fly? The lightest one, of course. I've heard that it's is possible to build a plane too light. Perhaps that is true, but I'm not convinced -- still open-minded about it I hope -- but not convinced.

It seems to me that if a given plane is so light that the average wind blows it around too much that what is needed is to reduce the size of the wing or change other design parameters that affect the plane's ability to navigate windy conditions and not simply add weight. Practically speaking, if a plane is already built and properly trimmed including optimum bellcrank location and leadout position and still gets blown around excessively by average winds it may be in rare cases desirable to add weight to the model. In fact, the idea of a ballast compartment where weight can be added or subtracted depending upon flying conditions is not new. Sailplane pilots frequently do that very thing depending upon amount of wind, lift conditions and the type of flying (speed or duration) being done. And stunt planes which are the closest thing in the CL world to sailplanes might benefit from a ballast compartment where weight can be added or removed depending upon flying altitude, wind and other such variables.

On the whole, however, the need is not to add weight but to subtract as much as possible. In those rare cases where a plane is too light for the prevailing weather conditions the most desirable fix is to change the design -- less wing area -- different airfoil -- different aspect ratio, etc.

But those cases are few and far between -- the most prevailing case by far is a need for weight reduction.

And there are basically two ways to reduce overall weight. One is to reduce airframe weight; the other is to reduce engine weight. The first, airframe weight, we hope to look at in part next time viat the constructing of lightweight wings and later via lightweight fuselages. The second item, engine weight, let's glance at now via a couple of specific examples.

A few issues ago Model Aviation had an article by John Jo on his Super Voodoo. In that article the author mentioned the speeds attainable when powering his plane with Fox combat motors, one Duke's more recent offering and one an older style Fox combat design.

The newer design of course was the fastest engine-plane combo but not

by very much.

At this point let's speculate for a minute as I do not have the data to say what the actual facts are. Let's say that the older Fox engine was several ounces less weight than the newer Fox engine.

With this assumption (which may or not be true -- I don't know) in mind, in order to obtain the same wing loading it would have been been necessary to change the design of John Jo's Super Voodoo for the older Fox engine. Those changes would have included a shorter span wing, a shorter chord (if aspect ratio were to remain the same, a less rigid structure needed to support the lighter engine, all in all a significant size and weight reduction for the lighter engine and still maintain the same wing loading and same crash damage resistance as the newer-engined model.

A shorter wing span, a shorter and thinner airfoil (all sizes proportional downward from the original model) would add up to a model that was faster than it originally was. And perhaps faster than the newer engined model.

This, as previously stated, depends upon the actual weight of the two motors. If the weights are actually the same all bets are off -- the newer engine wins. However, if the older engine is lighter, it may very well be that an optimally designed plane for the older engine will outperform the newer engine on an optimally designed plane for it.

As a second example, let's take a quick peek at Nelson's new .15 glow engine in comparison with the Rossi and the Cox motors of that same genre.

Again I have no actual data on these motors but I believe the Nelson motor is lighter than either the Cox or Rossi motors. And the claims I have read are that the Nelson engine is also a higher RPM motor. If that is the case, there is no question but the Nelson engine will win in competition where speed is a factor and by a considerable margin because as before a plane powered by the lighter more powerful engine can and should be smaller and lighter. Even if the Nelson engine were slightly slower and still lighter than the other two engines the Nelson .15 on an optimal plane might be faster than the Cox or Rossi on their optimal planes.

Am I suggesting that you run right out and buy a Nelson .15 or search for an older Fox combat motor? Not at all. First, I don't know the actual weights and speeds of any of the engines discussed and even if I did the differences might be so slight that I couldn't accurately predict which engine-optimum plane combo would result in the best performance. Besides, there are other factors that pertain to engine selection as well as weight and RPM such as reliability, crash survivability, ease of handling, cost, parts availability, appearance, etc.

But I hope it is clear that the engine weight is a very important factor in plane-engine performance and that in some cases a lighter weight engine will out-perform a heavier, more powerful engine when both engines are installed in optimal planes for each engine.

Next time, back to what to do with those ribs -- hopefully.

--Larry Miles, Apt. 89, 7707 Mission Gorge Rd., San Diego, CA 92120.

AIR MAIL

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

DEAR FL:

Please find enclosed the readership questionnaire and while I'm at it, I figure it must be ominously close to "cough up" time for me so I have done so.

I find very little to complain about regarding the newsletter. It's about the only monthly piece of mail that I truly enjoy reading.

I would like to see more photos of the models mentioned in the contest results to complete the sketchy mental image one gets upon reading the airplane info contained in the reports. Certainly the listing of such statistics makes the results a good deal more meaningful and I congratulate you for excellent coverage of that angle.

It occurred to me that some of the guys reading FL may be interested in the outcome of the Canadian FAI C/L trials since I don't imagine they'll be published elsewhere with the exception of MAAC's Model Aviation Canada magazine, which has suffered a goodly amount of "transient editor syndrome" in recent years.

The combat and stunt trials were conducted at the Canadian Nats July 16 in Centralia, Ontario. Turnouts were only fair with two new faces in stunt and just four entrants in combat, all of whom have been on past FAI teams. The team for stunt will be as it has been for the last three world championships, namely Geoff Higgs, Fred Tellier and Andy Kakla. No one so far has shown the necessary enthusiasm to knock off any of these veterans but there are a few coming up the ranks.

Combat was a spectacularly futile exercise just to eliminate one guy. Danny Sigouin happened to be him, leaving Cliff Gibson Jr., Ross Mehuish and Pierre Sigouin to comprise the team. Interesting that the Sigouins were using their copy of the current world champ Russian model (complete with gigantic tin tank!) and actual Russian engine as well as some MVVS (Czech) that have managed to be granted political asylum. The Russian engine doesn't look like much but is real fast and very light, which now appears to be awfully important. These models fly with very abrupt turns reminiscent of a computer game!

Team race and speed are run as a series of four trials in Ontario and supplementary trials elsewhere to accomodate entries from areas too distant to attend those in Ontario.

Team racing was fairly hotly contested with a total of eight teams competing. The two teams managing full qualification (2 times under 4:15) were Dave Kelly/Ken Parent with their own make R.A.M. engines and times consistently under 3:50 with a best of 3:33.5 and Brian Fairey/Richard Fairey using Brian's own B.B.F. engines and times in the 4:10 range. Both these teams used the now-familiar flying wing type model. The third team place will likely be E. Harding/A. Harding with a Nelson and standard model with a 4:14.7 and 4:15.2 so they missed officially by .2 seconds but may be asked to participate anyhow.

The father and son team of Smedley/Smedley from Albequerque, N.M. also were participating at the Nats trial and did quite well with 4:09 and 4:10 heats but will not likely get the not since only Mr. Smedley Sr. is a Canadian citizen and only one trial was attended, although no decision has officially been made on this to my knowledge.

The speed tryouts were quite well supported also with seven entries actually participating.

Yours truly (Sam Burke) managed to grab the top spot by virtue of three times over the minimum speed of 220 kph. After mastering the intracacies of the FAI pylon and handle Cliff Gibson Sr. and Stuart Henderson began recording scores. Gibson uses an F/L Rossi ABC and a "Kingfisher" sort of model with CFS and case pressure. He was plagued with a shortage of laps but did manage a 220 run on one occasion and quite a number of slower times.

Henderson used a "standard" speed model and Cox .15 with Rossi ABC P-C to do a best speed of 223 kph but was disqualified by a handle infraction. His next best speeds were in the 213 range due mainly to his inability to get 10 consecutive clean laps. The engine insisted on breaking rich at lap 7 or 8.

Mrs. Michelle Siguoin also tried out with an A.D. powered "standard" model but was not able to get everything in the right place and time to post a score. A similar fate befell Chris Sackett who has some good equipment and will be a force to be reckoned with in future trials, I'm sure. I understand Paul Gibeault has posted some times at a trial in Edmonton. The last I heard from him he was running a steel Rossi RR on a standard plane but I suspect he may have switched to something else as he turned the best speed officially recorded at the entire trial series., of 237 kph. My best was 236 with an upright assymetrical plane and CFS case pressure with Rossi

AIR MAIL, continued

engine and Nelson AAC piston-cylinder. I have persisted all season with two of these AAC sets but have had poor luck in getting much speed from them. Some of us suspect that Silicone content of the pistons may be too low, so have had a piston made of 24% silicone to see what effect that may have.

It seems to me that it requires an extensive amount of testing to properly evaluate the potential of any given combination of engine/prop/pipe. I have often been amazed at the increased speed just from all the little variables falling finally into place when it had seemed to be performing at its best already. I think a lot of good equipment gets canned because it wasn't given adequate opportunity to show its stuff. The hard part is to know when you're whipping a dead horse!

I am in the process of building two new ships in the quest for the fast grail. They are head-outboard sidewinders with enclosed pipe and layout generally similar to Charlie Lieber's ships.

I also want to build a ½A version of this layout for laughs mostly because there is full-blast ½A equipment to be had these days (Gene Hempel) and a body could get very serious about ½A if he wasn't careful. It looks like we may live to see the day that somebody does 140 with an .049.

I realize this is a great rambling epistle but you may be able to glean something from it. Thank you for the great newsletter.

--Sam Burke, 98 Wellington St., Cambridge, Ontario, Canada, NIR 3Y8.

MORE TO COME

We've got a huge stack of letters piling up again -- we'll whittle down the stack again next month, we promise!

Note to contest directors: Get us your flyers and other contest information now!

Shutterbugs: Send us your pictures of Sunday flying activity. Share your hobby with others. How about that latest masterpiece in black & white!

READER POLL RESULTS -- THE READERS RESPOND

Readers of the FL poll said they like the technical articles published by Flying Lines better than any other feature, but contest reports also were rated highly. Those are the most clear reponses from the poll, which was published last fall.

Results also showed that the regular columns also were reader favorites, with Paul Walker's Stunt Scene getting the highest column rating. Air Mail, the letters column, also was a favorite.

Along with the voting came many excellent suggestions and comments. Among the comments were requests for more airplane data, earlier confirmation of contests and events, a suggestion to raise the subscription rates, and a request for low-budget competition tips. One regular feature grew out of the comments -- our "Profiles" column.

Here are the rankings of the regular FL features, according to readers: 1. Technical articles. 2. Contest reports. 3. Air Mail and Stunt Scene (Paul Walker). 5. Schaper on Stunt (Rich Schaper). 6. Where the Action Is. 7. Photos. 8. General news. 9. Combat Zone (Gene Pape), Cuts & Kills (Buzz Wilson), and Control Line Scale (Orin Humphries). 12. Speed Scoop (Mike Hazel). 13. Flea Market, Hook Nook (Orin Humphries) and Flight School (John Thompson). 16. Racing Roundup (Mike Hazel). 17. Advertisements. 18. Hobby Shop Directory. 19. Competition standings. 20. Sunday Flier (Larry Miles). 21. Competition records. 22. Flyaways.

FLYING LINES

1411 BRYANT AVENUE
COTTAGE GROVE, OREGON 97424

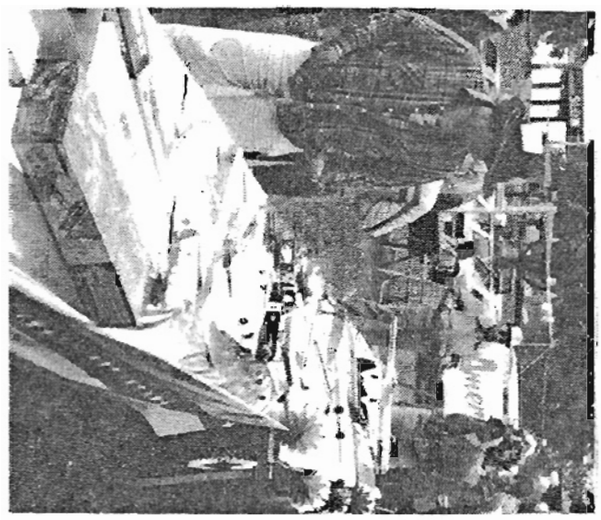
Flying Lines is produced monthly by a dedicated staff of volunteers interested in keeping lines of communication open between Northwest modelers. FL is totally independent of any organization, depending entirely on subscriptions, advertisements and donations for financial support.

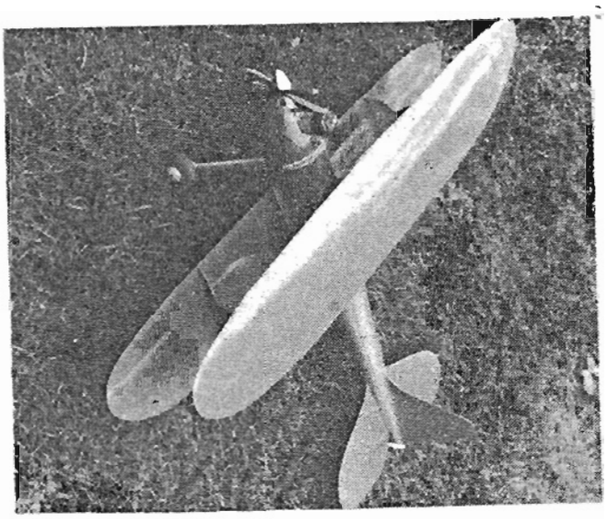
FL is your link with the rest of the Northwest's control-line modelers. Help keep it alive by spreading the word. Wear your FL T-shirt and tell your buddies what it stands for. T-shirts available at $8 -- name your size and color.

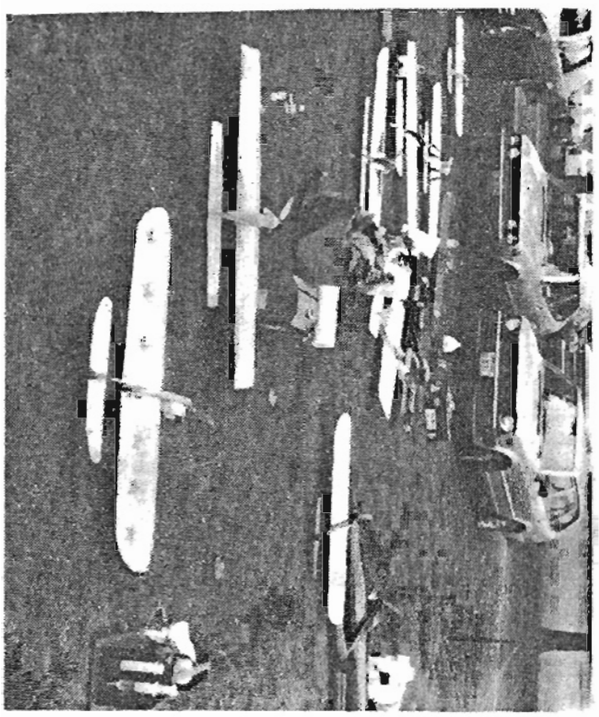
Price for subscriptions is $5 for six issues and $9.50 for 12 issues. Canada and Mexico: $5.50 for six issues, $10 for 12 issues. Overseas, $10 for 6 issues and $18 for 12 issues. U.S. funds, please.

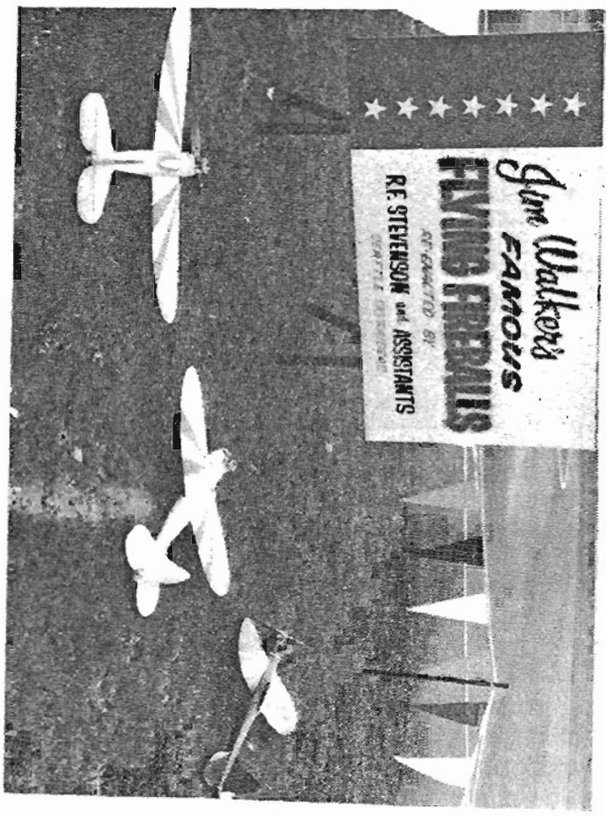
Here is the FL staff:

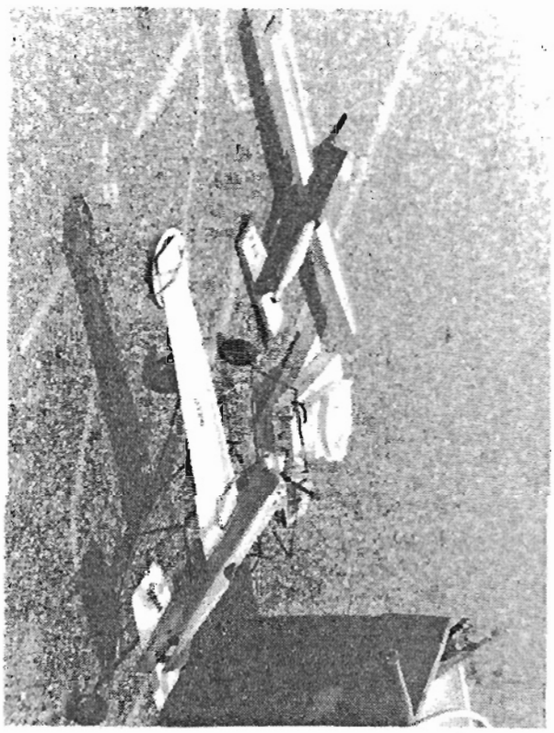
Publisher.....Mike Hazel
Editor.....John Thompson
Photo Editor..Chris Genna
Carrier.....Orin Humphries
Aerobatics...Rich Schaper
Paul Walker
Combat.....Gene Pape
Racing.....Mike Hazel
Speed...Mike Hazel
Scale...Orin Humphries
Sport...Larry Miles
Beginners..John Thompson











STUNT BASH ON FILM

Tom Knoppi of Seattle, Wash., provided these scenes from Stuntathon, '81, which also included the Jim Walker commemorative ceremony. Clockwise from top right: Fireball Biplane, Walker design. Three Fireballs flown in show. Speed planes not from Portland, they came from Sam Burke of Canada; Burke's plane in foreground, Stu Henderson's in back. Genesis by Rich Schaper. Line of stunt planes at Portland. Table of Walker mementos seen by big crowd.