



NEWS OF NORTHWEST CONTROL-LINE MODEL AVIATION

1073 Windemere Dr. NW, Salem, OR 97304

Editor: Mike Hazel

MAY 1998

ISSUE #147

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NOTES FROM YE OLDE EDITOR

GREETINGS! For those of you attending the NW Regionals in Roseburg, thanks for coming! This issue is being delivered hot off the press to you. To those of you who could not attend the Regionals, well, your issue was mailed after the holiday. Sorry we missed you.

NEWS FLASH!

We learned just a couple of days before going to press that the Jim Parson's Memorial Stunt-a-Thon & Summerfly has had a date change. Contest Director Dave Gardner reports that there was a scheduling conflict at Boeing field for the use of the site. The result was that the meet was moved up one week. No sense in repeating everything here.....look inside and get the meet details yerself! One thing certainly worth mentioning, is that the Seattle Skyraiders are going low-key on the entry fees and awards. Just five bucks gives you unlimited entry, and juniors are free! I like those kind of prices! This is the next big meet, let's all go and support the Seattle Skyraiders next month.

With this issue, we welcome Ken Burdick to the Flying Lines staff. Ken will write on his personal area of expertise.....combat. As I recall, Ken did some columnist duty for FL several years ago. Welcome back, Ken! Send your questions and comments direct to Ken, or you can send them to FL HQ to be forwarded.

WANTED: Columnists for Racing and Carrier events. Pay is low, but the fame and glory of being a Flying Lines columnist is absolutely priceless. (actually, this is your ticket for a free subscription!) Contact the editor for details.

You statistics freaks don't want to miss the next issue. Besides having the complete NW Regionals results, we will have the corresponding competition points totals, and a complete records update. The records update will include the usual Northwest records, and the once per year published NW Regionals records.

STRONG & SMOOTH WING/FUSELAGE JOINTS

by Nils Norling

I finished a Twister recently and discovered a way to make a very strong and smooth joint between the wing and fuselage. It worked very well for me so I would like to share it with everyone. I am only a beginner so this may not be how it is normally done but it worked for me! Here is how I went about it.

When fitting the wing I sanded slivers of balsa to fill all the little gaps between the wing and fuselage opening on both sides, top and bottom. I was sure to keep the wing square in every direction as I added wood. I kept jumping from one place to another around the wing opening so I wouldn't wedge the wing crooked as I worked. If it did start tipping one way or the other I just wedged it back straight with more balsa. I wanted a nice tight joint here. You cannot check the wing/fuse/stab alignment too many times!

Once I had all the little gaps filled I checked for square again and saturated the joint with thin CA, lots of it. When it was saturated and the glue was dry I sprinkled baking soda along the joint and smoothed it to a very small fillet shape with the tip of my finger and wiped away the excess. Then holding the airplane at an angle I slowly dripped thin CA along the joint, soaking the baking soda with CA and letting it run along as far as it would, then adding another drop to keep it going, almost like welding. This method also works very well for gluing on fins, stabs and joining any two pieces of wood at an angle. Very quick and very strong.

Before final finishing the fillets, (say that 3 times fast!) I sanded the glue/baking soda with some sandpaper, just enough to scuff it up so the filler would stick. I use some stuff at the body shop called Metal Glaze. It is made by Evercoat (part #100416) and can be found at autobody/paint supply stores. It is light, sands easily, sticks to balsa very well and is quite strong for our purposes. It is much stronger than that spackle stuff they sell in hobby shops for balsa filler, which in my experience has virtually zero strength.

You mix this stuff with cream hardener, like body filler and clean up with lacquer thinner. Hint: extra hardener makes this stuff more flexible (within reason, don't get carried away) according to our Evercoat rep, for use on flexible car bumpers. I just smoothed it in the wing joint with my finger and it required very little sanding. It can usually be sanded and painted in 15 minutes or so depending on temperature and amount of hardener used. Getting the ratio right takes a little practice so try mixing a few batches to get the feel of it before you put it on your new Sooper-Looper 44. The stab/fuse and fin/fuse joints were done and finished the same way as the wing/fuse joint. Try it, you'll like it.

SUBSCRIPTION EXPIRATION DEPARTMENT

This is the last issue for the following folks..... **BILL DARKOW, JIM DRURY, DONALD HANSEN, MARK HANSEN, JOE JUST, TOM KNOPPI, WILL NAEMURA, ALAN OLSEN, MICHAEL POTTER, JEFF REIN, EDWARD SHUNK.**

Ya'll get those checks in the mail today, you don't want to be late for the next issue!

FLYING LINES is produced by a staff of volunteers interested in keeping lines of communication open between Northwest region control line modelers. **FLYING LINES** is independent of any organization, and is made possible by the financial support of its base of subscribers.

The **FLYING LINES** staff: John Thompson, Orin Humphries, Jim Cameron, Paul Gibeault, Gerald Schamp, Fred Cronenwett, Ken Burdick, & Mike Hazel, editor. Contributions for publication are welcomed. Any material submitted to the editor which is not for publication should be marked as such. Duplication of contests is permissible, provided source is acknowledged.

FLYING LINES is published nine times per year. Subscription rate is \$13.00 for USA, and \$15.00 for Canada (U.S. funds). Subscription expiration is noted on the mailing label - check the issue number listed after name.

Hey, here are some more names regarding subscriptions..... these guys have fallen off in the last issue or two. You other readers get a hold of them, and remind them to re-up!

.....Mike MacCarthy, John Morse, R F Stevenson, Wayne Spears, Robert Smith, David Thompson, Jerry Thomas, Buzz Wilson, Paul Dranfield, Wayne Gnuschke, Pat Johnston, Steve Kendall.....

NORTHWEST CONTROL LINE CONTEST CALENDAR

THE FOLLOWING LISTING IS A SUMMARY OF ALL KNOWN A.M.A. AND M.A.A.C. SANCTIONED EVENTS AS OF 5-17-98. FOR FURTHER INFORMATION, PLEASE CONTACT THE INDIVIDUAL LISTED. CONTEST DIRECTORS AND CLUB LEADERS ARE ENCOURAGED TO CONTACT FLYING LINES AS SOON AS POSSIBLE WITH THEIR PLANS, INCLUDING REVISIONS AND TENTATIVE DETAILS. CONTEST FLYERS CAN ALSO BE INCLUDED AT NO CHARGE, ON A SPACE AVAILABLE BASIS.

JUNE 13-14 KENT, WASHINGTON

JIM PARSONS MEMORIAL SUMMERFLY

EVENTS: OLD TIME STUNT, CLASSIC STUNT, PRECISION AEROBATICS (INT / ADV / EXP), .15 CARRIER, PROFILE CARRIER, CLASS I & II CARRIER COMBINED, MOUSE RACE CLASS I, NW FLYING CLOWN RACE, NW SPORT RACE, NW SUPER SPORT RACE SITE: BOEING SPACE CENTER IN KENT. SPONSOR: SEATTLE SKYRAIDERS
✓ CONTACT: DAVE GARDNER (206)226-9667

JUNE 27-28 SNOHOMISH, WASHINGTON

BLADDER GRABBER XXI

EVENT: AMA FAST COMBAT, FLOWN TRIPLE ELIMINATION
✓ CONTACT: JEFF REIN (425) 823-6053

JULY 10-11-12 MUNCIE, INDIANA

A.M.A. NATIONALS FOR CONTROL LINE SCALE EVENTS

JULY 11 MISSION, BRITISH COLUMBIA

EVENT: NOSTALGIA DIESEL COMBAT SITE: MISSION FLYING FIELD CONTACT: PAUL DRANFIELD (604) 826-3376
✓ E-MAIL: pdran@bc.sympatico.ca

JULY 12 SALEM, OREGON

"ENDURANCE RECORD TRIALS"

EVENT: AMA CL ENDURANCE SITE: BILL RIEGEL MODEL AIRPARK (SALEM AIRPORT) SPONSOR: WESTERN OREGON CONTROL LINE FLYERS. CONTACT: MIKE HAZEL 1073 WINDEMERE DRIVE NW, SALEM, OR 97304 PHONE (503) 364-8593 E-MAIL: ZZ CLspeed@aol.com

JULY 13 - 18 MUNCIE, INDIANA

A.M.A. NATIONALS FOR CONTROL LINE EVENTS

JULY 25-26 RICHMOND, BRITISH COLUMBIA

"P.A.C. INVITATIONAL"

EVENTS: CARRIER (ALL CLASSES), NW FLYING CLOWN RACE, NW SPORT RACE, GOODYEAR, OLD TIME STUNT, PRECISION AEROBATICS IN FOUR CLASSES, SCALE. SITE: RICE MILL ROAD SPONSOR: PACIFIC AEROMODELERS CLUB CONTACT: MIKE CONNER (604) 465-7277

AUGUST 1-2 COQUITLAM, BRITISH COLUMBIA

"CAN-AM SPEED CHAMPIONSHIPS"

EVENTS: 1/2 A SPEED, A SPEED, B SPEED, D SPEED, JET SPEED, FORM 40 SPEED, 21 SPEED, 21 PROTO SPEED, 1/2 A PROFILE PROTO SPEED, FAI SPEED, NW SPORT JET SPEED, AMA/FAI EVENTS FLOWN AGAINST AMA RECORD,

21 PROTO & SPORT JET AGAINST NW NASS RECORDS (RECORD RATIO) SITE: UPPER COQUITLAM PARK SPONSOR: VANCOUVER GAS MODEL CLUB CONTACT: RON SALO (604) 279-0530, OR PAUL GIBEAULT (604) 525-1020

AUGUST 22-23 SALEM, OREGON

WOLF 2ND ANNUAL SUMMER MEET

EVENTS: NW SUPER SPORT RACE, NW SPORT RACE, NW FLYING CLOWN RACE, MOUSE RACE CLASS I, 80 MPH COMBAT, PRECISION AEROBATICS, 1/2 A SPEED, 1/2 A PROFILE PROTO SPEED, A SPEED, B SPEED, D SPEED, JET SPEED, FORMULA 40 SPEED, FAI SPEED, .21 SPORT SPEED, .21 PROTO, NW SPORT JET SPEED, & FUN FLY EVENT. SITE: BILL RIEGEL MODEL AIRPARK SPONSOR: WESTERN OREGON CONTROL LINE FLYERS CONTACT: MIKE HAZEL (503) 364-8593

SEPT 5 COQUITLAM, BRITISH COLUMBIA

EVENTS: MOUSE RACE CLASS I, NW SPORT RACE, NW FLYING CLOWN RACE, .15 SPORT RACE. SITE: UPPER COQUITLAM PARK. SPONSOR: PACIFIC AEROMODELERS CONTACT: MIKE CONNER (604) 465-7277

SEPT 12-13 KENT, WASHINGTON

RAIDER ROUNDUP

EVENTS: OLD TIME STUNT, CLASSIC STUNT, PRECISION AEROBATICS (INT / ADV / EXP), MOUSE RACE CLASS I, NW FLYING CLOWN RACE, NW SPORT RACE, NW SUPER SPORT RACE, .15 CARRIER, PROFILE CARRIER, CLASS I & II CARRIER COMBINED, 1/2 A COMBAT, VINTAGE DIESEL COMBAT, 80 MPH COMBAT, SPORT SCALE SITE: BOEING SPACE CENTER IN KENT. SPONSOR: SEATTLE SKYRAIDERS *NOTE: DETAILS TENTATIVE

SEPT 26 COQUITLAM, BRITISH COLUMBIA

EVENTS: MOUSE RACE CLASS I, NW SPORT RACE SITE: UPPER COQUITLAM PARK SPONSOR: VANCOUVER GAS MODEL CLUB CONTACT: RON SALO (604) 279-0530, OR PAUL GIBEAULT (604) 525-1020

OCTOBER 3 RICHMOND, BRITISH COLUMBIA

EVENTS: CARRIER (ALL CLASSES), STUNT- TENTATIVE SITE: RICE MILL ROAD SPONSOR: PACIFIC AEROMODELERS CONTACT: MIKE CONNER (604) 465-7277

OCTOBER 10-11 SALEM, OREGON

"REALLY RACING & FALL FOLLIES"

AMA & NW RACING EVENTS, PRECISION AEROBATICS. SITE: BILL RIEGEL MODEL AIRPARK, SALEM AIRPORT CONTACT: JOHN THOMPSON (541) 689-5553

The Scoreboard

Northwest control-line competition standings.

Spring has sprung on the contest circle, and new results juggled standings in racing and Vintage Diesel Combat, and created a new batch of standings in speed and Old-Time Stunt.

Contests counted to date: March 14, Richmond, B.C.; March 28, Portland, Ore.; April 4, Mission, B.C.; April 18, Richmond; May 2, Mission; May 3, Salem, Ore.; May 9, Richmond.

Following are the standings for updated events:

1998 STANDINGS

NORTHWEST SPORT RACE

1. Mel Lyne	6
2. Ron Salo	5
3. Paul Gibeault	4
Todd Ryan	4
5. Ron Howell	3
Nitroholics Racing Team	3

CLOWN RACE

1. Ron Howell	7
2. Mike Conner	6
3. Todd Ryan	5
4. Dennis Matthews	4
Nitroholics Racing Team	4

OVERALL RACING

1. Todd Ryan	15
2. Nitroholics Racing Team	14
3. Ron Howell	10
4. Mel Lyne	6
Mike Conner	6
6. Greg Nelson	5
Dave Shrum	5
Ron Salo	5
9. Dennis Matthews	4
Nathan St. John	4
Paul Gibeault	4

15 NAVY CARRIER

1. Mike Potter	6
2. Shawn Parker	3
3. Frank Boden	2

PROFILE NAVY CARRIER

1. Mike Potter	4
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Mike Conner	4
3. Shawn Parker	3
Dennis Matthews	3
5. Barrie Shandel	1

OVERALL NAVY CARRIER

1. Mike Potter	10
2. Shawn Parker	4
Mike Conner	4
4. Dennis Matthews	3
5. Frank Boden	2
6. Barrie Shandel	1

VINTAGE DIESEL COMBAT

1. Troy Lyne	18
2. Craig Woolford	12
Ken Burdick	12
4. Jeff Rein	10
5. Mel Lyne	8

OVERALL COMBAT

1. Troy Lyne	18
2. Craig Woolford	12
Ken Burdick	12
4. Jeff Rein	10
5. Mel Lyne	8
6. Rick Meadows	6
7. Travis Eshpeter	5
Remy Dawson	5
9. Jeff Kemp	4
10. Matt Sanders	2

SPEED (all classes combined)

1. Dick Salter	3
2. Jerry Thomas	2
3. Chris Hazel	1
Craig Bartlett	1
Mike Hazel	1
Bob Spahr	1

OLD-TIME STUNT

1. Chris Cox	7
2. Mel Lyne	6
3. Mike Conner	5
4. Dan Rutherford	4

OVERALL STUNT

1. Chris Cox	7
2. Mel Lyne	6
3. Mike Conner	5
4. Dan Rutherford	4

JUNIOR STANDINGS

1. Craig Woolford	12
2. Travis Eshpeter	5
Greg Nelson	5
4. Jeff Kemp	4
Nathan St. John	4
6. Mike Nelson	3
7. Matt Sanders	2

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 on 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. When you send your report to AMA, remember to send the results to *FL*, too. 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. 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, another popular *FL* feature.

Send results to statistician John Thompson at the address listed below.

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 john4051@aol.com. For a printed copy of complete standings for any event, send a self-addressed, stamped envelope.

General Combat Topics

Howdy,

My name is Ken Burdick and I'll be the columnist for *Flying Lines* Combat column.

I have a long history of control-line activities that include Racing, Speed, some Carrier, but mostly Combat.

I prefer Fast Combat as an event because it has a multilevel appeal for me. High-speed engines, prop characteristics that make a big difference, high-nitro fuels, airplanes that turn on a dime.

The supply lines for the equipment comes from a variety of diverse individuals such as, Henry Nelson, Betty Fox, John Lowry (fox mfg.) local boat and midget racing sales for nitro and alcohol for fuels,

Thomas Mejlik (just about everything) All of these individuals and companies are interesting and unique.

Nobody makes much money selling Combat gear so there is another reason that they do. I have found the reason as a certain personality type that is most interesting, fun and spontaneous. I think that is at the core of most Combat flyers. That's why I like it ... oh yeah, the matches are a riot.

In future columns ...

I will cover new technology that either I know about or will have learned. This stuff is difficult to obtain as there is no formal R&D effort for most equipment. There is some new information on engines and some new goodies available on shutoff's. Sometimes a review of older or existing equipment is needed for some of the newer people in the sport so I will try to blend this in as well.

Interviews: I will be providing interviews with some of the local as well as national and international competitors. This is important as it connects the community and makes some of the "great ones" a little more accessible to us all.

"Favorite move department". This is something I would encourage all of us to contribute to.

What is your favorite "move" in combat?(maneuver).

The column will be highlighted with Fast Combat but there is also volumes to cover on the other official as well as unofficial events. 1/2A, Slow combat, F2D, 80 mph, vintage diesel.

All of these appeal to combat flyers so they will be covered in depth.

I have a good-enough background to answer or find the answer to most questions pertaining to all equipment, rules and flyers for these different events.

I would ask you for what you want to know, just drop me a line on my e-mail at ps@zipcon.net and I will research the topic and include it in the next article.

"New guys" will receive the highest priority in this column. If you have any questions, I will answer these first and attempt to facilitate what ever resource is needed.

"Good Hunting"

Ken

CONTEST RESULTS

MISSION, B.C. APRIL 4, 1998

5 rounds Nostalgia Diesel Combat

The Mission Wings Model Flying club was beautifully prepared by the Paul Dranfield, the grass freshly cut, and the weather was perfect, no wind, no sun, air temp. about 14 C.

Four new juniors, Travis Eshpeter, Craig Woolford, Matt Sanders, and Jeff Kemp, as well as their London High school instructor, Dan Stewart were ready for their first contest after 5 months of training, building and coaching, overseen by Paul Dranfield, Mel Lyne, and Adrian Duncan.

Seven more entries arrived to make an even twelve fliers. Perfect for 5 rounds or 30 matches. Troy Lyne, Paul Dranfield, Remy Dawson, Frank Boden, and Mike Connor were ready, and Ken Burdick and Jeff Rein arrived from Seattle.

Adrian Duncan was C.D., with Mel Lyne centre marshall and Laura Dorosh and David Ellis timing and cut counting. After a rules briefing and safety talk, mainly for the benefit of the new fliers, first up were Troy Lyne and Jeff Rein in a classic match. Troy's Super Twister staying right with Jeff's Yeti in a close contest, Troy emerging the victor.

The second match was also run with two experienced fliers to show how it's done. Then the first pair of juniors were put up. They surprised everyone and put on a real show, just as entertaining as the old pros. Each junior flew the other three for three rounds, and put on some first class matches.

Dan Stewart, in his first match ever, had a real barn-burner with Mike Conner, resulting in a win for Dan 2 cuts to 1. All those cold training days through the winter were paying off. With zero wind, no sun, and intelligent flying, there was lots of exciting flying with many close calls, but very little damage.

Ken Burdick won all his

matches except round 4, when he came up against 72 year old Frank Boden, who had his number. Frank always gives you a tough match. Frank only lost 2 matches all day. In rounds 4 and 5, the juniors were matched against Dan, their school instructor, and the old pros. Dan managed to fight off junior Jeff Kemp (age, treachery and cunning working well) for the win, but was just outflown by junior Craig Woolford, who won 2 cuts to 0. Craig amazed us all by taking 4th overall.

At the end of 5 rounds, Troy Lyne and Ken Burdick were tied for top spot. The final resulted in a win for Ken after an early cut. After 31 good quality matches, with 4 minutes plus of actual combat in almost all matches, there was only one mid-air resulting in major damage. There were a lot of dorks, but with the soft turf and the diesels, they were back in the air, that simple.

The juniors and Dan flew Dominators, an almost indestructible 28 inch wing. Warlords were next most popular followed by Super Twisters, Pirahanas, Yetis, and Flingel Bunts. Only 2 flyers used more than one plane. The event requires the PAW .15 BR motor, which most fliers used. Other motors equal in performance are being allowed for a probationary period.

FINAL RESULTS (12 ENTRIES)

- | | |
|-------------------|-----------|
| 1) Ken Burdick | 11 points |
| 2) Troy Lyne | 9 |
| 3) Jeff Rein | 6 |
| 4) Craig Woolford | 6 |

RICHMOND, B.C. (P.A.C.) APRIL 18, 1998

NW FLYING CLOWN RACE (6 ENTRIES)

- | | |
|--------------------|----------|
| 1) MIKE CONNER | 273 LAPS |
| 2) RON HOWELL | 224 |
| 3) DENNIS MATTHEWS | 170 |
| 4) FRANK BODEN | 151 |

NW SPORT RACE (6 ENTRIES)

- | | |
|-------------|---------|
| 1) MEL LYNE | 8:31.60 |
|-------------|---------|

- | | |
|------------------|----------|
| 2) RON SALO | 12:35.22 |
| 3) PAUL GIBEAULT | 14:57.26 |
| 4) RON HOWELL | N/A |

The .15 sport race was called off, due to slippery wet conditions. Ron Howell would be the newest member of the Flying Clown 200 lap club.

(editors note: Mel Lyne has set a new NWSR finals record)

MISSION, B.C. MAY 2, 1998

5 rounds Nostalgia Diesel Combat

An early heatwave had baked the Mission site for a week before the contest, but the site was superb, with fresh mown golf course quality lawn thanks to the effort of Harold Mumby and Eric Rinas for the Mission Wings M.F.C. A cloudy morning turned into a 25 degrees celsius sunny sky with winds varying from dead calm to 10 mph.

From Richmond's London High school came instructor Dan Stewart with 5 hot shot juniors. These guys were raring to go, some with news planes, to finish what they'd started at the first contest a month ago.

Seven more open class fliers arrived to make up the field. Adrian Duncan was C.D., with Laura Dorosh and Lorna Duncan timing and cut counting. Six of the open fliers rotated as centre marshall.

A rules briefing and safety talk outlined the importance of keeping the planes in the air for the full 5 minutes. The juniors, especially knew that they had to minimize dorks if they wanted to win.

First match up was Mike and Troy with lots of good following and Troy emerging the winner. After 3 matches with open flyers, the juniors started. With some new better performing models, several of the juniors looking very competitive. The matches were close, with lots of following and less dorks than the first contest. Occasional concentration lapses took their toll on models. One junior match

had both models meet right in the sun only 5 seconds after the combat horn.

The five rounds progressed, and it was clear that certain flyers, including one junior were really working at staying in the air. One spectacular mid-air left David with no outboard wing on his Dominator. He re-launched and got another 40 seconds of air time, although rather wobbly. The wind picked up and spun him in. 6 more re-launches all spun in with the wind. Gotta give him an A for effort.

In the second round Troy and Rick had a barn-burner going when Rick's Pirhana went through Troy's Dominator inboard wing. After much taping Troy was back up, but with no manoeverability. Rick took that one, flying very hard as usual.

In round three, Rick and Mel had a honking match going, with Rick just having the edge in airspeed. After 4 minutes, both Pirhanas met overhead, with Rick's losing a wing. The juniors were being mixed with the open flyers for variety and experience, and they gave some excellent matches. Matt flew Mel and narrowly lost after surprising the old fox with 2 early cuts, one taken in a surprise reverse move that had Mel fooled. Paul had a good match with Craig. Craig's much battle-scarred Warlord bending in the middle in turns. Time for a new model in the next round.

Paul and Mel had a really intense match going in round 5. It was close with all the stops pulled out. Both fliers were exhaust at the end of five minutes. Rick gave a lesson in precision flying when he got way behind on ground time against Remy and then Mike. Rick took 4 small cuts late in both those matches to win them. Very nice to watch.

In the final rounds, the temp started to affect the motors, and everyone had to run richer with a bit less compression. There were lots of blue vapour trails, and most planes had to refuel before the 5 minute horn. Dan wasn't having much luck in the early rounds, and looked a bit rusty. But Paul, and then Frank loaned him models near the end, and he finished with 2 good matches. You can't win matches on the ground. Gotta cut down on docks.

Frank was his usual self, giving everyone tough matches, with

his 2 PAW .15 BRs really hauling his Flingel Bunts. Mike and Remy both had some enjoyable matches, with lots of following. They also helped out lots as centre marshalls, along with Rick, Paul, Troy and Mel.

Gerald McHale, MAAC BC Zone rep and junior program rep was present to watch the matches, and to present MAAC hats to the juniors. Adrian Duncan, our C.D., presided over the prize giving ceremony. A great time was had by all, and the winners received plaques and merchandise.

Best Crash Trophy went to David Pelletier for his match with half a Dominator. Not bad for his contest. Many thanks to all who helped out and to the Mission Wings M.F.C. for use of their facility. Next contest is July 11.

Final results:

Junior Class (5 entries)

- | | |
|--------------------|----------|
| 1) Travis Eshpeter | 8 points |
| 2) Jeff Kemp | 4 |
| 3) Craig Woolford | 4 |
| 4) Matt Sanders | 2 |

Open Class (8 entries)

- | | |
|-----------------|-----------|
| 1) Mel Lyne | 10 points |
| 2) Troy Lyne | 8 |
| 3) Rick Meadows | 8 |
| 4) Remy Dawson | 4 |

**SALEM, OREGON
MAY 3, 1998**

spring speed tune-up

1/2 A PROFILE PROTO (1 ENTRY)

- | | |
|--------------|-----------|
| 1) BOB SPAHR | 97.95 MPH |
|--------------|-----------|

21 SPORT SPEED (1 ENTRY)

- | | |
|----------------|-------|
| 1) CHRIS HAZEL | 81.16 |
|----------------|-------|

B SPEED (1 ENTRY)

- | | |
|-------------------|--------|
| 1) CRAIG BARTLETT | 128.15 |
|-------------------|--------|

JET SPEED (2 ENTRIES)

- | | |
|-----------------|--------|
| 1) JERRY THOMAS | 179.21 |
| 2) DICK SALTER | 167.84 |

NW SPORT JET SPEED (2 ENTRIES)

- | | |
|----------------|--------|
| 1) DICK SALTER | 151.97 |
| 2) MIKE HAZEL | 125.21 |

Very good weather and conditions for this speed contest. Some great prizes were handed out. The new sport jet event was debuted. Dick Salter and Mike Hazel had easy starting, good flying entries for this event. Look for this event to be popular. Dick prevailed with a not bad 150+ time, using the Bailey sport jet engine.

**RICHMOND, B.C.
MAY 9, 1998**

PROFILE OLD TIME STUNT
(7 ENTRIES)

- | | |
|-------------------|------------|
| 1) CHRIS COX | 305 POINTS |
| (FIRECAT) | |
| 2) MEL LYNE | 304 |
| (TWISTER) | |
| 3) MIKE CONNER | 276 |
| (SMOOTHIE) | |
| 4) DAN RUTHERFORD | 273 |
| (FIRECAT) | |

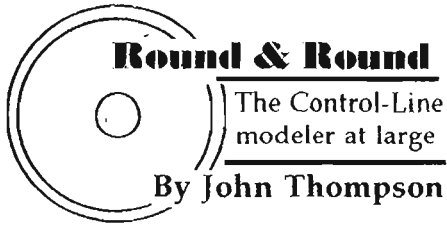
PROFILE CARRIER (5 ENTRIES)

- | | |
|----------------------------|------------|
| 1) SHAWN PARKER | 242.55 PTS |
| (SKYRAIDER / K&B 5.8) | |
| 2) DENNIS MATTHEWS | 208.91 |
| (SKYRAIDER / ST 35) | |
| 3) MIKE CONNER | 200.88 |
| (HELLCAT / MAGNUM 36) | |
| 4) FRANK BODEN | 74.52 |
| (CURTIS XF-13C / FOX 36) | |

.15 CARRIER (3 ENTRIES)

- | | |
|------------------------------|--------|
| 1) MIKE POTTER | 195.44 |
| (HELLDIVER / FOX 15 BB) | |
| 2) SHAWN PARKER | 102.40 |
| (SKYSHARK / CONQUEST .15) | |
| 3) FRANK BODEN | DQ |
| (CURTIS XF-13C / FOX 15BB) | |

That's all of the meet results for this issue. As you probably have noticed, we occasionally try out new layouts for reporting contest results. We like to compress the text, but maintain readability. How did this look???????



Modeling thought for the month:

"Never open a can of worms unless you plan to go fishing."

— Kaiser's comment on Zymurgy

Rules, rules, rules

It's no less disastrous, but there is some consolation for a hapless pilot when he can trace a crash to some mechanical cause. At least it wasn't his fault. But, oh the heartbreak of destroying a plane by nothing more than pilot error. Ouch.

Yet, if we follow the semantic lead of full-scale aviation experts, we no longer need to make that horrible confession: "I just crashed."

The Associated Press, in referring to a plane crash last year on Guam, in which a perfectly operating jumbo jet simply flew into the side of the mountain, tells us what aviation experts call such a phenomenon. It's "controlled flight into terrain."

Remember that phrase next time you forget which way is up while flying inverted.

But the real subject of this month's column is rules, and more specifically, the Northwest rules for Northwest Goodyear and Vintage Diesel Combat.

Old-timers will recall that Northwest rules for various regional events are promulgated through a proposal-and-ballot system organized by the *Flying Lines* staff, and the current rules are coordinated by your R&R columnist.

This system provides stable rules arrived at by consensus of Northwest fliers; the rules are the same at every contest, and they are used for determining records and Northwest standings, also maintained by *Flying Lines*.

Northwest Goodyear is an event that is duplicated somewhat by the AMA Goodyear and Clown Race events, but nonetheless it has its following and appears on some contest event lists. But the rules have gotten slightly out of date.

It's an event that can outdate quickly because the rules provide a specific list of engines that are

allowed. The list, last revised in 1993, is intended to offer a range or choices to Northwest Goodyear fliers that are available and inexpensive.

Speed is not particularly a concern of the list — some cheap engines are fast — but the engines on the list tend to be pokey by AMA standards, with the exception of the Conquest, which is the most expensive. Other engines now available — but not on the list — are just as fast as the Conquest and much cheaper.

Several people have suggested that we update the list to allow these competitive, affordable engines. Doing so would widen the range of competitive engines, while not obsoleting the Conquests currently in use (other than by making them undesirable because of their cost).

Such an update presumably would continue to meet the original goal of the engine rule: to ban the superfast, superexpensive AMA Goodyear engines, particularly the Rossi and Nelson engines that cost in the range of \$200 to \$300. Aside from the Conquest, all the engines on the current list, and all those suggested for addition, cost under \$100.

The engines on the current list are: Fox, K&B, Cox, Conquest, O.S., SuperTigre (front intake), and Enya.

Those suggested for addition are MDS, AME and Moki. All three are pretty fast and quite inexpensive.

We have plenty of time to get the list updated for the 1999 racing season if we start working on it now.

I'd like to prepare a new engine list for submission to *Flying Lines* reader ballot shortly. If you have comments or other engines to suggest for the list, please send them to me by July 1. The ballot would appear in an upcoming issue.

Vintage Diesel Combat is a bit more of a project. It's an event that has sprung up in the past two or three years and grown rapidly in popularity, but the rules are variable from contest to contest and more or less carried about in the heads of the participants and contest officials.

It's time for a standard set of rules for Northwest contests (the Northwest for *FL* rules and records is defined as AMA Dist. XI and British Columbia).

Ken Burdick has been asked to take on the job of drafting a set of rules for proposal as a ballot later this year, to become effective upon approval. He's making an effort to achieve some consensus among the various contest organizers and

get us all on the same page, so to speak, in regard to VDC. Watch for the rules proposal in a future issue of *Flying Lines*, and in the meantime pass along your ideas to Ken. Ken can be reached at 2709 44th SW, Seattle, WA 98116. His e-mail address is ps@zipcon.net.

Speaking of combat, the prize table at this year's Bladder Grabber is going to have \$16,000 worth of stereo gear on it. A cash prize also is planned. Should draw some contestants!

Combatturnout at the 1998 Regionals appears to be headed for a major upswing, based on correspondence received from a number of areas. Should be quite a few more entries, particularly in fast and 80-mph. Vintage Diesel will be an official event this year, too. We also hear that speed participation should be up.

Fox Manufacturing Co. has announced that ABC piston/liner sets are in production for the Stunt .35. They will be sold as after-market parts. John Lowry at Fox reports that the power increase is dramatic and the engine runs "Smooth as silk." Cost is \$65. (Note: The p/l parts, as with the hemi/stuffer kits, would *not* be legal for Northwest Sport Race.)

Bill Darkow sent along a picture of a Dyna-Jet-powered stunter from the 1953 Plymouth Internationals. What a concept!

The Thunderbird II that died a horrible death, reported on in a previous R&R column, is being resurrected. It appears that the repair project will take about 5% less time than it would have taken to build a new airplane from scratch. However, I'll have a brand new airplane with only a few hundred flights on it!

Really Racing/Fall Follies moves again in 1998, this time to Salem's Bill Riegel Field. There was a little speed contest there on May 3; the field is becoming a regular competition venue, and a good place to fly. Hope to see you at RR/FF.

Flying Lines needs regular columnists in several events and technical articles from anyone who is willing to sit down and spend a few minutes telling the rest of us what they know. Jump in and become a part of the FL staff. Your fellow modelers will be glad you did!

Send comments, questions, and topics for discussion to John Thompson, 2456 Quince St., Eugene, OR 97404. E-mail John4051@aol.com. World Wide Web: <http://members.aol.com/JohnT4051/NorthwestCL.html>

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SPECIAL TOPICS I-BEAMS, PART 3

by **Orin Humphries**

STRUCTURES, PART 5

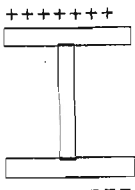
A little time once again is available to look some more at a topic dear to my heart: efficient model structures. What do we know from last year? A structure is strong only so long as it holds its shape. You can stand on a pop can until it gets a tiny wrinkle in the side. Also, a structural member that will see compressive loads must have three times the cross sectional area it would need if it saw the same load as a tension or it will buckle. Stiffness of an I-beam increases with the cube of the the change in web height. Double the web height and the beam is eight times stiffer (2 cubed).

Separating the beam caps, or chords, just a little more makes the beam a whole lot stiffer. A look, now, at the "neutral axis" will let us get at some more goodies.

Say we have an I-beam held securely (fixed) at one end, situated horizontally, and the free end is loaded vertically. Of course it is bent with a tension load in the cap on the outer radius of the bend curve and a compression load in the cap on the inner surface of the curve. The caps are a tension-compression pair as mentioned in the first part of this I-Beam series. This leads us to a question.

If the outer cap is in tension and the inner cap is in compression, what happens to the load in between them? Please look at figure A.

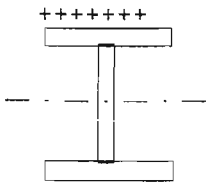
FIGURE A



the "+" signs indicate this cap is in tension and the "-" means the other is in compression. What is the situation with the loads in the web, between the caps?

Let's consider first a symmetric I-beam, i.e. one that has equal areas and shapes for both caps. Please look at figure B.

FIGURE B



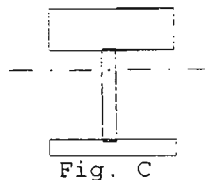
If the load is to change sign from tension to compression, logically, it must decrease to zero as we go along the web from the upper cap to the line of symmetry. Then, it must change to compression and get bigger in that sense as we go to the lower cap.

For this I-Beam the line of symmetry also happens to be a line where the longitudinal load in the beam is zero, or neutral. Tension loads are found to one side of it and compression on the other. This is called the "neutral axis". In general, the line where this is the case doesn't have to lie on a symmetry line as many are simply not symmetrical. If you make one cap have more area than the other, the neutral axis will lie closer to the larger. If you make one cap out of balsa and the other out of spruce, the neutral axis will lie closer to the stronger member.

Think of the neutral axis as sort of a teeter totter. The compression loads in the one cap are trying to push the beam back into a straight shape. The tension loads in the other cap are trying to pull the beam into that straight shape. They are working together to resist the applied load which bent the beam. Thus, they are a partnership, and I called this a tension-compression, t-c pair. In a beam with one cap stronger, well, that's like a heavy kid on one end of the teeter totter and a lighter one on the other. It will balance closer to the heavier kid.

In I-Beams, however, the distance from a cap to the neutral axis is not a simple, linear relationship depending upon their areas or strenghts (weights). The actual relationship is a second power (square) of the distance to the center of the cap. See figure C.

FIGURE C



the neutral axis, here, lies much closer to the bigger or stronger cap.

An immediate fallout from this is you may reduce the cross sectional area of any other secondary stiffeners, stringers, you may want to put along the wing/skin surface next to the smaller cap at the bottom of the figure. Since they are farther from the neutral axis than would be stringers up next to the large cap, the lower ones are much more effective. Their effectiveness varies with the square of the distance from the string to the neutral axis.

Figure C shows a proper design for a beam that will be bent one way only. For instance this beam would be okay for a plane doing only inside loops. If it is to do outsides, as well, then it would have to have both chords thick. A thick chord resists buckling when under a compressive load. Keep the webs thin compared to the chord thickness; loads in the webs are quite small.

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