

CONTROL LINE COMPETITION NEWSLETTER

RACING - SPEED - COMBAT - STUNT - CARRIER

JULY 2016
USA \$9.00



DAVE LAYMAN, PATRICK HEMPEL, AND STEVE PERKINS WITH THEIR FAST JETS AT THE GENE HEMPEL MEMORIAL CONTEST IN DALLAS APRIL 9TH. DAVE TOOK TOP HONORS WITH 188.60MPH. PATRICK TURNED 190.32MPH TO PLACE SECOND AT THE WESTERN AUSTRALIAN STATE CHAMPIONSHIPS IN PERTH. FIRST PLACE WAS JUST A WHISKER FASTER AT 190.52MPH.

JETS RUN WILD AT BRODAK, STUNNING EXHIBITION BY BANJOCK AND PALKO!

SPEED, RACING, AND COMBAT RESULTS FROM THE BRODAK FLY-IN.

THE LATEST LIST OF ZZ PROPS.

NEW ITEMS FROM CLUB TAMARAN

ITALIAN HIGH TECH GLOW PLUGS.

2016 Whittier Narrows Speed & Racing Contest Calendar

Whittier Narrows Park, South El Monte, CA 34.042737 --118.070392

September 10-11 **Wayne Trivin Speed & Racing Memorial**
October 22-23 **Virgil Wilbur Speed & Racing Memorial**
December 3-4 **Toys For Tots**

Speed events include: Electric, 301-310 & 606-607, Perky, NASS Sport Jet, C-Speed

Racing events include: S.C.A.R. Goodyear, NCLRA Clown (60 foot lines), Mouse Race, NCLRA Quickie Rat, and Super Slow Rat/Fox Race

Speed flown both days. Racing flown **Sunday only** except for the Virgil Wilbur Memorial.

Whittier Narrows Park now charges \$6.00 per weekend day entry fee! You can buy an annual pass from the bureaucrats at the Park Headquarters (weekdays only) for \$25.00 if you are a member of one of the local clubs. All events are AMA sanctioned. Membership is available on site. All pitmen must wear protective headgear while racing or during practice. Before you set out on a cross-country trek, verify the event date and location have not changed.

Speed contacts: Howard Doering (714) 638-4937 Cell (714) 394-5304
 Joe Brownlee (714) 895-1857 Cell (714) 393-1940

Racing contacts: Ron Duly (818) 843-1748
 Don Burke (714) 329-1457

Link to kill time: <http://www.flightradar24.com/SKW6211>

New Link: Jo Halman is the Co-ordinator for F2 World Cup events, get details at:
<http://www.fai.org/world-cups/f2-control-line>

Link to Club Tamaran: Combat oriented but many useful items for Racing and Speed
<http://www.clubtamaran.com/combate.htm>

Link to Weather Underground: <http://www.wunderground.com/>

Link to McMaster-Carr: <http://www.mcmaster.com/>

Link to Delphi Speed Forum: <http://forums.delphiforums.com/flyfast/messages>

Link to Stunt Hangar: <http://stunthanger.com/smf/rat-racing-and-team-racing/?PHPSESSID=31ecadcb9fcddb8aeb74412b476767d6>

HOBBY SUPPLIERS

Partner Productions: Current & Vintage Speed Plane plans. Box 205 Maple Ridge, BC V2X – 7G1 Canada 604-612-4060 cpartner@shaw.ca Chris Sackett

Eichenberger Products: Carbon Fibre and Composite Epoxy/Glass props for Speed and Racing. Carbon tops for 21-40's and more. Steve Eichenberger 480-730-0016
seichenberger@cox.net

Old Magazine Plans On CD: e-mail Tom Wilk at: tawilk636@live.com
If he doesn't have it, you probably don't need it.

Eliminator Props: <http://eliminatorprops.com/store/>



Mike's Racing Products: See June 2012 newsletter

<http://Mike1North.wix.com/mikes-racing>



OPS Engines America: Bill Hughes williamhughes4@att.net

Engines/Parts Prices start at around \$150.

Core House: <http://home.earthlink.net/~philcartier/webcat/catalog.html>
Kits, cores, SLC covering material

Marc Warwashana: Don's wheels, fastfills, etc. whellieman@gmail.com

Andrew Nugent: Andrew.n5@bigpond.com

(The May 2013 SCAR Newsletter has an article on Andrew's services or just e-mail him).

Brodak Manufacturing: <http://www.brodak.com>

Goodyear Plans: Doug Mayer: mayer@kmd-arch.com

Fuel Shutoffs: Dale Long: DirtyDshutoffs@dslextreme.com Guaranteed to work! USA only.

Adriano Molteni: Ultra high quality flying lines, Nelson style plug, F2d models, props and mounts. adrieanto@gmail.com

The Craftsman: Stunt and Racing Engine Tuning (OS, S.T., Fox, K&B, Cox) Custom Kit Building - Ready to cover. Contact: **Jed Kusik** jedeeflyer@aol.com

Doctor Diesel (Eric Clutton) P.A.W. Diesels: www.cafes.net/doctordiesel
doctordiesel@cafes.net

Streamer Shuttle: <http://streamershuttle.blogspot.com>

Fast Hippy Speed Products: Tanks, torque units, titanium bell cranks, etc.
Marty Higgs ukiespeedman@hotmail.com

Hobbypartz: Cheap source for the ASP S15A which is legal for Sport Goodyear at the 2015 Nationals, now \$43.40. www.hobbypartz.com Bill Bischoff sells a venturi and needle valve assembly for \$10.00 per item plus \$3.00 shipping, billbisch@hotmail.com

ZZ Props: Full line of quality Glass & Carbon Fiber props for Control Line Speed & Racing. Contact Mike Hazel at: 503-859-2905 Day Phone or 503-871-1057 24 Hour Phone
zzclspeed@aol.com

Barry Baxter's Vintage Control Line Combat Plans: <http://www.controllineplans.com>

BMJR Models: Freeflight, R/C, Control Line and Accessories. Laser kits.
www.bmjrmmodels.com



MBS Model Supply

P.O. Box 282 Auburn, KS 66402-0282 <http://mbsmodelsupply.com/>
Phone: After 5:00 p.m. Central time or weekends only (785) 256-2583 Cell: (785) 221-7042

TCA Racing Accessories <http://www.tca-srl.it/Home/SITO/index.html> High tech Italian glowplugs, click on the Blue Line (Nelson and GloBee styles).



Frank Bowman: Custom rings for old to modern engines. Old stock parts for some engines. E-mail for a list: Ringmaster46@msn.com

John Newton Speed Products: Fiber glass shells for B-C-D Speed. Aluminum wing skins. Newtron 21 Sport Speed kit. Props for D-Speed and many other items. Contact John on his cell phone: [909-720-1940](tel:909-720-1940)

Robin's View Productions: Foam wings, cores and Lost-Foam building fixtures for built-up wings. Nifty electric motor mount called the Hardnose Mount also available.
Bob Hunt robinhunt@rcn.com

Membership For Everyone



National Control Line Racing Association: <http://www.nclra.org/>

Membership information and tons of other neat stuff that even non-members can look at. Membership is \$20 per year with an electronic newsletter (they actually send one out on a regular basis.... unlike some other newsletter). It's \$30 if you want a paper newsletter and live in the USA and \$35 for those living in the hinterlands.



Navy Carrier Society: <http://www.navycarriersociety.org/joinNCS.aspx>



North American Speed Society: <http://clspeed.com/membership> Membership is \$35 for USA and Canadian residents and \$45 international. PayPal OK



MACA Miniature Aircraft Combat Association: <http://www.macasite.org/>



PAMPA Precision Aerobatics Model Pilots Association

<http://www.pampacl.org/> Membership starts at \$35.00.



Combat Flyers Association

<http://combatflyers.co.uk/index.htm> Vintage and F2d Combat in the UK



Academy of Model Aeronautics

<http://www.modelaircraft.org>



TFW The Flying Wizard – Membership available soon.



Control Line Racing will take place July 18-21.

Monday	July 18	F2C Team Race and Quickie Rat
Tuesday	July 19	Mouse I and NCLRA Clown Race
Wednesday	July 20	AMA Goodyear and Sport Goodyear
Thursday	July 21	AMA Slow Rat and Super Slow Rat

Anyone interested in running an event is urged to contact NCLRA President Melvin Schuette at: mbschuette@cox.net

Muncie 500 500 lap Sportsman Goodyear Race Wednesday July 20 (after lunch). Races flown per DMAA Sportsman Goodyear rules except as noted (rules available at dmaa-1902.org). Entries: Each entry gets one 500 lap race. Fastest time wins. One airplane, one engine. No limit on prop/plug changes. Pit stops: Minimum of 9 required (average 50 laps per tank). Entry fee: One dollar. Winner takes all!

Per the legal department: NOT ASSOCIATED WITH THE AMA, NATS, NCLRA, CITY OF MUNCIE.

Control Line Combat will take place July 16-21.

Saturday	July 16	F2D Combat Current FAI Rules Triple Elimination
Sunday	July 17	F2D Combat (cont.)
Monday	July 18	F2D Fast Combat AMA 328 with 2010 or later F2D equipment
Tuesday	July 19	Speed Limit Combat AMA 329 scoring, 75mph speed limit
Wednesday	July 20	1/2A Combat AMA 330 on 42' lines
Thursday	July 21	AMA Fast Combat 328 "big block"

Volunteers Needed! Contact CD: Dave Edwards davee19348@gmail.com 484-899-8017

GENE HEMPEL MEMORIAL CONTEST Racing Report April 9, 2016

Bill Bischoff

Even though Don Cranfill, Richard Oliver, and John Hill did not attend, we had a good turnout with eleven contestants. Melvin Schuette and Rod Christie came from Kansas, Charles Barnes came from Georgia, and his son Chuck came from Houston. In addition, we had most of the local "usual suspects". Rod Christie is still fairly new to racing; in fact, he had never flown three up before. He did a fine job of flying for himself and Melvin, and even won Goldberg race.

We had six entries in Mouse, and flew 2 heats and a final, all three up. Patrick and Melvin qualified within a second of each other, and Mike was less than a second ahead of Rod to get the third spot. The final was a good close race, with the outcome never certain until it was over. Melvin got his glove in the prop on one pit, killing the engine. The restart could have very well been the difference between first and third.

Goldberg had six contestants. With only three finishing, it was a little easier to guess who the winners would be.

Sportsman Goodyear had nine contestants. The plan was to fly three sets of heats, followed by a final. The Polecat was the most popular design, with three entered. There were two Sig Busters, and four different individual entries. Dale Gleason set the stage in the first group of heats with a 4:07.82. In the last group of heats, Bill edged by Dale with a 4:07.47. In Bill's second heat, he had a fair amount of solo time, allowing him to record a 4:03.85. Mike Greb was third with a 4:15.93. We decided to skip the final because: 1)Mike Greb had pitted all of the top three 2)Bill Bischoff had flown two of the top three 3)bad weather was fast approaching so we wanted to get more events flown 4)all the above. The correct answer is 4, all the above.

We skipped Super Slow Rat and flew Quickie Rat to accommodate our out of town guests, all of whom had Quickies. In the first race there was a line snag during a pit stop, leaving Bill B. to finish the race alone. As punishment for who knows what, Bill got to finish out the race in a cold rain. This was the only time recorded for Quickie.

In spite of being cut short, we had an excellent day of racing. There were some good performances and some close races. Every race began as a three up race. How often does that happen? I hope Melvin and Rod can continue to work as a team. They seemed to function well together. Having a dependable team mate is very important in racing, which is why I'd like to thank my team mate for the last 30 years, Mike Greb. Thank you, Mike.

<u>MOUSE I</u>	heat	final
1)Patrick Hempel	2:31.32	5:26.95
2)Mike Greb	2:42.22	5:29.34
3)Melvin Schuette	2:32.14	5:32.00
4)Rod Christie	2:42.98	
5)Charles Barnes	3:11.68	
6)Chuck Barnes	4:05.01	

<u>GOLDBERG</u>	
1)Rod Christie	10:20.41
2)Charles Barnes	10:26.70
3)Dave Ek	12:11.57
4)Dale Gleason	136 laps
5)Patrick Hempel	78 laps
6)Melvin Schuette	no start

<u>SPORTSMAN GOODYEAR</u>	
1)Bill Bischoff	4:03.85
2)Dale Gleason	4:07.82
3)Mike Greb	4:15.93
4)Bill Lee	4:20.65
5)Patrick Hempel	4:22.28
6)Melvin Schuette	4:27.30
7)Charles Barnes	4:35.45

SPORTSMAN GOODYEAR (continued)

8)Rod Christie 4:44.74
 9)Stephen Jeansonne 4:48.62

QUICKIE RAT

1)Bill Bischoff 7:52.25
 2)Melvin Schuette 43 laps
 3)Charles Barnes ? laps
 Chuck Barnes DNF
 Rod Christie DNF
 Bill Lee DNF

SPORT JET

1)Steve Perkins 146.12
 2)Patrick Hempel 145.26
 3)Dave Layman DNF

FAST JET

1)Dave Layman 188.60
 2)Patrick Hempel 185.11
 3)Steve Perkins 181.19

Brodak Fly-In Speed Limit Combat Results**Phil Cartier**

Four rounds, 75mph speed limit, three cuts maximum, 200 point bonus for a clean match.

1. Roy Glenn	2583	10. Henry Nelson	1410
2. Al Ferraro	2153	11. Howard Shenton	1410
3. Phil Cartier	1895	12. Dan Banjock	1396
4. Bob Mears	1853	13. Craig Campbell	1203
5. Louis Lopez	1705	14. Paul Kubeck	630
6. Naomi Macklem (CAN)	1648	15. Rick Osborne	578
7. Tom Schaefer	1646	16. Mike Stinson	59
8. Jim Vigani	1563	17. Bob Whitney	49
9. Bryce Gibson (NZL)	1548	18. Len Bourel (CAN)	DNF

It was a fun event with plenty of fliers and lots of action. Many thanks to Arlene Pyles for keeping track of scores and Dennis Hastings and Colton Smith for judging. Roy Glenn was the primary circle marshall with a couple of others helping out and Lloyd George got the pits up and running. We hoped to get done on Thursday but three quarters of the way through the third round the perennial rain came down hard and heavy so the remaining matches finished on Friday. There was only one potentially serious incident. In the first round Bob Whitney had his Half Fast get away from him. I was doing the center marshall job. The plane got blown into the circle and did a couple loops over my head and hit the other pilot, Mike Stinson, in the elbow. Mike eventually got to an Urgent Care facility and got three stitches and a sling. Fortunately the prop cuts did no serious damage. That incident provided a lot of extra excitement for about an hour.

There were quite a few good matches, but also quite a few misfires which held down the number of cuts and midairs that held down the scores. It can be hard to keep that Combat pilot cool and turn away from a cut and a midair to make a better choice later.

Naomi Macklen, part of the Dreaded Canadian Contingent, with primarily Len Bourel's help, put in four clean matches and passed Carl (Tommie) Schaefer from the Middlesex club in

New Jersey by two points for 6th place.

Bryce Gibson, coming from New Zealand via California, had a rough time. He bought a \$10 plane from Milt Barsky. Bryce used an ASP 15 that they use in New Zealand which flew the plane pretty well. But the force just wasn't there.

The Brodak Fly-In will be held next year. Put on your combat boots and come.

Phil Cartier

Brodak Fly-In Speed Results

Paul Smith

Clown Speed 16 laps timed from launch (one mile)

- | | |
|--------------------|----------|
| 1. Charlie Johnson | 78.33mph |
| 2. Naomi Macklem | 74.21mph |
| 3. Paul Smith | 70.88mph |
| 4. Bob Whitney | 70.09mph |
| 5. Alonzo Gibbs | 64.17mph |
| 6. Ken Towers | 53.89mph |

Fox Speed 14 laps timed from launch (one mile)

- | | |
|------------------|-----------|
| 1. Tom Schaefer | 107.43mph |
| 2. Al Ferraro | 105.42mph |
| 3. Jim Vigani | 100.28mph |
| 4. Henry Nelson | 100.11mph |
| 5. Paul Smith | 69.86mph |
| 6. Ken Towers | 67.38mph |
| 7. Naomi Macklem | 62.53mph |
| 8. Don Sopka | 62.51mph |
| 9. Alonzo Gibbs | 60.82mph |

Perky Speed 16 laps timed from launch (one mile)

- | | |
|-----------------|-----------|
| 1. Bob Whitney | 114.07mph |
| 2. Al Ferraro | 112.36mph |
| 3. Henry Nelson | 109.16mph |
| 4. Tom Schaefer | 104.62mph |
| 5. Dave Hallas | 99.31mph |
| 6. Paul Smith | 97.64mph |
| 7. Dave Evar | 88.69mph |
| 8. Ken Towers | 70.89mph |
| 9. Ken Dawson | 70.31mph |

Brodak Fly-In Racing Results

The Cicada 1400 Lap Enduro 100 miles, 20 mandatory pitstops, LA 25's

- | | |
|--------------------------------|--------------------------------|
| 1. Chuck Barnes/Charles Barnes | 1 hour 22 minutes (new record) |
| 2. Len Bourel/Doug Blackmore | 1 hour 44 minutes |
| 3. Charlie Johnson/Paul Smith | 1 hour 53 minutes |

Many thousands of cicadas died as a result of this race.

Clown Race 7 ½ minute heat and 15 minute final, Brodak or LA 15's only, one ounce tank

- | | |
|----------------------------------|----------|
| 1. Cristina Henley/John Saunders | 235 laps |
| 2. Marc Warwashana/Bryce Gibson | 228 laps |
| 3. Ted Heinritz/John Passalaqua | 50 laps |
| 4. Dennis thomas/Phil Spillman | 103 laps |
| 5. Naomi Macklen/Len Bourel | 101 laps |
| 6. Ken Towers/Bryce Gibson | 74 laps |

Clown Race – Expert

- | | |
|-------------------------------|----------|
| 1. Al Ferraro/Tom Schaefer | 264 laps |
| 2. Charlie Johnson/Paul Smith | 260 laps |
| 3. Len Bourel/Marc Warwashana | 205 laps |

Foxberg Race 100 lap heat and 200 lap final

- | | |
|----------------------------------|----------|
| 1. Len Bourel/Marc Warwashana | 15:21.88 |
| 2. Dennis Thomas/Phil Spillman | 18:18.45 |
| 3. Jerry Haupt/Ed Wallace | 7:18.00 |
| 4. Rick Osborne/Dave Hallas | 8:19.00 |
| 5. Cristina Henley/John Saunders | 9:10.96 |
| 6. Ken Towers/Len Bourel | 20:03.63 |

Foxberg Race – Expert

- | | |
|-------------------------------|----------|
| 1. Tom Schaefer/Al Ferraro | 13:44.55 |
| 2. Bryce Gibson/Paul Smith | 14:08.00 |
| 3. Dan Banjock/Mike Palko | 14:17.00 |
| 4. Al Ferraro/Tom Schaefer | 7:31.50 |
| 5. Charlie Johnson/Paul Smith | 7:45.96 |
| 6. Dave Hallas/Bob Whitney | 9:27.66 |

Paul Smith organized the 1400 lap race and John Saunders was event director for Clown and Foxberg. Nice job. All event results at: <http://www.brodak.com/> Click on 2016 Fly-In

Western Australia State Championships Whiteman Park, Perth, Australia

Aussie Stock Jet Two .021 by 60 foot lines

1. Brendan Robinson	154.68mph	248.93km/h
2. Don Robinson	153.49mph	247.02km/h
3. Andrew Robinson	152.97mph	246.18km/h
4. Patrick Hempel	151.68mph	244.11km/h
5. Ian thompson	147.34mph	237.12km/h
6. Todd Zanetti	142.89mph	229.96km/h
7. Chris Lomas	138.18mph	222.38km/h

Aussie Fast Jet One .031 by 70 foot line

1. Andrew Robinson	190.52mph	306.61km/h
2. Patrick Hempel	190.32mph	306.29km/h
3. Brendan Robinson	184.66mph	297.18km/h

Bill and Bev Wisniewski Memorial Whittier Narrows June 4-5

1/2A Speed

Howard Doering	119.20mph
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A Speed

Howard Doering	176.14mph
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Fast Jet

John Newton	181.81mph
Joey Mathison	181.63mph
Dick Hart	?? Big Bird
Ron Duly	149.75mph

Northwest Sport Jet

Joey Mathison	150.30mph
John Newton	144.71mph
Dick Hart	142.98mph

NASS Sport Jet

Joey Mathison	150.27mph
John Newton	146.16mph
Dick Hart	143.19mph
Howard Doering	138.88mph
George Brown III	131.04mph

Following page: Dan Banjock (Stuntus Loudus) and Mike Palko (F-86) flew a stunning exhibition flight with the two jets at the Brodak Fly-In. Everything worked perfectly during practice but Dan's Dyna Jet proved to be cranky during their Friday evening show. Even if you have to miss dinner, be sure to see them at the Nationals. Impressive!!



F-86 vs. Stuntus Loudus.....there can only be one!





Bob Whitney's rear induction Fox Stunt, doesn't everyone have one? The Fox stunt case and head had to be used but everything else could be changed or modified. Below: Jim Vigani's beautiful Fox Stunt Speed, mini pipe, it just broke 100mph proto.





Jim Vigani's Double Diamond and Al Ferraro's Scarinzi Super Satan.



Henry Nelson tunes his engine for his first Perky flight (obviously a Nelson front intake and rear exhaust, no mini pipe). He immediately jumped to the top of the leader board with 109.16mph. Al Ferraro finally topped Henry's time with 112.36mph with a Fora F2d engine and Bob Whitney won the event with 114.07mph after a full day of testing and tuning. Bob's entry was also a rear exhaust Nelson with the screw in backplate. Dick Lambert modified the cylinder/piston and a .260 venturi was used along with a stock APC 6.5x5 prop.

Henry's Fox Stunt Speed entry broke 100mph on its first run but after the timed portion the engine seized. Henry was running up his spare engine in the pits when the spinner along with part of the crankshaft flew out of the engine and landed on a nearby pitbox. Engine number three ran about 20 seconds in the pits before it too croaked.

Paul Smith did a fantastic job running the Speed events with contestants getting as many attempts as they wanted over the three days. In his spare time he managed to fly both Carrier and Scale. As John Brodak would say, "the way flying should be."
Thanks, Paul, for all the hard work.



Here are just a few of the scale models seen at the Brodak Fly-In.

MIKE HAZEL

Exclusive World distributor of ZZ! Prop brand composite airscrews

Po Box 505, Lyons, Oregon 97358

Day phone: 503-859-2905, 24 hr phone: 503-871-1057, e-mail: zzclspeed@aol.com

May 2016, List Number 21

This list supersedes all previous ones.

IMPORTANT NOTE, READ! The props offered on this list are sold in a semi-finished condition, unless specifically designated otherwise. The purchaser determines suitability for their application, and must do the necessary finish work. The props as sold are approximately 99% flash-free, and finish work will generally be quick on most designs. It is assumed that the customer is familiar with general procedures in preparing and using composite type propellers.

HOW BUSINESS IS DONE:

TERMS: Unless prior arrangements have been made, payment is expected with the order. Payment may be made with cash (wrap it up good!), check or money order (U.S. funds) made payable to Mike Hazel. For overseas orders I can also accept Western Union wire transfers. (no credit card, no paypal)

DISCOUNT: On prop orders of over \$100, a 10% discount is allowed. Discount does not apply to any other products listed.

PLACING YOUR ORDER:

Order by the specific prop name that is underlined on the list. Also indicate whether you want glass or carbon, plus shaft bore size if there is a choice listed.

BY MAIL: Please use the included order blank, or copy. Or just write it out, including all information needed.

BY E-MAIL: Transmit all the necessary information as laid out on the standard order blank. I will send back an e-mail confirmation of the order and total.

BY PHONE: Daytime: 503-859-2905
(10 AM to 2 PM Pacific time)
24 Hours: 503-871-1057 (cell number/messages)

DELIVERY TIME: Will be variable, maybe two weeks, maybe two months! Please order well ahead of your needs.

OVERSEAS ORDERS: If you need any special wording on the package contents declaration form, please indicate this on the order form.

SHAFT BORES: Sizes are noted under each prop description. Some of the props will offer a choice of shaft bore. Some of the props have a stepped bore, which will allow you to drill out to larger size without compromise of strength.

SPECIAL NOTE: Thanks to all my customers over the years for your good words about these props. The Zoomer appreciates it!

Zoot Zoomer sez.....



*"Hey Man!
Be cool and
buy some of
these props!"*

ZZ 5 X 4

General purpose design for 1/2 A
(1/8 S.B.)

Glass \$8.75, Carbon \$9.00

GIEFFORD 1/2 A

Modified Tornado measures

4.9 x 3.5 (3/16 S.B.)

Glass \$8.75, Carbon \$9.00

SCHUETTE 1/2 A PROTO

measures 4.1 x 4.1 (3/16 S.B.)

Glass \$8.75, Carbon \$9.00

SCHUETTE 1/2 A #1

4-1/8 x 4-1/8 (3/16 S.B.)

Glass \$8.75, Carbon \$9.00

SCHUETTE 1/2 A #2

4-1/8 x 4-1/2 (3/16 S.B.)

Glass \$8.75, Carbon \$9.00

GIBEAULT MOUSE RACE

Copy of Paul Gibeault's Mouse

Class I Nats winner,

measures 4-5/8 x 4 (1/8 S.B.)

Glass \$8.75, Carbon \$9.00

KK-Z 1/2 A

Copy of modified Kim-Kraft Left
Hand design. Measures 5-3/8 x 4-1/4
(1/8 S.B.)

Glass \$8.75, Carbon \$9.00

WASHINGTON GOODYEAR

.15 size racing design by Demetrius

Washington measures 6-1/4 x 4

(1/4 S.B.)

Glass \$12.00, Carbon \$13.00

F2D SPECIAL

For F1A1 Combat, or .15 racing
events, measures 6.1 x 3.5

Shaft bore: (3/16) (1/4) (8mm)

Glass \$12.00, Carbon \$13.00

SCHUETTE 21 MK 2

Original design by Chuck Schuette
for 21 speed, nominal 6 x 6

(1/4 S.B.)

Glass \$12.00, Carbon \$13.00

SCHUETTE 21 MK 3

Swept back raked tip design

(1/4 S.B.)

Glass \$12.00, Carbon \$13.00

SCHUETTE 21 MK 4

Very similar to MK II, except longer
span (6.3) and slightly altered blade
sections. (1/4 S.B.)

Glass \$12.00, Carbon \$13.00

NEWTON-SCHUETTE 21

Similar to the MK II, with modified
blade sections courtesy of John
Newton. (1/4 S.B.)

Glass \$12.00, Carbon \$13.00

MIDWEST 21

Wide blades for speed or proto,
measures 6-1/8 x 6 (1/4 S.B.)

Glass \$12.00, Carbon \$13.00

LEFT HAND 21 SPECIAL

Measures 6.2 x 6.2 (1/4 S.B.)

Glass \$12.00, Carbon \$13.00

ZZ 6-3/4 x 5-1/2

Rev-Up style blades (1/4 S.B.)

Glass \$12.00, Carbon \$13.00

WASHINGTON 21 R

For speed or racing, measures

6-3/4 x 6 (1/4 S.B.)

Glass \$12.00, Carbon \$13.00

SCIMITAR 6-1/4 X 3-1/2

Slightly modified from APC 6.3 x 4
(3/16 S.B.)

Glass \$12.00, Carbon \$13.00

SCIMITAR 7 X 4

From APC sport prop (3/16 S.B.)

Glass \$12.00, Carbon \$13.00

SCIMITAR 9 X 5

From APC sport prop, has thicker
tips (1/4 S.B.)

Glass \$16.00, Carbon \$17.00

36 COMBAT

Copy of the APC 7.8 x 6, for high
performance combat.

(1/4 S.B. with large step)

Glass \$15.00, Carbon \$16.00

YELLOW 8 X 8

Reproduction of the old classic
Tornado yellow nylon racing prop.
(1/4 S.B.)

Glass \$15.00, Carbon \$16.00

ROSSI 7 x 11

(1/4 S.B.)

Glass \$13.00, Carbon \$14.00

HUNT B MKII

Measures 6.8 x 6.5 (1/4 S.B.)

Glass \$13.00, Carbon \$14.00

KILLER BEE

Original pattern from a modified TP
"toothpick" speed prop, measures

7 x 7-3/4 (1/4 S.B.)

Glass \$13.00, Carbon \$14.00

ZZ 7 X 8

'B' Speed design by ZZ

(1/4 S.B.)

Glass \$13.00, Carbon \$14.00

Z 40

Zoot Zoomer's modified version of
Rev-Up series 400B 8 x 8,

(1/4 S.B. with large step)

Glass \$15.00, Carbon \$16.00

FORMULA 40 MK II

Measures 8 x 7 (1/4 S.B. with step)
Glass \$15.00, Carbon \$16.00

FORMULA 40 MK III

Measures 8 x 8-1/4, same blades as
the Mk II (1/4 S.B.)
Glass \$15.00, Carbon \$16.00

KORTNESS FORMULA 40

Modified APC blades
(1/4 S.B.)
Glass \$15.00, Carbon \$16.00

SALTER R-1

Measures 7-1/4 x 8-1/4 (1/4 S.B.)
Glass \$15.00, Carbon \$16.00

GRITZ 40

Measures 7-3/4 x 8 (1/4 S.B.)
Glass \$15.00, Carbon \$16.00

WASHINGTON RAT

Racing prop measures 8 x 6-1/2
(1/4 S.B. with step)
Glass \$14.00, Carbon \$15.00

M-Z 8-3/8 X 8-1/2

(1/4 S.B.)
Glass \$15.00, Carbon \$16.00

SUPER ZOOT 9 X 7

General purpose design for racing,
carrier, etc. (1/4 S.B. with step)
Glass \$16.00, Carbon \$17.00

GARNER 9 x 7

Originally used in old rules
Slow Rat event. (1/4 S.B.)
Glass \$16.00, Carbon \$17.00

REV-UP 'D'

Modified Rev-Up blades, measures
9 x 10-1/2 (1/4 S.B. with step)
Glass \$16.00, Carbon \$17.00

NEWTON-McGEE 'D'

Measures 8.2 x 11
Shaft bore: (1/4) or (3/8)
Glass \$16.00, Carbon \$17.00

DOCTOR 'D' MK II

Measures 8-5/8 x 9-1/4
(1/4 S.B. with step)
Glass \$16.00, Carbon \$17.00

TORNADO 'D'

Measures 8-1/2 x 11 (1/4 S.B.)
Glass \$16.00, Carbon \$17.00

.19 FREE FLIGHT

A modified Rev-Up, specifically
designed for the K&B 3.25.
Measures 7.7 x 3.9 (1/4 S.B.)
Glass \$14.00, Carbon \$15.00

PAILET F1J SINGLE

Special single blade for use on one or
two blade folder hubs with 2 mm pin.
Design originally made as a
replacement to fit Verbitsky hub.
(no hubs available here, don't ask!)
Carbon only \$12.50

PAILET 6.4 X 2

Two blader for high performance
small bore FF. (1/8 S.B.)
Carbon only \$12.50

SYRINGES

The following syringes listed are the
usual premium brand you expect to
find, and are priced much less than
your hobby shop. Use for filling fuel
tanks, engine priming, mixing/
applying adhesives, etc. etc.

20 cc (2/3 ounce) \$1.00

35 cc (1+ ounce) \$1.50

60 cc (2 ounce) \$2.00

140 cc (5 ounce) \$9.00

BENCH PROPS:

A must for every
competitor, these props are
specifically designed for engine
break-in and reference bench-testing.
They are closely sized to fit the
engine size noted, and of course can
be trimmed as necessary to fit your
needs. Instruction and spec sheet is
included with your bench prop order,
also available on request for your
review. All sizes are made in
fiberglass only. The 15 size has a
3/16 inch shaft bore, and the others
have 1/4 inch shaft bore.

.15 BENCH

\$15.00

.21 BENCH

\$16.00

.40 BENCH

\$18.00

.60 BENCH

\$20.00

Notes & Additions.....

Coming soon:

1/2 A Combat props

Thunder Tiger 11 x 4.5



F2C and F2F Team Racing engines from Alberto Parra albparra2@gmail.com The engine was designed by Vladimir Sosnovsky and built at the Parra-MS factory. Two models are available: **MS-SV F2C Sport** is for professional use. **MS-SV F2F** is for use in F2C or F2F and comes with both a F2C and F2F venturi. Differences between engines are the crankshaft (**Sport** version is integral), rear cover is a different design as well as carburetors, and rotor on the **F2F** engine comes with four halves to set carburetor at different positions. Head and cylinder set is all integral on the **Sport** version. Limited units available at this price:

F2C Sport	€510
F2F-F2C	€290
Shipping Europe	€ 10
Shipping rest of the world	€ 14

TCA Racing Accessories <http://www.tca-srl.it/Home/SITO/index.html>
Antonio.Giadrini@univar.com



Nelson or GlowBee style, various wire thicknesses, standard plugs too in all heat ranges.

PITMEN IN ACTION



Bob Mears and Allen Deveau pitting for Andy Minor.



Ivan and Pat Mackenzie at the ready during Yaroslav's match.



Steve Wilk (USA's Fischer/Wilk F2C team) nearly lets the model get out of the frame. Models are light but land very fast. Three timers per team, one timer controls the lap count on the scoreboard. All times are recorded and verified by staff. The Aussies had a top notch crew.



Mark Rudner pitting for Andrey Nadein.



Mark Ellins, finest pitman in the world, prepares for the 200 lap final at the WC's in Perth....they won.



Roland Surugue was just a couple flicks slower than Aussies Mark Ellins and Mark Poschkens (right). Rob Fitzgerald made a *tactical* pass with a couple laps to go to claim the win by a half second, 6:22.8 to 6:23.3. The French team was close with 6:28.6.



The Complaint Desk has closed.

The Editor has left the building.