

FLYING LINES

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Another new CL flying field!

By Jerry Eichten

Control-line flying is making inroads in a new Northwest location!

Modelers in Northwestern Oregon have been invited by the Evergreen Aviation Museum to develop a flying field at the museum complex in McMinnville, Ore., where the Spruce Goose is housed along with many other historic airplanes.

Some of the people who volunteer at the museum are modelers and they've been curious if any model flying would eventually find a way into the museum's long-range plan. Apparently the museum managers were receptive to the idea, and a donor emerged who was able to fund a model field. There needed to be an entity who would be responsible for managing the new field. The existing RC club in McMinnville was approached with the idea but they declined. So an entirely new club is being formed.

Here's a brief update about what we know so far. I'm sure people will have many questions (can I fly there, when, can I get reduced rate admission to the museum, can I hold my big contest there, etc.) that we simply haven't got answers to yet.

We had a good meeting in April, elected officers, etc. The club name is TEAM (The Evergreen Aero Modelers) also the acronym for The Evergreen Aviation Museum. The executive committee will recommend a set of bylaws to the membership at the next meeting — 7 p.m., May 20 at the Evergreen Museum on Highway 18 in McMinnville. The April attendees were evenly divided between RC and CL flyers. Some enjoy both. The club will be chartered as a "multi-interest" organization. We are of the belief that CL and RC enthusiasts can coexist within one club, with each group bene-

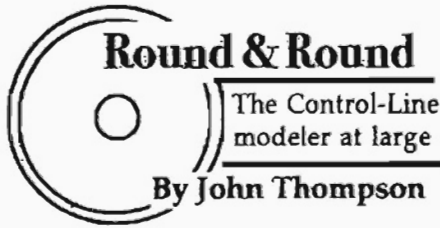
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Chris Cox is one of the Northwest's master builders. Here he is at last October's Fall Follies with his fabulous Gee Bee Sportster. It flies a great expert stunt pattern, too! (Howard Rush photo)

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Modeling thought for the month:

"The trouble with the rat race is that even if you win, you're still a rat."

— Jane Wagner

What I learned from Mr. Stubby ... and other modeling surprises

You've heard about Mr. Stubby. It's one of Publisher Mike's nightmares that came true in the workshop. Gotta love those oddball planes.

Mr. Stubby taught me a useful lesson recently. One of those things that you know, but you don't know you know until somebody else reminds you.

It was a sport flying day and my turn came to fly Mr. Stubby. Mr. Stubby is a plane with a very low aspect ratio wing. Thick and stubby.

But Mr. Stubby clips right along with an O.S. .25 and is quite maneuverable, if you don't ask anything of it that it can't handle. Such as a square corner.

As is my habit when goofing around with sport planes, I thought I'd give the stunt pattern a try. Mr. Stubby drives through the round maneuvers as if it was made for stunt. But try to turn a sharp corner, particularly at a bottom, and oh, baby, look out. Mr. Stubby's in trouble!

Mr. Stubby says ouch! He wallows, wobbles, stalls, and then finally recovers and flees from the corner like a crook on the lam. Well, I'm the type to rise to a challenge. I'm gonna get through this pattern, or bust. (Heck, it's Mike's plane. He won't mind if I bust it.)

So I started paying particular care to those square corners, sneaking up on them like a thief and gently, gently, smoothly coaxing Mr. Stubby into a turn, so that he was through the corner and off on his way before he knew it was a square turn.

Lo and behold, Mr. Stubby *can* turn squares, if you are gentle with him. There's a lesson here.

My biggest problem (OK, one of many biggest problems) in flying stunt is smooth corners, especially on bottoms. If I can get the plane down low where it's supposed to be, I often bang the corner

too hard and bobble it. Could Mr. Stubby help teach me to do a smooth corner with Mr. Stunter?

Sure enough, using some of the same gentle coaxing learned from Mr. Stubby definitely smooths out those corners on Mr. Stunter. My next stunt pattern had definitely improved corners, right at the 5-foot level (and the 8-foot level, and the 4-foot level, and the 7-foot level, and the 10-foot level). Well, I'm not through learning yet!

What's the moral of this little parable? Well, only that one should keep an open mind to flying other kinds of airplanes — some useful lessons come from unexpected sources.

I've always thought that flying combat planes did no harm and possibly helped my stunt flying. When you've gotten used to flying planes that will tear around the sky at 110 mph and make all kind of wild turns, flying a stunt plane seems to offer a world of time to execute any kind of maneuver. If you can do a stunt pattern at 110, you certainly ought to be able to do one at 60!

Where I work, we call it cross-training. My department is divided up into a variety of "specialty" jobs, but none of us are specialists — we all are trained on more than one job, (and some of us old-timers on all the jobs). This offers benefits far beyond just being able to schedule the work. It's very clear that, every time one of us learns a new job, he or she gets better at the old jobs they already knew!

Model aviation is a constant learning process. There's seldom a day I go to the field on which I didn't learn something new. Every modeler I meet has something to teach me.

So if you're looking for some new information or some new perspective on your favorite hobby specialty, consider looking for it in unexpected places. If you're a stunt flier, visit the carrier circles. If you're a combat flier, check out the speed pits. If you're a racer, spend an hour at the stunt circle. You might be surprised at what you can learn.

And if, for example, your local combat flier offers you a flight at the handle of one of his planes, don't be afraid to put down the stunt gear for a few minutes and give it a try. Or vice-versa. You might be surprised at what you discover about flying model airplanes.

There's no such thing as the wrong kind of model airplane. Viva la difference!

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Where the action is!

Coming events in Northwest Control-Line model aviation

May 18

Seattle Skyraiders Spring Fun Fly, Riverwalk Park, Kent, Wash. Potluck meal, Poker Hand Fun Fly. Prizes, etc. Grass field. 10 a.m. to 6 p.m. For info, contact Seattle Skyraiders.

May 23-24-25

Northwest Control-Line Regionals, Albany Municipal Airport, Albany, Ore. Full schedule of AMA and Northwest competitive categories in the West's biggest CL contest. Saturday night swap meet and pizza feed. For info or a copy of detailed flyer, contact *Flying Lines*.

June 14-15

Stuntathon, Clover Park Technical College, Tacoma, Wash. All stunt events. For information, e-mail Steve Helmick, sbasser@yahoo.com

June 21

Big Money Vintage Diesel Combat, Arlington, Wash., 9 a.m. start. Contact Mel Lyne, (604) 898-5581, mlyne@alpha.sea-to-sky.net.

July 5

WOLF Lucky Hand Fun Fly. Bill Riegel Field, Salem, Ore. Bring any plane, fly any kind of flight and maybe win a prize. Contact Mike Hazel, ZZCLSpeed@aol.com, (503) 364-8593.

July 12

Open Diesel Combat Fun Fly, Arlington, Wash. 10 a.m. start. Any plane, any diesel engine, 70 mph speed limit, match rules same as standard dBat. Contact Mel Lyne, (604) 898-5581, mlyne@alpha.sea-to-sky.net.

July 19-20

Stunt Clinic sponsored by Seattle Skyraiders, Arlington, Wash. flying site. Saturday: Trimming, setups, coaching. Sunday: Four PAMPA classes, judging clinic. Contact Steve Helmick, sbasser@yahoo.com.

July 27

Western Canada Stunt Contest Rice Mill Road, Richmond, B.C. Contact Chris Cox, (604) 596-7635, ccox1@telus.net.

Aug. 1-3

Bladder Grabber triple-elimination fast combat tournament, Harvey Field, Snohomish, Wash. Friday: Double-elimination 1/2-A Combat on 42-foot lines, starters OK. Fast on Saturday and Sunday. Contact Jeff Rein, Jeffrey.Rein@PSS.Boeing.com.

Aug. 2-3

Can-Am Speed Championships, Upper Coquitlam River Road Park, Coquitlam, B.C. Contact Ron Salo, (604) 599-8301, salor@shaw.ca.

Aug. 17

Seattle Skyraiders Summer Fun Fly. Details to be announced.

Aug. 23

Tailhook Navy carrier contest, Clover Park Technical College, Tacoma, Wash. Details to be announced.

Sept. 6-7

Oregon CL Speed Champs, Bill Riegel Field, Salem, Ore. All speed events. Contact Mike Hazel, (503) 364-8593, ZZCLSpeed@aol.com.

Sept. 7

Bruce & Gerry's 1/2-A Stunt Contest + Balloon Bursting, Rice Mill Road Park, Richmond, B.C. Contact Gerry Boyd, (604) 275-9192.

Sept. 13-14

Raider Roundup. Details to be announced.

Oct. 11-12

Fall Follies, Bill Riegel Field, Salem, Ore. Saturday: Northwest Sport Race, Northwest Super Sport Race, Clown Race, P-40 Stunt, Classic Stunt. Sunday: 4 PAMPA aerobatics classes and barbecue. Contact John Thompson, (541) 689-5553, JohnT4051@aol.com

The Flying Flea Market

Classified advertisements — FREE for *FL* subscribers

DBAT HELP OFFERED: I can provide assistance and advice on Diesel Combat engines, planes and equipment. Mel Lyne, (604) 898-5581 e-mail: mlyne@sea-to-sky.net.

FOR SALE: K&B 45 Sportster RC, LNTB only \$50.00 shipped. Mike Hazel 1073 Windemere Drive N.W., Salem, OR 97304, (503) 364-8593, ZZCLspeed@aol.com

SPEED INTEREST GROUP: Join the North American Speed Society. USA and Canada dues are \$25 annually, membership includes "Speed Times" newsletter. Write to: NASS, P.O. Box 371, Fenton, MI 48430

FOR SALE: New, never started, OS .15 cv-a, ABC, no carb. or muffler, with or without large venturi for pressure. \$55. Gary Harris, (503) 324-3450 or e-mail: Slowcombat@att.net

PROPS: Look for the ZZ! Prop table at the Regionals swap meet for props, engines and other accessories. For info, contact Mike Hazel at ZZCLspeed@aol.com.

WANTED: New Magnum .65 GP plain bearing engine. contact Rick Wallace, (360) 683-9860, or preferably by e-mail, toolman50@prodigy.net.

FOR SALE: Cyclon Top 3 engine, \$130. (New price is \$165.) This one has about 3 minutes of running time. E-mail Tom Strom at TStrom@aol.com.

CONTROL-LINE SUPPLIES: Remember — We ship UPS daily. Eugene Toy & Hobby, (541) 344-2117, www.eugenetoyandhobby.com.

WANTED: K&B 4.9 engines and parts. Craig Bartlett, (541) 745-2025.

FREE: Old model magazines, in lots of five. Free plus cost of shipping, unless I deliver them to you at a contest, then free. Contact John

Thompson,JohnT4051@aol.com

AEROBATICS INTEREST GROUP: Right now — as in TODAY — is the very best time to join PAMPA! Your \$25.00 will see a full year's worth of the world's best CL-specific magazine (at 100-plus pages we no longer call it a newsletter!) dropped in your mailbox. Send check or money order to: Shareen Fancher, 158 Flying Cloud Isle, Foster City, CA 94404.

COMBAT INTEREST GROUP: Miniature Aircraft Combat Association offers national newsletter with technical articles, organizes national events, keeps national combat standings, and much more. Send \$15 dues to MACA, c/o Gene Berry, 4610 89th St., Lubbock, TX 79424.

NAVY CARRIER INTEREST GROUP: Navy Carrier Society offers newsletter with technical articles, organizes national events, keeps national standings and more. Contact NCS, c/o Bill Bischoff, 2609 Harris, Garland, TX 75041. Online: President Bill Calkins at clflyer@tbcnet.com.

RACING INTEREST GROUP: National Control Line Racing Association offers newsletter with technical articles, organizes national events, keeps national standings and more. To join, send dues of \$10 U.S. (\$12 international) to NCLRA, c/o Mike MacCarthy, 4704 Hillsboro Ct., Santa Rosa, CA 95405. Online: <http://www.NCLRA.org>.

HELP WANTED: *Flying Lines* welcomes contributions of all types of articles and regular columns on control-line model aviation. Share your knowledge by becoming an active member of the *FL* staff. Columns or single articles are welcome on all competition categories as well as on sport and show flying. Photos also needed of all types of airplanes and activities. Articles compensated by subscription extensions.

YOUR AD HERE: Remember, classified ads are free to *Flying Lines* subscribers. Send yours in today for publication in the next edition.

New flying field in McMinnville

Continued from Page 1

fitting from and helping the other. (Two of the four executive committee members fly both.)

Plans exist for a paved r/c strip, an adjoining grass RC strip, and a paved donut for control-line.

At some point we might look for a grass circle area. The construction contract is signed and the RC site has been surveyed and marker flags are in place. The contractor will proceed with the paving when he believes the weather is right. Some details of the CL area remain. This is all on land owned by Evergreen Aviation. As a club we need to be mindful of the wishes of our landlord. Model field improvements are coming from a large cash donation (in excess of \$100,000) to the museum for the purpose of aeromodeling education. The donation came from a local man who has deep roots in the modeling community.

The education aspect of the club is significant, and there are some expectations of club members that they may be called upon, at times, to help inform museum visitors about modeling, do some public relations, or to help with the educational curriculum. Just what these duties might entail isn't known yet.

The dues have initially been established at \$20 per year. A committee is also at work on a draft of rules for field use. Due to the proximity of the circle to the back patio of the museum, there will probably be noise restrictions for CL as well as RC models.

A museum exterior photo is at <http://www.sprucegoose.org/museumwillamettevalley.htm>

The RC site will be above the oak grove off to the left of the photo. Presently the CL circle is planned for the left of the building, below the oak grove.

Again, before questions are asked about what may or may not be available at this flying site, I would reiterate that many details of how this field will operate are still unknown. Decisions on these items will be with the cooperation of club members, the executive committee, and the Evergreen Museum management. Much remains undone, including flying areas, pit table, frequency board,

and other construction requirements, bylaws, field rules, usage guidelines, and incorporation details. Plus other stuff we haven't even thought of yet.

We are optimistic about the future of this club, and we welcome more participants. Most of the members thus far bring many years of modeling experience and club management expertise to this project. McMinnville is about 30 miles southwest of Portland, Ore. The Evergreen Aviation Museum is home to the Hughes Flying boat, an SR-71, numerous warbirds, a flying B-17 and Ford Trimotor, a Russian space capsule, and many other fabulous pieces.

The museum website is www.sprucegoose.org

Arlington Airport model flying demonstration

Editor's note: The modelers who fly at the Arlington, Wash., airport have developed a regular hotbed of CL activity, with lots of contests, practice sessions and demonstrations. Here is Mel Lyne's report on a flying demo done during a model show and swap meet in early April.

By Mel Lyne

The demo was cold (42 deg F), wet and windy all day. John Morrow, myself, Cayce and Mike Rule, Mike Conner, Jim Booker, Dave Pellerin, Joe Knight, Chuck Matheny, and Ron Salo participated.

Chuck had some innovative "Open D/Bat" models there having kite spars as leading edges.

We flew on and off until 3 p.m., trying to pick the lighter rain showers. Lots of demo combat matches plus solo runs.

The model show and swap meet was 98% model trains. I think we had every 70-year-old model train fan within 80 miles there. Trains of every size, even outside on the track beside us flying. The Train guys were keen to see our D/Bats. But couldn't understand why they hit the ground so often! Cayce had a serious case of gopher chasing!! Several rarely seen fliers showed up there. Bob Burdick and Adrian Barraclough, amongst others. Adrian bought a set of D/Bat equipment.

A day like that REALLY makes you appreciate warmer dry weather! We tried the regular Arlington site late in the day, but the rain got heavier. Mike Rule flew some 80s out of the back of his van but the water was into everything. Mike and Cayce practice no matter what the weather is doing. I would call them "All Weather Combat Fliers." I predict they will do well in contests this year with dedication like that. And Mike has a nice fleet of Nova Rossi .21 cu. in. 80 mph flat airfoil foamie planes with an interesting and very simple construction. A little more tweaking and I think he'll have a winner.

Later, after a long soak in a hot tub, I could once again feel my feet. Another perfect January or February flying day in the northwest, except it was April! A very topsy-turvy year for weather so far.

ON THE CONTEST TRAIL

RESULTS OF NORTHWEST CONTROL-LINE COMPETITION

Diesel Fizz (With a Nitro Twist) Combat Tournament March 29, Arlington, Wash.

By Mel Lyne

Ken Burdick sponsored and set up this very different contest, Buzz Wilson was the contest director, and Ralph Simonds helped count cuts and balloon pops.

Excellent job, guys! And the weather was sensational — no wind, no rain, just a little afternoon sun, and mild temperatures. Early in the morning, Ken had a 5-gallon hot pot of chicken-Louisiana sausage gumbo bubbling to get the combat juices going (one heck of a breakfast!). And then at 1:30 we broke for a lunch of deep-fried turkey, potato salad and chips, getting suitably stuffed. An eating fest as well as combat, balloon bust and serenading the winners. Does life get any better?

In this "different" contest, you had to fly combat AND burst a balloon on a stick at the same time. This was the "Everest" of combat events. Hitting a balloon with a tame airplane when you can carefully line up is one thing.

But doing it with a combat-trimmed plane during a match, whilst trying to keep from getting your tail shot off, trying to get "on center," and avoiding popping the wrong balloon — well, it wasn't easy by any means. But somehow 11 year-old Maria Huber managed it a couple of times! Some fliers got the wrong balloon. Many didn't get any balloons.

This was more challenging than Top Gun and Bladder Grabber put together!!

Many big dork marks beside balloon stations. Plenty of balloon-stick kindling!

We had 16 entries including five glow engine entries. The glows managed to get close to the 68 mph limit, with most diesels being slower. One glow flier had a setup that gave a rich 60mph run on the flat and a full scream going much faster in maneuvers. It was seen that this plane's performance level was substantially higher than the rest of the field.

Initially the matches were full-out combat at the start. Ken and Mel led off with a short, hectic match ending in a midair with no cuts or pops.

This gave neither flier any points. The scoring was total points for five matches, one point for a cut or correct balloon pop. And you could only score points during actual combat when your opponent was flying. So in this contest, if you wanted to win, you needed to be nice to your opponent and keep him in the air, so you could score points. Avoiding midairs was the way to go. But we still had a bunch of crunching midairs.

Milissa and Maria Huber flew well, with dad Bob pitting. Mike and Cayce Rule flew some big matches. Tom Strom, Dick Salter and Dave Pellerin flew using glows. Retread John Morrow, in his first contest in 37 years, Paul Dranfield, Robert Smith, Chuck Matheny, Preston Briggs, Jim Booker and Jeff Riechel all used diesels trying to nail those balloons and streamers. Ken Burdick and Mel Lyne used both glows and diesels for the job.

There were some classic match-ups such as the Milissa vs Cayce match. A good match with some points scored. But in this different system, no actual winner in any match. A rather different concept. The total points scored after five rounds would decide it.

Newcomer retread John Morrow flew well, gaining confidence in each match, flying quite cautiously and staying out of serious trouble. He was accidentally nailed on the glide but couldn't beg a freebie point in consolation! Dave Pellerin flew well after a 12-year hiatus from combat, using a Norvel glow in an Ironmonger. He's now got a PAW diesel to put in his Ironmongers for the upcoming D/Bat contests.

At the end of five rounds, the standings were announced. Co-winners split a case of root beer, the "Molsons" having mysteriously evaporated by this time. Second place took home a Label Maker machine, and third place took home D/Bat model plans.

All competitors, judges and helpers then sang "Three Jolly Coachmen" to the winners, led by Ken Burdick. And a grand time was had by all.

Thanks again to all who helped out, including

the "Two Ronnies" (Ron Salo and Ron Belcourt) from Canada, Buzz Wilson, Ralph Simonds, and most of all to Ken Burdick for sponsoring five rounds of "make up your mind" — try to bust a balloon (and get your tail waxed), or go for streamer cuts.

Results of the contest will count in the Northwest Overall Combat standings. Here are the results (Northwest standings points in parentheses):

1. Milissa Huber, Stanwood, Wash. (8)
Mel Lyne, Garibaldi Highlands, B.C. (8)
2. Paul Dranfield, Mission, B.C. (7.5)
Jim Booker, Arlington, Wash. (7.5)
3. John Morrow, Bellevue, Wash.
Jeff Riechel, Arlington, Wash.
4. Maria Huber, Stanwood, Wash.
Robert Smith, Roy, Wash.
Casey Rule, Black Diamond, Wash.
Mike Rule, Black Diamond, Wash.
Dave Pellerin, Kirkland, Wash.
Chuck Matheny, Arlington, Wash.
5. Preston Briggs, Seattle, Wash.
Ken Burdick, Bothell, Wash.
Tom Strom, Seattle, Wash.
6. Dick Salter, Seattle, Wash.

Vintage Diesel Combat

Arlington, WA, April 12 2003

There's a new "Big Kahuna" in D/Bat with all the "King of Combat" bragging rights until the next skirmish, and his name is "John The Giant Killer."

It was a wet northwest morning as we set up rain shelters, line check and circle lines. Most of the "usual suspects" started test flying early, and round one started with a good pursuit match with Paul Dranfield's Chilton Warlord chasing John Morrow's regular Warlord every which way in a very close match in the light drizzle. Paul prevailed 2 cuts to 1 plus air time. Dave Pellerin was in there with an Ironmonger and a Warlord and flew well against Mike Rule and Robert Smith, really finding "the groove." Chuck Matheny took on Milissa Huber with Milissa really putting on a show for the win. She was ON! Cayce Rule and Jim Booker had a go at it, but Cayce had too much ground time, giving Jim the win.

By the lunch break, the drizzle had really gotten heavy. After lunch it was plastic streamers

in heavy rain for a while. The center circle turned into slop. Cayce Rule decided to really get into the heavy rain flying in his match against Paul. First slipping in the mud, and then rolling around in it whilst flying. A real combat "mudder." Mid-afternoon the rain finally quit for good and the semifinalists were decided.

First semi had Paul against Robert Smith. Lots of action and good following, but no cuts, and a cruncher of a midair with Paul still flyable and Robert getting up after a radical tape job. Another smack-up and this time Robert's one-wing Warlord spun in on launch, giving Paul the win through to the final.

Second semi had John against Milissa in a very close match. Lots of action and John ahead 2 cuts to 1, but with more ground time. At the end of five minutes, John was 13 seconds ahead to put him in the final. He was the first person to beat Milissa, who had a string of victories up until this match.

The fly-off for 3rd-4th was Robert and Milissa. An extraordinarily close match. Plenty of action, cuts traded, and both down in "bounces." At the curfew it was cuts equal and ground times identical. It was a tie.

The final: Big, bad "John The Giant Killer" looked quietly confident. Paul was ready, having already dispatched John in the opening match of the day. The horn went and both pilots went on the attack. Paul was flying all-out, pushing hard to get the cuts staying right on John's tail. John made a mistake but Paul was too close and he took the lot, streamer and knot. Now Paul had to hide and John needed two cuts to nail the victory. John calculatingly set up his moves, timing a perfect pass for one cut. A lot of following and "open-sky" flying to gain position kept both pilots on the alert. Paul was in full evasive action mode and managed to keep John just out of reach. But John read his strategy and timed a cut across the top at just the right moment and took a small snip from Paul's streamer. And that was enough. John Morrow took the victory with a one-cut margin. His first contest win in his "comeback" after a 37-year hiatus from flying.

Robert Smith generously sponsored the event supplying prizes for this one and future D/Bat gatherings. Way to go Robert!! Maria Huber did most of the timing and cut-counting chores with Milissa and Bob Huber helping out, too. Well done everybody. Mel Lyne kept things moving along.

Mike Rule won the draw for the pot of cash, and the coveted Best Crash trophy went to Robert Smith for exceptional fortitude in "rekitting" and repairing his model twice in one match! Cash and line sets went to second and third. And the winner, John Morrow, took home a new PAW, compliments of our sponsor, Robert Smith.

In spite of the rain, I think everyone had a good time, so we'll just have to do it again with the weather a bit better. Next Vintage D/Bat contest is at the Regionals, May 23 at Albany, Ore., followed by the "Big Money" Vintage D/Bat meet June 21 at Arlington, Wash., and then a slightly faster "Open D/Bat" July 12 at Arlington, Wash. See you all there!

Here are the results (Northwest standings points in parentheses):

- | | |
|---|---------|
| 1. John Morrow , Bellevue, Wash. (9) | 4-2 |
| 2. Paul Dranfield, Mission, B.C., (8) | 4-2 |
| 3. Milissa Huber, Stanwood, Wash. (3.5) | 4.5-1.5 |
| Robert Smith, Roy, Wash. (3.5) | 2.5-2.5 |
| 5. Jim Booker , Arlington, Wash. | 2-1 |
| 6. Dave Pellerin, Kirkland, Wash. | 1-1 |
| Chuck Matheny, Arlington, Wash. | 1-3 |
| Mike Rule, Black Diamond, Wash. | 1-3 |
| 9. Cayce Rule, Black Diamond, Wash. | 0-4 |

Wind and Wings in the Desert

Vintage Stunt Championships No. 15
March 20-23, Tucson, Ariz.

By Floyd Carter, Eugene Prop Spinners

There were years at the Vintage Stunt Championships in Tucson Arizona, when the title "Wind and Wings in the Desert" would have been appropriate. The 15th annual VSC, held from 20-23 March, turned out to be just perfect in the weather category. The skies were clear, temperatures were in the high 60s, and the wind didn't show until late in the afternoon.

The VSC got started 15 years ago at Whittier Narrows Field in east Los Angeles. The third VSC moved to Tucson Arizona, where it has been hosted by the Cholla Choppers club of Tucson at the excellent CL field at Silverbell Park. This

venue features two paved circles and three grass circles. All events except OTS Ignition were flown on asphalt.

What started as a modest two-day CL event 15 years ago has grown into four days of intense model flying with all the top stunt gurus in attendance. The events flown were:

Thursday: Old Time Stunt (glow) and Old Time Stunt (spark ignition). First round.

Friday: Same as Thursday. Second round.

Saturday: Classic Stunt. First round.

Sunday: Same as Saturday. Second round.

Each entrant flew a round each day in any of the three categories featured. In OTS glow and Classic Stunt, the two flight scores were added, making any goof on any flight really hurt in the score department! (Yes, I left out a maneuver in OTS glow, as did many others). In OTS Ignition, the highest of two flight scores was the official.

We arrived at the Rodeway Inn, the official hangout for VSC, on Wednesday evening. I had barely unpacked my planes when a large group began to form around the swimming pool. Naturally, I had to say "hi" to all my friends and wash the desert dust from my throat with a cold beer (or two). The group of great friends didn't break up until it was almost too late to scout around for a place for dinner. The "pool group" was a regular feature in the evenings to follow, and included an auction of many model aircraft plans from the estate of George Aldrich.

You can only imagine the thrill of being around and talking with all the greatest and best known CL stunt pilots of this country for four days. Many former AMA champs and World champs were there. For instance, Bob Palmer, looking very healthy, attend all four days of flying. He brought his original Hurricane stunter for display. Naturally, I had to question Bob on the details of the plane, since I have already started to build one. Bob reminded me that the Hurricane is now over 40 years old. Bob and I have much in common, both of us being Lockheed retirees and having flown in many contests together in the past.

We sorely missed two of our regulars at VSC. There were somber moments remembering George Aldrich and Ed Southwick. On Sunday, Ed's beautiful Skylark was flown for its last flight before being donated to the AMA Museum. All contestants lined up to pick up the handle and lines connected to Ed's SKYLARK. Some simply wiggled the controls. Others knelt with hats off

while holding the handle and said a silent farewell to Ed and Helen. Still others simply doffed their hats in a simple salute to our good friends.

On other off-field moments, the Classic judging for appearance points was on Friday evening at the Rodeway around the pool. Approximately 70 of the most beautiful Precision Acrobatic planes in the world were displayed in one area. The cameras clicked furiously, and even my wife was impressed with the models that I could never, never expect to build with such craftsmanship!

A large and noisy banquet was held on Saturday evening. The awards for OTS were presented at the banquet (because the final results for Classic had to wait until after Sunday's flying).

Very few modelers fly at VSC to actually win! Oh sure, there are a few who want to be out front. Most flyers simply enjoy the old planes, the flying, and the people. As Mike Keville observes, the VSC may be on the "trailing edge" of technology, but it is the "leading edge" of pure fun.

Here are the results as posted on the internet. In the interest of space, only the top 4 in each event are listed.

Here are the results (Northwest fliers in boldface):

OLD-TIME STUNT (glow) (78 entries: 66 flew)

1. Bart Klapinski, Yates Madman	564.6
2. John Wright	562
3. Larry Foster, Humungous	558.5
4. Keith Trostle, Pagan (British)	545.5

CLASSIC STUNT: (79 entries: 69 flew)

1. Bill Werwage, Ares	1,1182
2. Bob Hunt, Caprice	1,106
3. Ted Fancher, Nobler	1,106
4. Keith Trostle, Bearcat	1,077

OTS IGNITION: (12 entries: 10 flew)

1. Jim Lee, Humungous, Madewell .49	274.5
2. Roy DeCamera, Wildman .60, Spitfire 65	263.75
3. Don Hutchinson, Yates Dragon, Orwick .29	260.5
4. Floyd Carter, Wildman 60, Orwick 64	253.05

SPECIAL VSC AWARDS:

Spirit of '46: Jim Ogg, Go Devil
 Spirit of '52: Jim Kraft, Dragon
 Keeper of the Flame: Floyd Carter, Wildman 60
 Concours: Roy DeCamera, Pegasus



The race begins!

The 2003 Northwest control-line competition season officially got under way with a couple of springtime Nostalgia Diesel Combat contests. From now through December, *Flying Lines* will keep track of the standings in Northwest contests. See the fine print at the end of this item for details of how the standings work.

There's a twist to the first month's standings. There were two "diesel combat" contests, but only one was run under standard Northwest rules. Therefore, only the standard-rules contest shows up in the separate Nostalgia Diesel Combat standings below, but both are counted in the Overall Combat standings. See the contest reports in this issue for details.

Contests counted to date: March 29, Arlington, Wash.; April 12, Arlington.

Following are standings for updated events:

2003 STANDINGS

NOSTALGIA DIESEL COMBAT

1. John Morrow, Bellevue, Wash.	9
2. Paul Dranfield, Mission, B.C.	8
3. Bob Smith, Roy, Wash.	3.5
Milissa Huber, Stanwood, Wash.	3.5

OVERALL COMBAT

1. Paul Dranfield	15.5
2. Milissa Huber	11.5
3. John Morrow	9
4. Mel Lyne, Garibaldi Highlands, B.C.	8
5. Jim Booker, Arlington, Wash.	7.5
6. Bob Smith	3.5

TOP JUNIOR/SENIOR CONTESTANTS

1. Milissa Huber	11.5
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Flying Lines keeps track of standings in all AMA

rulebook and Northwest official events; in all Northwest sanctioned contests.

Your *FL* editors do their best to keep up with the results, but contest directors can help keep the standings up to date by making sure to send the results to *FL* immediately after the contest. If you spot errors, please let us know.

Results must include the placing in each event through fourth place and the report also must list the number of contestants in the event, in order for the point standings to be counted accurately.

Also, please include in your report the hometown of the contestants, and note which contestants are juniors. Only Northwest residents are counted in the standings (AMA Dist. XI and British Columbia). The score of each contestant also should be listed for general reporting purposes and for checking against the Northwest records.

If you flew in a contest that doesn't appear to be counted, contact the contest director or *Flying Lines*.

Special notes: Precision aerobatics expert fliers' scores are multiplied by a factor of 1.5. When an individual is allowed more than one entry in a single event, only the highest-placing score shall be counted. Events run by nonstandard rules will be counted only in the overall standings for the category.

Send contest results, corrections and other correspondence regarding Northwest Competition Standings to John

Thompson, 2456 Quince St., Eugene, OR 97404, e-mail JohnT4051@aol.com. For a printed copy of complete standings for any event, or for a copy of the rules for any Northwest event, send a self-addressed, stamped envelope.

Open Diesel Combat rules approved by ballot

The results of the ballot published in *Flying Lines* Issue 189 approved the addition of an "open" diesel combat event into the Northwest rulebook, and selected "Option 2" as published in Issue 189.

The voter action creates a new, separate event, which is a less-restricted version of the pre-existing Nostalgia Diesel Combat.

The new event's rules take effect immediately. *Flying Lines* will begin to keep standings for the new event in addition to the standings for the pre-existing NDC event.

The official rules for the new event are below:

RULES FOR OPEN DIESEL COMBAT

1.1. Engine: Any diesel engine up to .21 c.i.d.

1.2 Only suction fuel systems are permitted.

2.1 Aircraft: Any design is permitted.

3.1 Pull test: 25 lb.

4.1 Lines shall be a minimum .015" diameter, stranded type, with a length of 52'-3" measured from the handle grip to the fuselage, plus or minus 6 inches.

5.1 Speed limit: 70 mph = 6.4 seconds/2 laps.

6.1 Number of models. One model per match.

7.1 Pit crew. Two pit crew are allowed per contestant. A contestant may start his own engine.

8.1 Officials: A contest shall be run by a circle marshal who shall be the overall timekeeper, plus one scorer per contestant.

9.1 The match: One minute for engine starting and launching. The 5-minute match clock is started as the second plane launches or at the end of the one minute, whichever comes first. The match lasts 5 minutes.

Engines must be started by hand.

9.2 Scoring: One point is deducted for each second a contestant's plane is on the ground during the 5 minute match. 50 points are awarded for each cut of their opponent's streamer or string with knot. There are no kills.

The match shall continue after a midair collision or line break. Lines may not be changed during a match.

10.1 Contest Procedure: Each contestant shall compete in 5 rounds. 2 points for a win, 1 point for a tie, 0 for a loss. The top 4 flyers will then compete in 2 semifinals and a final to determine the winner.

10.2 Combat Site: A 5 foot radius pilots circle and a concentric 65 foot radius safety circle.

Tail volume coefficients

By Pat Johnston

Al Rabe generously provided me with tapes on developing his design for his new Sea Fury based on the *Critical Mass* Reno pylon race plane. In the last tape, he included a mathematical formula for figuring the tail volume coefficient (TVC). This is an easy to use, simple formula that inspired me to look at various planes as a means of comparative evaluations. The results are illuminating.

I'll provide the formula at the end of this for those wishing to check out more planes of their own. This formula yields a figure to be used as a guide to determine just how well a particular design will "groove" in level flight. It is based on tail volume, which is largely a product of the tail area times the tail length. Simply put, the larger the tail area, and/or the longer the tail

length, the better the stability of the plane. This increased stability figure also results a tail that is more efficient in the turn. Al's preferred coefficient is just around .400. He indicates that his earlier Mustangs and Bearcats were around .360, and flew just fine. Latitudes for stunt planes range from the low .300's up over .500. Having drawn up over 50 stunt ships on ACAD, I went into the files and computed various TVC's of some of the better-known stunters. This is how they stack up, listed from the smallest TVC to the largest:

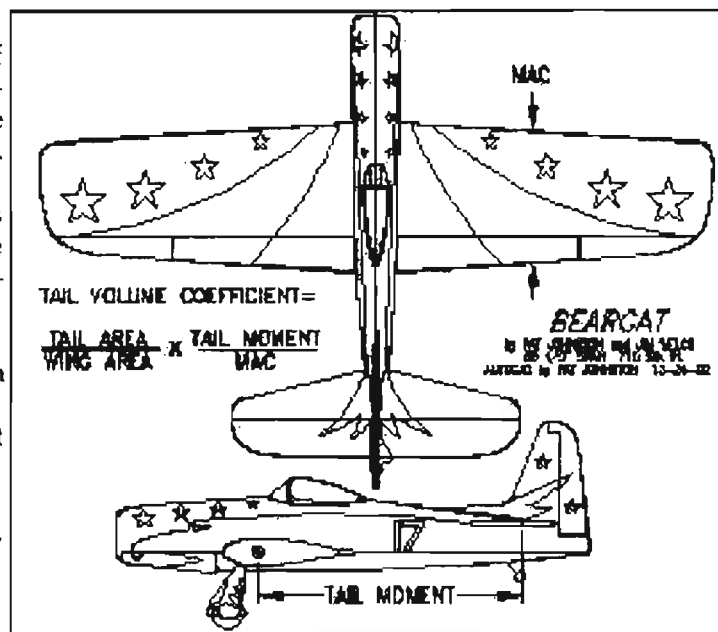
- .312 — Oriental (Dee Rice-Brodak)
- .347 — Nobler (George Aldrich-Brodak)
- .350 — Thunderbird (Bob Palmer- Brodak)
- .373 — Nakke (Juhani Kari)
- .390 — Smoothie (Bob Palmer- Brodak)
- .420 — Shark 45 (Lew McFarland-RSM)

.450- P40K & Bearcat (Pat Johnston)

.504- Impact (Paul Walker)

The above list displays a relatively large range, with some interesting points. The Oriental is one of my favorite planes, along with the Shark 45 and Nobler. Just among these three, there is quite a variance of TVC. As Al indicates, the .400 range is a good figure overall, and if it is a bit over that, you are just paying the insurance for a better groove. At the top of the list is Paul Walker's Impact at .504. What

can one say about a plane that wins repeated National and World Championships? Possibly one advantage of a large TVC is the ability to tolerate a slightly larger range of CG and still retain a good turn with good stability. In the middle range of designs are the Thunderbird, Nakke, and Smoothie. This surprised me as I considered the Palmer designs to have rather short tail mo-



ments and expected them to have lower TVC's. Their larger tail areas more than make up for the shorter tail moments. As the old saying goes, "There is more than one way to skin a cat." Personally, I think that anything from the .350 to .500 TVC is a good thing to design for, with a preference towards the .400+ figure.

Now for the formula. It is:

Tail Area divided by Wing Area, times Tail Moment divided by MAC.

The wing and tail area are obvious. These figures are calculated from the plans or actual plane, and then the simple tail volume ratio can be calculated. This figure will usually range from 16% towards 28%, with most planes in 18% to 24% range. A larger tail volume ratio produces a greater TVC.

The tail moment is the distance from the center of gravity (CG) to the center of the tail area. Please note that this is not the figure of flap hinge line to elevator hinge line used so commonly in the stunt community. That figure is tough to deal with especially if any comparison to non-flapped planes is to be meaningful. For these measurements, I used the CG to the elevator hinge line for the sake of simplicity. The relative values will all be meaningful, still. Longer tail moments yield larger TVC's.

The MAC is the Mean Aerodynamic Chord. This is the chord length out on one wing where the area towards the fuselage equals the area towards the tip. It is usually in a bit from the midpoint of the span. As the MAC increases, as in a lower aspect ratio wing, the TVC gets smaller. My old friend and flying partner, Randy Powell, has made as many high aspect ratio designs as anyone I know and I suspect that his combination of relatively small chords and longer tails produced quite an impressive TVC figure. It would be fun for Randy to resurrect his plans and do some calculations.

Flapped stunter elevators need to counteract the flaps and consequently need to have a larger TVC than non-flapped designs. This is evident when calculating the TVC for various non-flapped stunt planes. The following tabulation indicates such:

- .200 — Flite Streak (George Aldrich-Brodak)
- .250 — Magician (Midwest)
- .269 — Ringmaster (RSM)
- .284 — Cosmic Wind (Goldberg-Brodak)
- .369 — Shark 402 (Pat Johnston-Brodak)
- .392 — Jamison Special (RSM)

There is quite a range here, and it is apparent that top performing planes can handle a range of TVC from the relatively low .200 for the Flite Streak up to Sumo Wrestler Class figures of .392 for the Jamison Special. While the Flite Streak flies very well and shows that a coefficient in the .200 to .300 is 100% adequate, it can be noted that the Jamison's record as an Old Time competitor is excellent. The actual performance of any of these designs may be more dependent on the airfoil shape and thickness than the TVC. The Flite Streak, Shark 402 and Jamison Special all have relatively thick airfoils and are the top performers of this group.

What advantage is computing the TVC for your new project or design? It does provide a confi-

dence factor that the design is within reasonable ranges of normalcy. If nothing else, hedging your bet towards the larger TVC is like shooting the Cape Buffalo one last time just to make sure. That's called "paying the insurance". Let me leave you with one last thought. The full size Hellcat has a coefficient of over .600! Is it any wonder that it had a kill ratio of around 20:1? Almost sounds like a stunt plane designer worked at Grumman on the Hellcat. I hope you can use this information to your advantage. I'd like to thank Al Rabe once again for all he has given to this hobby.

Good designing, building, and flying,
Pat Johnston, 3417 W. Elk Bugle Lane. Meridian, ID 83642, (208) 887-0803

Engine review: Norvel Big Mig .049

By Gary Harris

First, I'd like to compliment John Anderson on his fine CAD drawings of this cute little 1/2-A engine.

This is an engine that I am familiar with. I've been flying a Larry Driskill "Lite Hawk" with the Norvel Big Mig attached to the front end for some time. I also have used the AME High Performance .049 which is manufactured by [Nor]thern [Vel]ocity, Ltd. The competition model comes with a large venturi opening and larger sleeve ports making it slightly harder to start and just generally more finicky. The Big Mig puts out almost the same power and RPM with fairly consistent reliability and ease of starting.

This little gem comes from the factory with a tight piston/liner fit. I am no engine expert or guru but I do know one thing about breaking in this engine. DON'T use any abrasives to speed up the process! That is a NO-NO! The piston and liner are AAN (aluminum, aluminum and nickel) and need to be real snug in order to give good performance.

If you have one of these brand-new critters that doesn't want to start right out of the box, just keep flipping. It's always easier to break in engines during the summertime but of course I find myself wanting to do it at the colder times of year. One could get the thing to loosen up a little by lib-

erally applying very thin oil to the surfaces that move and touch and then flip the prop by hand for an extended period. Help the process by heating the engine with a hair dryer or heat gun. If you have an electric starter you can get the tight little bugger to turn some revs that way. Pull off the head to let the piston move with less restriction. I have even hooked up an electric drill motor or Dremel tool to a modified prop stud to get the same effect. The idea is to get the moving parts loosened up without using any kind of lapping compound.

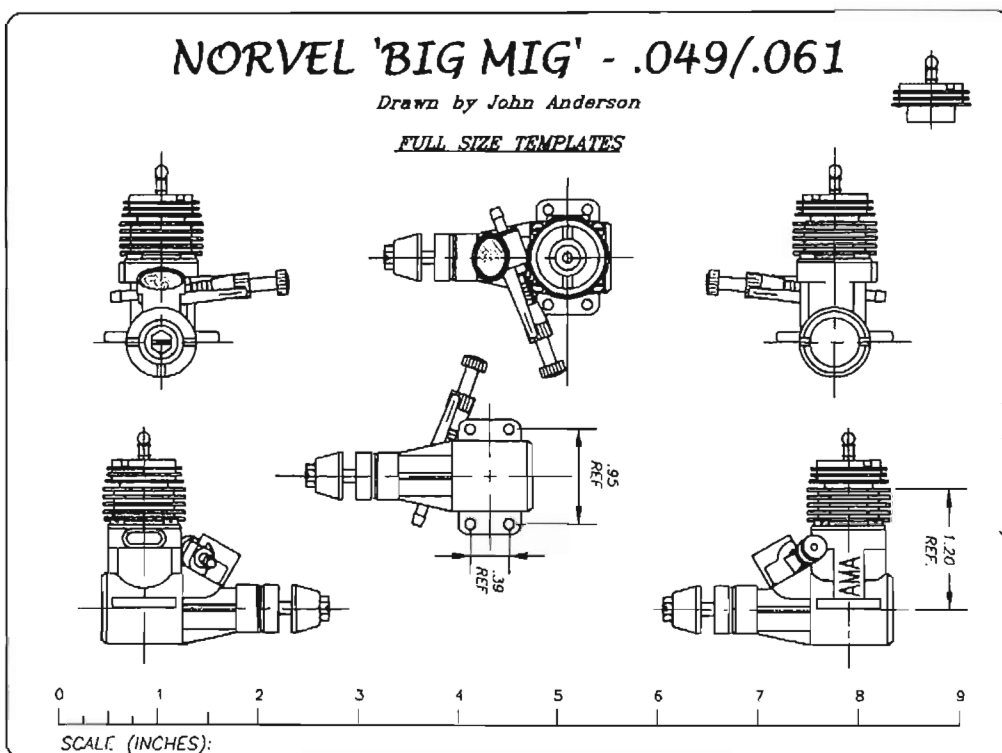
The compression head is a two piece assembly that works OK. Shims can be added or removed to aid in achieving the desired performance. Any head that will fit in a

Tee Dee. will work on the Big Mig.

Of course it's always a good idea to read the instructions that come from the factory. They seem to contain good advice and the company wants you to be satisfied. The info. sheet that I have suggests breaking in with 10-15% nitro. Then, if you want more punch, go ahead and gradually work up to 35% max. Myself, I sometimes use more nitro than 35%. Remember to go with plenty of lube. Preferably more than 20% lube and a good percentage of that should be castor oil. The crankshaft is resting directly against the case with no ball bearings so there needs to be plenty of viscosity in the vital areas of moving parts.

Should you be interested in flying a plane with a hard tank on suction you will just mount the engine and go. The venturi is set up with the right size inside diameter and NVA for that purpose. It could also be used with bladder pressure but the

factory needle valve assembly may not give as fine of an adjustment as desired. The stock unit may be OK if you don't open up the venturi. Since I want more performance, I drill out the venturi to at least 5/32" and then use a fine thread NVA such as the custom one sold by Larry Driskill at: Kitting it Together, 6806 Third, Lubbock, TX



79416, (806) 796-3747, FAX (806) 796-3747, E-Mail (kit@llano.net). He sells kits and accessories for 1/2a combat.

All the standard 1/2-A props will work. From 6X3 on down. You can sport fly with the larger props but if you have the notion of bolting one of these little screamers on a combat model then something along the line of the black plastic Cox 5X3 shortened to 4" will make you more competitive. The white Grish 5X3 cut down will also work. There are other choices such as APC and various imports of carbon fiber and/or fiberglass but these are more spendy. The Cox and the Grish are cheap, they perform and don't have to be replaced if they get driven into the ground.

Remember to use a battery that is hot enough to make that glow plug GLOW. Now, go out and have some good clean fun with the other kids.

Gary Harris can be contacted in care of Flying Lines.

Combat Cornucopia

Combat news and views by Mel Lyne

Fox Combat Engines: Keeping Them Alive (Part 3)

Put a plug in the motor and flip it over. With all the oil it should feel springy on compression and should be really free. With a new piston/cylinder start with rich runs. The first run hold the plane on the ground and play with the needle to give a rich run with short bursts of full power. This will show you how rich the motor can run on the ground. As long as the engine didn't get overly hot and it flips over nice and smooth, you're ready to fly it. The first flight should be very short in case the motor leans out a lot in the air. Every motor is a bit different in the amount it leans out in the air. So launch quite rich until you know the motor. For 80mph combat a 9x6 or 10x6 cut down to 8 1/2" gives about the right speed with the suction-venturi restrictor in the engine.

At this point, I'll describe the combat motor starting procedure in case there's someone new to Fox Combat Specials.

Your plane and engine are set up, you've got a good plug with a strong glow, the bladder is full with the pinch clip on.

Get your pitman holding the plane to roll it back over upside down so the Fox exhaust is up. Turn the prop to get the piston up, then squirt fuel into the exhaust until it is half full. Now rotate the prop to suck in the fuel. Now turn the plane back to upright. Check that your pitman has a good grip on the plane and is ready. You should both have earplugs in at this point. You can check that the needle setting is close by letting the pinch go and adjusting to get a drip from the venturi about every second.

Decide who is going to hold the pinched fuel line. It is generally easier if the person starting does that. Put on the finger protector and attach the battery clip. Hold the prop firmly and rotate it through compression.

You should feel a definite "bump." This is your indication that the motor is ready to start. If you have a "bump," rotate the prop forwards to close the exhaust coming onto compression, then

whack or flick the prop BACKWARDS. Yes backwards, away from compression. Standing in front of the plane, you will be flicking down on the right hand prop blade. It needs a smart flick or a "whack." If you've done everything right, the motor will start immediately. As soon as the engine hits full scream, let the fuel pinch go and see if it's rich or lean. Ideally you want to start it a bit rich, let it warm up, then set it for takeoff.

If you have a lot of oil in your engine, you will need several exhaust primes to get the motor to run. After it has run once, the one prime is all it needs for starting. One note of caution. Foxes start up very quickly, like full power in half a second. So make absolutely sure your pitman holding the plane is ready.

If you have a good glow at the plug and you've primed the engine, the backwards whack should start the motor every time. If it won't start, the motor is probably flooded. A common mistake is to let the fuel pinch go as soon as the motor fires. This can flood the motor. Let it hit full scream before you let the pinch go. This way it can use up excess fuel in the case. Some motors rich right out at the end of the bladder and stop, without burning off the fuel in the case. If you have one of these motors, then you don't need a prime for the next start. Also, if your engine is hot, like after a shutoff check, any prime you give it will quickly evaporate. So if you want a fast start with a hot motor, put in a good prime just before you are to start. If you wait 30 seconds, the prime is gone.

... to be continued in Part 4

Mel Lyne can be contacted in care of Flying Lines.

Catastrophe looms!

What's the worst thing that could happen? Your *Flying Lines* subscription could expire! No. 190 is the last issue for:

Jimmie Banks, Jim Cameron, Don Chandler, Chris Cox, Fred Cranenwett, Eugene Toy & Hobby, Al Fleckenstein, Dave Green, Bob Huber, Bruce Hunt, Preston Husted, Larry Hyder, Richard Kulaas, Fred Margarido, Jack Pitcher, Tom Strom

SPEED RULES NEWS

By Mike Hazel, District XI CLSCB member

The CL Speed Contest Board had nine rules proposals to vote on recently. This was the initial vote, which is just one of the steps along the way in the contest board procedure to implement new rules and changes.

Following are the results of the CLSCB vote, with the proposal just briefly explained. There must be a 60% majority for a proposal to pass.

CLS 05-01 (Raise the displacement limit for 1/2 A speed engines to .061) 2-Yes, 7-No (FAIL)

CLS 05-02 (Clarify rudder rule for .21 proto speed) 5-Yes, 4-No (FAIL)

CLS 05-03 (Usage of standard 10% nitro fuel for 1/2 A speed events) 7-Yes, 2-No (PASS)

CLS 05-04 (Change Jet speed fuel to 80/20 methanol / nitro mix) 3-Yes, 6-No (FAIL)

CLS 05-05 (Make .21 Proto an official event) 9-Yes, 0-No (PASS)

CLS 05-06 (Make provision to lower pull test specs in certain circumstances) 5-Yes, 4-No (FAIL)

CLS 05-07 (Adjust line sizes in 1/2 A Speed to reduce drag differential between one-wire and two-wire control systems) 5-Yes, 4-No (FAIL)

CLS 05-08 (Require use of 1/100 second stopwatches for timing) 8-Yes, 1-No (PASS)

CLS 05-09 (Standardize all classes to one maximum flying height) 8-Yes, 1-No (PASS)

The next step in the three-year rule cycle process calls for any cross proposals to be submitted on acted upon. Then a final vote will take place in 2004. Proposals that pass will then become part of the year 2005-2007 rulebook. Please consult your AMA rulebook for more details, as the complete rules cycle calendar is in there.

All of the other contest boards are on the same schedule, and the results will be listed in Model Aviation magazine.

RACING RULES NEWS

By John Thompson, District XI CLRCB member

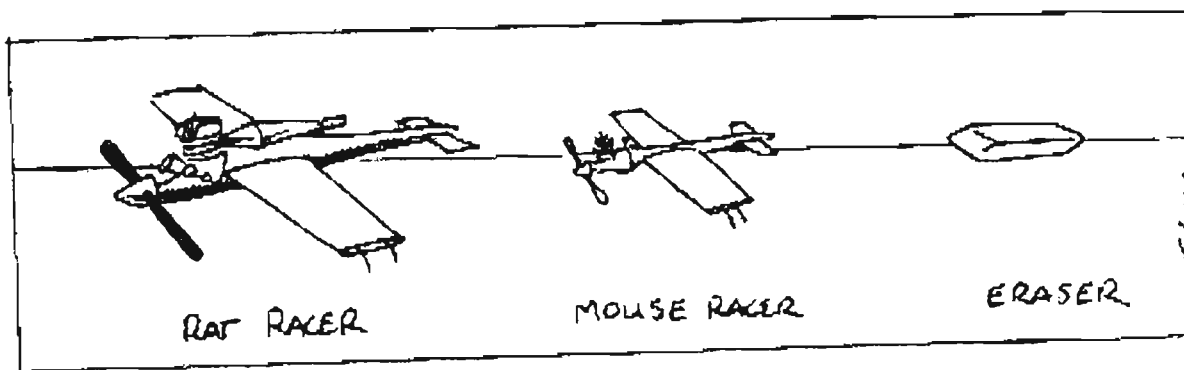
The CL Racing Contest Board had only two proposals to vote on in the initial cycle. One passed and one failed.

CLR 05-1 (Make Class II Mouse Race an official event) 9-Yes, 0-No (PASS)

CLR 05-2 (Raise Slow Rat engine displacement limit from .3600 to .3661). 5-Yes, 4-No. (FAIL)

Help! Help! Help!

The Northwest's biggest contest, The Regionals, is almost here. Workers are needed for all kinds of chores: Field setup, field cleanup, officials to assist in racing, combat, stunt, carrier, scale and speed, registration workers, and all kinds of general helpers. **No experience necessary!** If you can help, contact the *Flying Lines* editor, and we'll make sure you have a job to do!



And then something went terribly wrong ...

By Ken Burdick

This sort of thing happens when Jeff, Buzz and I get together.

It started out quietly and low key, Jeff and I had been toying with the idea of improving on an F2D and fast combat design using Lee Liddle-type construction, so we planned to work in his shop that weekend.

I started Friday making tools to cut foam on Jeff's cutter and all the notes and stuff in making a new foam core. I tried to document the entire procedure and was writing as much as sanding, but eventually I had created the germ of what looked to me as a good effort for an F2D.

Sunday: I was pretty tired of working on it but it, but had a nice Wakkerrman 111 weighing in at 6-1/2 oz. uncovered. Pretty close to the real thing. Buzz called me Sunday morning before I went to the shop and suggested we go fly — the weather was OK so we decided to meet at the flying field about 1:00. I went to the shop and finished a detail — made a few notes, packed the stuff and of to Arlington we went.

The trip up there got us talking about a new shutoff design and things were clicking, soon we had the germ of yet another project to work on — nothing looming on the horizon as far as we knew — no dark clouds or diesels in the trunk. Later on Buzz claimed that it was the Mambo sock hat I have — “when you wear it stuff happens” — Like the Morgan Hills contest last spring — and the whale in the R.O.W event at the regionals— you know — stuff ...

Here is the latest installment of “stuff”:

A funny thing happened to me the other day, flying combat — thank god you or anyone else wasn't there — 'cept me, Jeff and a guy named Buzz...

I was flying F2D combat with Jeff Rein. He is very good, and we were having our third match — like the other two it was a barn burner — dead nuts even in points. I had just scored a one-up point on him when he got it back — remember that these things use the prop to cut the streamer not the wing. I put a real high speed fake on him and as usual and he didn't buy it. Right there on my tail and not to be shaken off, he gets the point back — BUT — cuts off my elevator in the process!



Combat tends to bring fliers together — in more ways than one. Ken Burdick (left) and Jeff Rein enjoy a moment of togetherness. (Buzz Wilson photo)

I now have no control and it's screaming around the circle about 10 feet off the deck. “whew I thought — at least it's not wrecked, I'll just fly this sucker out.”

What I didn't know is Jeff's engine had stopped and his plane was floating around up there — me not being able to do anything but turn, got a wrap of his lines around the both of us.

The wrap was high across my shoulder and neck so his plane must have been gliding in when I caught the lines. In most cases you can just step out of this sort of thing as we have all done many times.

(We were wearing a safety strap from the handle to our wrist) and each is thinking the

other should act first — "Take the fricking thing off!" I shout, "We're getting wrapped!!!"

"DO loops!" he yells. "Can't — no control!" as my upper arm is tied to my side (the lines are now two times around us)

"Now what do we do?" I say. "I dunno," he sez and the lines tighten another turn around us. I could still turn and the thought of really being tied up was still not a possibility in my rapidly changing mind — I was sure we could wiggle out of it somehow — the lines have now made about six turns around us.

The harder we tried to get out the worse it got and I could feel the steel cable getting tighter around us — and when we felt the lines tying up our feet it became all too real.

"BUZZ — GET THE DIKES!!!" "Cut this off quick!" — but Buzz was laughing too hard to help and later claimed the low flying wing was too dangerous to risk, so he thought he'd just see how this thing played out.

Soooooo — as the lines wrapped us up mummy style Jeff noticed his wing bumping nosily towards us — it was about 6 feet away when he said, "It's gonna trip us if it gets around our feet!!" I looked down and could see the red and clear menace coming closer.

By now we were bound tightly at the ankles and could hardly turn in a circle as the engine on my wing kicked into high gear — I needed to ditch it.

I pulled down on the lines and was able to pancake in but now my flying hand was wrapped to my side from having it low. The wire is .015 steel like used on downriggers — we couldn't move — we were in a steel cocoon. The laughter continued from Buzz — it seemed louder somehow — yes, I'm sure of it now — it was louder.

Buzz had retrieved my digital camera out of the car and was taking pictures — not helping to cut us loose — but taking pictures! — We could hardly stand and balance was becoming a shared problem.

One of us started to laugh making this tower of babble tippy — I pulled back to help and it didn't — we fell over like a tree in the woods — Buzz took more pictures.

Finally he got the wire cutters and cut us loose....we decided that was enough fun for one day thereafter.

Somehow I blame Buzz.



ZOOT ZOOMER
SEZ.

"FAST IS COOL!"

Zoot's Mixture

Yo Dudes! Hey, do you ever get tired of hearing overused phrases or words? (like, maybe "dude"?) One of those words that gets really tiresome is "extreme." Yeh, first we had extreme sports that involve youngsters behaving in "edgy" ways with thumping music. And now, of course, with anything semi-trendy the marketing moguls get on with it, so next comes the "extreme" car deals, "extreme" fashion, and even "extreme" hamburgers, etc. etc. etc. (extreme etc.'s).

But then again, maybe there's room for extreme in the control line world. Here's what I'm talking about (yesh, there's another one). The latest move to put .15 size engines in Rat Race is definitely the wrong direction. What we need is "Extreme Rat," and use .60 size engines! Put them on 70-foot wires and fly three-up!

And what about Combat? This event seems to attract a certain element that would appreciate "kicking it up a notch or two." Forget about any thoughts of over-regulation. Extreme Combat would pit two competitors together in the center of the circle where perhaps the flying is only a secondary consideration. Use your imagination here! (Don't bring a knife to a gunfight! Ha! Ha!)

And then there is the Aerobatics group of fliers, who in my estimation have the greatest need to go extreme. (Actually, that doesn't make much sense, some of them are already extreme, but in different ways). Extreme Stunt could involve such things as limbo maneuvers, flying to a real groovy soundtrack, and my personal favorite — pyrotechnics!

And now we go to one of CL's unique events — Carrier. This one is definitely a no-brainer and involves doing what has been joked about for years. Extreme Carrier would put the planes flying over Real Water! Maybe some simulated (or real!) enemy weapons firing would also spice things up a bit.

I could go on, but suspect that if I do some extreme measures may take place ...

And now on to something else completely worthless. Taking a look at the recent Speed Board vote on rules proposals caused ZZ to scratch his head on one of them. Said proposal was to require use of 1/100 second stopwatches to time planes. Although this proposal passed, one board member voted against it. OK, what I want to know is where you even find a stopwatch that isn't in 1/100 second increments!

OK, maybe here's something actually useful. Recently received a sample of racing wheels built by Marc Warwashana. These are patterned after the old "Don's" style wheels. They have a substantial metal hub and unlike some other earlier copies, these have a good hard tire. In fact, one guy testing them said they should last almost forever. Sizes go from 1-1/4 to 2-1/4 inch diameter with 1/4 inch steps along the way. For price list write to: Marc Warwashana, 11577 North Shore Drive, Whitmore Lake, MI 48189.

All for now dudes!

Zoot Zoomer can be contacted by mail at 1073 Windemere Drive N.W., Salem, OR 97304, or by e-mail at ZZCLSpeed@aol.com

The Real 'Dirt'

Some tight lines from the bad boy of CL flying, "Dirty Dan" Rutherford

Nylon Blind Nuts

No, not for mounting engines — we still need metal pieces here. But for virtually all other places where one would first think of using blind nuts in mounting cowls, tanks, hatches, landing gear and so on there are better materials and techniques.

For several years I have been using the inner rod (tube) from those ubiquitous tube-in-a-tube push rod sets so popular with the RC guys. (Look for "Gold-N-Rod" from Sullivan Products.) Available in sizes that accept 2-56 or 4-40 fasteners, a huge supply can be had in buying just one pushrod set of each size. Or begging scraps from your RC buddy, there being lots of waste in most push rod installations.

The basic technique is to set in place, for ex-

ample, a hatch, drilling through this piece and into supporting structure with a pilot drill. A short piece of nylon tubing is then installed in supporting structure. Done deal ...

Okay, that was too brief. How about a top block that also serves as a tank hatch? Such as the unit on my '98 Smoothie. In the corners of the tank compartment triangular pieces of 1/2" hard balsa were securely glued. The top block, shaped to match the fuselage sides, was still flat on the top and bottom. The location of the triangular pieces in tank compartment were transferred to the top of this block. Using a drill guide to keep everything straight I drilled through top block and into the triangular pieces at all four corners and with a pilot drill of 3/32" diameter.

With block removed the holes in the triangular pieces were drilled to accept 2-56 size rod. Either epoxy or CA works to secure short lengths of the rod. Do be sure to rough up the rod to ensure a good bond. The triangular pieces were then cut to a nice radius with a sanding drum on a Dremel tool.

Short lengths of brass tubing were then installed in the top block so the screw heads would have something other than soft balsa to press upon. The block was installed on the fuselage with 2-56 cap head machine screws and carved to shape. Light, reliable and easy. (I have since gone to pieces of 1/8" ply inlaid at the corners of hatches instead of the tubing.)

This pushrod material, along with the basic technique, are one of those deals where once you use both just one time there will be a bunch of applications coming to mind. A couple blind nuts common to the bolts attaching the landing gear to my Impact came loose, I replaced them with rod that accepts 4-40 screws. In replacing the tank on my Firecat short lengths of the larger rod were glued into the profile fuselage. Threaded (on one end only) rod was then bent into a hook, screwed into the rod.

If any of this is unclear, next time you see me with model in hand, ask to see examples of replacing metal blind nuts with chunks of Gold-N-Rod.

You're a link in the chain!

Flying Lines is a network of CL modelers helping one another. You are part of the network. Contribute articles, photos, contest and club news, technical tips, favorite plane and unsung heroes items. Share your wealth of knowledge!

The ultimate model — a full-scale replica of the Wright Flyer

This article was recently distributed by The Associated Press.

ARLINGTON, Va. — Despite the technological advances of aviation in the past century, flight enthusiasts have returned to the basics to celebrate the greatest creation of the Wright brothers.

A replica of the Wright Flyer used to take the historic Dec. 17, 1903, flight over the North Carolina sand dunes near Kitty Hawk was unveiled recently at Washington's Reagan National Airport.

The 605-pound, 7-foot-tall airplane, built primarily of wood, steel and muslin, will sail the exact path of its prototype later this year to commemorate the 100th anniversary of flight.

"The event needed to be so special that everybody from the most jaded traveler to the experienced pilot would feel pride and goose bumps," said Tom Poberezny, president of the Experimental Aircraft Association and U.S. Centennial of Flight commissioner. "This centennial is perhaps our greatest opportunity to rekindle a fascination and appreciation for flight and what it contributes to our society."

The handbuilt Flyer replica boasts a 40-foot-wingspan and a 12-horsepower, 4-cylinder engine. It will tour the nation before making its first flight Dec. 17 in Kill Devil Hills, just south of Kitty Hawk, N.C.

"Today, one of my dreams has become a reality," said Ken Hyde, a retired commercial airline pilot and founder of The Wright Experience, the organization that built the Flyer replica.

Hyde said rebuilding the plane has been a dream of his for more than a decade. The reproduction features details faithful to the original and was made without any modern alterations, a difficult task since many of the tools used by Orville and Wilbur Wright no longer exist. The Wright Brothers also often worked in secrecy, leaving behind few blueprints or other types of instruction.

"You will find no books, no detailed drawings of what this airplane should look like, no

manuals to adjust the engine, or how tight to torque the propellers," Hyde said.

"This effort is the ultimate reverse engineering job with one major catch — we had to ignore what we have learned over the past 100 years. We could make no corrections to their work, we had to learn to accept their design flaws and embrace their thinking, even though today we know ... there are many more efficient ways to accomplish the same thing."

Amanda Wright Lane, the great-grandniece of the Wrights, called the plane "the work of kindred spirits."

She said she and her brother, Stephen Wright, have been reading everything possible to learn about the historical background of their famous ancestors since many of the stories they heard while growing up were about their uncles' penchant for pranks and their curious nature.

Lane, 49, said she and her brother and their families will be at Kill Devil Hills for the commemorative flight this December.

"It will be magic," she said. "When the Flyer finally leaves the track, a 100-year-old photo will come to life, reminding us all of the best in mankind and the brightest in kindred spirits."

More information is available on the internet at these sites:

- The Experimental Aircraft Association:
<http://www.eaa.org>
- Schedule of Flyer's touring pavilion:
<http://www.countdowntokittyhawk.com>
- The Wright Experience:
<http://www.wrightexperience.com>

Air Mail: Letters from FL readers

Dear Flying Lines:

I keep cutting my finger when I flip the prop on my new plane. I tried a chicken stick, but it kept breaking. It was a "Chicken Tender" from McDonald's. What did I do wrong?

— *Ratso Magoo*

Dear Ratso:

Your problem is that you used the wrong brand of chicken stick. Try KFC's drumsticks, and specify "extra crispy." They work much better.

We've also had some good luck batting the prop with a Franklin batting glove, available at most sporting good stores in left-handed or right-handed models.

Some fliers report success with electric starters, but we find it a bit unwieldy trying to hit the prop when swinging such a large object.

— *FL advice editor*

Letters to the editor from FL readers are welcomed.

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