

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



TO



This Gaggle of Sport Goodyears were used by DMAA Club members in the “Sport Goodyear Shootout”, See the South Central column for details.

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**Torque Roll Issue #177
February 2025**

PRESIDENT – Bill Bischoff

Hello, everyone, and Happy New Year. I hope you've all got something interesting on the building board for the upcoming season. If so, please share some photos with the rest of us? The CL Racing schedule for the 2025 NATS is as follows. Monday, July 7 will be Mouse 1, Vintage B TR, and F2C team race. Tuesday, July 8 is AMA Slow Rat and AMA Goodyear. Wednesday, July 9 will be Quickie Rat and DMAA Goodyear. Thursday, July 10 is Super Slow Rat and Clown Race. I would like to Bob Whitney for stepping up to sponsor Vintage B Team Race this year. I know of at least three, so we will actually have a race! And speaking of sponsorship, we welcome and will accept sponsorship for the unofficial events at the NATS, namely Quickie Rat, Super Slow Rat, Clown Race, and Sportsman Goodyear. I would like to have Gold, Silver, and Bronze awards for Sport Goodyear, but there's no reason that one sponsor has to cover all nine awards. We can certainly have separate sponsors for Gold, Silver, and Bronze. Please contact me if you want to be a sponsor.

Sticking with the subject of the NATS just a bit longer, it is now official that our speed brethren will be joining us at the McCool Racing site for the NATS. We will use our same circle as always, and the speed guys will use the F2C team race circle. AMA will install a pylon mount in time for the NATS. In the future, we are supposed to get a third circle to be shared for both speed and racing testing and practice. This should be good news for those who enter both speed and racing. No more running back and forth between the two sites. Unfortunately, there is no news regarding our order of Fora Junior 15's from Ukraine, other than we are promised we will get them eventually.

I also have updated information (non-information) about the Magnum XLS 15 release date. I asked Mike Greenshields: *You had previously indicated that you were expecting the XLS 15 blue head engines in January. In your most recent email, several engines were listed as on the way, but the 15 was not included. What is the status of the XLS 15 (or ASP S15A)?* The answer was: *Well if that is what I said I was mistaken. The Magnum line will fill in over first quarter. At the moment I do not have an exact date.* Mike Greenshields, Mike Goes Flying.

OK, so not great news about Sport Goodyear engines, but I remain ever hopeful.

The Australians have put in a bid to host the 2026 CL World Champs. The site will be Whiteman Park in Perth, the same as the 2016 CLWC's. Being that they are in the southern hemisphere, their summer is our winter. Last time around, the contest was in late April/ early May. The bid has not been approved yet, but it's the only one I know of so far.

NORTH WEST – Leighton Mangels

In reading the various race reports from the different regions it doesn't appear that Clown Racing, per NCLRA rules, is very well attended so I thought I'd pass along what we're doing up here in the Northwest. We have Northwest Flying Clown Race, which is pretty much per NCLRA rules, but it's not a very well attended category. That said, we also have Sportsman Clown Racing, which is quite well attended and

lately several more people are planning on entering. The full rules can be found on the *flyinglines.org* website but the main difference is the engine choices which are the OS 15 FP, OS 15 LA, and the Brodak 15. We fly on 52 foot .015 stranded lines and the rest of the rules are basically the same as the Fast Clowns. These motors seem easy to come by, run well, and the shorter lines seem better suited for a Clown with no shutoff. The simplicity and relative low cost is attracting more racers and that's always a good thing.

The next contest on the agenda is the annual Jim Walker Spring Memorial Tune Up contest put on by our club, The NW Fireballs, here at our field in Portland Oregon. The dates are April 12 - 13 and we'd like to invite everyone to come join us. Details are in the Flyinglines newsletter, or check the *flyinglines.org* website. Hope to see everybody at a circle somewhere this year.

Leighton Mangels

NORTH CENTRAL – Paul Gibeault

"2024 - Paul's Airplane Year in Review"

Northwest Regionals, May, in Roseburg, Oregon.

I was lucky enough to be able to attend five U.S. contests this year. My "MECA" of course is the Northwest Regionals. They have changed events over the years but currently host five racing events: (Note: NW Rules can be found on the Flying Lines web page) <http://flyinglines.org>

N.W. Clown Race: Just like NCLRA on 60' lines

Sportsman Clown Race: (aka "geezer clown") much slower (restricted engines) flown on 52' lines.

Dallas Sport GY: flown with models ~ 30+ seconds per heat slower than the Texas goodyears.

NWSR: with same engines as at the Nats now. Sadly, this puts Foxes at a disadvantage, but one can still make the final with good pitstops using a Fox 35.

NW Super Sport: These are NWSR models with a K&B .40, S/T .40 or Enya .40 side exhaust engines on suction. Much faster & mechanical fastfills are allowed. This is the Northwest's equivalent to AMA Slow Rat.

My observation is even though most of these events are not too hard to fly yet for us **older pilots**, the entry level is down from previous. Very few new entries were seen. Air Canada delayed my models enroute, so I ended up piloting for carrier flyer Mark Schluter. We were happy to have podiumed in both NWSR & NWSS for Mark's first time out. It worked out even without my models I was kept busy flying & timing. We were very lucky to have Will Naemura step in to CD to allow Doug Powers to pit for Leighton Mangels. The Mangels/Powers team handily won the Racing Grand Championship award with four firsts & a second. It was

breezy at times which proved to be the downfall of several of the lightweight clown racers with circle run in's on launch. Contest help was at a bare minimum, but we were able to made do somehow. As always, I had a good time.



Navy Carrier flier Mark Schluter with his NWSR model. Mark did quite well this time out.



John Thompson of the "Nitroholics Team" had a great race going until his model caught fire in the NWSS race.

The 2024 AMA Nationals, August, Muncie, Indiana

As always the Nats is run in very hot (90F+) weather. The Texans have an advantage here. We flew over freshly (read HOT) paved circles. Doug Mayer & Bob Oge took the first chunks out of the perfect surface from crashes. (maybe this is why we can't have nice things...?)



Doug Mayer from Hawthorn, California suffered a catastrophic control failure on his SSR.



Bob Oge's pilot cleaned off his LG on his slow rat due to a control failure.



Doug Mayer lost his DSGY but still managed to smile along with his pitman Mike Hazel.

We were graced to have stalwart Sandra Lee timing for us. The contest timing staff was so low that often Bill Bischoff did the countdown while piloting. Without race contestant volunteers, we just couldn't race.

The aging of the pilots sometimes led to 2 up races & results determined from the heats with no finals flown. As always at the Nats end, we are all well baked & in need of rest afterwards.

The 2024 World Cup & World Champs, August, Muncie, Indiana

Enough has been written already so a few photos. Nobody complained about the excellent circle condition nor lack of practise, which was nice.



It takes a lot of people to run a world champs. Arguably, T/R requires the most officials & somehow Organizer Bill Lee managed to cobble together enough volunteers.



Bill Lee, wife Sandra, their son & grandkids really helped us out at the champs.

Texas Fall Finale, October Contest

The weather was very nice & there was a light turnout of 6 racers. For some reason I don't remember a whole lot but here are a few notes: (except for the big mouse cock-up). The three *Mouse Titans* took to the circle for this heat race. Nats champ Patrick Hemple/Bill Lee with Bill's new killer mouser, myself/Bill Bischoff & Kelly Hite/Mike Greb. Bill & I both

got clean starts. When Mike got started, the model somehow hit his foot & flew on into the pilots' circle slightly injuring Patrick & Bill B. Everyone soon got wrapped up in the lines in the middle & Bill Lee's model crashed hard. Fortunately, my model quit at just the right moment & landed safely. It all goes to show that in order to finish first, one must first finish! (Note: After first aid, everyone was able to return to flying.)

There were six entries in DSGY, and I was very pleased to fly a personal best heat (4:01) using a Bill's Rent-a-racer Polecat. Can you believe I placed last! Those Dallas guys are one FAST group is all I can say!

As pitman of last resort, I pitted for Kelly Hite who won clown race only because I messed up less than the Biscuits & Gravy team. Us ageing pitmen are really slowing down it seems... Sadly due to lack of timers, only 2 up heats could be flown. As always, I enjoyed myself, (thanks to Patrick Hemple for transport & billeting). I would sure like to see a few more people to help out. Some of you may think my giving Canadian maple syrup to Sandra Lee is an attempt at bribery, but really, it's just to entice her to show up!

Toys for Tots, December in California.

With much thanks to my (Team Can-Am) buddy Mike Hazel who enticed me to come down by offering return transport from Portland & accommodation. AS always, you can't beat Whittier weather which was great. At some point while driving through northern California, I spotted snow! "This was not mentioned in the brochure Mike, I said!" Shortly thereafter, I suffered a mild TIA (mini stroke). Seems for a few minutes my brain disconnected from my mouth & I started slurring words with memory loss. By the time we stopped for a break, all was fine. (In hindsight, I should have gone directly to the hospital, but I didn't know any better). Several tests have been performed & a few more still to go before I can be properly diagnosed. (This is why I need to attend all the contests I can, because I never know when "The Big One" is waiting to hit me...)



Mike Hazel from Mehama, Oregon was my driver for Mike & Paul's most excellent adventure to Whittier. Always enjoyable travelling with Mike.

As usual timers were at a premium but there was enough entry to make it a fun meet. CD Ron Duly goes out of his way to make this a very enjoyable race (Thanks Ron & the SCAR group). By now I'm into serious brain fade but do remember Mike piloting my models to win first in Mouse & TQR. I will say that the *mouse king* was threatened this time by Mike Callas who finished a scant 2 seconds behind me! I was very pleased to see he used a "Power by Paul" prepared Cox .049. We enjoyed the trip back including a stop to "The Pickle Place" for souvenirs.

All in all, lots of fun racing with lots of friends. As always, I encourage everybody to thank your racing timers/lap counters because without them, we have no racing.

Paul out...

SOUTH EAST – Bob Whitney

Happy New Year everyone from the warmth of South, Florida, our thoughts and prayers are with everyone on the west coast. On another sad note, we have lost another big contest for lack of interest. The Free Flight KOI held this past January 7,8,9 was the last for the Palm Bay Florida area. With over 40 events to fly, they had 24 entry's, so now the only KOI left is the Stunt KOI held up near Florida City, FLA. CD'd by Wayne Smith.

I hope everyone has recovered from the 2024 Nats and world Champs. I think my trigger finger is still numb from lap counting. I think I still have one more Nats in me if I can get my legs in a little better shape, Might need a pilot for mouse 1. Maybe I can finally talk Les out of his Cyclon Racer.

I have been told that an anonymous donor will put up for a one time nonofficial vintage B TR 140 lap race with at least two entry's (no entry fees).

Something to think about...why when on suction, the motor will die the moment you release it? I have had 2 different occasions where two identical cowled motors were THE SAME. One worked fine, but the other one would die on take off. Both times the problem models cowl was blocked off in front of the venturi and it worked fine. One was a cowled mouse 2 and the other was a Barton B TR. Why did one of each work and the other didnt??? what are we missing.

RAD

SOUTH CENTRAL – Bill Bischoff

SPORTSMAN GOODYEAR SHOOTOUT

Last November, members of the Dallas Model Aircraft Association set out to find who had the fastest Sportsman Goodyear, and perhaps more importantly, *why*? There had been plenty of discussion about things like the significance of the airfoil, the basic design of the model, cleanliness or "dragginess" of one plane vs another, and of course, the engine.

We concluded that the first thing to do was to fly everybody's airplane under similar conditions and get some base line data. One afternoon, we flew all the planes, timed them for multiple 8-lap circuits, and tached all the engines. I flew all the planes (except Patrick's) to eliminate piloting style as a variable, and we timed with a *Transitrace* system to eliminate timing variations. In addition, all models had their line length measured to be sure no one was too long or too short. We tached all the engines (except Patrick's). Lester had an audio tach app on his phone, and Tom Walker had a hobby-type optical tach. There was enough variation between the two tachs that we disregarded Lester's readings. I can't verify that either tach was perfectly accurate, so view the results relative to each other, rather than as absolute readings. As they say, "your results may vary."

Name	Plane	avg.	best	RPM
Lester Haury	Miss Min	20.46	20.40	17,700
Kelly Hite	Invictus	20.97	20.93	17,700
Bill Lee	Miss San Bernardino	21.19	21.10	17,000
Bill Bischoff	Booray	21.30	20.95	17,400
Mike Greb	Polecat	21.34	21.16	17,700
Patrick Hempel	Mirage	21.36	21.07	?
John McCollum	Dillusion	21.36	21.10	17,200
Bill Bischoff	Polecat	21.49	21.34	17,800
Lester Haury	Knotty Girl	22.09	22.05	17,200
Tom Walker	Buster	22.95	22.81	16,500

OK, what did we learn? First, most of these planes are capable of winning (and have won). Notice that Miss Min was about 1/2 second faster than anything else. At the time, Miss Min was the only airplane that had our new "low drag" landing gear, which had been previously been shown to be about 1/2 second faster than the "regular" landing gear. Make from that what you will. Also, Miss Min was one of the few airplanes that did not have a fairing behind the fuel tank. And Miss Min has a symmetrical airfoil.

Booray also has a symmetrical airfoil. Invictus, both Polecats, Mirage, Knotty Girl and Buster have flat-bottom airfoils. Miss San Bernardino and Dillusion have semi-symmetrical airfoils. Some planes have full spinners. Others have spinner nuts. Is one better than the other? We're hoping to find out.

I find all of this interesting but not definitive. When the weather turns nicer, we will have a second shootout that will focus on swapping different engines among different airframes. Several more airplanes now sport the new landing gear. Miss Min now has a fairing behind the fuel tank. I am even building a new Miss Min to see if the performance of the first one can be duplicated. I've built enough airplanes to know that occasionally you'll get a really good one, or even a real dud! Stay tuned for the next installment...

2025 DALLAS RACING SCHEDULE

The Dallas Model Aircraft Association has set its contest schedule for 2025. 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 1, Clown race, and AMA Goodyear. These contests will also include speed. Other racing events are possible on Friday by request. Please ask. The June and August contests will have racing on Saturday only, including Mouse 1, Quickie Rat, Super Slow Rat, and Sport Goodyear. These contests will also include stunt and carrier events.

The dates are:

April 25-27 Spring Warm Up

June 7-9 Bob Gieseke Memorial

August 30-31 Southwestern Championships

October 3-5 Fall Finale

Please contact me for details. I hope to see you there!

From Peter Cunha

Billy Bishoff asked me to send some pics of my Fly Catcher SSR for the February edition. I build it scratch with help from Billy's measurements, two pictures, and a set of Brodak Super Fly ribs. At the recent Toys for Tots race at Whittier Narrows it was one of the fastest SSRs at the meet, brought down by a bad glow plug.

That's all I've got for now,

Best Wishes,
Pete Cunha



Engine by Brodak, tank by Bill Bishoff, internal bellcrank mounted shut-off activating rod. LG is removable.

2024 TOYS FOR TOTS CONTEST Bill Bishoff

The annual Toys for Tots contest was held at Whittier Narrows in Los Angeles on December 7 and 8. It featured combat, speed and racing. As the name would imply, the entry fee was a new, unwrapped toy for the Marine Corps Reserve Toys for Tots Christmas toy drive. Typically, this is a small local contest, often with barely enough warm bodies to hold a race.

At the Virgil Wilbur contest in October, Doug Mayer asked me if I wanted to come back for the Toys for Tots contest. He said he'd house me, feed me, and chauffeur me around; all I had to do was show up. Later, I found out that Mike Hazel and Paul Gibeault were planning on attending the contest. Well, I certainly couldn't let them have all the fun, so I told Doug I'd be there.

I arrived Saturday morning, and Doug and I spent the first part of the day completing and making repairs to a couple of airplanes, before heading out to the field. There we met up with quite a few racers who were testing and getting ready for the contest.

All the racing took place on Sunday. I can't remember all the details, but I'll hit my personal highlights. First, thanks to Dave Hull, I actually got to fly something instead of just being a pit man all day. I flew Dave's Mouse racer, and when I landed at the end of the first heat, I found out that we only had 49 laps. Then Dave found out his engine quit because it was broke! He installed another engine for the second heat, but it seemed he had should have picked a different one out of the bag. The one he installed was clearly not happy. Such is Mouse.

Another highlight is that Doug, myself, and Doug's son Tristan were 1-2-3 in Sport Goodyear again. During Tristan's first heat, we noticed he was walking a big circle, and not pulling his handle in close while flying. After a quick refresher lesson, he did much better on his second heat, and improved enough to move up to third place. Way to go, Tristan!

An interesting coincidence in Sport Goodyear was that one heat featured three Margaret Junes, and another heat featured

three Polecats. Too bad no one got in flight photos of the planes all grouped together.

My pitting went downhill after that. It seems I was having battery issues, even though I replaced the pack in one of my batteries after the Virgil Wilbur contest. I replaced it again once I got home, and I'm hoping that it's fixed for good.

I must give a big thank you to Doug and his family for adopting me for the weekend, making it possible for me to attend. Thanks also to Ron Duly, who always seems to be there to keep things in order and moving along. As usual, I had a great time racing airplanes and hanging out with my friends.

MOUSE 1 50 laps
1)Gibeault/ Hazel 4:35.21 2:42.89
2)Callas/ D. Mayer 2:44.33 3:37.76
3)Hull/ Bischoff 49 laps sick engine

SPORT GOODYEAR 80 laps
1)D. Mayer/ Bischoff 4:17.41 DNF
2)Bischoff/ D. Mayer 4:46.48 4:19.16
3)T. Mayer/ Bischoff 4:28.13 4:20.36
4)Hazel/ Gibeault 5:28.52 4:23.93
5)Gibeault/ Hazel 4:27.99 DNF
6)Callas/ Hull 5:03.96 4:31.71
7)Cunha/ Harness 4:33.03 5:50.53
8)Harness/ Harness 5:29.37 47 laps

SUPER SLOW RAT 100 laps
1)D. Mayer/ Bischoff 6:15.91 6:00.19
2)Hull/ Callas 6:33.09 6:03.34
3)Cave/ Callas 6:09.69 6:10.41
4)Hazel/ Gibeault 6:18.58 6:38.96
5)Cunha/ Harness 7:09.19 18 laps
6)T. Mayer/ Bischoff 7:13.50 8:19.53

QUICKIE RAT 70 laps
1)Gibeault/ Hazel 3:49.89 3:23.30
2)Bischoff/ D. Mayer 4:55.51 3:39.04
3)T. Mayer/ Bischoff 4:07.00 4:33.21
4)Harness/ Harness DNF

2026 F2C Team Trials - Steve Wilk

Hello everyone

AMA has asked if I'd continue as F2C Team Trials Chairman and I have accepted So, I'm checking in to see to see who will be competing in this years Team Trials.

The 2026 F2C team is wide open. Dick Lambert & Tom Fluker and Dave Fischer and myself have retired and will not be returning. This leaves an opportunity for some new teams. Alex Tuponov says that he will be returning. Who else will be competing?

But first we must come up with WHO will host the TT? When? Where?

I've attached the 2024 TT proposal (below) which was

modified to a one day trial with only 3 returning teams in 2023. Since we will have new teams, I would suggest we go back to a 2-day 6 heat TT.

But first we need a club or group to step up and host the TT. The AMA has been asking how is this process going. Without a TT to choose the teams I'm not sure the AMA would consider supporting a F2C at the 2026 WCh's. The AMA has not given us a time but I feel this needs to happen before April 1st.

Who ever steps up to host the TT needs to come up with a site and a date. They will also need to arrange for judges, timers and support people to run the TT. Look through the proposal and get back to me so we can work with the AMA.

As of today I'm unaware of any countries officially making a proposal to host the World Champs. Trevor Letchford from Australia posted on Facebook the Australia will make a proposal to host the WCh in Perth Australia, but nothing official yet.

Steve

2024 USA F2C World Championship PROPOSED Team Selection Program

The program described in this document complies with the requirements set forth in the AMA's World Championship Teams, Procedures Governing the Academy's Sponsorship of FAI Teams for US teams competing in 2024.

Team Selection Program Overview:

The Team Selection Program (TSP) is a single venue program. There is a single Finals contest to select the team from the participants. All interested parties are invited to participate in the Team Selection Finals to determine the 2024 F2C team membership.

The Team Selection Finals will select the top three teams to represent the United States in the 2024 Control Line World Championships.

Details are contained in the following sections.

Team Selection Program Calendar:

The 2024 Team Selection Program runs from the release of this program description through the conclusion of the Team Selection Finals contest in 2023.

The Team Selection Finals may be scheduled as early as the AMA National Championships in 2023, or as late as November 2023. The Team Selection Committee will announce the date and location for the Team Selection Finals contest by April 1, 2023.

This schedule results in the USA F2C team selection prior to the World Championships host organization publishing their initial participation bulletin.

Specific approach:

Program Entry:

It is strongly encouraged that all interested persons enter the F2C Team selection program. Entry fee is \$20 per person and is payable to:

Competitions Department

Attention: Colleen Pierce.

AMA Headquarters

5161 East Memorial Drive

Muncie, IN 47302

All teams who are participating in the qualification process must be entered in the F2C Team selection program.

Team Selection Finals Contest:

All interested parties are invited to the Team Selection Finals contest. The Team Selection Committee makes the venue selection by April 1, 2023, The contest is expected to be held in the period of June 2023 to October 2023, with the possibility of being held at the AMA National Championships in 2023. This contest is described in greater detail in Appendix A.

Definitions:

Team Selection Committee:

The Team Selection Committee is defined in the AMA's World Championship Teams, Procedures Governing the Academy's Sponsorship of FAI Teams for US teams competing in 2014 (and beyond). The committee has five major responsibilities. The number one responsibility is the program for selecting the World Championship Team and to recommend improvements to the program.

The Team Selection Committee has the responsibility to conduct the Team Selection Program.

Team Selection Finals:

The Team Selection Finals is the contest is to select the top four F2C teams to represent the USA at the World Championships, (three teams that attend, plus an alternate team). This contest is a multiple day contest with each team having the opportunity to race in multiple heats each day.

Appendix A:

F2C Team Selection Finals Contest

This section describes the F2C Team Selection Finals contest to the level of detail available prior to the actual identification of the contest organizer and the selection of the contest venue.

Contest Scope:

The F2C Team Selection Finals contest is the contest in the F2C Team Selection Program. Its purpose is to make the final selection of the three (3) F2C teams which will represent the USA at the next FAI World Control Line Championships.

Contest Description:

The F2C Team Selection Finals Contest is a two (2) day contest with contestant and equipment processing accomplished the day prior to the start of the contest.

The contest consists of six (6) rounds of racing. Three (3) rounds are flown on each day. All races are 100 laps in length. Each team has the opportunity to race in each round.

The structure and organization of the individual rounds is dependent on the total number of participating teams. A team's specific heat within a round and the other teams within a specific heat are determined by a drawing prior to the start of racing on a particular day. The drawing for the first day of racing may be accomplished during the equipment and contestant processing.

Scoring:

A team's score is the average of their three (3) fastest heats. In the case of a tie, the other heats will be used by comparing next fastest heat, and so on until the tie is resolved.

The USA F2C World Championship Team will be comprised of the three (3) teams with the best scores.

Entry:

Eligibility:

Contest entry is limited to AMA members who are members of an F2C team and who will be eligible to represent the USA at the 2024 Control Line World Championships.

Finals Entry:

The entry fee for all teams participating in the Finals will be \$100. Pre-entry is encouraged and may be made by sending payment to AMA at the address listed earlier in this document. At the Contest:

Entry at the contest is accomplished by paying the entry fees to the contest director. Entries are accepted up to the completion of the equipment and contestant processing.

Refund:

If a pre-entered participant is unable to attend the Finals, a refund will be granted if requested in writing to AMA Headquarters no later than 30 days after the event.

Contest Conduct:

The Team Selection Finals contest is an AMA sanctioned contest for the purpose of selecting the F2C teams which will represent the USA at the next FAI Control Line World Championships. As such, contest organization, administration, and management shall conform to AMA standards and to AMA's "World Championship Teams – Procedures Governing the Academy's Sponsoring of FAI Teams". Aka "The Blue Book".

Event rules will be those which will be in effect for the 2024 CL World Championships. The conduct and oversight of the racing shall conform to the FAI Sporting Code, Section 4 - Aeromodelling, Volume CGR - CIAM General Rules and Section 4 – Aeromodelling -Volume F2 Control Line Model Aircraft with the following tailoring:

Jury:

Team Race Jury:

The Team Race jury will be comprised of three people who are experienced in Team Race competition. The Team Race jury will be selected by the contest organizers in consultation with the F2C Team Selection Chairman.

FAI Jury:

The FAI jury will consist of one appointed member who will have the authority to select two additional members on-site to resolve jury matters. The appointed member is one who is experienced in F2C Team Race competition. The appointed member will be selected by the contest organizer and approved by the AMA FAI Executive Committee.

Event Specific Information:

Contest Director: To Be Determined

Contest Location: To Be Determined

Contest Dates: To Be Determined

Team Race Jury: To Be Determined

FAI Jury: To Be Determined

Contest Budget:

Entry fees are intended to support the team members after reasonable amounts have been used to defray the cost of the team selection.

No more than 50% of the entry fees will be used for the costs of the team selection.

All fees collected at the contest are sent in full to AMA.

Reimbursement for expenditures will be as outlined below.

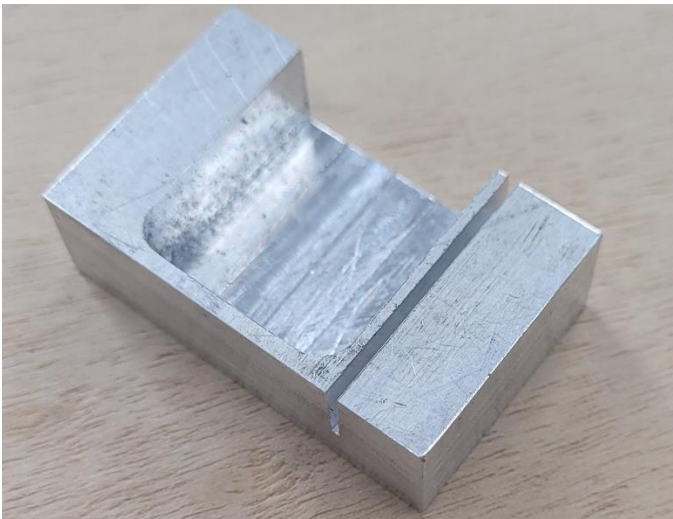
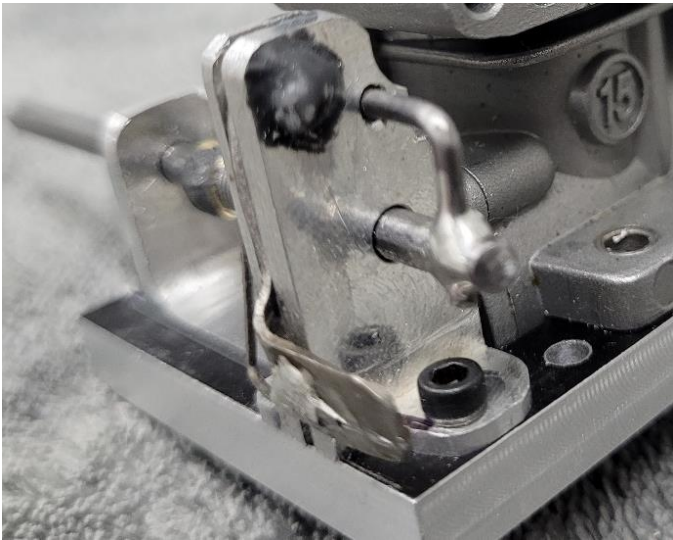
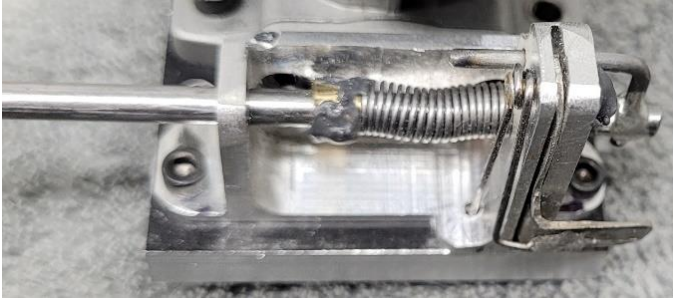
Contest Expenses:

Reimbursement of expenses for members of the F2C Jury will be limited to mileage at current AMA-defined rates, and motel expenses at one-half double occupancy rate for a maximum of two nights.

All expenses must be approved by the Team Selection chairman. All expenses must be submitted in writing to AMA with receipt for expenditure.

Shutoff Article – Bill Lee

I just finished making a new shutoff.



The spring that I used was on the order of .125 ID and was made with .020 wire. Not sure where to get them, it was in my stash accumulated over the last 70 years.

The wire I used to actuate the trip was a chunk of .025 left over from some speed plane I was around. If I had chosen to use wire for the trip, I would have used .032 for it.

Not sure how much time it took to machine the body. The real effort was making a set of working drawings that then allowed me to use the mill with DRO to do the machining. The body is

machined from a 1/2" thick aluminum block, 1" x 1.6" as I recall.

I had to borrow a slitting saw from Patrick Hempel to make the slot where the trip is located. The rest was simple milling and drilling.

The main plunger is a large steel finishing nail. Don't remember what size other than the diameter is about .120", just under an eighth of an inch. Mild steel, but adequate for the job and a lot easier to machine than piano wire.

The crusher piece is 1/16" piano wire. A 1/16" diameter hole is drilled in the main plunger, the crusher wire is formed and stuck through, then soldered.

The main plunger is milled to make the slot to provide for the trip mechanism to hold the shutoff open. The coiled spring closes the shutoff. There is a small brass collar that anchors the top of the spring. The collar also has a 1/16" hole through it and the main plunger with a short piece of 1/16" wire through both. You may be able to see a bit of JBWeld on the collar to secure the pin.

What wasn't finished when the pictures were taken is the top button of the plunger. I always have a large-ish button, easily pushed when pitting without having to give it any attention. I machined a brass button with a .120" hole, cut off the pointed end of the main plunger and soldered the brass button to it.

Regards, Bill

JUST A REMINDER

Bill Bischoff

It's been said before, but it's worth repeating. All glow plugs are not created equal. As glow plugs become more expensive, and many of our old favorites have gone away, our current choices become more of an "unknown".

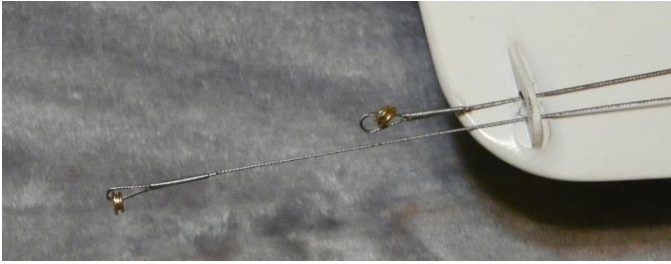
As contest season winds down, why not gather up a handful of different plugs, along with your favorite tachometer, and do some measuring. You may be very surprised what you discover. And remember, not all surprises have to be bad! If enough people send us their results, we can see what brands seem to work best, and what should probably be avoided.

LEADOUTS FOR SPORT GOODYEAR **Bill Bischoff**

Recently, we've had a few line failures in Sport Goodyear, where lines have broken right at the line guide. I don't think lines are being overloaded, but rather they are receiving extra wear and tear at the line guide. This is probably due in part to the increased amount of flying these airplanes do compared to others, the occasional landing snags encountered during races, the increased bending caused by storing the models with the lines connected (how many times has the line reel fallen off the wing?), and not inspecting the lines enough.

In all the instances of line failure that I know of, a pull test was performed as required. The lines failed during the shut off, except for the one failure which happened during the pull test.

Without a protracted debate about all the causes and reasons, let's just agree that this is happening, and we shouldn't just shrug it off. Nobody wants to see someone get hurt, but honestly, I'd rather not needlessly crash airplanes, either.



The simplest solution is probably to require that all the airplanes have leadouts, with connections external to the wing tip. The exact verbage can be lifted straight out of the Quickie Rat rules, but has yet to be written.

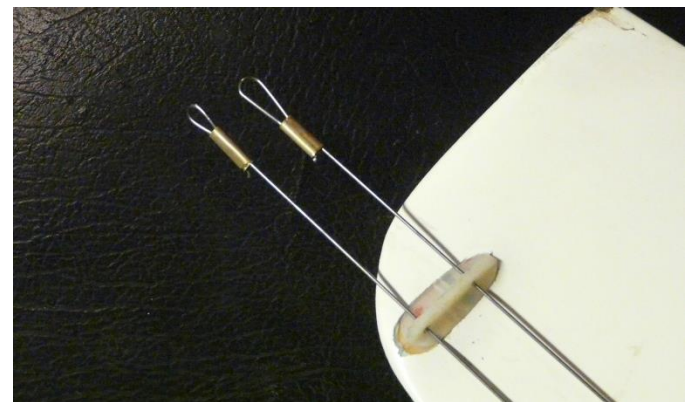
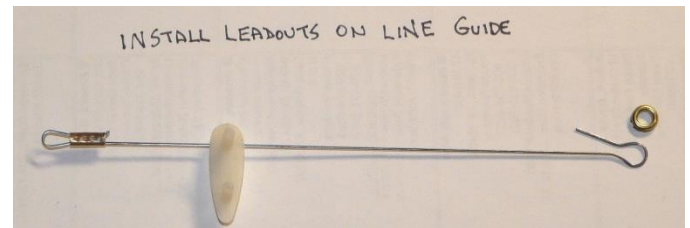
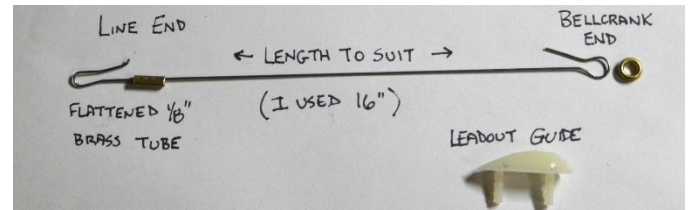
I'd like to hear from everybody about this. So far, 8 people are in favor, and 3 are opposed. However, 2 of those 3 are not strenuously opposed. The remaining person is against the notion of having leadouts hanging off his airplane.

Fortunately, I have an idea that may satisfy him, and as a bonus, requires *absolutely no airframe modification*. The concept would be to have two cable leadouts, one about two inches longer than the other. Mine are 16" and 18". Because the leadouts come through a single hole in the leadout guide, they will rub against each other. In order to keep the line connections from snagging on each other as the controls are moved, the lengths of the leadouts are staggered to prevent interference. Even when the shorter leadout is pulled out all the way, it will still be shorter than the "retracted" long leadout. If the leadouts ran through separate holes about 3/4" apart, they would always clear each other and not need to be staggered in length. However, this would mean changing the leadout guide. I recommend making a test set of leadouts from scrap material first to verify the length. If you make the leadouts long enough to fit your longest wingspan model, they can be used on other models as well.

This should be the best assembly sequence. Begin by making up one end of the flying lines. I have found that it is much easier to build the line ends before the eyelets are built onto the leadouts. Use small or medium line eyelets to reduce drag. Then, build the cable leadouts onto the lines. No line clips are used: the lines and leadouts are permanently connected. Again, this is to reduce drag. Next, finish the leadouts to the lengths determined earlier.

The ends of the leadouts that attach to the bellcrank are made around large eyelets. The leadouts will fasten to the bellcrank with the same buttons that were used to attach the lines. With the leadouts/ lines attached to the model, the handle end of the lines can be finished to the desired length.

So, now you've got a proper length set of lines, with heavier leadout cable permanently attached at one end, that fit through the original single hole leadout guide, attach to the bellcrank just as before, and are easily removed just as before. When installed, there is heavier leadout cable through the line guide (which is the whole idea), but when removed, the lines with the leadouts attached can still be rolled up like a normal set of lines, thanks to the leadouts being cable instead of solid music wire.



The "standard" alternative to this would be a new line guide with separate leadout holes, and music wire leadouts with integral clips. This is the same setup I use on my Quickie Rat. Lines are easy to remove, but leadouts stay in place. The buttons can be removed to "fully retract" the leadouts up to the wingtip. I'll have to do this to fit the model in my airline box.

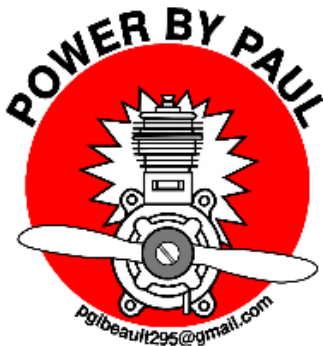
I now have a model with each of these setups. I'll try them both, but I think I will find both to be acceptable, along with other variations. Unless there is a demonstrated performance advantage one way or the other, my choice will be based on convenience.

Please share your thoughts, questions and concerns. More to come...

NEW LANDING GEAR AVAILABLE **Bill Bischoff**

As seen in the November 2024 *Torque Roll*, new low drag wheels and struts for Sport Goodyear and AMA Goodyear are now available from Bill's Rent-a-Racer. The wheels are 3D printed from durometer 95A urethane, the same compound found in skateboard wheels. The struts are .090" 2024 aluminum alloy. They are bent, drilled and tapped as required. The edges of the struts still need to be rounded or airfoiled as desired. The hubs are brass, and are tapped to fit the included 6-32 button head screws. (Glen Lee wheels must be drilled out slightly to fit these hubs.)

Struts and mounting screws sell for \$10.00 per pair. Black urethane wheels only are \$7.00 per pair. Brass hubs and mounting screws are \$7.00 per pair. Buy a complete landing gear set for \$20.00 and save \$4.00. Ordering instructions are in my listing in the back of the newsletter.



FOR SALE



Two K/K bronze bushed Cox crankcases USD25 + post for both.

DOES ANYBODY WANT TO BUY A T-SHIRT YET?

Because this got such an underwhelming response last September, I'll give it one more try.

I am occasionally asked about NCLRA T-Shirts. We haven't had any in the 8 years I've been President, so maybe it's time for a new batch. You tell me. Drop me an email if you'd be interested in an NCLRA T-shirt, with our traditional pilot logo on the back, and "NCLRA" on the front. Would you prefer a white shirt or a light gray shirt? What size? Let me know. I don't have a price, but I'd guess \$20 +/- . I'm not taking actual orders now, just looking for enough interest to go ahead with making an order. So far, only one person has responded. If I don't get more responses this time, I'll take the hint and drop it. Bill Bischoff

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

April 12 - 13

Portland Oregon.

NW Fireballs Annual Jim Walker Spring Memorial Tune Up contest. Details are in the *Flyinglines* newsletter, or check the flyinglines.org website

NORTHWEST DISTRICT

None

SOUTHEAST DISTRICT

None

MIDWEST DISTRICT

None

SOUTH CENTRAL DISTRICT

The Dallas Model Aircraft Association will have four contests that feature racing.

April 25-27 Spring Warm Up

June 7-9 Bob Gieseke Memorial

August 30-31 Southwestern Championships

October 3-5 Fall Finale

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 1, Clown race, and AMA Goodyear. These contests will also include speed. Other racing events are possible on Friday by request. Please ask.

The June and August contests will have racing on Saturday only, including Mouse 1, Quickie Rat, Super Slow Rat, and Sport Goodyear. These contests will also include stunt and carrier events. Please contact me for details. I hope to see you there!

SOUTHWEST DISTRICT

none

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aluminum struts only (with screws) bent, drilled, tapped, edges not rounded. **\$10.00**

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Sullivan medium fuel tubing soft silicone, great for shutoffs **\$2.00/ft or \$5.00/ 3 ft**

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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 fill **\$12.00**
\$15.00

Shipping

\$12.00 per order including fuel tanks, bottles.
\$7.00 per order without fuel tanks, bottles.

I accept paypal or personal checks.

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