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







The Prez says... Look inside for part 2 of his Quickie Rat Article.

INSIDE: District Reports Quickie Rat Article Pt. 2 "Déjà vu" Article Pt. 2 Plum Crazy Sport Goodyear Suppliers/Equipment Updated Contest Calendar

Torque Roll Issue #172 February 2024

PRESIDENT – Bill Bischoff

The AMA schedule for the summer of 2024 will be as follows. Note that minor adjustments may be made in the months to come, but this what we have now. The CL Nats for Speed, Racing, and Combat will be Sun, Aug 4 -Wed, Aug 7. The plan is for Mouse 1, Clown and AMA Goodyear on Sunday, Sport GY and AMA Slow Rat on Monday, and TQR and Super Slow Rat on Tuesday. Stunt and Carrier may extend another day or two. The World Cup for F2A, C, and D will be Thurs Aug 8 - Fri Aug 9. The 2024 CL World Championships will be Sun, Aug 11 -Sat Aug 17. For additional CLWC info, check out the official web site *2024clwc.org*.

For you Nats contestants, note that this is three weeks later than normal NATS time. This may be an issue if you've got school age kids. Look into your schedule now, so you don't get caught later. For those who really like to look ahead, the CL racing portion of the 2025 Nats will be Mon, July 7 - Thurs, July 10.

Officer elections are coming up. Nominations are now being accepted, and will be listed in the April Torque Roll. A ballot will appear in the June Torque Roll. Winners will be announced at the annual meeting at the Nats. I'm still feelin' it, so I'll run for a fifth term. Les mentioned he's good for another term. Not sure about Bill Lee, but hopefully he's looking to run again. Make no mistake though, if the spirit moves you, I encourage you to run for something. However, I must ask that you don't nominate someone else without their prior consent. The pay is great, not to mention the respect and admiration from your peers. I'd do the job for free!

NORTH WEST – Leighton Mangels

In most parts of the country this is work shop season. Time to build new race planes or repair and update existing ones. Here in the Northwest that's certainly the case. For me I'm building a new plane to replace one that met an untimely demise last year and another one to replace one that's getting long in the tooth. It's past its sell by date. Like me I'm assuming that most racers have a rather large fleet of planes and finding a place to keep them safe and out of the way between trips to the circle can be an issue. A few years ago I addressed this problem and built a rack that holds up to 12 planes and also the lines and handles that go with them. The footprint is only the size of one plane and it is portable enough to move around if necessary. I'd be curious what others may have come up with to address the problem of providing hangar space for their fleet. It's simply a plywood base with two vertical 2X2's with holes drilled into which wooden dowels are inserted with the appropriate spacing. They're not glued in so the spacing can me changed by drilling new holes and moving the dowels. It's simple but works for me. Keep building and try not to glue your fingers together.

In the Northwest the first contest will be the Jim Walker Memorial Spring Tune Up in Portland put on by the NW Fireballs on April 26, 27, and 28 at Delta Park. All the racing will be on Friday the 26th. The biggest NW contest is the NW Regionals in Roseburg Oregon on May 24, 25, and 26. The racing will be on Friday the 24th. All our area contest dates can be found on Flying Lines. That's all I have dates for now.



NORTH CENTRAL – Paul Gibeault

What's with props??

At the local flying field, you're not likely to see props anything more advanced than APC nylon & plastic reinforced carbon. However, at the international FAI level I've seen quite a bit of variation.

For the most part epoxy/ carbon props are the most popular. One reason being is that they are lighter than APC nylon which is good, but most likely because carbon props can be made much thinner & stiffer than commercial nylon props. I feel if you make a carbon copy of a good performing APC prop, it is likely going to be somewhat better if you just thin it out somewhat. I note if any one thing can be found to change noticeably from one W/C's to the next, it is the prop technology. I don't know where modellers come up with such ideas for their new designs, but it never fails to amaze me. So here are some different props that I've come across in my travels.



How about this left handed shark tooth racing prop. From the ingenious minds in Australia, this saw toothed single blade prop (for spanwise flow straightening) with 133mm of pitch. Big Bruce DeChastel claims it's much faster in good hot weather & slower in cool wet weather. Why the difference is still to be determined... It might be harder to hand flip though...



Yet another train of though by the Australians is this incredible scimitar prop. We've all likely seen scimitar props before, but nowhere near this level! These single blade props are noticeably loud & this drew the attention of the local police when flown before 9 am!



I have to admit I wouldn't normally give this thin (250 Euro) paddle blade prop a second look. That is until I saw it perform on the Czech world champions racer. Then all doubt was removed and I can see why it commands its price. Not apparent is this prop needs to swing forward & aft to extend the life of the engine bearings. Who would have thought?



Getting the perfect prop. Of this batch of 12 *seemingly identical* props, only 2 balanced correctly, 3 had the hub out of balance and 7 had one blade heavy. This is only to show you that to the discerning flier, not all identical looking props are identical. Obviously, production defects are built in. In this particular case maybe a reader can tell me WHY exactly these come out this way... I've encountered the same phenomena in all other manufactures as well. Even those who advertise that their props are factory balanced!

FMV 1.5 cc Team Race Engine of Hans Visser (Enrico<u>Flores</u> / Robbi<u>Metkemeijer</u> / Hans<u>Visser</u>)



I had the very good fortune recently of being able to have a look at this FMV T/R engine belonging to Hans Visser. This particular example was essentially a de-bored 2.5cc engine if I understand it right. Of course the thicker cylinder liner made for a very nice engine to set and run. Unlike the 2.5 engine, this example employed a single blade prop that worked very well in this class.



This engine incorporates a rear drum valve with (I think) at least a 5 function shut-off valve).



One version of this engine used a needle bearing connecting rod. I understand, the bearing roller cage is one of the more difficult/delicate parts to make. I don't know if the roller bearing rod was worth all the extra effort compared to the regular type of rod.

That's all for this issue.

NORTH EAST – Tom Schaeffer

Here are two, as yet, unconfirmed dates for Middlesex racing. April 28 and May 19. I list them as Racing/Speed meets because we have not had any participants for racing in several years. HOWEVER, if anyone is interested, they can contact me and we will make sure that they will be able to race. We had settled on our formula Clown event and Foxberg but could accommodate almost anything with some warning. We have a great depth of experience and would be very glad to help folks learn the game.

SOUTH EAST – Bob Whitney

It has been 71 years since I saw my first control line plane in Rockland Maine. I never realized what a trip I was about to take. I flew my first half A in 1954, soloed my first flight, then moved to a Guillows trainer #2 and a K&B .15 and then a ringmaster jr. After that, I started flying my Dads planes as he got dizzy. The first KOI was in Miami Opa-locka Fla. I built a Veco Red Skin with a K&B 23 and with my dad pitting we won B TR and I was in hook, line and sinker! (Pic Below)





Bob with SR. Half A speed winner and record holder at the KOI.

The KOI has always been a good contest for me as I won Rat race twice and combat once as a JR followed by two more 2nd place finishes in combat and a first in 1/2 A speed setting the SR record at 103 mph.

I got to go to my first Nats in 1957 where I got to see all the big guys, and got to see one of Bob Palmers last flights. I got to see George Aldrich's winning flight. I saw bill Wisniewski go 154 mph in class A speed with a K&B 19.

In the early years the Nats were not good to me. That was until 1966 where I was #2 on the USAF team taking first in the Nats team event. In 1968 I took off for 10 years to race motorcycles. I set the 350cc street bike drag record at 110 mph, and my flat track bike won the Daytona 1/2 mile race with Whitey Curshner riding it.



Bob with his 2nd place SR. Rat Race entry at KOI.



Bob and trophy girl posing with his prize during his Motorcycle racing days.

In 1985 I got together with Wayne Trivin. Me flying and Wayne pitting. We did very good together flying speed and racing. We hit all the big contests, going all the way to the North West Regional's three times. After we parted, I got together with Dave Hallas in racing and we did very good. We still hold the mouse 2 140 lap record and won the Nats racing grand champion twice. Then I got the bug to get serious in FAI team race and after a few unsuccessful tries I hooked up with Jason Allen and we made the US team twice going to Spain and France and we were invited to KIEV to fly in their world cup. This was probably one of our greatest weekends of flying ever. They treated us like royalty for the whole weekend. Everyone should get to go at least once to a World Championships where you are competing with the Best of the Best. After Jason went back to school and racing dried up in Florida, I convinced Dave Hallas to fly stunt so we could continue to fly together. I now specialize in old time stunt with good results. Brodak has an event called Perky speed. My team (I say team because more than one flyer has flown for me as my legs are giving out) have won at the Nats, Dayton cash bash and Brodaks.



Bob and Jason on the cover of Nats News with Bob's Perky Speed entry.

As I said my legs are giving out on me and I am only good for about two 5-minute flights a day.

I think I can honestly say it has been a great ride, I have met some great people from all over the world I can honestly say it has been a great trip and wouldn't change any of it.

RAD

SOUTH CENTRAL – Bill Bischoff

The Dallas Model Aircraft Association has set its contest schedule for 2024. As usual, we will have four contests that feature racing.

The April and October contests will have racing on both Saturday and Sunday. The lineup for each of these contests will be as follows: Saturday, Quickie Rat, Super Slow Rat, and Sport Goodyear. Sunday will be Mouse, Clown race, and AMA Goodyear. These contests will also include speed and combat.

The June and September contests will have racing on Saturday only, including Mouse, Quickie Rat, Super Slow Rat, and Sport Goodyear. These contests will also include stunt and carrier events.

The dates are: April 26-28 Spring Warm Up June 8-9 Bob Gieseke Memorial August 31-Sept. 1 Charles Ash Memorial October 4-6 Fall Finale Please contact me for details. I hope to see you there!

SOUTH WEST – Doug Mayer

2024 is here already! How time flies when you're living your life

I only have a few updates this month. I wrote last month's article and squeezed in the results from our Toys for Tots December contest. We haven't had any races since December, so I have no racing to report on this month. We did however receive a proposed contest calendar from Dave Hull for 2024. I believe these dates are tentative at this time, and we'll want to confirm the dates as the year progresses.

Its winter building season for many, but unfortunately for my hobby, it's also winter snowboarding season which can get in the way of my airplane hobby. Boy, some guys have all the excuses, don't they? Well, I haven't been carving a lot of balsa lately, but I did finish my new Sport Goodyear plans of Déjà vu. This is a current air racer on the circuit here in 2024. You can't get a more current design than this. I also included a drawing of Judy with her new Stockbarger wing for comparison to Déjà vu. So, I guess this is a 2 for 1 special since I don't have a lot of racing to report on. I hope you enjoy these new plans, and I'd be thrilled if anybody builds one of the designs. Original pdf's are free for the asking, Just email me and ask. You can take these pdf's to your local blueprinter or reprographics shop and get them printed out full size 30" x 42" for a pittance. And as always, if you build a plane from my designs. Please send some pictures. (and BTW, nobody ever does except for Bill Bischoff). So be the first! Go out there a build a new airplane and send Doug some photos! Let's kick it into gear for 2024! Cheers.

That's it for this month. Keep your lines tight and wear your sunblock.

Deja'Vu Article - Part 2 - by Douglas Mayer

You may remember Déjà Vu part-1 article from the December issue. If not, I'll re-iterate here a bit. This September, Bill Bischoff and I went to the National Championship Air Races in Reno Nevada. Bill and I were intrigued by a potential new subject, Déjà Vu. Bill and I had quite a lengthy conversation with the owner Eric Dienst. Eric told us that the airframe is "Yellow Jacket" / Shoestring. This completely re-built plane now has a fully molded Nemesis Fuselage over the original fuselage frame. (The Nemesis mold was purchased from Jon Sharp), the wing is a Shoestring Stockbarger wing, and the plane has new tail empennages.

Last month I completed step 1. I had a completed 3-View drawing of DejaVu in Autocad. This month I took my own 3view drawings and generated a new set of plans for a Sport Goodyear model.

Noun - dé jà vu \ dā- zhā- vü , - vue
Definition
1a: the illusion of remembering scenes and events when experienced for the first time
b: a feeling that one has seen or heard something before
2: A Formula 1 Racing Aircraft

This definition may make sense if you understand something about Formula One airplanes. Over the years Formula One planes, change and morph from one shape and size to another. Owners are constantly replacing the old wings with new highperformance wings and making changes to the tail empanneges and fuselages as they go. Déjà vu is no exception. This airplane originally started out as Yellow Jacket which was the second shoestring ever built. There is a lot of information on the Internet regarding Yellow Jacket, too much to reproduce here, but it is good reading and I recommend that you take the time to go and visit the following sites.

YELLOW JACKET SON OF A SHOESTRING: http://www.airbum.com/pireps/PirepShoestring.html

SHOESTRING/WKIPEDIA:

https://en.wikipedia.org/wiki/Condor_Shoestring

YELLOW JACKET DOSSIER:

https://www.aerialvisuals.ca/AirframePhotoViewer.php?Serial =%20196590

There is also a dossier that tells the timeline of Yellow Jacket to its current condition as Déjà Vu. Somewhere in the interim, the airplane was named, Super Skate and received a new Stockbarger racing wing. This wing is still present on the current Déjà Vu. Bill Bischoff and I met the owner, Eric Dienst in Reno at the air races in September 2023. He explained to us that the shoestring steel tube frame was still intact from the original Yellow Jacket and he had replaced the outer skins, with carbon fiber molds from Nemesis that he received from Jon Sharp. This plane has a very strange likeness to Nemesis because of the fuselage but it has a different wing and tail empennages so it does look unique in its own Déjà Vu way. I built a Kenn Smith Nemesis kit 20 years ago, and I can say that the original Nemesis wing was very long and skinny. The Déjà vu Stockbarger wing is more compact, but still is a high aspect wing.

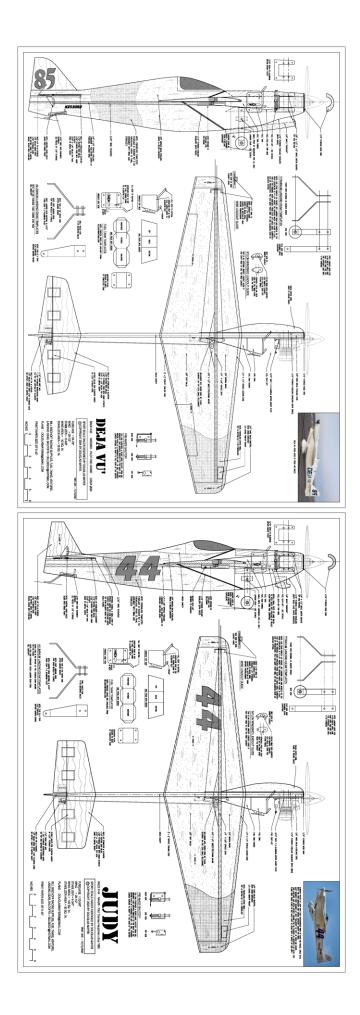
Enough of history, let's talk about the model. I'm doing something that I normally don't do and that is publishing two model airplane drawings at one time. I've had on my bucket list the plans to build Judy for a very long time and I have

developed what I think are very good drawings for Judy. I got sidetracked in September when we saw Déjà Vu and Bill asked me if I could do drawings of Déjà Vu. When comparing the two planes, you will notice that they both have the Stockbarger wing for reference, however; there is quite a bit of difference that you will notice. Déjà Vu is 2 inches longer, than overall length than Judy, and the elevator and stabilizer sit up higher above the wing center line than Judy does. I have included a photo from the dossier that shows Déjà Vu without the nose cowlings. You can see a very long propellor extension which makes this nose very long on the airplane. My guess is that Jon Sharp designed Nemesis this way to streamline the nose instead of having a blunt nose found on the original Shoestring. Also, Déjà Vu has a huge air intake and exhaust tunnel under her chin. Yes, this is scale, and yes, this is typical of current Formula 1 airplanes today because the exhaust header exiting this tunnel formation is faster than the exhaust coming out of the cheek cowl bottoms. Overall, the fuselage outline is a bigger plan form than Judy but every man has his own interest and maybe this design will float your boat.



"Déjà vu" with cowling removed showing prop extension and Exhaust routing.

There are a few interesting details that I have incorporated in this model. I decided to bring the fuselage all the way to the back end of the Rudder. I do this because I sand the rudder and fuselage all as one smooth piece before fiberglassing. You can alter this on your own if you like the traditional fuselage ending at the hinge line of the elevator, and install a Rudder outline of your choice with the traditional L shape rudder instead of the full length fuselage that I have shown on the plans. The other item that Bill keeps asking me to do is run a longeron the full length of the fuselage so that you can cut the fuselage in half, with a balsa top and bottom. I did not show this on the plans because I did not want the extra longeron in the nose, but you can certainly cut the fuselage into half pieces of balsa and scab in a block in the nose to make up the difference. Also, I showed a 1/8" spruce longeron instead of a 1/4" longeron to cut down on overall weight. Because you will fiberglass the fuselage, I feel that this is adequate and there's no need to add the extra weight of the 1/4" longeron. I hope you have fun building this and if you're interested to do so, please send me photos. Wear your sunblock and keep your lines tight.



Doug Mayer

A NEW QUICKIE RAT- IT'S ABOUT TIME! Bill Bischoff

I built my first Quickie Rat right before the 1986 Lake Charles Nationals. Frank Williams' construction article had just come out in Model Aviation. The timing was perfect, so I built one. That airplane got me off to a successful start, but before too long, I thought something with more wing area might be nice.

I liked the aggressive look of Tim Gillott's Shark fast rat, so I put Tim's plans and Frank's plans in the blender, and what poured out was the original Barracuda. This was in 1987.

In the fall of 1988, I came across the 1967 construction article for Don Burke's elliptical winged rat racer "GRMZPF". I decided I liked the look of this airplane too. Even though I had two good Quickie Rats already, I decided to build another one, using my same basic construction methods and dimensions, with GRMZPF cosmetics.

As will happen, over time, my Quickie Rat fleet was reduced to just GRMZPF. It served me well for many years, but became well worn over the course of many races.

In 2019, I ordered several CNC carved sport Goodyear wings from Ray Harvey in Australia, and at the same time, I ordered a Barracuda Quickie rat wing. This means a new Quickie Rat had been planned for at least the last five years.

In the spring of 2023, it became obvious that once again I wasn't going to have a new Quickie Rat done for the upcoming season, so instead I decided to refurbish GRMZPF enough to get through one more year. A thorough inspection revealed that the only thing actually holding the wing in place was the silicone gluing the wing to the fuel tank! I stripped off all the hardware, and cut away a fair amount of glue and splintered wood around the wing joint. The wing joint was reglued with a mix of epoxy and chopped glass strands, sanded, and prettied up with some new Super-Fil fillets. Other minor structural and cosmetic items were tended to, and the plane was given a coat of transparent red paint (so the original AMA numbers were still visible). New controls and a new tank completed the rehab. I also fitted hot glove contacts to the outboard wing for the first time. The overhaul and hot glove treatment took a good 10 seconds of my typical heat times, the plane flew well, and was actually fun again.

Doug Mayer and his sons came to our contest in Dallas last October. The boys had flown in their first Nats over the summer, and got their first chance to race Quickie Rat. They also entered Quickie in Dallas, but one of their planes was lost due to a takeoff accident in the wind. Not wanting them to lose enthusiasm, I decided to give the boys my Quickie Rat. This would also force me to finally build a new one.

Mike Hazel was also in town for our contest, and was going to the California contest the following weekend. Since he was driving and I was flying, I asked him if he could find room for the Quickie Rat in his truck. I didn't have room in my airline box, but I knew the airplane was not coming back home with me, so this worked out perfectly!

I flew it in California, and went out on a winning note. I also pitted for Doug's older son Mason, who started with the airplane on a winning note. I hope it continues its winning ways for many more years.

So, here I am, 36 years later, finally building a new Quickie Rat. It's all glassed and assembled, just waiting until it's warm enough to paint outside. At this time I'm not sure what color it will be, but I'm planning on flying it in our April contest. Stay tuned. Same rat time, same rat channel!



PLUM CRAZY Sport Goodyear Bill Bischoff

A couple of months ago, I was looking at one of the precarved Brodak Streak Trainer wing blanks I had on hand. For those who are new to NCLRA, Brodak sells a pre-airfoiled solid balsa wing for their Streak Trainer, that can be used to make a nice Sport Goodyear wing. This was featured in the October 2015 issue of Torque Roll.

I decided to try to make a tapered wing out of one of these blanks by cutting it up and sweeping the trailing edge pieces forward. While this did work, I decided it was much more trouble and effort than just cutting the wing to shape and reshaping the rear of the airfoil. The top view photo (below) shows the cuts I made (unless it is too small to see).



Leaving that particular subject, I then found myself with a useable wing for a Plum Crazy Cassutt. Of course, I was obligated to build the rest of the airplane, as you can see in the photos. I could have used the 1975 Flying Models plans, but went with my own design based on three views by Robert Pauley. The model is very conventional in design and construction, and should look good in its scale white and purple scheme. Look for it this year at a contest near you.



HANDY HINT

Bill Bischoff

The next time you are going to fiberglass some parts of your new airplane, and need to cover your work table to protect it from drips and mess, try this. Reach for a roll of leftover Christmas wrapping paper. I'll bet everybody has some, and you know you're going to buy more anyway, so why not? I won't live long enough to use up all that we've accumulated at my house!





Doug Mayer's Jeep with License Plate showing his favorite Racing event.

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

Middlesex April 28 Speed & racing. (tentative) May 19. Speed & racing. (tentative)

NORTH CENTRAL DISTRICT None

None

NORTHWEST DISTRICT

Jim Walker Memorial Spring Tune Up. April 26, 27, and 28 at Delta Park, Portland. Put on by the NW Fireballs. All the racing will be on Friday the 26th. NW Regionals Roseburg Oregon on May 24, 25, and 26. The racing will be on Friday the 24th. All our area contest dates and further info can be found on Flying Lines Website.

SOUTHEAST DISTRICT

None

MIDWEST DISTRICT

AMA Nats

The CL Nats for Speed, Racing, and Combat will be Sun, Aug 4 -Wed, Aug 7. The plan is for Mouse, Clown and AMA Goodyear on Sunday, Sport GY and AMA Slow Rat on Monday, and TQR and Super Slow Rat on Tuesday.

Stay tuned for further developments.

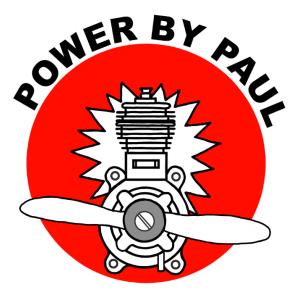
SOUTH CENTRAL DISTRICT

The Dallas Model Aircraft Association has set its contest schedule for 2024.

The dates are:

April 26-28 Spring Warm Up. Racing both days June 8-9 Bob Gieseke Memorial. Racing Sat. only August 31-Sept. 1 Charles Ash Memorial. Racing Sat. only October 4-6 Fall Finale. Racing both days Please contact me for details. I hope to see you there!

SOUTHWEST DISTRICT



SUPPLIERS

BRODAK MANUFACTURING Everything c/l! 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 Fiberglas 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)

LEE MACHINE SHOP

827 SE 43rd Street Topeka, Kansas 66609 785-266-7714 - <u>Sales@LeeMachineShop.com</u> 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.

ZALP ENGINES

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

ZZ Props

Full line of quality Glass & Carbon Fiber props for CL Speed & Racing. Contact Mike Hazel at: 503-871-1057 24 Hour Phone. Email: zzclspeed@aol.com

NELSON COMPETITION ENGINES

121 Pebble Creek Lane, Zelienople, 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: <u>nelcomp101@gmail.com</u>

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

JON FLETCHER

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

BILL's Rent-A-Racer PARTS AND ACCESSORIES

Fuselage mounted FUEL SHUTOFF bottom pull, specify Goodyear (1 1/4") or Quickie Rat (1 1/2")		\$20.00
Sullivan medium fuel tubing soft silicone, great for shutoffs		\$2.00/ft or \$5.00/ 3 ft
ASP/ Magnum 15 VENTURI (blue) 1/4" ID, 4mm spraybar, fits 10mm hole		\$10.00
SH 15 VENTURI (red) .266 ID, 4mm spraybar, fits 10mm hole		\$10.00
ENYA Supertigre style needle assembly		\$16.00
replacement needle only fits all Supertigre style spraybars		\$6.00
1 oz Sport Goodyear fuel tank with pinch-off overflow		\$20.00
bellcrank button kit includes hex buttons, eyelets, screws		\$2.00
5 oz. mouse fuel bottle		\$7.00
8 oz. fuel bottle with fitting		\$10.00
16 oz fuel bottle	for 1/8" fill tube for rubber quick fil	\$12.00 \$15.00

Shipping

\$12.00 per order including fuel tanks, bottles.
\$6.00 per order without fuel tanks, bottles.
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: <u>scaleracer@hotmail.com</u>

Secretary/Treasurer

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: <u>scaleracer@hotmail.com</u>

North West Representative

Leighton Mangels P.O. Box 1367 North Plains Oregon 97133 Phone Numbers: 503-647-5779 Email: <u>leighton@telepo....</u>

North Central Representative

Paul Gibeault 23 South Park Dr. Leduc, AB T9E 4W9 Canada Cell (or other) 780-716-2950 E-mail: <u>pgibeault@shaw.ca</u>

North East Representative

Carl T. Schaefer 539 Hort St. Westfield, NJ 07090 Phone Numbers: 908 803 7405 Email: <u>earthingbrush2@yaho.....</u>

Midwest Representative

T.J. Vieira 1116 Park Place, West Carrollton, OH, 45449 Email <u>schluterdude@gmail.com</u> Ph. (Cell) 585-410-0366

South West Representative

Douglas Mayer 5010 W 123rd Place Hawthorne, CA 90250 Phone Numbers: 310-463-0525 Email: Douglasmayer58@gmai.....

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: <u>f2cracer@aol....</u>

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 : <u>http://www.NCLRA.org/</u> 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; <u>Treasurer@NCLRA.org</u> Note that a \$.90 (\$1.10 for foreign membership) surcharge is added for the PayPal charges.