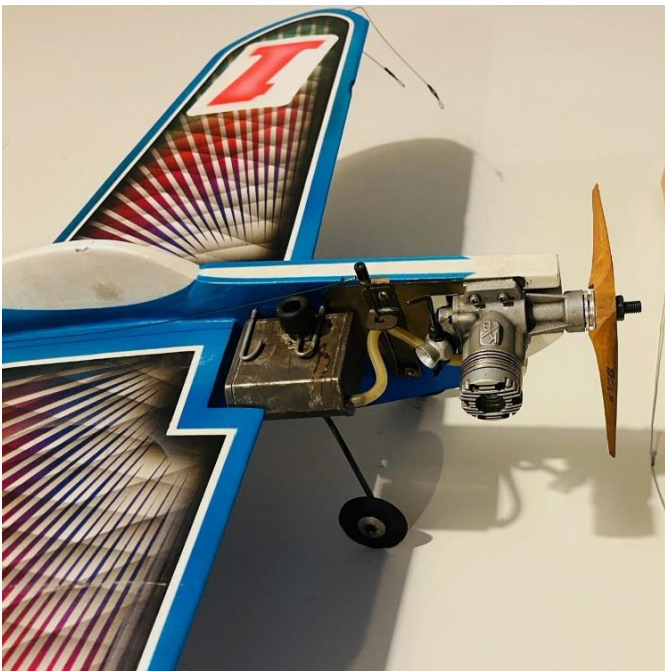


**From: National Control Line Racing Association
Bill Bischoff 1809 Melody Ln.
Garland, TX 75042**



TO



Built and raced in 1973, this K&B .15 powered Shoestring model was the last AMA open Goodyear entry of Ron Howe. See South Central district for details on what Ron is up to now.

INSIDE:
District Reports
Suppliers/Equipment
Updated Contest Calendar

Torque Roll Issue #167
April 2023

PRESIDENT – Bill Bischoff

Once again, it's officer election season. The ballot for District Representatives will appear in the next newsletter. Incumbents should indicate whether they want to run again or step down. I personally am willing to go for another term, so I'll commit to it before I change my mind. Of course, challengers are welcomed and encouraged, so don't be shy. As always, before you nominate someone besides yourself, make sure that person gives consent. In NAT'S news, the F2C team selection will be Monday, July 10, in the form of the NATS regular F2C event. Practice will be in the morning while we are having Mouse and Vintage BTR, and three rounds of Team Race will be flown in the afternoon. Contestants from the morning's events are asked to please stick around to help time Team Race.

For the rest of the week, AMA slow rat and AMA Goodyear will be Tuesday, Quickie Rat and Sport Goodyear will be Wednesday, and we will finish up with Super Slow Rat and Clown Race on Thursday, July 13.

If you're attending but not flying all the events, considering running an event. It'd sure help me out. All you'll really need to do is run the actual races; I'll do all the preliminary stuff. If you think you might give it a go, just let me know.

We have secured sponsors for the NATS unofficial events. Richard Kucejko will sponsor Vintage B Team Race. The Dayton Buzzin' Buzzards are sponsoring the Gold, Silver, and Bronze finals in Sportsman Goodyear. Quickie Rat will be sponsored in memory of Tim Stone, Super Slow rat will be sponsored by Pat King, and the Dallas Model Aircraft Association will sponsor Clown race. Be sure to thank all these sponsors for their donations to our events.

In the last newsletter, Paul Gibeault suggested that we consider going to contest supplied fuel for class I Mouse. Obviously, we should try it before we vote on it or even before we submit a formal rule change proposal. Our first contest in Dallas with Mouse is at the end of April. I have ordered 8 quarts of fuel from Red Max to try out. I ordered 35% nitro, 5% castor, 15% synthetic. Shipped direct to my door, it was just under \$120 (\$15/qt) . I ordered by phone, and had it in less than a week. Sharp eyed readers will notice that Paul suggested 10% castor and 10% synthetic, instead of 5/15%. I made this change because 5/15% is what we agreed on at the last NATS meeting, and folks in the know (including Paul) think that 5% castor is sufficient and will probably reduce cylinder varnishing.

If you race mouse in your area, do yourself and your racing buddies a favor and get some of this fuel to try. By the way, it looks like Sig is out of the fuel business for good, so those who use Sig Champion 35% will have to find an alternative anyway. I will have some of this blend at the NATS, and I encourage people to try it. This will be on a strictly voluntary basis, as the official rule has not changed.

On the local level, I hope everyone's contest schedules have been reported to Les or their District Rep's.

NORTH CENTRAL – Paul Gibeault

Prepping your equipment for the new season. (*Thanks to Bill Bischoff for his continuing inspiration.*)

Prepping your racers for the new season really begins at the end of **the last season**. Among other things, your models at the end of the year ought to be wiped down squeaky clean.

Novus 2 polish works wonderfully to polish up epoxy paint finishes. Novus 1 polish works great on film coverings.

Your motors ought to be removed for a minimum of a thorough external solvent cleaning with Brake Parts Cleaner or similar solvent & a toothbrush. If internal disassembly is not required, then I inhibit my motor with a generous application of Mobil Jet II synthetic turbine oil or similar. I like MJ II for two reasons. 1. Jerry Rocha (the fastest all round speed flier in the nation) uses it not only in his engines, but also in his metal fuel tanks. 2. It never gets sticky over time. Marvel Mystery oil, Prather after run oil and Henry Nelson's favorite ATF (Auto Transmission Fluid) are also acceptable corrosion prevention inhibiting oils. I have found some oils like WD-40 & some types of LPS will get sticky over long periods of time.

I leave my motors off the model between contests, wrapped in a cloth & then placed in a plastic sandwich bag. Throwing in silica desiccant packs can also help if you're in an area with high humidity. These packs are highly porous & have a strong affinity for absorbing moisture, which helps to ward off corrosion.

Back to the model: Upon a thorough cleaning you will inevitably find airframe damage. It's best of course to fix this damage after the season as opposed to before the new season as invariably, you'll run out of time when left to the last minute. (*Ask me how I know!*) Faults to look for include:

- missing /damaged/ worn skids & fairings, require replacing.
- worn bellcrank pushrod holes - requires bushing the elongated holes or replacement.
- worn control horn holes - requires bushing the elongated holes or replacement.
- loose / missing hinges - requires replacement of hinge(s) and hinge gap sealing tape.
- loose / wobbly landing gear wheels. - require reaming the worn wheel hub holes round again & making a close-fitting bushing to match. OR replacing the wheel assembly & resoldering.
- cracks in anything made from aluminum, look in any place where there is a bend - replace part.
- airframe cracks, especially in the wing & stab. joint areas - thin CA seeped in at minimum and /or carbon cloth & epoxy reinforcement if necessary.
- fuel ingress. Notably found around the nose area, often indicated by paint bubbling. Strip paint, use dry cleaning aerosol solvent to remove oil and or a hot Monokote iron over a paper towel to draw out the oil.
- slack / wrinkled/ torn /worn / peeling Monokote covering. Carefully re iron as required & CA seal lifting edges. If not possible, I'll often use clear Sealamin (sticky backed clear combat model covering) & iron on a repair patch as required.

My TQR after last season had:

- Fuel ingress in the nose / LG area
- Worn bellcrank pushrod hole
- Cracked stab to fuse joint
- Leaky tank
- Worn shutoff trip wire

(*Other than that, it was perfect...*)



For this season my Fox racer will finally have a streamlined nose to spinner gap.

I personally find I can only repaint in the Spring & Summer months because my 2-part poly paint is quite toxic to use indoors. So, I do as much repair work as I possibly can in the shop & then everything gets re-painted en mass in the Springtime. Those of you with better weather & spray booths are particularly fortunate!

- Tanks require pressure testing and re-soldering when leaks are found.

- Rubber Don's fast fills are playing *Russian Roulette*, but if you use them, start the season off with a new supple one.

- **Lines / Handle:** At the end of the season lines should be wiped down with acetone just before being wound up on the reel for the season. Easiest done with two people. In the Spring, roll out the lines & run your fingers over the lines. They will easily feel kinks & anomalies. Decide at this time if they require replacement or not. Solid lines really are the worst for both attracting corrosion & getting kinked. (Clean your reel from dirt while you're at it). Spring is an excellent time to make up new lines BEFORE your first race. I have a number 1 set and a back up set of lines for each of my racers. The exception is Mouse race where I have 3 sets as racing is hard on those thin .010" solid lines.

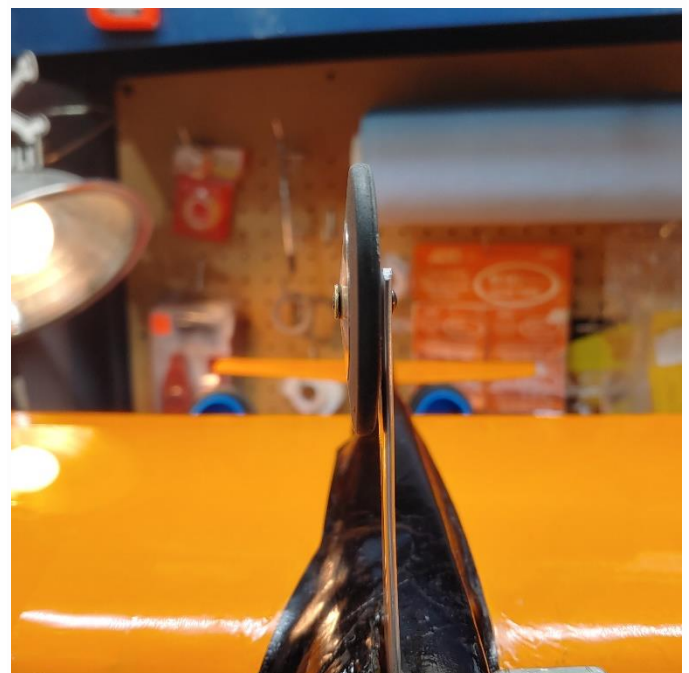
I once lost a \$2,000.00 model when my handle cable failed (even though it had just passed a pull test). Ever since I now run my fingers over the handle cables & have a good look at them. I have found the odd cable has frayed & is in need of replacing.

Additional mods: Now is an excellent time to perhaps think about anything **to increase streamlining** or improve your model. My pylon race buddy gave me grief when he saw me attach my Fox Racer wheel with a huge 6-32 cap screw & fibre lock nut. He also didn't like my spinner gap 1/4" away from the nose of my model. So, over the winter I cleaned up those two areas. I don't know if it's any faster, but it sure looks a lot cleaner!

I've also added basswood fairings to my music wire L.G. struts which actually do reduce drag.



My old Don's wheel is now replaced with a B Team Race wheel from England.

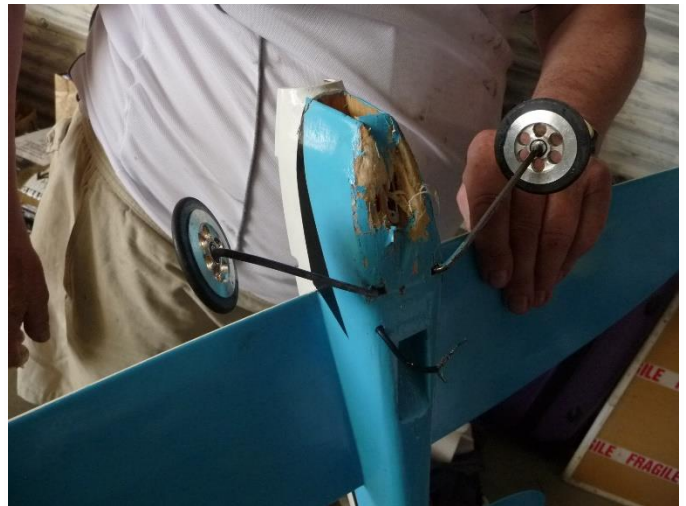


The streamlined look after new wheel & axel bolt are installed.

Engines: All I can say, is start thinking of sourcing replacement parts & gaskets now BEFORE the season starts. Ensure you have enough glow plugs & prepare for a price shock if you need to order more. Cox engines always need their ball-sockets checked & re-set as required. I broke a rod while racing in Germany neglecting this.

Props: Examine your racing props paying particular attention to fuzzed tips & also to striation micro cracking in APC nylon props.

Discard if you find this. Re-balance props after any repairs. Note: I ALWAYS remove the razor sharp T/E's on all my APC props & hit the L/E's with 400 paper as well. Razor sharp props are sexy **BUT are not any faster**, so protect yourself & your starting glove. Don't trust ANY new props to be balanced out of the package... Always check yourself to be sure.



The other guy fared worse though...Gotta love those beautiful British wheels!

Newsflash!

This just in from Cox International.
coxengines.ca

Paul,

Knowing that you race Cox 049 engines, we wanted to let you know that we have manufactured crankcases to way better tolerances than Estes did. Actually, they were made to drawing this time, instead of to the loosened Estes tolerances, and they can be found here: <https://coxengines.ca/front-end/cox-049-051-crankcase-silver.html>

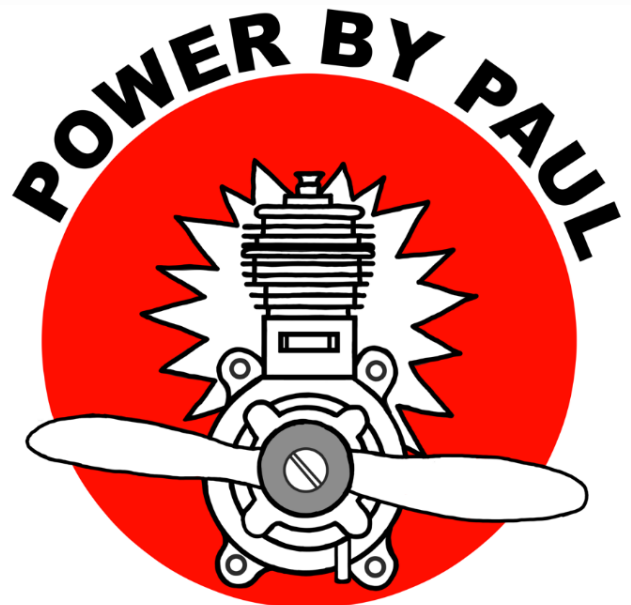
Cheers
Bernie.



Note to self: When prepping your models, adhere to the five P's - *Proper Preparation Prevents Poor Performance*. (Here's what happens when you don't; note the tape & field required tie wrap after the tank came loose...)

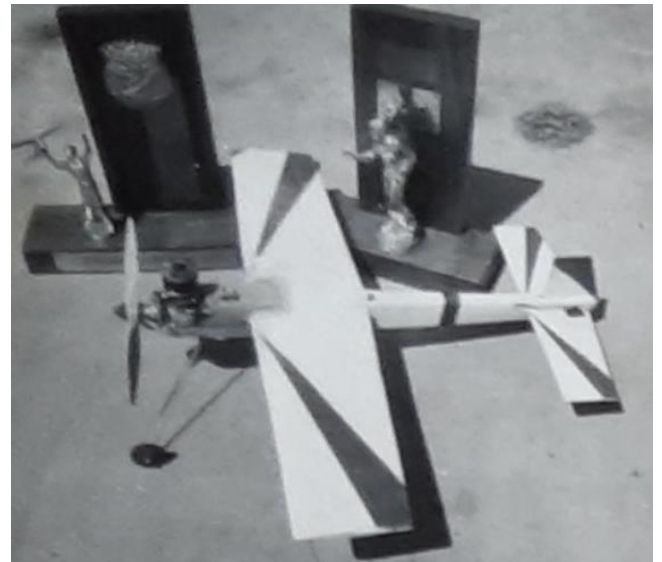
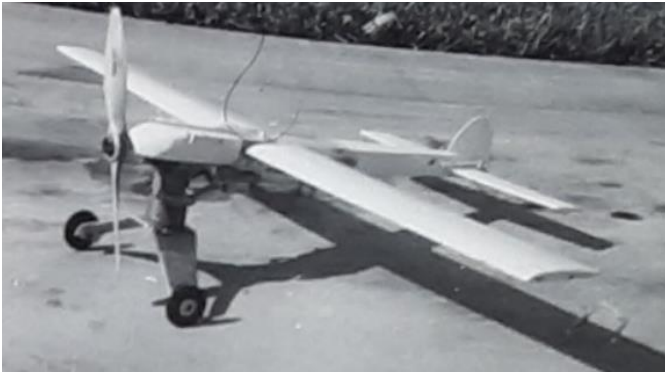


B T/R: S**t happens to the best of us...but why me?



SOUTH EAST – Bob Whitney

Hello from Sunny Florida. I guess the latest news is that the FAI F2C team trials will be the first Monday of the Nat's. A new format with practice in the morning and 3 heats in the afternoon with your one best score counting will be implemented. I have been asked to be part of the jury. This will be a new experience for me. With 3 teams flying at once we are sure to need lap counters so pitch in if you can.



The top picture is of the first aluminum pan Rat that I know of. I had it cast to a square shape to better fit a fuel tank, my later mouse 2 rats were a copy of this ship.



On stunt hanger, they have been talking about mounting aluminum landing gears on the head of an inverted motor. The top picture is of my McCoy 29 powered rat that won JR RAT the K.O.I., the lower is a S/T 40 powered rat that took 2nd the next year in SR. If you notice there is no rubber wheels, just hubs. On the last pit stop, the line clips flipped over and then flipped back on take off, it pancaked in only breaking the prop. I replaced the prop and went on to take 2nd place.

The two pictures above show airplanes more typical of what we flew here in Florida in the late 50's and early 60's.



The last picture (above) is of 3 diff ringmasters, (L-R) my original kit, a Brodak copy and a vintage combat copy. Mine has a .35 diesel in it, the Brodak ship has a McCoy 35 and the Vintage ship has a normal Fox 35 stunt. They all fly pretty good. We are trying to get the powers that be to cut the grass lower so we can actually land without flipping over every time.

RAD

SOUTH CENTRAL – Bill Bischoff

The ol' email bag is practically bursting at the seams with pictures this month. First, from southern California, Bob Harness sent a photo of his new SH powered Sport Goodyear Margaret June. I met Bob last fall at a contest in Los Angeles. He used to fly FAI Team Race "way back in the day", and now his interest in racing is returning. Bob has teamed up with Pete Cunha, who has also been racing casually for a while. I wish these guys nothing but success.



Bob Harness' new SH powered Margaret June.

Next, we have a couple of BooRay's built by Leighton Mangels of Oregon. Leighton is also a racer from way back. In fact, he used to live in my area before I moved to Texas. He's been racing in the Northwest for a few years, and it looks like he's ready for their first contest for DMAA Sportsman Goodyear this spring.



The Booray's of Leighton Mangels - hoping to re-establish Sport Goodyear to N.W. Racing scene.

Prolific builder Richard Kucejko has a new Super Slow Rat for the upcoming season. The weather has thrown up some roadblocks to getting it test flown, but I'm expecting it'll be good to go for the April contest in Dallas.



Richard Kucejko's new Super Slow Rat, Brodak B25 for power.

Next, Mike Greb shows off his prototype for a new impact attenuating pitting helmet. I'm not sure how well it will work, but it looks like it could also give a pilot the "racer's edge". Finally, we have a story and some photos from Ron Howe, who used to fly AMA Goodyear in the '70s. Ron's current goal is to go 100 mph in the year of the 100th NATS. Best of luck to Ron.



Are you green with envy of Mike Greb's Pitting attire?



AN EMAIL FROM FORMER RACER RON HOWE

I am a new member of the Lancaster County Radio Control Club in Lancaster, Pa. I moved here a year ago from Cartersville, Ga. I am the club's Event Director for the Ringmaster Fly-A-Thon.

Fred Quedenfeld is my stunt flying mentor and instructor. He told me about his Team Racing years at the Nat's. Fred mentioned it would be fun to attend the 100th year at the Nat's and fly faster than 100 mph. He showed me his Perky model being built. I was hooked and decided to start with a Goodyear Racer and hit 101+ mph in 2024. If I can fly 101+ mph at 73 years old without falling down, then I will build a Perky Racer. This is my ultimate goal.

Bill Bischoff and Bill Lee, I appreciate your quick and helpful advice. Now, I am planning, reading and asking questions. I have read your emails several times and taken notes. I am going to build the Margaret June GY Racer.

Bill B, your article is outstanding and a great place to start. Memories of when I was young. I am sending a picture of Bob Morse (pit man) and me (pilot). We were sponsored by Hobby Town and we bought K&B engines at cost for \$50.00. We had no idea where to buy a Rossi. I seem to remember our K&B Engines were about 5 mph slower than our competitor's Rossi engines. I always wondered what it took to get a GY to fly faster than 100 mph.

You recognize the Sig Shoestring GY. The Sig kits were not holding up to the stress, so we scratched built from the plans to solve that problem.



We practiced pitting a lot. Our pits were very consistent and competitive. We raced in Massachusetts, New Jersey and were invited to race in Montreal with the Canadian GY Pilots. The GY Racer you see was my last one in 1973, built and covered with silk span. I was running out of time before the GY race in NJ. I asked Dickie Sherman to paint it my usual white color. I was shocked to see the beautiful pearl paint job. Dicky and Jimmy Carpenter members of the New England Control Line Combat Association wanted me to dazzle the GY Pilots in NJ.

Ron Howe, AMA 19184

FROM THE WORKSHOP OF PETE CUNHA

Hi Bill, latest SSR. Stock Superfly/w O.S. FP 25. Brodak did a nice job with this kit. It's a great starter kit for racing. Next one will have the Bischoff mods. No flights yet but it won't be long. You all stay safe out there in Texas.
Pete C. In NorCal



CONTEST CALENDAR

NCLRA cannot be held responsible for errors or omissions!

This calendar is compiled from data collected at the NCLRA website nclra.org, and other published sources.

Members can log in to NCLRA.org and submit contest details.

NORTHEAST DISTRICT

None

NORTH CENTRAL DISTRICT

None

NORTHWEST DISTRICT

April 21-23

• Jim Walker Memorial Spring Tune-Up, Jim Walker Memorial Field, East Delta Park, Portland, Oregon, Sportsman Clown Race, Northwest Sport Race, NW Super Sport Race.

For information e-mail: scappod@gmail.com

May 26-27-28

• 50th Northwest Control-Line Regionals, Roseburg Regional Airport, Roseburg, Oregon. NW Sport Race, NW Super Sport Race, NW Clown Race, Sportsman Clown Race, new this year: DMAA Sport Goodyear.

For information e-mail: zzclspeed@aol.com

SOUTHEAST DISTRICT

None

MIDWEST DISTRICT

July 10-13

100th Anniversary AMA National Aeromodeling Championships. 5161 E. Memorial Dr. Muncie IN 47302

Monday: F2C team selection, Mouse 1, Vintage B Tr.

Tuesday: AMA Slow Rat, AMA Goodyear.

Wednesday: Quickie Rat, Sport Goodyear

Thursday: Super Slow Rat, Clown Race

SOUTH CENTRAL DISTRICT

April 28-29-30 Spring Warm Up

Saturday: Quickie Rat, Super Slow Rat, and Sport Goodyear

Sunday: Mouse 1, Clown race, and AMA Goodyear.

June 10-11 Bob Gieseke Memorial

Saturday only: Mouse 1, Quickie Rat, Super Slow Rat, and Sport Goodyear.

September 2-3 Charles Ash Memorial

Saturday only: Mouse 1, Quickie Rat, Super Slow Rat, and Sport Goodyear.

October 13-14-15 Fall Finale

Saturday: Quickie Rat, Super Slow Rat, and Sport Goodyear

Sunday: Mouse 1, Clown race, and AMA Goodyear.

All contests held at Samuell Garland Park, Northwest Hwy, and Garland Rd. Dallas, TX. 75238. GPS 32.866867, -96.671400

At all contests, NCLRA legal Fox racers may enter Super Slow Rat. Fox 35 appropriate fuel will be provided. I hope to see many of you this year.

SOUTHWEST DISTRICT

None



DMAA Spring Warm-up
Gene Hempel Memorial
April 28, 29 & 30 - 2023
Control Line Racing and Speed
Site: Samuell Garland Park

Northwest Highway & Garland Rd. Dallas, Texas
11500 McCree Rd. Dallas TX. 75238
GPS 32.866867, -96.671400
Class AA AMA Sanction # _____
Pilots Meeting at 9:30 AM Friday, Saturday & Sunday





Friday 04-28 Record Ratio Speed NASS Sport Jet NASS Perky Speed	Saturday 04-29 Texas Quickie Rat Super Slow Rat Sport Goodyear	Sunday 04-30 Clown AMA Goodyear Mouse 1
---	--	---

Speed events all three days. All events are (JSO). Helmets required for racing pit crews.
Entry Fee: \$20 first event, \$5 each additional event.

Contest Director: Patrick Hempel
For additional info. On event rules.
See Web Site: www.dmaa-1902.org

Sponsored by
Dallas Model Aircraft Association
Fuel and awards provided
By NASS, DMAA & NCLRA
AMA: License & Entry fee required

Racing Event Director: Mike Greb



SUPPLIERS

BRODAK MANUFACTURING

Everything c/! 100 Park Ave, Carmichaels PA,15320
724-966-2726 email flyin@brodak.com

CS ENGINES AMERICA

113 North Chase Ave., Bartlett, IL 60103
G/Z .049/.061 Engines; sales, service & parts. (Bill Hughes)
e-mail williamhughes4@comcast.net 630-736-6036

ELIMINATOR PROPS

Steve Wilk 3257 Welcome Ave. N. Crystal, MN 55422
763-531-0604 e-mail swilk@cpinternet.com
Online store <http://eliminatorprops.com/store/>

STEVE EICHENBERGER

Custom Fibreglas Performance Props: Moulded tops. Steve Eichenberger
480-730-0016

GOODYEAR PLANS- DOUG MAYER

Douglas Mayer 5010 W. 123rd Place
Hawthorne, CA 90250
310-463-0525 cell Email: douglasmayer58@gmail.com

JUST ENGINES LTD

Newby Cross Farm,Newby Cross
Carlisle, CUMBRIA CA5 6JP England
(<http://www.justengines.unseen.org>)

JON FLETCHER

Custom replacement engine parts, needle valves.
33 Lagari Close, Wingham, NSW 2429
Australia Tel. 61 2 6553 4548

LEE MACHINE SHOP

827 SE 43rd Street
Topeka, Kansas 66609
785-266-7714 - Sales@LeeMachineShop.com
www.LeeMachineShop.com

RITCH'S BREW

Fuel ready mixed top quality finest ingredients.
4104 Lark Lane, Houston, TX 77025 713-661-5458

MBS MODEL SUPPLY

Solid Wire Sets and other C/L needs Contact Melvin Schuette, 5322 NE
Early Ct, Topeka KS 66617 email: mbschuette@cox.net or 785-221-
7042.

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. Email: zzclspeed@aol.com

NELSON COMPETITION ENGINES

121 Pebble Creek Lane, Zelenople, PA 16063
Manufacturer of NELSON Racing Engines and parts, Nelson Glow
Plugs, many other specialty engine items. (Henry Nelson) Phone: (724)
538- 5282. e-mail: nelcomp101@gmail.com

MARC WARWASHANA

Rubber fastfills, vintage Dons' racing wheels.
11577 North Shore Dr.
Whitmore Lake, MI 48189-9124
Phone: 734-449-7355 E-Mail: whellieman@gmail.com

OLD MAGAZINE PLANS & MORE ON CD

Tom Wilk, 301 W. Redwing St.,Duluth, MN 55803
Phone: 218-724-0928(hm) E-Mail: tawilk36@cpinternet.com

ZALP ENGINES

Zalp F2C&F2D engines- Bob Whitney
456 Garvey rd sw, Palm Bay FL 32908 f2cracer@aol.com

BILL's Rent-A-Racer PARTS AND ACCESSORIES

fuselage mounted FUEL SHUTOFF \$20.00
specify top or bottom pull, specify Goodyear (1 1/4")
or Quickie Rat (1 1/2")

ASP/ Magnum 15 VENTURI (Blue) \$10.00
1/4" ID, 4mm spraybar, fits 10mm hole.

SH 15 VENTURI (red) 10.00
.266 ID, 4mm spraybar, fits 10mm hole.

ENYA Supertigre style needle assembly \$16.00

replacement needle only \$6.00
fits all Supertigre style spraybars

Aluminum landing gear struts \$12.00
.090" 2024-T3, drilled & tapped, with screws
Edges pre-rounded.

aluminum landing gear blanks \$5.00
Cut to size, not drilled or bent. One pair.

Williams Bros. 1 1/4" wheels w/ axles out of stock

1 oz Sport Goodyear fuel tank \$20.00
with pinch-off overflow.

Bellcrank button kit \$2.00
includes hex buttons, eyelets, screws.

8 oz. fuel bottle with fitting \$10.00

16 oz fuel bottle \$15.00
specify for rubber quick fill or 1/8" tube fill.

Racing handle, 3" spacing \$25.00
metal frame, wooden grip, stainless cable
(other spacing available by request).

Juice Box MkII glow plug battery \$60.00
2.4 volts, 5000 mAh Ni-MH battery
large ammeter, adjustable output.

Clothespin style glow plug lead \$12.00
with 48" 16 ga silicone wire. XT60
connector fits JuiceBox MkII and Pro

Juice Box "Racer" battery w/ arm strap \$75.00
Perfect for racing hot glove system. Similar to Juice
Box MkII, meter rotated for easy reading when mounted
on your arm, case slightly thinner.

Shipping: \$12.00 per order including fuel tanks, bottles, batteries or
handles. \$6.00 per order without fuel tanks, bottles, batteries or handles. I
accept paypal or personal checks.

Paypal: billbisch@hotmail.com/ Mail checks to: William Bischoff, 1809
Melody Ln, Garland TX 75042. For questions, call (972) 840-2135 or
email billbisch@hotmail.com

Officer's Addresses

President

Bill Bischoff

1809 Melody Ln
Garland, TX 75042

Phone Numbers:
972-840-2135

Email: billbisch@hotmail.com

Vice- President

Les Akre

13336-129st.
Edmonton, Alberta T5L-1J8
Canada

Home: 780-454-5723

Cell(or other): 780-919-2792

E-Mail: scaleracer@hotmail.com

Secty/Treas

Bill Lee

1106 Essie Way
Wylie, TX 75098

Phone Numbers:
H- 903-852-5599
C- 903-288-6029

Email: Bill@WRLee.com

Editor

Les Akre

13336-129st.
Edmonton, Alberta T5L-1J8
Canada

Home: 780-454-5723

Cell (or other): 780-919-2792

E-Mail: scaleracer@hotmail.com

North West Representative (Open)

North Central Representative

Paul Gibeault

23 South Park Dr.
Leduc, AB T9E 4W9
Canada

Cell (or other) 780-716-2950

E-mail: pgibeault@shaw.ca

North East Representative

Phil Valente

1523 Ulster Way
West Chester, PA 19380

Home: 610-692-6469

E-Mail: philv5@comcast.net

Midwest Representative

T.J. Vieira

1116 Park Place,
West Carrollton, OH, 45449

Email schluterdude@gmail.com

Ph. (Cell) 585-410-0366

South West Representative

Douglas Mayer

5010 W 123rd Place
Hawthorne, CA 90250

Phone Numbers:

310-463-0525

Email: Douglasmayer58@gmail.com

South Central Representative

Bill Bischoff

1809 Melody Ln
Garland, TX 75042

Phone Numbers:

972-840-2135

Email: billbisch@hotmail.com

South East Representative

Robert L Whitney

2905 Victoria Pl, apt 3G,
Coconut Creek, FL 33066

Phone Numbers:

321-676-0554

321-726-2017

Email: f2cracer@aol.com

Torque Roll is the official publication of the NCLRA.

Published bi-monthly. All submissions are valuable & will be considered for publication subject to editing. Preferred format for publication is as a MS Word document using 10-point Times New Roman font. Any photos should be sent as a separate jpeg file, medium res. Email all as an attachment to Les Akre at the address given on this page.

NCLRA membership information

Basic membership is free. Simply apply on the web site : <http://www.NCLRA.org/> You will get the Torque Roll newsletter electronically every other month. In addition, you will get voting privileges for whenever a vote by the membership is required.

If you would like to receive a paper newsletter

A paper copy subscription is \$10.00 for US and non-US residents. Send payment to the Secretary/Treasurer listed above.

USING PAYPAL-To pay with Paypal, first log in to your Paypal account, then send the paper subscription fee to; Treasurer@NCLRA.org Note that a \$.90 (\$1.10 for foreign membership) surcharge is added for the PayPal charges.