News of Northwest Control-Line Model Aviation

# Flying Lines

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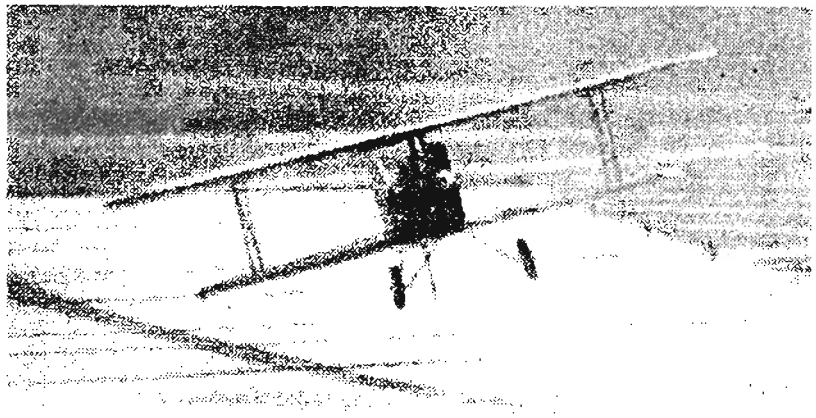
# Are you ready for 2001?



Mike Potter's biplane comes in for a 100-point landing on the Skyraiders' deck at the Raider Roundup. *John Thompson photo*

Better tell Hal, your Space Odyssey computer, that it's time to get your planes built, your engines tuned, your lines cut and your props balanced for blast-off into the new millennium when it *really* starts on Jan. 1. Don't look now, but it's only a little over two months away!

Maybe with the approach of the new year, new century, new flying season, it's time to give some thought to the state of CL flying in the Pacific Northwest.

Is your favorite event in the good, healthy condition you'd like? If not, what can you do about it? (Yes, *you!* In an event as small and specialized as ours, every single participant's effort counts.)

What can we do to increase participation in your event? What can we do to improve the contest schedule and the administration of the contests themselves? What can we do to make the event more interesting to potential novices, more friendly to our neighbors in the community, safer, and more fun? We all have something to contribute.

Here are a couple of suggestions to get us all started improving the state of CL activity for 2001:

• Start searching for novice fliers. Use hobby shops, bystanders at your flying sessions, shows, demonstrations, schools, etc., to troll for people interested in the hobby. Then help these people develop as fliers and as potential competitors. If you find a flier who might be interested in competition, help them along.

• If you're not a member of your local club, join up and pitch in to help. If your favorite event needs workers at the contests, offer to take up some of the load. We can't depend forever on the kindness of a few overworked volunteers.

• Sign up everybody you know as *Flying Lines* subscribers, so that everyone is aware of activity across the region. Knowledge is power — help spread the word.

• Organizers, make contest plans early and get them in the *Flying Lines* calendar.

• Get in the workshop early and get equipment ready for 2001 — then get out and practice having fun with model airplanes!

## In this issue ...

**Round & Round**

The Control-Line modeler at large

**By John Thompson**

Modeling thought for the month:

*"A conclusion is the place where you got tired of thinking."*

— Matz's Maxim

# Vote settles dBat rules debate — finally!

It took three proposals, three ballots and nearly two years, but, finally, we have an approved set of Northwest rules for Vintage Diesel Combat.

The Mel Lyne/Paul Dranfield proposal — a refinement of the recent Canadian dBat rules — was overwhelmingly approved in a very strong vote of Northwest fliers, both north and south of the border.

Now we can get on with the real business of dBat — having fun flying those long matches that result from this slow, accessible CL combat event.

See issue No. 165 for a copy of the rules that will be in effect regionwide for 2001. As always, copies of all Northwest rules are available from the coordinator: Request them via e-mail or hard copy from *Flying Lines*. Sometime in the early half of 2001, we'll publish all Northwest rules in the annual rules issue.

**Speaking of rules**, and of promoting CL model aviation in general, the Nitroholics Racing Team has been using these long contest drives to kick around some ideas for promoting our favorite events (all of them!). Particularly, in observation of a down year for attendance in racing, one idea emerged:

We note the health of aerobatics as a draw of both old and new fliers. It appeal purely to fliers is different from that of the appeal of other events, such as the go-fast categories like racing and combat. But it has an advantage to the casual novice or potential novice that we in racing fail to take advantage of — that is that aerobatics planes draw the attention of passers-by simply because they are attractive in appearance. Putting ourselves in the place of the bystander: Which plane would we gravitate toward based on it's appearance — the battered, clear-finish, spartan design racer or the shiny, colorful gloriously decorated stunt plane?

With little effort on the part of contest management and just a little more effort on the part of racing teams, we could take a page from the successful RC pylon racing book to attract the attention of bystanders who might someday become new racers. We could do this by a slight adjustment to the rules, or simply on a contest by contest basis.

Here's the idea: We add appearance judging to the racing competition — not in a major way as is done in aerobatics, but in a subtle way as is done in pylon.

A contest would work like this: At the beginning of the day for, let's say, Northwest Sport Race, all the planes would be lined up in a row, and the officials would rank the planes, putting the prettiest at the front of the line and the others following in order.

Heat assignments would be by random draw as in old Drizzle Circuit days. As the planes move on to the circle, the official would note the appearance ranking of the planes, and adjust lap distances accordingly. Thus, the prettiest plane in a preliminary heat would go 70 laps, the next ranked would go 71 laps, the third 72 laps, and the fourth, 73 laps.

Pylon experience has shown that this subtle advantage (in pylon, the adjustment is at the start, with the planes launched about a second apart) encourages the contestants to make pretty airplanes — the type that would attract the attention of passers by.

Let's think about this — and other ideas you might come up with, and have some discussion about it this winter. Write in your ideas for publication. Maybe next spring we'll have an experimental contest and possibly a rules proposal.

**New staffer:** Howard Rush has joined the *FL* staff as official digital photographer. We hope to find ways to improve photo reproduction in the future. Contributions of photos from all fliers is welcomed!

*Send comments, questions and topics for discussion to John Thompson, 2456 Quince St., Eugene, OR 97404. E-mail JohnT4051@aol.com. World Wide Web: http://members.aol.com/JohnT4051/NorthwestCL.html.*

# ON THE CONTEST TRAIL

## Results of Northwest Control-Line Competition

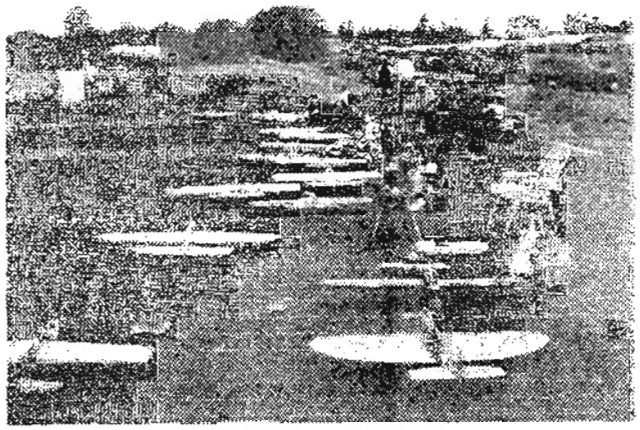
## Raider Roundup thrives at new site

Sept. 16-17, Tacoma, Wash.

**Results from Dave Gardner**

The 1999 Raider Roundup was held on September 16-17, 2000, with much lighter than usual attendance, particularly in the racing events. We couldn't get a read on the reasons for it other than a very full 2000 contest schedule. The weather was excellent for the contest, for those that missed it.

We had 35 contestants participating in all of the 17 advertised events, for a total of 66 event entries. The racing entries were particularly light, with only two entrants in each of three events. Only one showed up for Mouse, which usually has 6-10 entrants. Not the best, but certainly not the worst. This was **Steve Helmick's** first full-blown credit contest and he wore several hats keeping the action going!



**Lineup of aerobatics planes at the Raider Roundup at the Clover Park site in Tacoma.** *Howard Rush photo*

On Saturday, the weather was overcast, but moderate temperatures and wind. (No sun in the eyes!) and the clouds burned off to full sunshine about noon. Sunday was about the same ... great contest weather! Along with a short contestant list, there were no Juniors this year, since they've all turned into Seniors!

The racing events (Mouse I, Northwest Sport Race, Northwest Super Sport Race, Flying Clown Race) had only seven event entries, all-time low, over the past 6 to 7 years. Kudos to the **Nitroholics Racing Team (John Thompson/Mike Hazel)** for picking up the administration of the racing activities. They were only stretched for Clown Racing, when **Mike Havenick** and **Dave Gardner** stepped in to fill the lap-counting void.

What's happening in Racing? Any of you racing folks have any ideas? ... or is it just the low point in the racing cycle which seems to happen every so many years?

Combat was also light on attendance. Three Combat events (AMA, 80mph, Vintage Diesel) drew 16 event entries. **Jeff Rein** and the yeoman group of combat flyers ran a well-organized combat program, with only minor mayhem and no flyaways! **Max Boyd** came in late, was given a loss for the first round, then had three wins to pull off First in AMA Combat, with many eliminations! Vintage Diesel Combat was down, with only two entrants, but **Gary Harris** came up from Oregon to pick off first. 80 mph was the popular event, with eight entries. **Buzz Wilson** managed to best the field, with only one loss in five flights!

The Navy Carrier events had a fair amount of flying by the few entrants. Carrier is one of the few events allowing multiple entries (tradition at its best!), so five contestants provided 12 event entries in three events! **Shawn Parker** and **Mike Potter** co-directed the Carrier events, managing all the intricate details and scoring procedures very well. **Shawn** also managed to pick off Profile and 15 Carrier, while **Mike** took first in I/II, out of three entries!

Scale actually was reasonably well attended with three Profile and one Sport Scale entry. **Dennis Patera** did the thankless job of judging all the airplanes (and flyers!) **Chris Gomez** took first in Profile with his AM6 Zero and **Nick Stratis**

took his Great Lakes to first in Sport Scale

All the Stunt/Precision Aerobatics events were well managed by **Paul Walker** and **Bob Parker**, who stood through two days of judging and organizing the events. Steve Helmick, on the pull-tester, kept everyone's lines tight, at least at this point in the event!

Old Time Stunt had five entries. **Emil Kovac** resoundingly won the event. This year was not as close as some previous ones, with 85 points between first and fourth. Classic Stunt also had five entries, with some very nice airplanes. **Scott Riese** beat Dan Rutherford for first, by 7.5 points! Overall scoring was not that close, with fourth separated from first by 55 points.

Beginner and Intermediate were combined, flying the full pattern. We had four flyers in this event with **Mike Hazel** showing the way to first (and Advanced Class!), with a score of 413.5.

Advanced class had seven entries, and was closely fought/flown. **Alice Cotton-Royer** had her first win in this contest, beating her husband, **Dave Royer**, by 1.5 points! There were only 43 points separating first and seventh! A well-flown event, with no one out of class!

Expert had six entries, partially because of a couple of Advanced fliers moving up to Expert. This is a good sign for skill classes and levels of participation. **Howard Rush** flew his Impact to a resounding first, but there were no losers in this event, with only 43 points separating six fliers!

All in all, it was a good contest, CD'd by Dave Gardner, assisted by Steve Helmick. With this contest, Steve has rejoined the ranks of official CD's, with excellent help and response with this event.

By the way, those awards not handed out at the contest will be mailed to all the winners.

Thanks to all who assisted, participated and otherwise enjoyed an excellent Fall contest.

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

MOUSE RACE I (1 entry)

1. Nitroholics Racing Team, Oregon (1) 5:58.44

NORTHWEST SPORT RACE (2 entries)

1. Ron Howell, Hoquiam, Wash. (2) 10:44.6
2. Nitroholics Racing Team (1) 11:48.12

NORTHWEST SUPER SPORT RACE (2 entries)

1. Nitroholics Racing Team (2) 7:06.22
2. Ron Howell (1) 9 laps

FLYING CLOWN RACE (2 entries)

1. Nitroholics Racing Team (2) 241 laps
2. Ron Howell (1) 175 laps

AMA COMBAT (5 entries)

1. Max Boyd, Puyallup, Wash. (5) 3-1
2. Dick Salter, Seattle, Wash. (4) 2-2
3. John Thompson, Eugene, Ore. (3) 2-2
4. Buzz Wilson, Edmonds, Wash. (2) 1-2

VINTAGE DIESEL COMBAT (2 entries)

1. Gary Harris, Banks, Ore. (2)
2. Buzz Wilson (1)

80mph COMBAT (8 entries)

1. Buzz Wilson (8) 4-1
2. Dick Salter (7) 4-2
3. Bob Huber (6) 3-2
4. Gary Harris (5) 3-3

PROFILE CARRIER (5 entries)

1. Shawn Parker, Seattle, Wash (5) 266
2. Mike Potter, Auburn, Wash. (4) 219.7
3. Mike Potter (3) 217.4
4. Mike Hazel, Salem, Ore. (2) 199.7

.15 CARRIER (4 entries)

1. Shawn Parker (4) 218.3
2. Mike Potter (3) 200.6
3. Shawn Parker (2) 101.4
4. Chris Gomez, Auburn, Wash (1) Attempt

CLASS I/II CARRIER (3 entries)

1. Mike Potter (3) 299.8
2. Mike Hazel (2) 189.8
3. Shawn Parker (1) 75.2

PROFILE SCALE (3 entries)

1. Chris Gomez (3), AM6 Zero 155 points
2. Bill Darkow, Olympia (2), Kayaba-1 139
3. Shawn Parker (1), F6F Hellcat 127

SPORT SCALE (1 entry)

1. Nick Stratis, Auburn (1), Great Lakes 169

OLD-TIME STUNT (5 entries)

1. Emil Kovac, Issaquah, Wash. (5) 291.8
2. Scott Riese, Portland, Ore. (4) 262.8
3. Dan Rutherford, Bothell, Wash. (3) 246
4. Rich McConnell, Seattle, Wash. (2) 206.8

CLASSIC STUNT (5 entries)

1. Scott Riese (5) 508
2. Dan Rutherford (4) 500.5
3. Bruce Hunt, Salem, Ore. (3) 467.5
4. Rich McConnell (2) 454.8

INTERMEDIATE PRECISION AERO. (4 entries)

1. Mike Hazel (4) 413.5
2. Jim Johnson, Olympia,Wash. (3) 389.5
3. Ben Madsen (2) 354.5
4. David Finnie, Vancouver, B.C. (1) 269

ADVANCED PRECISION AERO. (7 entries)

| | |
|---|---|
| 1. Alice Cotton-Royer, Portland, Ore. (7) | 487 |
| 2. Dave Royer, Portland, Ore. (6) | 485.5 |
| 3. Keith Varley, Vancouver, B.C. (5) | 470.5 |
| 4. Leo Mehl, Portland, Ore. (4) | 459.5 |

EXPERT PRECISION AEROBATICS (6 entries)

| | |
|---|---|
| 1. Howard Rush, Bellevue, Wash. (9) | 529.5 |
| 2. Scott Riese (7.5) | 514 |
| 3. Lee Uberbacher, Lynnwood,Wash. (6) | 505.5 |
| 4. Jerry Eichten, Dundee, Ore. (4.5) | 497.5 |

# NW Speed Wrapup

Sept. 23, Salem, Ore.

Results from Mike Hazel

1/2 A SPEED (1 entry)

| | |
|---|---|
| 1. Ken Kortness (1) | 86.65 |

A SPEED (1 entry)

| | |
|---|---|
| 1. Ken Kortness (1) | 124.69 |

FAI SPEED (1 entry)

| | |
|---|---|
| 1. Chris Sackett (1) | 174.36 |

B SPEED (1 entry)

| | |
|---|---|
| 1. Ken Kortness (1) | 162.98 |

FORMULA 40 SPEED (1 entry)

| | |
|---|---|
| 1. Ken Kortness (1) | 154.71 |

AMA JET SPEED (4 entries)

| | |
|---|---|
| 1. Jerry Thomas (3) | 177.09 |
| 2. Dick Salter (2) | 150.32 |
| 3. Loren Howard (1) | attempt |

NW SPORT JET SPEED (3 entries)

| | |
|---|---|
| 1. Dick Salter (3) | 151.58 |
| 2. Mike Hazel (2) | 149.94 |
| 3. Loren Howard (1) | 145.93 |

# Late Carrier Results

**Results from Mike Potter**

At press time for the last issue, we had not received results from two Navy Carrier Contests — the August Tailhook meet in Tacoma and the Canadian Nationals in July. Those results have been received and will be reflected in this issue's standings update.

## CANADIAN NATIONALS

.15 CARRIER (6 entries)

| | |
|---|---|
| 1. Todd Ryan, Pasco, Wash. (6) | 238.7 |
| 2. Shawn Parker (5) | 220.4 |
| 3. James Cox, Delta, B.C. (4) | 198.8 |
| 4. Mike Potter (3) | 192.7 |

PROFILE CARRIER (6 entries)

| | |
|---|---|
| 1. Todd Ryan (6) | 288.6 |
| 2. Shawn Parker (5) | 252.6 |
| 3. Mike Potter (4) | 222.6 |
| 4. Mike Potter (3) | 218.5 |

CLASS I/II CARRIER (3 entries)

| | |
|---|---|
| 1. Todd Ryan (3) | 371.7 |
| 2. Mike Potter (2) | 309.5 |
| 3. Shawn Parker (1) | 236.9 |

## TAILHOOK

.15 CARRIER (2 entries)

| | |
|---|---|
| 1. Shawn Parker (2) | 224.9 |
| 2. John Hall, Sumner, Wash. (1) | Att. |

PROFILE CARRIER (5 entries)

| | |
|---|---|
| 1. Shawn Parker (5) | 252.8 |
| 2. Mike Potter (4) | 220.5 |
| 3. James Cox (3) | 202.8 |
| 4. Ron Howell, (2) | 121.4 |

BIPLANE CARRIER (2 entries)

| | |
|---|---|
| 1. John Hall (2) | 182.7 |
| 2. Mike Potter (1) | Att. |

CLASS I CARRIER (1 entry)

| | |
|---|---|
| 1. Jim Schneider, Livermore, Calif. | Att. |

CLASS II CARRIER (2 entries)

| | |
|---|---|
| 1. Jim Schneider | 352.9 |
| 2. Mike Potter (1) | 302.1 |


**The big event** every autumn in the Northwest is the Raider Roundup in the Puget Sound area, and it always juggles the standings considerably.

This issue's update reflects results from the Roundup, as well as the NW Speed Wrapup in Salem, Ore., and late results from the Tailhook carrier contest in August in Tacoma, Wash., and the carrier results from the Canadian Nats.

**Contests** counted to date: April 8, Surrey, B.C.; April 15-16, Portland, Ore.; April 22, Richmond,

B.C.; April 29-30, Salem, Ore.; May 13, Surrey, and Richmond, B.C.; May 26-28, Roseburg, Ore.; June 10-11, Lakewood, Wash.; June 17-18, Lakewood; June 24-25, Snohomish, Wash.; July 22-23, Redmond, Ore.; July 29-Aug. 6, Vancouver, B.C.; Aug. 26-27, Salem; Sept. 16-17, Lakewood; Sept. 23, Salem.

**Following** are standings for updated events:

## 2000 STANDINGS

**PRECISION AEROBATICS**

| | |
|---|---|
| 1. Jerry Eichten, Dundee, Ore. | 32 |
| 2. Scott Riese, Portland, Ore. | 29.5 |
| 3. Paul Walker, Kent, Wash. | 28.5 |
| 4. Howard Rush, Bellevue, Wash. | 25.5 |
| 5. Keith Varley, Vancouver, B.C. | 20 |

**CLASSIC STUNT**

| | |
|---|---|
| 1. Don McClave, Portland, Ore. | 21 |
| 2. Scott Riese | 17 |
| 3. Dan Rutherford, Bothell, Wash. | 7 |
| Bruce Hunt, Salem, Ore. | 7 |
| 5. Paul Walker | 6 |

**OLD-TIME STUNT**

| | |
|---|---|
| 1. Emil Kovac, Issaquah, Wash. | 22 |
| 2. Scott Riese | 13 |
| Mike Conner, Pitt Meadows, B.C. | 11 |
| Keith Varley | 11 |
| 5. Don McClave | 7 |
| Dan Rutherford | 7 |

**OVERALL STUNT**

| | |
|---|---|
| 1. Scott Riese | 59.5 |
| 2. Paul Walker | 34.5 |
| 3. Jerry Eichten | 32 |
| 4. Keith Varley | 31 |
| 5. Don McClave | 29.5 |
| 6. Howard Rush | 25.5 |
| 7. Emil Kovac | 22 |
| 8. Alice Cotton-Royer, Portland, Ore. | 20 |
| 9. Mike Conner | 19 |
| 10. Bruce Hunt | 18 |

**SPEED (All classes combined)**

| | |
|---|---|
| 1. Loren Howard, Vancouver, Wash. | 18.5 |
| 2. Mike Hazel, Salem, Ore. | 17 |
| 3. Dick Salter, Seattle, Wash. | 16 |
| 4. Paul Gibeault, Richmond, B.C. | 15 |
| 5. Ron Salo, B.C. | 10 |
| 6. Chuck Schuette, Vancouver, Wash. | 8 |
| Jerry Thomas, Edgewood, Wash. | 8 |
| 8. Chris Sackett, Burnaby, B.C. | 5 |
| Greg Beers, Cascade, Mont. | 5 |
| 10. Marty Higgs, B.C. | 4 |
| Ken Kortness, Spokane, Wash. | 4 |
| Craig Bartlett, Corvallis, Ore. | 4 |

**MOUSE RACE I**

| | |
|---|---|
| 1. Mac Ryan, Pasco, Wash. | 8 |
| 2. Nitroholics Racing Team, Oregon | 7 |
| 3. Paul Gibeault | 6 |
| Todd Ryan, Pasco, Wash. | 6 |
| Ken Smith, Madras, Ore. | 6 |

**NORTHWEST SPORT RACE**

| | |
|---|---|
| 1. Todd Ryan | 19 |
| Mel Lyne, Garibaldi Highlands, B.C. | 19 |
| 3. Ron Howell, Hoquiam, Wash. | 15 |
| 4. Nitroholics Racing Team, Oregon | 5 |
| 5. Ron Salo, Surrey, B.C. | 3 |

**NORTHWEST SUPER SPORT RACE**

| | |
|---|---|
| 1. Todd Ryan | 13 |
| 2. Mel Lyne | 8 |
| S&S Racing Team, Seattle | 8 |
| 4. Nitroholics Racing Team | 5 |
| 5. Ron Howell | 3 |

**FLYING CLOWN RACE**

| | |
|---|---|
| 1. Mike Conner | 20 |
| 2. Todd Ryan | 19 |
| 3. Paul Gibeault | 13 |
| 4. Nitroholics Racing Team | 9 |
| 5. Mac Ryan | 7 |
| S&S Racing Team | 7 |

**OVERALL RACING**

| | |
|---|---|
| 1. Todd Ryan | 71 |
| 2. Paul Gibeault | 38 |
| 3. Mel Lyne | 31 |
| 4. Nitroholics Racing Team | 29 |
| 5. Mike Conner | 25 |
| 6. Ron Howell | 19 |
| 7. Mac Ryan | 15 |
| S&S Racing Team | 15 |
| 9. James Cox, Delta, B.C. | 7 |
| 10. Ken Smith | 6 |

**AMA COMBAT**

| | |
|---|---|
| 1. Dick Salter, Seattle, Wash. | 11 |
| 2. Tom Strom, Seattle, Wash. | 9 |
| 3. Jeff Rein, Bothell, Wash. | 8 |
| 4. Mel Lyne | 6 |
| 5. Max Boyd, Puyallup, Wash. | 5 |

**VINTAGE DIESEL COMBAT**

| | |
|---|---|
| 1. Angelo Chies, B.C. | 19 |
| Mel Lyne | 19 |
| 3. Buzz Wilson, Edmonds,Wash. | 11.5 |
| 4. Gary Harris, Banks, Ore. | 11 |
| 5. Remy Dawson, B.C. | 10.5 |

**80MPH COMBAT**

| | |
|---|---|
| 1. Mel Lyne | 16 |
| 2. Gary Harris | 13 |
| 3. Jim Green, Bellevue, Wash. | 12 |
| 4. Jeff Rein | 10 |
| 5. Buzz Wilson | 8 |

**OVERALL COMBAT**

| | |
|---|---|
| 1. Mel Lyne | 53 |
| 2. Gary Harris | 28 |
| 3. Jeff Rein | 24 |
| 4. Buzz Wilson | 21.5 |
| 5. Angelo Chies, B.C. | 19 |
| 6. Dick Salter | 17 |
| 7. Jim Green | 16 |
| 8. Bob Smith, Roy, Wash. | 11 |
| 9. Remy Dawson | 10.5 |
| 10. John Thompson, Eugene, Ore. | 10 |

**PROFILE NAVY CARRIER**

| | |
|---|---|
| 1. Shawn Parker, Seattle, Wash. | 28 |
| 2. Mike Potter, Auburn, Wash. | 23 |
| 3. Todd Ryan | 17 |
| 4. James Cox | 4 |
| Mike Conner | 4 |

**.15 NAVY CARRIER**

| | |
|---|---|
| 1. Shawn Parker | 27 |
| 2. Todd Ryan | 15 |
| 3. Mike Potter | 10 |
| 4. James Cox | 4 |
| 5. Jim Cameron, Portland, Ore. | 2 |

**CLASS II NAVY CARRIER**

| | |
|---|---|
| 1. Mike Potter | 5 |
| 2. Roy Beers, Ariel, Wash. | 1 |

**OVERALL NAVY CARRIER**

| | |
|---|---|
| 1. Mike Potter | 51 |
| 2. Shawn Parker | 50 |
| 3. Todd Ryan | 40 |
| 4. James Cox | 8 |
| 5. Mike Hazel | 4 |
| Mike Conner | 4 |
| Roy Beers | 4 |
| 8. John Hall, Sumner, Wash. | 3 |
| 9. Ron Howell | 2 |
| Jim Cameron | 2 |
| Ted Gritzmacher, Portland, Ore. | 2 |

**SCALE (all classes combined)**

| | |
|---|---|
| 1. Chris Gomez, Auburn, Wash. | 3 |
| James Cox | 3 |
| 3. Bill Darkow, Olympia, Wash. | 2 |
| 4. Nick Stratis, Auburn, Wash. | 1 |
| Shawn Parker | 1 |
| Dave Shrum, Roseburg, Ore. | 1 |

*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 any 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.

**Remember,** only results that we receive can be counted, so send them in. If you flew in a contest that doesn't appear to be counted, contact the contest director or *FL* and let us know.

*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.*

## Where the **action** is!

Coming events in Northwest Control-Line model aviation

### Oct. 7

**Five Rounds of Nostalgia Diesel Combat,** at the field near truck customs in Surrey, B.C., corner of 176th St. and Eighth Ave. Pilots' meeting at 9:45 a.m. Contact: Mel Lyne, mlyne@alpha.sea-to-sky.net.

### Oct. 14

**Really Racing,** Salem, Ore. Site: Bill Riegel Field at Salem Airport. Mouse I, Mouse II, NW Sport Race, NW Super Sport Race, Clown Race, AMA Goodyear, AMA Slow Rat Race. Contact: John Thompson, (541) 689-5553, JohnT4051@aol.com.

### Oct. 15

**Fall Follies,** Salem, Ore. Site: Bill Riegel Field at Salem Airport. Four PAMPA classes of Precision Aerobatics. Contact: John Thompson, (541) 689-5553, JohnT4051@aol.com.

# Northwest Competition Records

Best performances established between Northwest CL modelers in sanctioned competition

**Ken Kortness** of Spokane, Wash., nipped a few seconds off a long-standing speed record at the Northwest Speed Wrapup in Salem on Sept. 23. Ken turned 154.71 mph in Formula 40, eclipsing Marty Higgs' 1994 record of 153.13. Watch out, though, Ken — we see that Marty has returned to the speed circles in recent British Columbia results! Here are the current records:

| | | | | |
|---|---|---|---|---|
| 1/2 A Speed | 110.34 | Mike Hazel | 9-06-98 | Tacoma, Wash. |
| A Speed | 176.05 | Will Naemura | 7-14-99 | Muncie, Ind. |
| B Speed | 168.47 | Ron Salo | 6-14-97 | Kent,Wash. |
| D Speed | 171.85 | Ron Salo | 5-28-00 | Roseburg, Ore. |
| Jet Speed | 196.64 | Jerry Thomas | 8-08-93 | Richmond, B.C. |
| **Formula 40 Speed** | **154.71** | **Ken Kortness** | **9/23/00** | **Salem,Ore.** |
| 21 Sport Speed | 153.78 | Loren Howard | 9-18-99 | Salem, Ore. |
| FAI Speed | 183.52 | Will Naemura | 9-19-99 | El Monte, Calif. |
| 1/2 A Profile Proto | 106.78 | Chuck Schuette | 6-20-99 | Tacoma, Wash. |
| 21 Proto Speed | 133.03 | Chris Sackett | 5-25-97 | Roseburg, Ore. |
| NW Sport Jet Speed | 153.40 | Loren Howard | 9-18-99 | Salem, Ore. |
| Mouse Race I - 50-lap | 2:17 | Stephen Cox | 8-23-97 | Salem, Ore. |
| Mouse Race I - 100-lap | 4:22 | Paul Gibeault | 7-15-99 | Muncie, Ind. |
| Mouse Race II - 75-lap | 3:00 | Todd Ryan | 7-00 | Muncie, Ind. |
| Mouse Race II - 200-lap | 8:56 | Todd Ryan | 7-00 | Muncie, Ind. |
| AMA Scale Race-70-lap | 2:53 | Todd Ryan | 7-00 | Muncie, Ind. |
| AMA Scale Race - 140-lap | 7:13 | Todd Ryan | 7-15-99 | Muncie, Ind. |
| NW Goodyear - 70-lap | 4:00 | Joe Rice | 5-22-98 | Roseburg, Ore. |
| NW Goodyear - 140-lap | 8:01 | Julie Rice | 5-27-95 | Eugene, Ore. |
| Slow Rat Race - 70-lap | 2:41 | Todd Ryan | 7-00 | Muncie, Ind. |
| Slow Rat Race - 140-lap | 5:49 | Todd Ryan | 7-16-98 | Muncie, Ind. |
| AMA Rat Race - 70-lap | 2:45 | Todd Ryan | 5-29-99 | Roseburg, Ore. |
| AMA Rat Race - 140-lap | 5:38 | Todd Ryan | 5-24-98 | Roseburg, Ore. |
| FAI Team Race 100-lap | 3:31 | Ryan/Whitney | 7-00 | Muncie, Ind. |
| FAI Team Race - 200-lap | 7:40 | Knoppi/McCollum | 6-84 | Shanghai, China |
| NW Sport Race - 70-lap | 4:00 | Bruce Duncan | 5-12-87 | Richmond, B.C. |
| NW Sport Race -140-lap | 8:22 | Todd Ryan | 7-24-99 | Richmond, B.C. |
| NW Super Sport - 70-lap | 3:14 | Dave Green | 4-13-86 | Portland, Ore. |
| NW Super Spt-140-lap | 6:38 | Todd Ryan | 5-28-00 | Roseburg, Ore. |
| Flying Clown Race, Laps: | 319 | Todd Ryan | 8-4-00 | Coquitlam, B.C. |
| Class I Carrier | 370 | Todd Ryan | 8-6-00 | Richmond, B.C. |
| Class II Carrier | 330.25 | Orin Humphries | 9-19-87 | Kent, Wash. |
| Profile Carrier | 314.00 | Todd Ryan | 5-23-97 | Roseburg, Ore. |
| .15 Carrier | 242.7 | Todd Ryan | 5-27-00 | Roseburg, Ore. |
| AMA Endurance | 39:56 | Mark Hansen | 7-12-98 | Salem, Ore. |

Records as of 9-28-2000
**New records in boldface**

# The Flying Flea Market

Classified advertisements — FREE for *FL* subscribers

**FOR SALE:** 2 Ea. Nelson 15 ABC FIRE, Exc., just back from Henry Nelson (new bearings, etc.) Used for FF and combat, U.S. $135 or both for $260; 1 Ea. Nelson 15 ABC FIRE longstack, C/W spinner, exc., low time used for GY, U.S. $130; 1 Ea. NIB Irvine .15 MK 2 GY/FF Version, P/L chromed & fitted by Dye, fitted Nelson head, large venturi & pressure backplate, U.S. $150; 1 Ea. NIB Irvine .15 MK 2 or speed, C/W spinner, P/L chromed and fitted by Dye, 4.9mm pipe stinger, U.S. $185; also many excellent Irvine .15 parts for sale: heads, shims, spinners, P/L, venturis. Write for details & prices. 1 Ea original version Cyclon .15S FAI piped speed engine, Mint cond. in orig. handmade wood box W/ plexiglass top, C/W factory pan, prop, spinner, shutoff, tank & spare parts, also C/W Doc package for collectors, U.S. $200; 1 ea. NIB Russian Cyclon .40 ABC pylon (RIRE) C/W, gorgeous 2-1/4-inch spinner, minipipe, head wrench, U.S. $275, Paul Gibeault, 54-5380 Smith Dr., Richmond, B.C. Canada V6V 2K8 Phone: (604) 525-1020 weekends.

**FOR SALE:** All props and plugs 25% off; Eugene Toy & Hobby, 32 E. 11th Ave., Eugene, OR 97401. (541) 344-2117, www.eugenetoyand hobby.com.

**WANTED:** K&B 4.9 engines and parts. Also early version of Veco Tom Tom kit. Craig Bartlett, (541) 745-2025.

**AEROBATICS INTEREST GROUP:** It is simply stunning the amount of good (and some bad!) CL-related news and views you have been missing out on for way too long now. Join the Precision Aerobatics Model Pilots Association by sending a mere $25 to Shareen Fancher, 158 Flying Cloud Isle, Foster City, CA 94404-1357. In return you will join what is by far the largest CL special-interest group, receiving what has grown into a high-zoot magazine of 128-plus pages!

**FOR SALE:** FasCal — Clear airplane covering material for either foam or open frames. It has sticky adhesive, so it's good for on-field repairs. Works with high or low heat, and can be painted. A must for combat fliers, 80¢ per lineal foot (27" wide). John Thompson, 2456 Quince St., Eugene, OR 97404. E-mail: JohnT4051@aol.com.

**FOR SALE:** Limited quantities — We have 3-oz. and 4-oz. uniflow profile tanks, the very last ever built by Taffinder as special favor. Now $9 each. J & J Sales, P.O. Box 99, Waitsburg, WA 99361.

**FOR SALE:** Kits: Sig Magnum, $50. Brodak .38 Special, $50. Brodak Fancy Pants, $50. Brodak Profile Mustang, $50. Sterling Hellcat profile, $40. Control Line Classics OTS Viking, $50. All kits new in box. O.S. Max .32 ABC, Dixon rework, never run, $100 or best offer. Gerald Schamp, 1761-12th Ave., Sweet Home, OR 97386. (541) 367-6800 after 5 p.m.

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**J & J SALES** now has three sizes of "UKEY-SPORT" CL ARFs in its new line. A new 300-sq.-in. suitable for .15 size engines. The very popular 420-sq.-in. for up to .35 engines (over 300 of this popular plane sold in past two years!) A new 500+-sq.-in. for up to .40 engines. This version has nearly full-length doublers. Give us a call at (509) 337-6489 or e-mail: ukeyman@altavista.net. Price: $50 for the .15 size, $60 for the .35 size, $70 for the .40 size. All planes shipped POSTAGE-FREE.

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

**YOUR AD HERE:** Remember, classified ads are free to *FL* subscribers, so send your ad in!

# Stunt Stuff

**Notes on Precision Aerobatics from Chris Cox**

## Flaps and Wheel Pants, Hmmm

I am seriously considering taking up competitive golf. Reason being is that I am convinced it would be much easier than STUNT! Well, maybe not, but the nuances associated with a fine flying stunt model can fill a lifetime of study and devotion.

The above said, in my never-ending quest for a great flying airplane, I have stumbled across a couple of interesting things these past few weeks. As those of you more astute individuals may have already ascertained, these pertain to flaps and wheel pants.

*Flaps* – For one reason or another my last several Defiants have had a nasty habit of what I would describe as floating across the top of square maneuvers. For example, when transitioning from vertical to the top leg of an outside loop, the aircraft appeared to be ballooning somewhat and in so doing did not give you comfortable line tension. I wouldn't go so far as to say the outboard wing tip was being thrown up (hinging) due to excessive tip weight, but at times this did appear to be the case. Less tip weight would only result in less line tension. In discussion with Ted Fancher on the subject it was felt that an addition of a tab might be in order to give additional area to the outboard flap. Also permitting the carriage of additional tip weight if required. This did in fact help so far as hinging went, but it did not prevent the floating I was experiencing.

I rationalized that perhaps the floating was not so much a tip weight issue, but rather one of too much lift overall. A quick and easy test was to reduce the flap-to-elevator ratio. I simply moved the elevator clevis up one hole closer to the pivot. The improvement was dramatic. The airplane now turned a much cleaner corner than before, not perfect mind you, but better. During the Canadian Nats both Paul Walker and Howard Rush were in Vancouver competing with their Impacts. Now, it's no secret that my airplane's borrowed heavily from the Impact in one or two areas, so Paul and I broke out the measuring tape to see where I might have gone wrong. All flaps measured 2 7/8" at the roots, but the tips were a much different story. My inboard tip measured 1-3/4" and the outboard 2", exactly as shown on my Impact plans. Both Paul's and Howard's root dimensions were the same, however, not so when it came to the tips. Both tips on Paul's airplane were 1 3/4" while Howard's were both 2"! How could this be, everyone knows the outboard flap needs to be a little wider to compensate for the loss of wing area due to a longer inboard wing panel? Paul just shrugged and said he has used both with decent results. I hate answers like that!

This put me pretty much back to square one, only with the knowledge that when I reduced the elevator/flap ratio things improved. I still felt that the reason for this was probably too much flap area overall, so I proceeded to build a new set of flaps utilizing the same roots dimension, but only 1-1/2" at both tips. Hey, if the same dimension at either tip worked for Paul and Howard, who was I to argue. Well, the results went pretty much as expected, but with a new twist thrown in to boot. After some flap tweaking and tip weight adjustment the aircraft now turned the corner with virtually no float or hinge. In addition the yaw I was experiencing had virtually disappeared. So I figure that given aircraft weight and layout I was correct in assuming I was carrying too much flap area for my particular design. As wonderful as that may sound, it gets even better! I now had improved overhead line tension! How could this be? Yet, it was unmistakable. Defiant was much happier during the top half of the vertical eight and hourglass!

Here's a theory, however flawed. Given the same airplane, but with different flaps, when flying a loop, if the radius of the loop and speed flown is the same then it should be safe to assume an equal amount of lift is being created. Now if the flaps were wider at the tips than at the root, it should be safe to assume that more of the lift is occurring at the tip. In other words the distribution of the lift along the span would be different.

A fundamental we learn when learning to fly full size airplanes is that a byproduct of lift is induced drag. If more induced drag is being experienced at the tip of the wider flapped airplane, then I would suspect that the tendency to yaw would increase should one tip create more induced drag (more lift) than the other. Also, because the wing tip is outside of the propeller thrust area, this drag would be more readily noticed. Thus a narrower flap at the tip would result in less drag and additional line tension when flying overhead. All the above probably warrants a talk with Brett Buck and may be in fact a bunch of silliness, but I can tell you the results were real. Any better ideas?

*Wheel Pants* – No question in my mind that an airplane with wheel pants are much more attractive than one without (sorry Fitz). Further, because they are streamlined in shape they must be a good thing. Oh really? Well, I'll stand by my statement that they are lovely to look at, but are they truly an aerodynamic advantage? The answer of course is yes and sometimes no. Here's how I see it.

As I did with my flap analogy, I'll start from beginning. With the newly installed flaps I was a pretty happy guy. Obviously your airplane was not always going to do what you expected, but hey, this particular airplane only had about 550 flights on it, so I could hardly expect it to be perfect, right? I had recently read Graham Swallow's article concerning the World Championships and the South African team's plight with the long grass at the practice circle. Loren Nell's airplane was having trouble with the grass due to his wheel pants hanging up, so he decided to remove them for practice. Wonder of wonder, the airplane flew much better now than with the pants! I have heard of other people who have experienced this same phenomena and other stories that related the opposite effect. Can't say I had given the above much thought before because as I alluded to earlier, airplanes with wheel pants are much prettier.

Next time out at the practice site I invested five minutes of my valuable time and removed Defiant's wheel pants. Things got very interesting. On take-off and during level flight, the outboard wing tip was riding low. Also noted during this first flight was that my line tension, both in level flight and overhead was reduced. Hmmm, must be something due to the way the wing was banked out I thought. So next flight I added 10 grams of tip weight and gave the flaps a little tweak. Yikes, the wings were now nearly level, but the wing tip was being thrown around a BB in a boxcar! Further hmmm. I reasoned I had far too much tip weight so perhaps the problem was not the tip weight but rather a flap tweak all along. To make a long story short, not only did the flaps require tweaking, but an additional 15 grams (1/2 ounce) of tip weight was removed from what I had initially. Now Defiant was flying like I had always suspected a stunt plane should fly. In essence, the profile of the airplane never changed from the one I saw in level flight. In a corner or directly overhead, it didn't matter. The float previously experienced was gone, the yaw was gone and the hinging was gone. The loss of line tension was simply corrected by adding 10 grams of nose weight. I initially tried moving the leadouts forward and back to correct this, but felt the added nose weight gave the best feel. Line tension overhead was felt to be identical to that in level flight (probably not possible in reality). Bring on the wind I thought to myself.

Here's my theory on what happened, again, however flawed. The wheel pants are essentially a symmetrical airfoil. When the aircraft is flying tangent to the circle, these pants are seeing a positive angle of attack. As with our symmetrical wing airfoils, a positive angle of attack produces lift. Thus explaining the loss of line tension when the wheel pants were removed, but something far worse than this is where the lift was being created. Five inches below the wing centerline! Flap tweaks and tip weight were trying to control this moment, but because you were trying to compensate an induced moment by simply pushing back, any drop in airspeed would lessen the lift created by the wheel pants and thus the flap tweak and tip weight would overcompensate. Can you say hinge, yaw and float all at once?

Something to consider here is obviously fuselage area above the wing center line. On the Defiant, I utilize a very low turtle deck which flairs into the canopy, slightly ahead of the flap hinge line. It should also be noted that the canopy of the Impact is considerably ahead of Defiant's. In other words, I have very little area above the wing. If I utilized a larger canopy such as the one found on a Saturn or one of the Ukrainian designs, then I suspect the added lift of the wheel pants

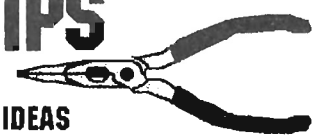
plus the lift created by the canopy would compensate for each other, thus giving even more line tension! To prove this point further, Jerry Eichten recently tried flying his airplane (Buccaneer 780?) without wheel pants. He found it flew worse, no doubt due to the lift being created by the bubble canopy no longer being offset by the wheel pant lift.

On top of all this, perhaps the nasty yaw I have been experiencing the past few years is because my canopy is located much further back of the fuselage than the wheel pants. Another moment is being created through the vertical axis, producing yaw whenever fluctuations in airspeed are introduced. As I stated at the beginning of this article, hmmm?

Comments? Be kind, these are only theories.

*Send comments to Chris Cox, 11693 72A Ave., Delta, B.C., Canada V4C 1B3. E-mail ccox@direct.ca*

## SHOP TIPS



**CLEVER BUILDING IDEAS FROM *FLYING LINES* READERS**

Buzz Wilson of Edmonds, Wash, a combat and emerging aerobatics fliers, deserves the credit for this new, hopefully regular *Flying Lines* feature. Buzz suggested a column in which readers could offer their clever ideas for acquiring useful tools and materials, and making use of them. The first suggestions come from Buzz...

• A great small parts tool holder can be obtained from our favorite gun enthusiast. The plastic bullet holders are great for holding small tools on the workbench.

• Don't throw away the foam packing when you buy your next piece of computer equipment. It may just be a perfect holder for a stunt plane for sanding, especially with a little modification. The pockets are a great place for placing the sanding blocks so that they don't ding the airplane.

*Do you have your own favorite new tool or technique? Send it to* Flying Lines *for publication in* Shop Tips.

# Combat fliers search for the foolproof shutoff

Since the application of shutoffs to the faster combat events (AMA, 80mph, slow), many potentially dangerous flyaway situations have been avoided. However, shutoff technology has not yet produced shutoffs in large numbers that reliably shut off a loose plane in every situation. As a result, there is still the occasional flyaway. Combat fliers have continued to examine the shutoffs in use and to come up with new ideas to continually improve the safety of the competition for both fliers and bystanders.

Recently, two Northwest combat fliers have been doing some testing and analysis, and have reported their results:

## Calibrating shutoffs for reliability

**By Jeff Rein**

I have been using shutoffs for over nine years now and have tried most of them. At the Bladder Grabber this year there were four flyaways, three of which I will comment on.

The only shutoff that worked was the Mejzlik swing-arm on Howard Rush's plane. The problem with the swing-arm is that it has a tendency to shut off prematurely at the launch or in the air while the plane is maneuvering. This happened to Howard several times during the contest. A seemingly quick remedy to solve the problem is to add weight to the end of the arm. This works great to solve the premature shutoff problems, but unfortunately it renders the device useless as a flyaway shutoff device, because the spring cannot overcome the added weight with the high G forces the plane exerts during a flyaway. If you still plan on using the swing arm, do not add extra weight.

The new line-tension shutoffs by Mejzlik looked to be the answer, but two of them failed at the Bladder Grabber this year, and I would like to address the failures, and solutions to the problems.

First of all, Bob Burch's plane flew away with the lines without any sign of shutting down. Upon inspection, we found no damage to the shutoff. I did some testing in my shop late and this is

what I found:

I put a bladder through the shutoff filled with air, and the shutoff kept the air from leaking by. Next I tied a plastic cup on the end of the arm where the bridle would hook up. I started to add weight just until the bladder started to pass air through the shutoff. Then I weighed the cup with weights and found it to be 2 ounces. Next I weighed a set of .018" lines and found them to weigh the same, 2 ounces. There is no mystery here why Bob's plane did not shut off.

The wire that Mejzlik uses is .047". I replaced it with one that I made out of .062" wire, and repeated my test with the weights. This time the bladder started to pass air when 11 ounces of weight was added to the wire, 5-1/2 times the force. Next I test flew and found that the heaver wire had no poor characteristics during launch or flight, but the first time I came in for a landing, I found that I lost control of the elevator at about 10 mph. On the second landing I found that this was easily remedied by keeping the plane low and level, and taking a step back to keep the lines tight. Will this modification work flawlessly during a flyaway? I don't know, but I feel it has a 5-1/2 times better chance of working than an unmodified shutoff. I have modified all of mine, and it takes about 10 minutes. Here is what to do:

Loosen the screw and remove the old wire. Use a 1/16" drill to expand the existing hole. Put a 16-penny nail in the vise and wrap the new 1/16" wire around it to make the coil. Now copy the rest of the wire length and loop off of the original wire and install. That's it.

I caused the other line-tension shutoff failure. Ten-pound fishing line is recommended for the bridle, but I didn't have any, so I used what I had available in my shop, which was 125-pound-test string that I use for the trailing edges on my planes. When my plane collided with another, my line broke at the bellcrank, putting the full load on the bridle, which deformed the coil and rendered it useless.

To conclude: If you use the Mejzlik line-tension shutoff, replace the wire with .062" wire and use 10-12-lb. fishing line for the bridle, or the equivalent. Also, the remote needle bracket needs to be doubled in width to prevent breakage. I have broken three already.

## Shutoffs and Line Drag

**By Buzz Wilson**

In last month's MACA newsletter, Bill Maywald mentioned that the shut-off wars rage on with the true test being whether it will function when dragging a full set of lines, which have been severed near the handle.

At the Bladder Grabber, there were a couple of flyaways where the Mejzlik/Glenn shutoffs did not shut the engine down. One of these belonged to Jeff Rein. Jeff began to do some experimenting and his article is in this issue. I told Jeff I would look at the problem and see if I could calculate the force to activate the spring. It is not a simple problem; there is a lot going on during a flyaway.

In the flyaways where the shutoff did not function properly, lines were being dragged. If we look at the lines as being the culprit, then what force are they applying? To calculate this you need to consider the speed of the plane, the length of lines being dragged, the relative position of the lines to the air stream, and the static weight of the lines.

A set of .018 lines without the handle weighs 2 ounces. Jeff's work shows that with his modification that a force greater than 11 ounces will cause the shutoff to remain open.

To calculate drag using the drag equation we need the drag coefficient. The drag coefficient for braided steel cable as published in Horner is 1.17.

Going through the math the chart on Page 14 shows the force in ounces generated for a range of speeds and line lengths exposed to the air stream. It assumes level flight.

From the chart, you can see the faster you go and the more lines you drag the less likely the shutoff is to activate. However, in the speed range just after a cut away, the heavier wire should shut the engine down.

## Further notes on shutoff performance

**By John Thompson**

In addition to the above research by Jeff and Buzz, I would add a few notes about matters which appear to me to affect shutoff performance.

• **Trip wire drag:**

Lines dragging behind the airplane, as in the scenarios above, may not be the only factor affecting performance of the line-tension style shutoffs. A simple test shows this: Pull the lines back from the wingtip, as if the plane was flying, dragging

the lines behind, and observe the shutoff arm position. It may actually be in the shut off position — because pulling the lines *back* does not pull them *out* — in a way that would pull the arm open. Now, pull back on the trip wire (the wire from the shutoff to the leadouts, and see what happens: Pulling the trip wire back — as would the airflow from the plane in flight — may in fact open the shutoff! From this I conclude that a major factor in flyaway shutoff failures may be the wind on the trip wire.

Therefore, we need to address the issue of trip wire drag. One thing I have tried is to go to a one-wire trip, rather than a two-wire. I make a simple harness at the leadout end and attach the one wire with a tiny line clip. I don't know how effective this is but it should reduce the trip wire's drag. Another possibility is routing the trip wire through the wing. I have not yet tried this.

• **Spring tension:**

I think both line drag and trip wire drag issues can be dealt with at least in part by increased spring tension, as mentioned by Jeff above. Heavier wire in the shutoff should do the trick.

• **Adjustment:**

All shutoffs of all types require regular maintenance. They should be tested before every contest to make sure they will indeed shut off the fuel flow if activated.

Spring tension is a particularly variable factor. In the line-tension shutoffs from Mejzlik, I've noticed that the spring tension reduces over time. You can adjust it simply by using a needle-nosed pliers to get in the body of the shutoff and twist the wire in the correct direction.

I have a Cartier-style tension shutoff built from stout 1/16" wire, which I thought was pretty foolproof. However, at the Raider Roundup I discovered in testing that it had lost tension from storage with silicone tubing kept inside the shutoff. I had to take the tubing out and do some bending to restore the tension. A good tip would be to store the shutoffs without tubing in them, so that the springs are not constantly under tension.

• **Swing-arm active range:**

Similarly to the trip-wire drag above, it has been observed that the swing-arm-style shutoffs are affected by airflow at speed. The arm, when at rest facing out into the air flow, is kept back (and the shutoff open) by the centrifugal force *and by the air flow.*

If the plane is cut away, the centrifugal force should disappear and the shutoff function. But *the air flow does not disappear* and the wind may keep the swing arm back and the shutoff open.

This can be prevented by bending the swing arm so that its active range is across the centerline of the fuselage, rather than out to the outboard side. If the arm is facing toward the tail at rest and toward the inboard side in flight, the air flow will not affect its movement so much when the plane is cut away, and the shutoff is much more likely to function properly.

| | Line Length (Ft) | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | 60 | 55 | 50 | 45 | 40 | 35 | 30 | |
| Speed (MPH) | Line Drag Ounces | Ounces | Ounces | Ounces | Ounces | Ounces | Ounces | |
| 80 | *7.52* | *6.89* | *6.26* | *5.64* | *5.01* | *4.38* | *3.76* | |
| 90 | *9.51* | *8.72* | *7.93* | *7.13* | *6.34* | *5.55* | *4.76* | |
| 100 | *11.74* | *10.76* | *9.79* | *8.81* | *7.83* | *6.85* | *5.87* | ***Works*** |
| 110 | 14.21 | 13.02 | *11.84* | ***10.66*** | ***9.47*** | ***8.29*** | ***7.10*** | |
| 120 | 16.91 | 15.50 | 14.09 | 12.68 | *11.27* | ***9.86*** | ***8.45*** | |
| 130 | 19.84 | 18.19 | 16.54 | 14.88 | 13.23 | *11.58* | ***9.92*** | |
| 140 | 23.02 | 21.10 | 19.18 | 17.26 | 15.34 | 13.43 | *11.51* | ***Marginal*** |
| 150 | 26.42 | 24.22 | 22.02 | 19.82 | 17.61 | 15.41 | 13.21 | |
| 160 | 30.06 | 27.56 | 25.05 | 22.55 | 20.04 | 17.54 | 15.03 | |
| 170 | 33.94 | 31.11 | 28.28 | 25.45 | 22.62 | 19.80 | 16.97 | **D.Q.** |
| 180 | 38.05 | 34.87 | 31.70 | 28.53 | 25.36 | 22.19 | 19.02 | |
| 190 | 42.39 | 38.86 | 35.32 | 31.79 | 28.26 | 24.73 | 21.19 | |
| 200 | 46.97 | 43.06 | 39.14 | 35.23 | 31.31 | 27.40 | 23.48 | |

# *Burn-Out*

Mark Hansen's essay in Issue No. 165 sparked quite a bit of discussion on the flying field and at club meetings. Interesting questions were raised about the nature of competition, the appropriateness of awards, the proper acknowledgement of volunteer workers, and so forth.

It was noted, among other things, that contests in recent years have made efforts to reward all participants — such as the Regionals awarding participant trophies to all entrants even before the contest begins — and the development of a variety of competition categories for all skill levels. Examples include the aerobatics skill classes, the racing, speed, carrier and combat entry-level categories, and so forth. Clearly, it's an issue with a variety of viewpoints.

One respected Northwest flier offered his thoughts in writing, as follows. As always, further contributions to the exchange of ideas via *Flying Lines* is welcome from all ...

# An inclusive hobby ...

By Dan Rutherford

For an analytical thinker, Mark Hansen's treatment of "Burn-Out" as it relates to modeling competition (FL Aug/Sept. 2000) is startlingly childlike.

What is self-evident seems to have passed our Mr. Hansen by completely: We have competitions to determine who is the best, in each event, on that particular day. That we would go through this process and then pay homage to the victors instead of the also-rans seems to me a rather natural occurrence. Otherwise we could just draw straws. Or we could stay home, drawing straws electronically, prizes to be shipped UPS.

Another self-evident factor overlooked by Mark is that one's interests change over time. This can be seen as a good thing or a bad thing. I prefer the former. Keith Varley, Chris Cox, Da Dirt, and a few others whom I can't remember at the moment are flying CL Stunt because they tired of, lost interest in, various forms of RC flying. This is my letter, so I will state that this is particularly true in my case. I had achieved a fair bit of proficiency with various sorts of RC models. When CL Stunt came back into my life it was remarkable how little true enjoyment I had been getting from modeling activities.

Did I get "burned-out" on RC? By Mark's version of analytical thinking, I suppose so. But what really happened was that I found something of greater interest, along with a huge wad of people with whom I would rather be associated.

Should it surprise us CL folk that competitors come and go as their interests change? I don't think so. There are so many cool things to do on the weekends in this fabulous country it would take any of us many lifetimes to even sample the offerings.

I do agree that in order to remain a viable from of recreation we must offer support to those still climbing up the ladder of success and that we need to fully appreciate the efforts of those who actually stage our contests.

Again getting personal, I now fly Stunt. To the exclusion of all other modeling activities. The support each and every competitor gets in this event in the NW is both immensely satisfying for me to see and totally inclusive. At every single Stunt contest an honest effort — no matter one's skill level — and at least a decent landing will garner applause from the competitors after each and every flight.

Further, unless a flier has in the past totally rejected helpful comments, an open mind and a willingness to try new techniques will result in voluminous offerings from the more skilled fliers in attendance. Sometimes, methinks, too much advice of a sudden. But better a lot than none at all.

Judges and support people. Again, we may not put forth the sort of effort Mark sees as appropriate, but I don't envision paying our judging corps in tubes of glue and a couple of glow plugs as a solution to situations Mark sees as needing to be corrected. While I honestly don't know how our judges and contest workers feel about the time invested in support of the hobby, no volunteer leaves any Stunt contest without the full thanks of each and every competitor. In virtually all cases this thanks is given personally and directly to the individuals in question. Maybe banner headlines in *FL* would suffice; I much prefer to shake hands and look the person in the eye, letting him or her know how very much I appreciate their efforts.

Finally, Mark's methodology to giving out prizes and such sounds hauntingly familiar: "From each according to his abilities, to each according to his needs." Thank you, nyet, nyet, nyet! Been there, seen that.

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