

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



**TO**



Southwest Rep Doug Mayer showing his good side as he starts son Tristan's Fox Race entry at the recent Toys for Tots contest.

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**Torque Roll Issue #159**  
**December 2021**

## PRESIDENT – Bill Bischoff

The contest season is over, and we've transitioned into holiday season. I hope everyone is healthy and happy and gets to spend time with friends and family over the coming weeks.

## NEWS FOR CANADIANS

No, really. It may not be current news, since it happened in August, but it *is* news for Canadians. Youse guys must now buy an AMA associate membership for \$36 per year in order to fly in AMA contests. However, as far as AMA is concerned, you don't need to have MAAC membership. The associate membership provides the same privileges and coverage as a full AMA membership, just without the magazine. And before anybody asks, you can't get an associate membership if you live in the US.

## NORTH CENTRAL – Paul Gibeault

What to write...what to write...This column's inspiration is courtesy of our illustrious president Bill Bischoff Thank You Bill!

I became aware of this method from a Stunt Hangar Forum discussion several years ago. Interestingly, in England this method is used in their Vintage Combat event, but they do it opposite & place silkspan over the film for the "Vintage look". Horses for courses, but I know Larry's method is **for sure** more fuel proof!

## Composite Wing Covering Method by Paul Gibeault & Larry Renger

This column will be about my attempt on using a composite covering for our C/L applications. Sometime back I was constructing **trainer models** with the purpose of being very tough, robust & crash damage resistant. (Or as much as possible anyways!) Over the years & noting how tough modern FAI combat models are, surely I can improve on the supplied kits. Certainly, many of the old kits had very substandard wood in almost all areas (including plywood & motor mounts). The kit engineering often deviated from the designer's original plan so as to get everything to fit into a smaller box and such. I've tried to have my own design kitted & the makers (& laser cut people), find it very expensive to do things exactly the way I want. (But, that's a story for another time perhaps). One of the things I do remember about very crash resistant models of the day, was that they were covered with nylon. Now these certainly made for strong coverings but it seemed they needed a lot of dope to fill the weave & I never had the use of spray painting equipment back then. Being a speed & racing flier, things like silk & dope are almost never used except in some Vintage Classes flown in Europe. As such, I sure try & keep using smelly dope to an absolute minimum if I can. My wife appreciates it GREATLY!

It was then that I read an online forum article from my friend and toy designer Larry Renger (formerly from Cox Mfg.). Larry was exploring the idea of a **QUICK** lightweight 2 stage composite covering method. AS can be expected, many of the chat posters said it couldn't be done. Larry was undeterred... I know Larry is a brilliant model Engineer, so I just had to try his system idea and see for myself. The wings bare wood structure is primed with 2 light coats of 50-50 **nitrate** dope, (mostly because nitrate smells less obnoxious & grips better) followed by a light sanding to remove any unwanted bumps. Then the popular "Polyspan" material is doped onto the wing per the instructions. When dry, the Polyspan is shrunk with a Monokote iron. Another coat of dope is applied **only onto the frame edges**, and **THAT'S IT** for the doping!

Now SLC (*Super Light Covering* mylar, available from Phil Cartier's "The Corehouse") is cut to size & ironed straight on over the Polyspan. Work so that you don't incur large wrinkles in the SLC. To my surprise the SLC ironed onto the Polyspan very easily with no wrinkles or bubbles at all. The wing is now finished! I cover the wingtips separately with SLC (or Ultracote) & then add any trim lines if I wish. In hindsight, it would have been easier & better to have sprayed on my MAAC numbers and added any other trim/decals **before** the SLC went on. Larry claims this covering weighs 1.4 oz / sq. meter which I find quite acceptable. With a light (400 grit) sanding, the covering can be painted with your favourite products if you desire.

The only unexpected thing when covering this way is being called *a liar* when asked how many hand rubbed coats of dope went on to achieve such a slick finish. Ah well, you can't please 'em all!

Of course, the proof of the toughness is in the crashing. To date, (from the photos) none of the wings have incurred any crash damage in spite of multiple crashes. (It's the other components I need to work on now...)  
P.S. A complete photo album for my model builds is available on the **Alberta Controlline Flying Club's** Facebook website page.

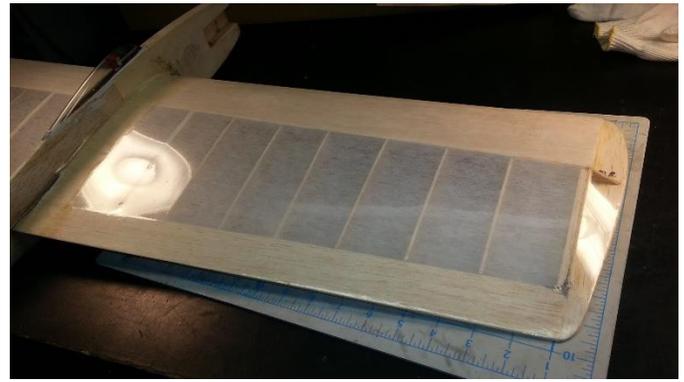
BTW, process designer Larry Renger has notified me that the (Non Smell) product Mod Podge, the waterbase sealer glue and finish available from many craft stores can be used as a substitute for dope. Thin as required.



Shown below, the first wing panel with doped Polyspan has gone on quite nicely.



**Both Flite Streak & Ringmaster are drying outside after the Polyspan has been applied.**



**Finished! The SLC covering goes on very easily over the bare Polyspan.**



**The SLC is a snap going around complex wing tip curves.**



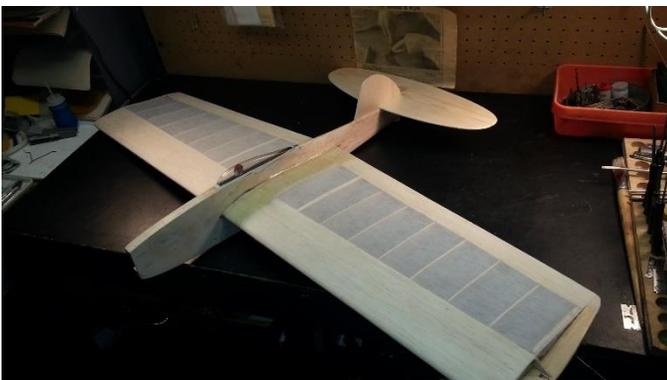
**Worked so well on my Ringmaster, I had to do it on my Flite Streak.**



**"Hangar Rash" shop punctures are a snap to patch at this stage.**



**Flite Streak: Full power on crash with no wing damage at all!**



**Here the Polyspan has been heat shrunk & edges trimmed.**



**Ringmaster: Full power on crash with no wing damage (will need LG & prop work though)**

## MIDWEST – T. J. Vieira

Greetings from Ohio!

First thing's first. I completely forgot to include the results from the Jerry-Who Memorial races!!!! My HUGE mistake on that

### SGY

- 1) **Tim Stone 4:03.88\***
- 2) **Bill Hughes 4:08.59**
- 3) **Bob Oge 4:13.57\***
- 4) **T.J. Vieira 4:17.15**
- 5) **Alex Valishev 4:19.76**
- 6) **Al Stone 5:33.24**
- 7) **Dave Betz 5:51.59**
- 8) **Alex Tupenov 7:03.25**

\*NOTE: Tim Stone and Bob Oge withdrew their times due to having purchased the awards. Top notch sportsmanship!

### Jerry-Who Memorial Race (Foxberg, Chicagoland Style)

- 1) **Bob Oge 6:45.22**
- 2) **Tim Stone 7:30.56**
- 3) **Greg Meyer 73 laps**

Again, sorry about that! Fantastic event guys, I hope to make it out again for it next year!

On to new business... Unfortunately, the Dayton race that was to be part two of the Fall Festival (Navy Carrier/Racing) was called due to weather and other factors. The Carrier event went swimmingly however!

Now that we are firmly entrenched in the building season, what's on your table? I am starting to have something that somewhat resembles an aircraft for Vintage B, what I am calling "Bad News". This is heavily based on an old Monarch kit called "Good News", a kit I got in a trade. I would appreciate any information anyone has about these, as there is a MASSIVE dearth of information on them. I can't even determine who designed it, as no credit is on the plans, and I've only ever seen scans of a couple advertisements! AMA plans service has a scanned copy of the prints and instruction sheet, but they have zero information on them either. I tried to determine the current copywrite owner of Monarch in general, and haven't found anything. I thought for a moment I got lucky sending a message to "Monarch Models" via Facebook, but they just do model figures for those who enjoy building the classic movie monsters and such, they didn't even know there used to be a model airplane company called Monarch!

There are a few things I already want to change, but would mean starting over to do it, so rev 2 will let them come in to play. However, the overall lines of the Good (sorry Bad) News are nice, and the "numbers work", so we'll see how she performs! Namely, I'm not really liking the idea of no doublers in the front, and the external lead-outs. But I think I figured out a way to tie in the front to keep her strong, and the way it was assembled from the get-go precludes hidden lead-

outs, so those are top on the list for Rev 2. This iteration will also be using a McCoy 29 front rotor (as designed from Monarch). I was unfamiliar with this particular iteration, as it already has a cast boss in the back-plate for a pressure tap, the cylinder casting looks much like the "go-fast" rear-rotor engines (not the lack luster "sportsman" rear rotors), and this has a slightly larger appearing venturi compared to the regular red heads, along with a prop bolt rather than nut setup. Should be interesting, and has a real nice "pop"! I don't see them on the flea bay very often, so I'm assuming either many weren't manufactured period, or they just weren't any good. But we shall see! Next time around (or if it turns out to be a total dog of an engine) I'll use a more conventional Fox.



T.J.'s new "Bad News" B Tr, based off the old Monarch kitted "Good News" model.



The beginnings of Bob Heywoods Redskin "B" Tr, K&B .29R power.

I'm still working on finalizing my idea for SGY, so hopefully by the next issue I have some pictures of my weapon there.

Bob Heywood is working on his Veco Redskin, he just needs a little push! Send him an email and tell him to get going on it! He's planning on a K&B 29 to haul it around the circle.

Now for the big news!!!! A little birdie tells me that Vintage B (Dayton Rules, same as NATS) will be held during Brodak!

Build a bird! The actual day the race will be held has yet to be announced, but stay tuned!

**For those that need a reminder of the current Vintage B rule sets, they are available on the NCLRA website (remember, Dayton Rules!) [https://www.nclra.org/Rules/B-TR/VintageBTeamRaceDayton\\_rev3.pdf](https://www.nclra.org/Rules/B-TR/VintageBTeamRaceDayton_rev3.pdf)**

**I've heard a few questions through the wire that would instantly DQ a plane that are clearly answered in the rules.**

### **READ THE RULES!**

That's all for this month, If you can't be fast, look good going slow!

## **SOUTHEAST – Bob Whitney**

Breaking news! "B" TR at Brodak's.

The Jersey Boys will be hosting "B" TR at next years brodak fly in. This should be a good warm up for the Nat's. Let's have a good turn out and keep it going.

In other news...the only thing going on in the Southeast is stunt.

I would like to have a get together at our new flying sight, the Melbourne Harley Davidson training pad. Anything that needs to take off from pavement is welcome. This site also has a fairly good grass area for combat models etc. The get together would need to be on a Monday.

**RAD**

## **SOUTH CENTRAL – Bill Bischoff**

The Dallas club has selected the dates for next year's contests, and out of towners are already telling me they plan to attend the Spring Warm Up in April. You're invited, too, so why not join us? The date is April 29 - May 1. Our June contest is set for June 11-12, The September contest is Sept. 3-4, And the Fall Finale is the 7-9 of October. The slate of events is not yet firm, but all will feature multiple racing events, as well as other categories. More complete information to follow.

### **CONTEST REPORT: DALLAS OCT 9, 2021**

The Phil Dunlap Memorial Fall Finale was our last race of the season. Unlike years past, this one was a mostly local affair, with the only non-Texan being Melvin Schuette. Melvin has raced with us enough times that somewhere along the way we bestowed "Honorary Texan" status upon him.

Saturday dawned windy, with the forecast only getting worse. It was decided to fly Mouse Race first on Saturday, and move Quickie Rat to Sunday when the wind would be stronger. Kelly Hite's mouse 1 model was very fast, and once all the issues are sorted out will no doubt post even better times. Melvin, who won Mouse 1 a month ago, had more than his share of problems. Mike Greb had a good run and a clean race for the win.

SSR found Mike Greb on top also, with two good heat times separated by only a couple of seconds. I had a six minute flat race, but a cold engine cost me at least 20 seconds at the start. I'm not accusing Mike of anything...

We flew Sportsman Goodyear after a lunch break. Nine entries were grouped into three races, this time without any team shuffling required! The newest team of Sepeid Goudarzi and Lester Haury fielded two entries, courtesy of Bill's rent-a-racer. It took Sepeid a couple of pits to figure out where to shutoff relative to the strong wind, but that's how you learn. Kelly Hite's Invictus continues to kick butt. Bill Lee kicked almost as much butt as Kelly, and Patrick Hempel turned his fastest heat to date. Jeff Gitchel edged out Mike Greb, Melvin edged me out, and to their credit, Sepeid and Lester recorded decent times with both entries.

Sunday's events were not flown, thanks to a combination of low entries, high winds, and speed and combat competing for entrants' attention.

<b>MOUSE I</b>	<b>100 laps</b>
1)Mike Greb	5:15.65
2)Patrick Hempel	5:18.43
3)Kelly Hite	5:19.08
4)Bill Lee	5:33.11
5)Melvin Schuette	41 laps

<b>SUPER SLOW RAT</b>	<b>100 laps</b>
1)Mike Greb	5:37.95
2)Bill Lee	5:46.34
3)Bill Bischoff	6:00.30
4)Kelly Hite	9:52.01

<b>SPORTSMAN GOODYEAR 80 laps</b>	
1)Kelly Hite	4:00.61
2)Bill Lee	4:03.98
3)Patrick Hempel	4:10.75
4)Jeff Gitchel	4:16.68
5)Mike Greb	4:17.22
6)Melvin Schuette	4:24.73
7)Bill Bischoff	4:24.94
8)Lester Haury	4:34.84
9)Sepeid Goudarzi	4:38.77

## SOUTHWEST – Doug Mayer

First off, Thanks to our Editor for delaying our newsletter by a week so I could report on the December Toys-for-Tots contest. This contest is a long standing tradition as our December Racing contest.

Entrance fee is one new, unwrapped toy in original packaging, minimum \$10.00 value, and no toy guns, (and \$20.00 entry fee, but the kids don't get the money, the park service does). Between the racing, speed and combat guys, we usually collect a good bounty of toys to give to the Marines and the kids. Tristan and I stopped at Target on the way to the contest, and we bought 3 toys for the event. Tristan picked out 2 Monster Trucks and he thought that the cute little stuffed animal that I picked out was Dumb. I had to remind him that not all little kids are boys, and maybe a little girl would like that gift. He wasn't convinced.

We started out with a dense fog advisory over much of Southern California. Actually, we have had dense fog for almost a week now. Whittier Narrows can get really socked in with fog because it is a low lying basin. We got to the contest at 9:30 and the fog was heavy, and you could see your breath. When I arrived, Mike Callas had all his airplanes lined up in the pits, I asked Mike if this was the Toys for Tots invitational? Mike invited everyone to show up, and he was ready to fly anything? I put on an extra jacket and puttzed around for awhile, and said hi to people. Tristan and I went to check out the combat guys, and stopped over at the speed circle. Ron Duly was running late, and told us when he got up in the morning, he couldn't even see the school across the street from his house. Anyway, the fog finally broke around 11:30 and we all decided that we better get started.

We had an interesting mix-and-match contest with everybody teaming up with everybody. It certainly wasn't planned, but it just fell into place rather spontaneously. Unfortunately, we are down to very few active participants, so everybody showing up is starting to be critical to running races. Dave Hull wasn't feeling well, so he didn't show up. His Partner Mike Callas showed up and just teamed with any available pilot or pitman. Ron Duly showed up, and he also teams with Dave Hull, so we had to work Ron into the Mix. Bill Cave joined us from northern California this weekend, which was great. Bill flew combat Saturday, and Sunday morning, but was finished by noon on Sunday. Bill had some airplanes with him, but he just pitted for the rest of us and helped to fill in the blanks. This was a much appreciated participation from Bill. Of course, Tristan and I teamed up and entered a few events. Its pretty awesome to have your little kid as your race partner. Finally, I want to give a big shout out to Ron Duly for running the races, and Dave Braun and Charlie Johnson for timing all of our races. We just couldn't do it without everyone's help, so thank you all.

MOUSE - JUNIOR: I originally didn't plan to bring a mouse because I was down to motors #5 & #6 out of 6. I need to clean and rebuild #1 thru #4, and I just wasn't too sure about my backups. We flew "Goldie" an all Gold Cox .049, and it was a piece of junk. I was ready to throw in the towel, but Ron and Mike "gave me a few minutes" to swap motors. I grabbed #6, and she ran pretty well. I put Tristan up on a Junior Flight,



**Tristan Meyer getting set to pit his fathers Mouse 1 entry.**

and he got 3-1/2 minutes because the needle was bad. I thought we could better that Time, so we ran a second heat and knocked off 30 seconds. Not too shabby. For now, Tristan continues to fly 1-up Junior entries. I want him to start flying 2-up with the adults, so maybe that will be our next achievement in 2022.

MOUSE OPEN: Mike Callas piloted his own entry with Bill Cave as pitman. I warned Mike to beware of the famous "Bill Cave Toss" where there is no ROG involved, as Bill simply throws your mouse into the air.....(I'm speaking from experience). I recruited a new pitman for my entry... Tristan. He wanted to pit the mouse, so I said, "heck yeah!" We were on the 10 second countdown, and Tristan slipped the prop and it bit him, but the motor didn't start. On "GO", Tristan started the motor, and we were off. Mike had a bad needle or a bad Cox, and I was kicking his butt. When I came in for a pit, and an easy win, Tristan just stood there; what the heck? He said, "I cut my finger". I said, "OK, start the motor", but he wasn't having any of that. I sat down at 38 laps and waited until Mike finished. Right before his last pit, his mouse was screaming like a banshee. After his pit, it came back up like a dog. Unfortunately, he didn't have a consistent run, but he beat me fair and square. Ron Duly wrote my results down as "Blood"- Tristan: Welcome to the pits my son.

SPORT GOODYEAR: For those of you who are not familiar, we have our own Sport Goodyear class in Los Angeles for over 25 years. SCAR Goodyear (Southern California Air Racers). Recently we had a debate if we should retire SCAR Goodyear, and adopt the Dallas Sportsman rules, or if we should hang tight. We decided to shelf this issue until the Toys for Tots.

I inadvertently showed up with a SCAR goodyear because my Outrageous had a MOKI on the nose. I really didn't pay attention, I just pulled it out of the roof rafters and showed up. Ron and Mike showed up with Dallas legal Sport Goodyears, Mike's being a brand-new polecat. Since we had 3 airplanes, I flew the first heat with my SCAR rules entry against Ron's Dallas rules plane. I was passing him every 3-1/2 laps. We flew this first heat as a "SCAR" race with 100 laps, no required pits, and a 1 oz tank. Of note, Mike pitted for me (because Tristan was nursing his bloody finger in my truck), and Bill Cave pitted for Ron. I won, but so what?

For the second heat, we ran Mike Callas with me pitting, against Ron Duly with Bill Cave Pitting. This time, we ran this race as an 80-lap heat per Dallas rules. Ron and Mike were really close, more of what you would expect with 2 regulated airplanes. Ron edged Mike out by 5 seconds. We decided to run a final race with Mike and Ron, and it was a real shootout. Mike barely had a speed advantage and was having a hard time passing Ron because of it. After following behind for a while, Mike would eventually make his pass, much to the enjoyment of his cheering section! And then tragedy struck. I was pitting for Mike, and his plane took an unexpected bounce, and I broke the prop on my catch. Tristan ran after my props and I ran after my tools, and we did a prop change, albeit not what you would classify as "Quick". More than anything, I wanted Mike to finish the final, and it was good experience for Tristan to learn to keep going, and not quit. Ron and Bill won handily. After the race, Mike and I both agreed that the SCAR airplane was more fun. We have all been building our airplanes with "Swappable" motor plates and 1 oz tanks, so we can really fly our planes with either set of rules. It sounded like Mike was looking for a motor for SCAR rules, and I'm pretty sure we were both twisting Ron's arm to take his Moki out of the box, and make a new aluminum motor plate. VERDICT: None yet,.....the Jury is still out, but SCAR Goodyear is definitely not dead yet. Go Fast, Have Fun.



**Mike Callas New Mockingbird SSR, Brodak (what else) B25 for power.**

SSR: It was near the end of the day and we had a pilots meeting for SSR. Mike Callas brought out a new Mockingbird for the races. Mike was flying his own entry, with Bill Cave pitting. I had my Fox Racer, but I had just finished pitting for Tristan. Nobody wanted to pit for me, and Charlie really didn't want to pilot, and I really didn't want to pit anymore, so we decided to just finish the day with Mike running a 1-up with his Mockingbird. I know that's not very exciting, but it was the end of a long day, daylight was fading, and most of us were feeling done. If it weren't for the big fog delay, we probably would have run a SSR/FOX race, and finished off with a Quickie Rat race. Nevertheless, it was a good day with some really fun racing. I had my doubts in the morning, but somehow we pulled it together.



**Ron Duly working on his Sport Goodyear in the pits.**

FOX RACE - JUNIOR: As I noted above, Tristan is flying his Junior events 1-up. Bill Cave and I tried to talk Tristan into a 2-up race with the adults, but we couldn't twist his arm quite hard enough. I ran a few warm up heats with Tristan, and we got a really good needle on his Fox Racer "Shoelace". When the race started, I totally blew the start, (that damn Fox just wouldn't start). I was bummed. Once we got the race started, he had great airspeed. Both of Tristan's pits were great, he brought it right in, and I 2-flipped each pit. I was just kicking myself in the shorts about the start, but we had fun. I guess that happens when an old pilot tries to be a pitman.

### TFT's Results

Toys for Tots	
C/L Racing Results	
<u>Mouse I</u>	
Mayer	DNF
Callas	4:12.15
<u>Mouse I - Junior</u>	
Mayer, T	3:08.08
<u>Dallas Sport Goodyear</u>	
<u>80 Lap</u>	
Duly	4:45.96
Callas	4:50.57
Mayer	5:15.85
<u>160 Lap Final</u>	
Duly/Cave	9:54.50
Callas/Mayer	13:31.59
<u>Fox Race (Jr.)</u>	
T. Mayer	8:00.49
<u>Super Slow Rat</u>	
Callas/Cave	6:02.26

PHOTOS: Sometimes when I'm at the field I forget to take good pictures. Sorry about that. I had a spontaneous moment when Bill Cave, Charlie Johnson and Mike Hazel were all hanging out after the race, I said to myself, "Now there's a picture!" Mike made it all the way from Oregon to fly speed. He didn't join us for any racing, but we had a chance to hang out and chat. Now I just need to talk Bill Cave into joining us for more races. Maybe Me and Bill and Tristan can keep Back-At-It alive. That's it for 2021! I'm hoping a new 2022 will bring some more racing back to LA. Fly fast, and wear your sunblock.



L/R Doug Mayer, Bill Cave, Mike Hazel and Charlie Johnson.

## Letters...

Hi all

I'm deeply touched with the memories of my dear friend Paul Gibeault.

He is the perfect example of a gentleman who understood the feelings of my Tournament.

A great helper, not giddy to win and always with a wonderful smile.

Thank you all the aeromodellers who travel to my country to be in a quite "weird" project of a competition.

Unfortunately I've decided to stop the event because it's very hard to fly with boxes of airplanes due safety rules.

I still believe I'll meet again one day ( like in the song ) Paul, Dave McDonald, Bill Lee, Bob Whitney, Mike Greb, Melvin Schuette , Tim Stone and other fellows and friends, at the Nat's. I'll not take my models, just to watch and be a timer or jury.

Now it's show time. I have to drive to the studios to record two talk shows and tomorrow my weekly radio show. But always one or two hours at the workshop.

I've Sent you a picture of me on TV promoting my beloved hobby.

Cheers everybody.  
Júlio Isidro



Julio Isidro is seen here on a television show to promote Control Line flying in his home country of Portugal.

## Prologue - Bill Bischoff

Richard Kucejko lives in northern Alabama. He returned to CL racing last year. With no racing activity in his immediate area, he travels to Dallas, Muncie, Dayton and Chicago to race. He was disappointed to have missed the Dallas Fall Finale due to a medical issue, so I suggested that we plan a trip for him to come over for a weekend and fly with us, contest or not.

We couldn't get coordinated on a weekend, but everybody was available during one particular week. Richard arrived on Tuesday, and had planned to go home on Thursday. Since Wednesday was a rain out and Thursday was forecast to be nice, he stayed and we flew on Thursday also.

And now, in Richard's own words...

## My test and tune trip to Dallas

By Richard Kucejko

Whether it's the fiery sunsets accompanied by the sweet songs of native parakeets flying over, or the laughter of friends amongst the hum of engines buzzing through the air, the Dallas airfield has always been my favorite places to fly. Needless to say, when a nagging health issue grounded me from attending the Phil Dunlap memorial contest this year, my disappointment was that of a youngster who didn't get the newest golly-gee-whiz-bang toy for Christmas. So, when Bill Bischoff suggested that some of us gather in Texas to fly airplanes and tune engines, my excitement level was like an F2A coming on the pipe. After being cleared by the doctor, some planning, and much discussion, a date was picked and the wheels were set in motion.

Day one greeted us with cloud cover and the threat of rain, but that didn't deter us from flying. Bill Bischoff, Mike Greb, and I occupied the racing circle while Bill Lee, Patrick

# From The Workshop...

By Mike Callas

Excitement is building here in Southern California for the first race of the year on the last month of the year. SCARs Toys for Tots is this December 5<sup>th</sup> at the Whittier Narrows. And building is what many of us have been up to. I built several racers during the lockdown.



I built a Clown with a OS 18 TZ. The motor was converted from auto spec to aero duty by Jed Kusik many years ago. It flies pretty well and will be on the flight line in December. Also put together a PDK Mockingbird 2 Super Slow Rat with a Brodak 25. The plane came out somewhat tail heavy (heavy spray gun finger). Nothing that an ounce or so wouldn't fix. The CG was still behind the plan's location, but I made the mistake of placing the gear per the plans. This resulted in bouncy landings that required Dave Hull to brush up on his shortstop skills. I took the plane home and cut a new gear to allow a balance point of 15 deg. The next session was much better with the plane tracking very well in the air and much smoother landings.

The remaining issue was the tank that I initially used went lean in the air and then back to rich after 20 laps. I tried all the tanks I had laying around, but they were no better. I sent Bill Bischoff an email and told him of my woes, and he whipped up a new tank for me that worked great. My next task is to experiment with venturis to optimize airspeed with the takeoff performance. So, I now have a functioning SSR for the next season.

Hempel, and Dave Rigotti headed to the speed circle for some jet time. First up for me was my new Texas Quickie Rat. Its performance was in the ball park of being competitive which brought a smile to my face. Meanwhile, from the other circle came the joyous sound of a sport jet bellowing out its ferocious belch. Next on the agenda was my AMA Goodyear, Margaret June. Times were not overly fast, but progress was made on getting better performance out of the Fora. Unfortunately, a premature ending came for the sport jet, as the model impacted the pavement rather forcefully. About that time the rain came and flying was curtailed for the day. We retreated to Bill Bischoff's house to do some hanger flying and general fellowshiping. The evening was capped off as Bill Lee had invited us to his home for burgers and such. What a great evening of food and friends. A very heart felt thankyou to Bill and his lovely wife Sandra for hosting us. The food was great! Also, Christmas came early as Bill Lee invited us to go through boxes of "stuff" and take what we wanted. My local hobby shop will miss me for a while as it was a bountiful haul.

Day two was a washout as it rained steadily all day. Time was spent tweaking models in preparation for Thursday. It was a pleasure watching and working with Bill Bischoff. His ideas and processes are amazing.

Day three was absolutely beautiful. Perfect weather for flying. We started out with the quickie rat again to be sure that the tweaks we had made were effective. Next on the agenda we moved on to my mouse racer. We spent hours with the ornery beast. After much trial and error, the model finally performed consistently. The biggest lesson learned by me was that they won't fly backwards! More time was spent testing props with the AMA Goodyear until a cracked motor plate halted that process. We then moved on to the clown racer. The results were pretty good, but we found the landing gear to be too springy, as landings were troublesome.

In closing, I can't say enough about the guys, and ladies, of the Dallas Model Aircraft Association. The hospitality was amazing and the fact that some took time off to test and tune with me is a tribute to their character. I cannot say thank you enough to these folks for making my return to control line racing such a great experience. Till next time, tight lines and fast times.

Richard



Bill Cave on the handle at the TFT's contest.



Next up is my Dallas Rules Goodyear-PDK Polecat. I put it together in a week and spent the next couple of weeks primer coating, sanding and finally color painting with Klasskote and Callie graphics decals. I put on the Bischoff tank and Shutoff. Reading old Torque Roll articles I learned of the Brodak 1 1/4" spinner, so that found its way onto the nose. Bill recommended I use the McMaster Carr threaded rod as the spinner to motor nut.

I was hoping to use a Magnum Bluehead I bought many moons ago, but I screwed it up installing new bearings. So, the new motor for Dallas Sport Goodyear is the SH .15. I bought the SH and the Brodak 1 1/4" spinner. The McMaster Carr 5mm adapter that works for the Magnum Bluehead .15 will not fit the SH, as the crank is too short.

So, I contacted Jim Lee and he made an "F2CN" style adapter that works well. There is an Aluminum version, as well as a steel version. I opted for the steel for now as I needed to move the CG a bit.

For more info contact Jim Lee, [Jlee9@cox.net](mailto:Jlee9@cox.net)



Finally, I put together another Cox 049 for my mouse. That last motor I had worked well (for me at least) it revved up to 19.5k and ran a consistent needle the entire tank but was lost when the motor was stopped incorrectly after starting backwards. I made a uniflow tank like the one on my last motor and hopefully it will run as good.

Many thanks to Bill Bischoff and Dave Hull for their hardware and advice.

Happy trails and Merry Christmas.

Mike

## The GloBee Replacement Saga – Chapter 2 By Bill Lee

No doubt by now you have seen Bill Bischoff's article in the October 2020 issue of *TorqueRoll*. That issue along with the recent October 2021 issue describing Bill's efforts have started a ball rolling that is a welcome change in this era of GloBee old-age and parts unavailability.

At our DMAA club meeting a couple of months back, I viewed and critiqued what Bill calls the "Juice Box Racer". I realized it was not quite what I was after. That brings me to my sermon: **when you are pitting, any extra movement, any extra activities beyond the minimum will cost you time and should be avoided.** The model, the entire SYSTEM should be designed and implemented to minimize the motions that a pitman must go through to service the model.



That is why I always want the fuel shut-off to be placed on the model “right there”, where your hands would be otherwise. That’s why the glow plug contacts on the model (where allowed by the event rules) should be placed where your hands would normally grasp the model. That’s why I place the battery on my arm with the clip held in my fingers when I catch and fuel the model, so I don’t have to reach “over there” to get the clip.

Positive affirmation that the glow plug is active and not burned falls into that same directive: if I have to stop, turn my arm to view the amp meter, I have wasted motion and have lost time. This also begs the question: what do I need to know? Do I need to know the number of amps, or do I need to know a simple “yes or no”?

With all of that, I set out to design my own version of Bill’s GB Replacement based on these requirements:

1. Get rid of the SLA battery, replace with two sub-c Ni-MH 6000mah batteries in series.
2. Get rid of the amp meter, replace with a visual indication (bright LEDs) when the battery is connected to the plug and the plug is good, i.e., a simple ‘yes/no’ indicator.
3. Retain the rheostat since not all glow plugs require the same current.
4. Package in a form more suitable to attaching to my arm.



First step was to design and implement a small circuit that will sense the current flow when the glow plug is connected and will cause the LED indicator to come on, yet NOT allow the current to the glow plug to flow through the LED circuit. This circuit was designed with the immense help of a number of fine folks on the forum at <https://cr4.globalspec.com/> (rixter and dkwarner) since I am not an electronics person. Dick Warner mentored me, corrected me, guided me, made suggestions, drew circuits for me, and ultimately led me to a successful implementation. Without his help, I would likely still and forever be using the GloBee on my arm.

Here’s the result. Note the two large ultrabright LEDs. One problem I addressed was visibility of them in the bright sunlight we usually have when we race. I wasn’t sure if one LED would be enough, so this implementation has two. Future versions will only have one since that’s enough. And be assured, they are BRIGHT!



The LEDs are on the side of the box. If you look at where the battery ends up when it is strapped to my arm, the LEDs are always visible out of the corner of your eye when servicing the model. Coupled with the extreme brightness of the LEDs, confirmation of the glow plug is always there without any extra motion for the pit man.



Since the back of the box is flat, not curved like the box Bill used, I added two wedge-shaped runners on the bottom, then a layer of 1/8” foam padding, to conform more to the shape of my arm. This shape, coupled with the light weight, makes attachment to my arm with only a single wrap of the elastic/Velcro work completely satisfactorily. Note, too, the DC power barrel jack for charging the battery.

Does it work? Yes. We flew with it recently on a bright sunny day. The indicator was quite visible without having to go look for it, even to the pilot over 50’ away! (Photo taken for illustration, not at the field.) The photo does not do the brightness of the LEDs justice! But since the LEDs are clear, if they are not lit, they do NOT look red, as would an LED with a red lens. Note the position of the LEDs with my hands in pitting position.

Compared to the GloBee, the unit is much lighter: about 6.5 oz compared to a porcine 16.8 oz for the GloBee.

Some of the CL Combat guys use an LED as part of their battery clip, but with an opposite indication: ‘on’ means glow plug is not working, ‘off’ when attached to a good plug. I considered this approach but felt that ‘on’ means ‘good’ is what I needed, (see pic on next page) and secondly, the LED on the clip draws some small current when not being used. You probably should not leave the clip attached at the end of the day when you throw the battery in the box.



## CHARGING GLOW PLUG BATTERIES

Bill Bischoff

I've been making and selling glow plug battery systems for over a year, and a common question has been "how long does it last? How often should I charge it?" Here's the practical answer, with a minimum of science mixed in.

I have previously used 3800 mAh batteries, but my most recent units have 5000mAh batteries. The number is the capacity of the battery. Without getting into the details, consider one a 38 gallon tank and one a 50 gallon tank. As you would assume, the higher capacity battery can run longer before needing a "refill". That being said, even the lower capacity will provide several hundred starts. I switched to higher capacity batteries recently as a matter of economics rather than necessity; the higher capacity batteries cost about the same as the lower capacity batteries, so why not? Besides the power used up in actually lighting the glow plug, the battery will also lose power by self-discharging. Anything rechargeable, if left on the shelf long enough, will discharge and eventually go dead. The take away here is that even if you never use your glow plug battery, it will need to be charged occasionally.

OK, so how do you know when it's necessary to charge the battery? If you don't fly in contests, use the battery until it tells you it needs to be charged. When it gets low, you will need to turn the adjustment knob up higher to get your normal meter reading, and your engine will get harder to start. You may need to borrow your buddy's battery for the rest of the day, but that's the worst that will happen. If you compete, it's even simpler; charge before you go to the contest! It's free insurance! Modern chargers know when to shut off or go to a trickle charge, so you won't hurt the battery by overcharging it.

It's worth a couple of sentences to mention how to charge the battery. If your charger has the ability to set the charging current, setting it equal to or below the battery's capacity is considered

safe. Remember the 3800 mAh capacity battery mentioned above? A safe charge current would be up to 3800 milliamps, which is the same as 3.8 amps. At this setting, a depleted battery will be recharged in one hour. This should be plenty fast enough, even if you forget until the morning of the contest. If you're not in that much of a hurry, you may elect to charge longer at a lower rate. If you wanted a two hour charge, simply divide the battery's capacity by two.  $(3800/2) = 1900$ , so setting the current at 1900 milliamps, or 1.9 amps, would give a two hour charge. Although a faster charge is considered safe, I prefer a "slower, gentler" charge, as I think this might improve the battery's overall lifespan. This is what my "gut" tells me. It could be wrong, but I'm confident it doesn't hurt. Of course, I'll charge faster if the situation calls for it. A charge current of 1/10 of the battery's capacity is as slow as you would ever need. I would normally use a charge current of about 1/3 to 1/4 of the battery's capacity. As with all the fun things in life, improper use can lead to problems. Please follow the charger's instructions if they conflict with mine. Please do not leave charging batteries unattended. Feel the batteries once in a while to make sure they are not hot. If the batteries are hot, unplug the charger from the wall, and unplug the batteries from the charger. Likewise if the charger is hot. I am not trying to be an alarmist, but the legal department said I should mention this stuff.

## CONTEST CALENDAR

NCLRA cannot be held responsible for errors or omissions!

This calendar is compiled from data collected at the NCLRA website [nclra.org](http://nclra.org), and other published sources. Members can log in to [NCLRA.org](http://NCLRA.org) and submit contest details.

### NORTHEAST DISTRICT

None

### NORTH CENTRAL DISTRICT

None

### NORTHWEST DISTRICT

None

### SOUTHEAST DISTRICT

None

### MIDWEST DISTRICT

None

### SOUTH CENTRAL DISTRICT

The Dallas club has selected the dates for next year's contests, and out of towners are already telling me they plan to attend the Spring Warm Up in April. You're invited, too, so why not join us? The date is April 29-May 1. Our June contest is set for June 11-12, The September contest is Sept. 3-4, And the Fall Finale is the 7-9 of October. The slate of events is not yet firm, but all will feature multiple racing events, as well as other categories. More complete information to follow.

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None

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