

**From: National Control Line Racing Association  
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**TO**



**This Issue's cover photo is in remembrance of the Late Wayne Trivin, shown pitting his F2CN at the 2004 Nat's.**

**INSIDE:**  
**District Reports**  
**Contest results**  
**Suppliers/Equipment**  
**Updated Contest Calendar**

**Torque Roll Issue #155**  
**April 2021**

## **PRESIDENT - Bill Bischoff**

I want to admit right up front that a good portion of this President's message was lifted from the last issue's President's message. Technically I don't think it's plagiarism if you copy from yourself. Nonetheless...

In case you've already forgotten, the 2021 NATS will not be at their traditional time. The control line events will be in the week of **June 20-26**. Here's the **corrected** schedule. Monday will be F2C, Mouse I, and a new event, Dayton Buzzin' Buzzards' Vintage B team race. Tuesday will be AMA Slow Rat and AMA Goodyear. Wednesday will be Quickie Rat and Sportsman Goodyear. Sportsman Goodyear will have concours judging, and Gold, Silver, and Bronze finals. Thursday will be Clown race and Super Slow Rat.

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

We have secured sponsors for the unofficial events. T.J. Vieira will sponsor Vintage B Team Race and the Sportsman Goodyear Concours award. Bob Heywood is sponsoring the Gold, Silver, and Bronze finals in Sportsman Goodyear. Quickie Rat will be sponsored by Tim Stone, Super Slow rat will be sponsored by Pat King, and the NCLRA will try to give away the awards from last year's non-occurring Clown race. Be sure to thank all these sponsors for their donations to our events.

Last time I asked if anybody would be interested in hosting a contest in July when the NATS would typically be. The Dayton guys expressed an interest in doing that, and several people including myself have indicated their willingness to attend. On the local level, I hope everyone's contest schedules have been reported to Les Akre or their District Rep's.

Speaking of District Rep's, it's rep election time. I'm going to make it easy this time. I nominate all current rep's for another term. It's up to you guys to tell me if you want to opt out. Of course, other nominees are also welcome. As always, please don't nominate anyone without their consent. The ballot will be in the next issue.

## **NORTH CENTRAL – Paul Gibeault**

I must first apologize to Klaus Selic for getting his name wrong in my last report. I mistakenly identified him as Jan Odeyn who was in fact Klaus's pilot in the 2019 Niederkassel Luftzirkus final. Thank you very much Klaus for your kind emails! Our German racing friends are not sleeping I see and brought such irregularities to my attention. I'm afraid that the only sure cure for such things is that I will have to attend more German racing contests until I get all your names right! Below is a very nice letter that I received from Klaus.

*Hello Paul,*

*I was kindly mentioned by you again in the latest Torque Roll. Thank you.*

*We met at the airfield and you take pictures of me. My Pilot, Aaron Schmidt was canceled because of illness. Without*

*thinking too much, my Belgian friend Jan Odeyn stepped in. So he was my new pilot spontaneously. I created the little Midge in the pink panther design! I got the plan on Ebay from England.*

*We actually didn't have a chance to compete against all the Streakers, but as luck would have it, we also won the final with only 55 laps flown. It was definitely fun. I have now also learned something and built 2 Streakers according to your plans.*

*One is in Miss America design and another in a football Club called MSV-Duisburg! send you pictures!*

*I hope that these will be used in the future. Could you please change the names in the Torque Roll? You are also welcome to publish the pictures of my two Streakers. I would be very happy about that.*

*My name is briefly mentioned again:*

*Klaus Selic from Germany, builder & mechanic not (Jon Odeyn) from Belgium who was my pilot.*

*Have a nice day. Best regards, Klaus*



**“The Man and the Mouse”. Klaus Selic with his winning “Midge Mouse” which flew surprisingly well.**



**Very nice paint work by Klaus Selic on his new “Streaker” mouse racers. See text for details. I do hope they fly as good as they look.**

## They have arrived!

Yes, indeed race fans, the long awaited CNC milled aluminum backplates for the Cox .049 reed valve engines are now available! See Below.



The original Cox backplates (both cast zinc & nylon) have always been a source of unreliability over the long term (and especially in crashes). The only racer I know of to have made his own replacement metal Cox backplate is the renowned John McCollum in Texas. Now that these are available commercially from [coxengines.ca](http://coxengines.ca) we can all enjoy a solid and reliable tank mounting system, without having to do all the machine work. Although I have not used these yet myself, other user initial flight tests indicate they work well.



Here's Peter Grabenstein with his trusty pitman Axel Jungherz and their "Bandit" Goodyear model. Photo taken at the 2019 Luftzirkus in Nierkassel, Germany.

## More racers from the shop of Peter Grabenstein (aka "Buddy") in Manheim, Germany.

Hi Paul

*There is NO official Racing Class/events for CL.21 Racing in Germany.*

*This Project, I call it "Joker Poker" is my own brainchild which .....maybe will inspire new Teams ( because of cheap engine).... but who knows ? NOBODY knows !*

*It could be too noisy for Germany Regulations and too fast for other Teams to get involved.*

*This Racing Class / Engine may much better fit into AUS/NZ Racing events.*

*You will sure remember Sebastian from Lassogeier event 2019. Sebastian's FORCE .21 CNC Testrun . [Force 3,5ccm Flug Conversion - YouTube](#)*

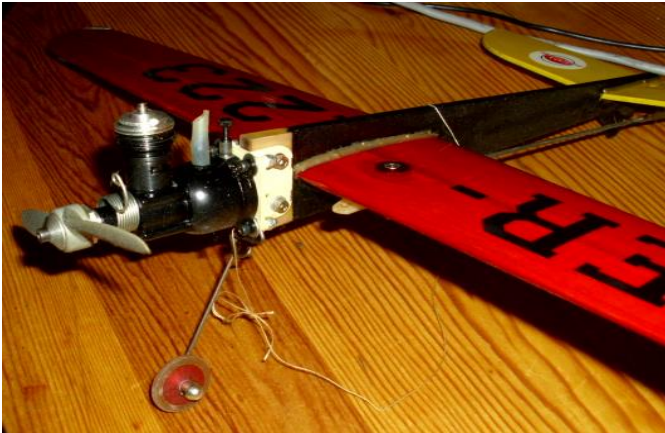
Greetings Peter



Engine: "FORCE .21 CNC" + OS/F2D Combat muffler and prop @ RTF Combat lines (0,38mm /0.015).

Note: Here Peter uses parts from both O.S. and F2D combat mufflers.

Paul suggests: Perhaps with further testing, the combat prop can be replaced with one with more pitch on it. Combat props rev GREAT, but often because of the low pitch combat models require. Increasing the pitch (with often less blade area / diameter) as necessary, often results in increased speed. The “Business End” FORCE .21 engine converted for racing by Peter Grabenstein.



**Peter’s Streaker mouse racer shows an alternate (easier & faster) way to mount his Cox Black Widow engine on to the profile fuselage.**

## Current FAI News out of Europe...

The CIAM – bureau has recently canvassed the International F2 Subcommittee regarding our opinion as to whether we think the 2021 World C/L Championships in Poland should go ahead after being postponed twice now (2019 & 2020). This is brought out of concern from many countries over the dire circumstances brought about by the current Covid-19 pandemic. Although the majority of the F2 Committee members are not in favor of the W/C’s going ahead this year (with great regret to the Polish organizers), the “drop dead decision date” has not yet been formally released. Hopefully, we’ll know by the next issue.

As well, the decision year which the committee determined to ban the use of retractable landing gear in F2C team race is also most likely going to be extended given these most unusual circumstances.

## MIDWEST – T.J. Vieira

Howdy fellow Racers and greeting from Ohio!

Spring is struggling to take hold here in the Midwest as we’ve officially entered the awkward “every time I get a chance to lay paint it’s either windy, cold, rainy, or some combination thereof” phase of the year. But many of us are either wrapping up construction projects, or hurriedly working on finally cutting wood to prep for the early NATS this year. Let’s see how the season progresses and what actually gets completed in time!

I’m really liking some of the interest we are seeing in the attempted reboot of Vintage B Team racing. If you want the rules, send me a quick email, or check out the files section of the NCLRA page. Hopefully, we can stir up some more interest in racing with some “super models” taking to the sky! Which leads me in to my next thought (as I sit here at the 11<sup>th</sup> hour, a day late and a dollar short writing this)....

I noticed the F2C Facebook page asking about new rules for F2C, and they seemed to think the reason they are losing people/not bringing new (read younger) in to the sport is too high of a speed. Do you feel speed is the sole reason racing can’t get people into the circle? Myself, at least for the higher classes, I believe it to be a cost factor. Yes... Speed costs money... We all know that. However, at least in the US, with DMAA coming up with the utterly brilliant Sportsman Goodyear class, I think we have a solid entry level event, perhaps even better than what mouse was intended to be as the .15’s are absolute dolls to run, and nowhere near as moody as a 1/2A can be. But it’s technically an unofficial event, and hardly worldwide.

What if we took a different look at racing POWER? I have been contacted by a few people who say if we can cook up a way to race electrics, they would be game to come play with us. This intrigues me. Let’s face it, people love electric because of the lack of mess, and simple push button operation. Also, unfortunately as time has worn on, small engine skills have become less than common place, which is incredibly intimidating to people. Perhaps we should work up a way to race electrics?

First thing is, everyone knows races are won and lost in the pits. You can have the fastest plane in the class, but if you can’t hit a pit to save your life (like me), or can’t get an engine restarted, you’re done. The slow guy will crush you if he can hit the pit and he restart, end of story. So, how do we reliably and predictably pit an electric? I have been searching the interwebs, and it seems like Arduino Nanos are being used as timers/controllers. A small momentary switch triggered by the bellcrank could always be used on it DI side of the board to cause a skip in the program to power down the engine, preserving our typical hard down pull on the handle to cause a pit when we would want it, rather than a sudden motor shutoff at some pre-determined interval.



**Cockpit detail on T.J. Vieira’s new “B” Team Racer.**

OK, cool! We have the shutdown sorted without much fuss. Now, this is the part I am having issues coming up with, what to require in the pit. A friend suggested it's just a catch and release. That's no good, way too reliable. Something needs to happen that takes time, and also provides for some sort of mistake to be made. I am having trouble cooking up some sort of high current plug for a battery swap, but that would be super cool to snatch a battery out and plug one in. Perhaps require a prop change? Require two props of different specs be used (diameter, pitch, blade width, etc)? Something needs to happen. I think this would be an awesome discussion to have during the NCLRA meeting, don't you?

That's it for now, NATS is approaching! Start practicing!

If you can't be fast, try like heck to look good going slow!

## **“Dayton Buzzin’ Buzzards” Vintage B Team Race Rules**

Objective:

It is the purpose of this event to promote the advancement of "Three up" flying of semi-scale, realistic looking B Team Race control line racing models, similar to and including those flown throughout the world in the 1940's, 50's and 60's. These airplanes shall be flown in direct competition through a series of heat races and a final.

1. All provisions of the AMA Control Line Unified Racing Rules apply except as listed below.
  2. Allowable model designs. Any B team race airplane from the 1940's, '50's, and '60's may be used and are encouraged. Individual designs that are similar in appearance may also be used. No advantage in scoring shall be assigned for a vintage design compared to “in the style of” modern design.
    1. Single flying surfaces (ie. flying wing designs), "pod-and-boom" fuselages, and flush or prone canopies are prohibited. Model shall be attractively finished or covered, with no all clear finishes allowed. Model shall have racing numbers in proportion to the model affixed near the top inboard wing tip and both fuselage sides.
    2. There will be an award for best appearance. In the interest of promoting attractively finished models, should the best appearing model qualify for the feature race, it shall be given the first choice of pitting segment.
      1. Judging shall occur immediately prior to first qualifying heat
    3. All aspects of model design, construction, and flying, shall be in keeping with the "Spirit of the Event".
  3. Model specifications.
    1. Fiberglass or carbon cloth may be used to strengthen, or cover over wood. No all composite models allowed. No composite major components shall be allowed.
1. Examples of major components include wing(s), fuselage, tail feathers
  2. Wing area shall be 125 sq. inches minimum, excluding fillets and the area covered by the fuselage.
  3. The fuselage shall measure 2" wide somewhere within a zone located 3/8" above and below the thrust line, and between the nose of the airplane and the trailing edge of the wing. However, in the interest of keeping the appearance of the models similar to those from the '40's, '50's, and '60's, it is recommended that at the pilots location, the fuselage measure no less than 2" wide within the area between the pilots shoulders and his hips.
  4. Model shall have a cockpit or cabin containing a dummy pilot's head with both being in proportion to the model. Canopies must be clear from the back of the pilots head forward to the front of the canopy, so as to provide forward and lateral vision for the pilot. Canopies must protrude above the forward fuselage contour with a resemblance to the "bubble or turtle deck style canopies" employed on full scale racing aircraft. Open cockpits must have a windscreen.
  5. At the pilot's location, the fuselage shall measure a minimum of 3 3/4" from the top of the canopy, or if open cockpit, from the top for the pilot's head, to the bottom of the fuselage.
  6. The landing gear shall be of the 2 wheel side by side type (ie. separate struts exiting on either side of the fuselage centerline). Both wheels shall be no less than 1 1/2" in diameter and shall have a lateral spread measured from the center of each wheel of no less than 4"
  7. Engines shall be fully cowled and be completely covered. Openings for the air intake, needle valve stem, fuel shutoff, engine exhaust, engine cooling ducts, and glow plug access are allowed. In keeping with the spirit of the event, no helmet cowls (ie. conventional speed model types) will be allowed. Side mounted engines using a "cheek cowl" to cover the engine, must have an identical cheek cowl on the opposite side of the fuselage.
  8. Models which appear to comply need not be further checked, except in the case of a dispute, where it shall be the contestant's responsibility to provide proof of legality, excepting rule 9.
  9. Maximum allowable dry model weight shall be 36oz, and should be checked at registration.

4. Engines:  
Any single bypass, baffle piston, glow fuel engine up to 0.29 cu. in. will be allowed. Full wave tuned pipes are prohibited. Mufflers, or exhaust extensions which do not increase engine performance will be allowed.
5. Fuel:  
Fuel shall be the contestant's choice and supplied by contestant. Any substance banned by the AMA will not be permitted.
6. Fuel Tank:
  1. Fuel tank, including filler tubes or fill valves, vents, and fuel line from the tank to engine spraybar, shall hold no more than 30 cubic centimeters.
  2. Multi-function valves and finger valves are prohibited.
  3. Refueling shall be accomplished by "squash bottle" or "fuel bulb", using the squeezing pressure of the hand only.
  4. Containers including "squash bottles" and "fuel bulbs" which are pressurized by the forced introduction of air, or any other type of substance artificially, are prohibited.
  5. The 3 entrants that comprise the 140 lap feature race shall all have their fuel tank systems measured for capacity at the completion of the race. Any entrant found not to be in compliance with the listed maximum of 30 cubic centimeters, shall be disqualified.
7. Shutoffs:  
Fuel shutoffs are mandatory.
8. Lines:
  1. Two line control systems are required. Each line shall have a diameter of .016" if using single strand wire or .018" if using multi strand wire. Line length shall be a 60' + 2" - 0".
  2. Internal line hookups are allowed.
  3. Pull test shall be 40 lbs.
9. Races:
  1. Each entrant shall compete in two 70 lap heats. The resulting heat times shall be added together, and the 3 entrants with the lowest times shall comprise the 140 lap final.
    1. At CD and/or ED discretion, a "Round Robin" format may be used, as well as addition of 35 lap heat(s). Number of qualifying heats would then be determined by number of entrants. Times shall still be added together to determine final heat.
  2. All heat races and feature races shall be flown with 3 entries wherever possible. The only exception shall be if there are not enough entries to provide a 3-up format, then a 2-up format may be used.
    1. A pilot may be selected at random to fly "traffic" if a majority of

pilots vote in favor of this to keep heats equal. The "traffic" entrant should still race competitively, however will not be scored.

3. No pit stops are required.

10. Model Registration:

The method(s) used to determine the best appearing model, model weight, and the device used to measure the fuel tank capacity shall be at the discretion of the Event Director, or Contest Director.

Inspired by current NCLRA rules for Vintage B Team Racing.  
01/06/2021

## SOUTH EAST – Bob Whitney

When I started flying stunt seriously, I found that the advantage I had over most beginning stunt flyers was that I had a basic knowledge of how to properly run an engine (in my own mind) and if it wasn't running properly how to correct it.

The reason a lot of flyers are going Electric is so they don't have to put up with bad running glow motors. I found that my years of flying speed and racing taught me a lot and has come in handy.

I had a hard time getting local flyers to check their glow plug against their glow an driver rather than to trust the green-red dial panel, and show them that almost every brand of plug is different.

One thing I have learned is that all is not as it seems when it comes to store bought tanks. I bought 2 stunt tanks for a profile and neither one seemed to run right. I took one and set it on the stove burner (make sure tank is empty) and popped the back off only to see that neither tube was where it belonged. After re-soldering the tubes back where they belong both worked fine. It seems as both of these tanks were made in china. Something like this would drive a newbie crazy trying to figure out what he was doing wrong????

I was just wondering if anyone is trying BT/R this year at the Nat's. My new plane is almost ready for paint.



My old REDSKIN from 1996 and my new 55 RAMBLER in primer.

## SOUTH CENTRAL - Bill Bischoff

The first Dallas contest of the year takes place in a few weeks, and we have already heard from a few out-of-towners who are going to be here. We are looking for a good turnout and hoping for good weather. If you might like to attend but have questions, please email me.

Last weekend, Kelly Hite got to test out his new mouse racer and new SSR. The mouse racer looked to work as desired. The SSR needs a bit of nose weight and has some fuel system issues that still need sorting out. I suspect both will make their contest debut in a few weeks. (A chronicle of our SSR testing is in this newsletter.)

Once Texas thawed out from the recent winter storm, we actually started getting some days that were nice enough for painting airplanes outdoors. As such, I was able to finish ("finish"- get it?) the makeover on Margaret June. The results are shown in this newsletter.

A local modeler is neck deep in a project to produce CNC machined Goodyear wings. He can also laser cut the rest of the parts to build an airplane, and ultimately would like to be able to CNC shape the assembled fuselages as well. There is plenty of work and testing still to be done, but based on what I have seen so far, it will be superb! More news on this project as it develops.



The newly refinished Margaret June Sport Goodyear.

## SOUTH WEST – Doug Mayer

Here we are in the beginning of 2021, and we are seeing a national trend in the Covid situation that things are getting better. Our government has been distributing vaccines for the population, one tier at a time. Most of the "Over 65" age group have received vaccines, but I'm just south of that age group and waiting my turn for the next tier. Unfortunately, here in Los Angeles, the City and County of LA still has restrictions in place, and as such, we are not currently permitted to fly 2-up. As of this writing, we do not have a 2021 racing schedule for the SW district. Hopefully, we will see good improvement on the Covid situation, and the County may lift some of their restrictions. I still have hope that we can cobble some contests together later in the year. We will keep you posted as things develop.

**Darrel Albert** passed away on January 1, 2021. Last month, I wrote some memorials for Darrel, and Dale Long. Shortly after sending in my submission to the Torque Roll, I received a letter from Darrel's son Darrin. Since it was too late to include it last time, I'd like to share his thoughts with you in this issue.

*Hey Doug, how is it going? Yes, my dad passed away New Year's Day. He had battled Diabetes and congestive heart failure for 30 years and it got the best of him. It was blamed on Agent Orange, so he was on VA disability for the last several years. It eventually caused full renal failure. He was on dialysis 3 days a week for 7 or 8 hours a day, but he never complained, or said "poor me". He was 77 years old when he passed.*

*He served in the Marines in Vietnam from 1964-1968. He was born in Illinois, but grew up in Florida, where he learned to fly control line with his uncle and cousins. He taught me to fly at 3 years old, and I won my first ribbon in Balloon bust when I was 5. He used to hold me up to teach me to fly. He took our family to any contest we could make it to, mostly I remember Buckeye AZ and Tucson. We also went to the 1977 NATS. He was one of the founders of North County Aeromodelers, here in Escondido back in the 70's and early 80's. They held many competitions locally, and later on, he secured a place to have competitions in San Marcos at Judd Wire. I remember we met Dale Long and his (ex)wife Betty, and his kids Dennis and I cannot remember the daughter's name, but our families were fairly close back then. I remember camping trips with them. We also flew with the Aschers, Joe Klauss, Bruce Teffuea, Charlie Johnson, Jim Lueken, Dave Braun, Vic Garner, John McCollum, Bill Lee, among others. Later on, as I got more into combat, he followed us wherever it took us, and he was right there supporting me and all my friends. They considered him like a second dad. More lately, as his health declined, he got real involved with running RC combat at the Paloma RC flyers here in Fallbrook. The guys loved him, and really took it hard when I told them that he had passed away. He was in the hospital before Christmas, and was in a nursing home to gain strength. The Wednesday before New Year's, he told me he was planning on just leaving the nursing home to go home, so he could run RC combat on Sunday. He made it home Wednesday afternoon, and New Year's Eve he had to go to dialysis. My whole family talked to him, and told him we loved him, and that we would go visit him on New Year's Day. But we got "The call" about 2:30 am, that my mom was helping him out of bed, and he collapsed. His heart just could not go any longer. He loved flying Slow Rat, and Goodyear. I remember him always having a Shoestring or a Buster. I hope all you guys in racing are good, Darrin Albert*

**We don't have a lot of flying activity going on, but I got this construction report from Dave Hull:**

*Doug, I don't recall if I have already shared this one or not. If I have, please forgive my memory..... I haven't gotten much work done on it lately, but did get the first few "sand and fill" coats on the '74 Shoestring. This one was a bit of a pain because I set the vacuum pressure on the bagging setup a bit too aggressive and ended with too much resin loss--resulting in pinholes when you go to spray the primer. Almost there now, though. This one is based off the SIG kit, which had nice wood for the wing and fuselage. I used basswood for the tail components and made the other usual modifications in structure to make it suitable for racing. It is set up for an Enya engine which will be something new for me. All the hardware is completed, which I typically do before beginning much of the woodwork to ensure everything is going to integrate*

properly. This one has the usual homebrewed titanium gear but also has embedded aluminum thru-thickness pads in the fuselage to bolt down to. Hope to find time to finish it up finally and get it into the air. Having been out for any racing practice in a long time....Dave Hull

ED. Note: I don't think it was Dave's intent to showcase his painting jig, but the photo shows a very creative painting jig that I wish I had at my house! Now why didn't I think of this??



Look at the fancy jig Dave Hull made for holding his '74 Shoestring model during painting.

That's it for this month. Hopefully our activities will pick up some momentum as the year progresses. Wear your sunblock, and keep your lines tight! Douglas.

## Baby Judy 2021, 1/2A Goodyear

By Doug Mayer

What the heck kinda name is Baby Judy? First of all, I'll share my all-time bucket list... Build a new .15 Goodyear...Judy Wagner's Solution, AKA..."Judy". I published an article and set of plans last month about Shoestring. All my research and drawings of Shoestring are a precursor of my new Judy build. I plan to publish a full Judy build and drawings in the next few months. Now, Baby Judy. It's been a long time since I built a scale 1/2 A Goodyear, like about 45 years because everybody flies mouse competitively, and nobody bothers with 1/2A goodyear anymore, but what the heck? The last time I built a 1/2A scale Goodyear, I was 12 years old. Back in the day, we made everything out of balsa, and our planes were too light to whip back to the pits. I didn't learn that a mouse racer, (or a 1/2A plane) needed to be about 6 or 7 ounces until the 1990's when I started to get back into airplanes in the second half of my life. What's cool about this, is that you can build your airplane heavy, and it's not a problem. This allows me to glass the plane and experiment without a penalty.

I decided to use "Baby Judy" as a test bed to try some different materials and techniques. I made a wing from divinylcel foam, which is a blue foam used for full scale

aircraft. I had the same nightmare experience that I had when I tried to make a surfboard from it. It soaked up the epoxy like an absolute sponge when I tried to glass the wing. I glassed in a strip of 6 OZ carbon for strength, and a laser printed graphics, which came out OK, but the wing came out heavy as hell, and the glass job was really crappy because the epoxy soaked into the foam and left giant airgaps and bubbles under the glass. I wrote it off as a bad experiment and scrapped the wing. Oh yeah, it warped too...everything came out wrong, don't use divinylcel!! I made the fuselage from balsa, with a fin that was 1/32" play sandwiched with 1/8" balsa skins. I sanded everything to a streamlined shape. I laid it up with a layer of 6 OZ carbon, laser print graphics, and 2 OZ cloth with epoxy, and blue dye. The fuselage came out great because it was balsa, and it behaved well with the epoxy. I made a new wing from balsa, hard balsa in the front, and soft balsa in the back. I edged the wing with 1/16" square basswood strips. I have shaped the wing, and its ready to glass, but I'm not finished as I write this article. I'm planning to use the wing to experiment with a hybrid Kevlar/Carbon cloth, a topcoat of 2 OZ cloth, laid up with epoxy. I'm planning to use "Baby Judy" as practice with the Kevlar cloth for my full size .15 Judy.



I took this photo of one of my Mouse Wings, the Divinylcel wing, and the new balsa wing for comparison.

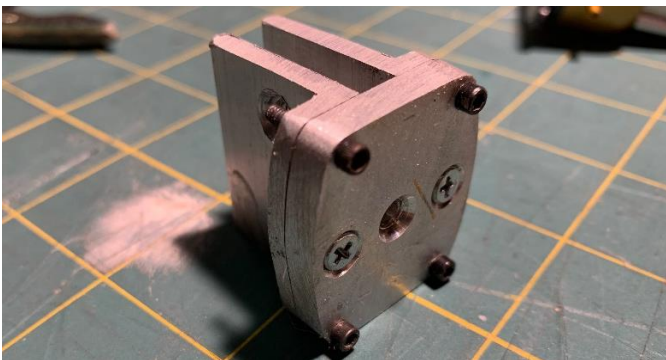
The stab is just a piece of 1/8" hard balsa. The black strip is an inset .014" strip of carbon to stiffen up the balsa. I'm planning to make the operable elevator only 1/2 of the stab, so I don't have to connect the 2 sides of an elevator thru the fuselage. Too much work, and not really necessary for a mouse racer. Its just a little airplane, I'm planning to keep it simple.



The last thing I did as an experiment with this plane was a new way to make a motor mount. I cut (2) aluminum angles, and a plate of 3/16" aluminum, and drilled and tapped them all together to create a motor mount. Once the motor mount was assembled, I drilled and tapped the (4) motor mounting holes thru the plate and angles at the same time, so the threads were continuous thru all the parts.



The major components for Project "Baby Judy".



Doug's new rigid 1/2A motor mount setup.

You can check out the photos, I know its still work in progress. Hopefully by the time the next Torque Roll comes out I will have finished photos of "Baby Judy" to share with you.

**Douglas.**

## **SORTING OUT A NEW MODEL**

**by Bill Bischoff**

A few weeks ago, Kelly Hite brought out his new Super Slow Rat for its first test flights. It was not perfect, and we knew there were some changes to be made before trying again. The changes were made during the week, and test flying again the next weekend showed all the problems to be corrected.

Thinking about it the next day, I decided that perhaps others could learn something by describing what we went through. The first problem was the flyability of the model. On the initial flight, the model was very jumpy and unstable. This is typically caused by tail heaviness or overly sensitive controls. The first corrective action was to slow the controls down with a narrower line spacing on the handle. This was a big improvement, but not a complete fix. I also noticed that the plane seemed very light on the lines when landing.

Adding nose weight will help the airplane groove better, and also give it more line tension on landing. (Moving the balance forward has the same result as moving the leadouts back.) I suggested that the easiest way to add weight to the front of the plane was filling the engine's backplate full of lead shot and JB weld epoxy. True, the airplane would be a bit heavier, but no airframe modification was required. Also, using a heavy hub on the Brodak 25 can lead to crankshaft failures. I have seen it happen more than once. Kelly went home and followed my suggestion. The next time out, with the nose weight and smaller handle, the plane grooved very nicely, was appropriately responsive, and stayed tight on landing. OK, cross that off the list!

Another problem we had was unreliable needling and occasional dying on takeoff. While many people claim they can run a .315" or bigger venturi on the Brodak 25, we started with a .300" venturi and the stock Brodak 2 hole needle assembly. I have not had good results with the Brodak needle assembly, and neither did Kelly.

The next weekend, the engine was equipped with a Supertigre needle assembly, only the spraybar had been turned down to about .130 diameter instead of the stock .156". The engine held a needle setting better than before, but still stumbled on takeoff occasionally. Installing a full diameter spray bar was about 95% better, but the takeoff situation was not completely resolved. We felt that things were working well enough to start trying different props to find more airspeed. Initially, we were running an APC 7.8x6. An APC 8x6 sport prop produced similar results, 20.2- 20.3 sec for seven laps. We then switched to an APC 7x6 wide. The RPM increased, the engine sounded happier, and the time dropped to 19.7-19.8 sec. With the smaller prop, takeoff acceleration was slower, but this corrected the problem of faltering on takeoff.

With the airplane in good race trim, now it's on to practice, practice, practice!



**Kelly Hite, with Bill Bischoff's help, got some testing in with his new Brodak .25 powered SSR.**

## CONTEST CALENDAR

**Due to Covid-19 virus, many contests listed may be cancelled or re-scheduled, check and make sure before travel.**

**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 and submit contest details.**

### NORTHEAST DISTRICT

4-25 Middlesex Speed/Racing @ Mountainview park  
Middlesex NJ 40.583603, -74.497955

5/16 Middlesex Speed/Racing @ Mountainview park Middlesex  
NJ 40.583603, -74.497955

10/24 Middlesex Speed/Racing @ Mountainview park Middlesex  
NJ 40.583603, -74.497955

11/14 Middlesex Speed/Racing @ Mountainview park Middlesex  
NJ 40.583603, -74.497955

### NORTH CENTRAL DISTRICT

None

### NORTHWEST DISTRICT

Sept. 3-4-5

**New date! Northwest Control-Line Regionals**, Roseburg Regional Airport, Roseburg, Ore. Aerobatics, Combat, Navy Carrier, Racing, Scale, Speed.

**Friday:** 80mph Combat, Vintage Combat, Old-Time Stunt, Navy Carrier, Speed

**Saturday:** High-Performance 1/2-A Combat, 15 Fast Combat, Classic Stunt, Nostalgia 30 Stunt, Profile Stunt. Navy Carrier, Scale, Speed

**Sunday:** Precision Aerobatics, AMA Fast Combat, Navy Carrier, Racing

[Download a flyer](#) with all the details or [email for information](#).

Discount advance entry forms will be posted shortly.

Sponsored by the [Northwest Regionals Management Association](#) in conjunction with other Northwest clubs and individuals.

### SOUTHEAST DISTRICT

None

### MIDWEST DISTRICT

2021 AMA Nat's

International Aeromodeling Center, Muncie Indiana

Racing: June 20-26

**\*Proposed schedule, to be confirmed\***

MONDAY F2C, Mouse I

TUESDAY Slow Rat, Super Slow Rat/ Fox Race (combined)

WEDNESDAY Goodyear, Sport Goodyear

THURSDAY Clown, Quickie Rat

October 2-3 Buzzin' Buzzards Fall Festival

Wegerzyn Gardens Metropark 1301 E. Siebenthaler Ave.

Dayton, Ohio 45414

Sunday: Racing

Sportsman Goodyear (DMAA) rules.

Vintage "B" Team Race (Buzzin' Buzzards Rules)

NCLRA Fox Race/SSR Combined.

CD: Bob Heywood Ph: 937-890-7555

E-mail: [rheywood@woh.rr.com](mailto:rheywood@woh.rr.com)

## SOUTH CENTRAL DISTRICT

The Dallas Model Aircraft Association has set its contest schedule for 2021.

**April 23-24-25 Spring Warm Up**

Racing on both Saturday and Sunday.

Saturday, Quickie Rat, Super Slow Rat, and Sport Goodyear. Sunday will be Mouse, Clown race, AMA Goodyear, and Fox/Goldberg Race.

**June 12-13 Bob Gieseke Memorial**

Racing on Saturday only. Mouse, Quickie Rat, Super Slow Rat, Sport Goodyear and Fox/Goldberg race.

**September 4-5 Charles Ash Memorial**

Racing on Saturday only. Mouse, Quickie Rat, Super Slow Rat, Sport Goodyear and Fox/Goldberg race.

**October 8-9-10 Fall Finale**

Racing on both Saturday and Sunday.

Saturday, Quickie Rat, Super Slow Rat, and Sport Goodyear. Sunday will be Mouse, Clown race, AMA Goodyear, and Fox/Goldberg Race.

At all contests, NCLRA legal Fox racers may enter Super Slow Rat. Fox 35 appropriate fuel will be provided.

## SOUTHWEST DISTRICT

None



Pilot Paul Gibeault (L) and pitman David Bailey (R) with David's Rothwell powered Dimpled Dumpling Vintage A Team Racer. 5th Place at the 2016 Charlie Stone Memorial World Cup race (Perth, Australia).



2015 British Nationals. 2nd place Vintage A Team Race Team of Paul Gibeault (L) Tony Eifflander (of P.A.W fame) (Ctr) and Sion Burns (R) with Sion's Rothwell powered Dimple Dumpling.



## BUZZIN' BUZZARDS FALL FESTIVAL

CD: Bob Heywood Ph: 937-890-7555 E-Mail: [rheywood@woh.rr.com](mailto:rheywood@woh.rr.com)

AMA SANCTION (Pending)

OCTOBER 2 - 3, 2021

WEGERZYN GARDENS METROPARK

1301 E. SIEBENTHALER AVE DAYTON, OHIO 45414

SATURDAY: NAVY CARRIER ~ OPEN DECK – UNLIMITED LAUNCH ATTEMPTS

AMA – NCS – NWS40

SCORES QUALIFY FOR NCS TOP TWENTY RANKINGS

SUNDAY: RACING ~ SPORTSMAN GOODYEAR (DMAA Rules)

VINTAGE B TEAM RACE (Buzzin' Buzzards Rules)

FOX / SSR COMBINED (NCLRA Rules)

\$ 10 PER PILOT

9:00 AM – 5:00 PM

 @daytonmodelairplanes

[www.buzzinbuzzards.weebly.com/](http://www.buzzinbuzzards.weebly.com/)



## DMAA Spring Warm-up Gene Hempel Memorial April 23rd, 24th & 25th 2021 Control Line Racing, Speed & Air to Air Combat Site: Samuell Garland Park

Northwest Highway & Garland Rd. Dallas, Texas

11500 McCree Rd. Dallas TX. 75238

GPS 32.866867, -96.671400

Class AA AMA Sanction # 10891

Pilots Meeting at 9:30 AM Saturday & Sunday 10:00 AM on Friday

### Friday 04-23

Record Ratio Speed

NASS Sport Jet

NASS Perky Speed

### Saturday 04-24

Texas Quickie Rat

Sportsman Goodyear

Super Slow Rat

### Sunday 04-25

Mouse I

Clown

AMA Goodyear

Fox Goldberg

Air to Air Combat 75mph

Speed events all three days. All events are (JSO). Helmets required for racing pit crews.

Entry Fee: \$15 first event, \$5 each additional event.

Contest Director: Patrick Hempel

For additional info. On event rules.

See Web Site: [www.dmaa-1902.org](http://www.dmaa-1902.org)

Sponsored by

Dallas Model Aircraft Association

Fuel and awards provided

By NASS, DMAA & NCLRA

AMA: License & Entry fee required

Racing Event Director: Bill Lee

Combat: Event Director: Lester Haury



## SUPPLIERS

### **BRODAK MANUFACTURING**

Everything c/! 100 Park Ave, Carmichaels PA,15320  
724-966-2726 email [flyin@brodak.com](mailto: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](mailto:williamhughes4@comcast.net) 630-736-6036

### **DARP**

969 Cedar Street Allouez, MI 49805  
DARP Speed Pans for classes including  
A, B, D, and 21 Sport. (Barry Tippett)  
e-mail: [Barry@Petrockfarm.com](mailto:Barry@Petrockfarm.com) 906-337-4533  
[www.Petrockfarm.com](http://www.Petrockfarm.com)

### **JIM DUNKIN**

Engine reference books 816-229-9671 [dunkin@discovernet.com](mailto:dunkin@discovernet.com)

### **ELIMINATOR PROPS**

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

### **STEVE EICHENBERGER**

Custom Fiberglass 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  
[douglasmayer58@gmail.com](mailto:douglasmayer58@gmail.com)

### **JUST ENGINES LTD**

Newby Cross Farm, Newby Cross  
Carlisle, CUMBRIA CA5 6JP England  
Popular engines plus spares and Pipes. Irvine, Moki, Mvvs  
(<http://www.justengines.unseen.org>)

### **JON FLETCHER**

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

### **LEE MACHINE SHOP**

827 SE 43rd Street  
Topeka, Kansas 66609  
785-266-7714 - [Sales@LeeMachineShop.com](mailto:Sales@LeeMachineShop.com)  
[www.LeeMachineShop.com](http://www.LeeMachineShop.com)

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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, P.O. Box 240 Auburn KS 66402  
1-785-221-7042. [mbsmodelsupply.com](http://mbsmodelsupply.com)

### **ZZ Props**

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

### **NELSON COMPETITION ENGINES**

121 Pebble Creek Lane, Zelienople, PA 16063  
Manufacturer of NELSON Racing Engines and parts, FAI Pans  
for F2A & FIC Custom Button Heads, Nelson Glow Plugs, many  
other specialty engine items. (Henry Nelson) Phone: (724) 538-  
5282 e-mail: [nelcomp101@gmail.com](mailto:nelcomp101@gmail.com)

### **MARC WARWASHANA**

Rubber fastfills, vintage Dons' racing wheels.  
11577 North Shore Dr.  
Whitmore Lake, MI 48189-9124  
Phone: 734-449-7355 E-Mail: [whellieman@gmail.com](mailto: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](mailto:tawilk36@cpinternet.com)

### **ZALP ENGINES**

Zalp F2C&F2D engines- Bob Whitney  
456 Garvey rd sw, Palm Bay FL 32908  
[f2cracer@aol.com](mailto:f2cracer@aol.com)

### **BISCHOFF'S SPORTSMAN GOODYEAR RACING PARTS**

<b>Sport Goodyear FUEL SHUTOFF</b>	<b>\$20.00</b>
Mounts to the back of ASP/ Magnum/ SH engine Includes longer backplate screws.	
<b>ASP/ Magnum/ SH 15 VENTURI</b>	<b>\$10.00</b>
1/4" ID, 4mm spraybar, fits 10mm hole	
<b>RSM Supertigre style needle assembly</b>	<b>\$11.00</b>
<b>Aluminum landing gear struts</b>	<b>\$12.00</b>
.090" 2024-T3, drilled & tapped, with screws Edges pre-rounded.	
<b>1 1/4" Williams Bros. wheels, 1/4" axle holes</b>	<b>\$5.00</b>
<b>1/4" axles w/o wheels (Pair)</b>	<b>\$2.00</b>
With hardware- requires 1/4" hole in wheels	
<b>1 oz fuel tank</b>	<b>\$20.00</b>
Per Margaret June plans, or with pinch-off overflow-your choice.	
<b>Bellcrank button kit</b>	<b>\$2.00</b>
includes hex buttons, eyelets, screws	
<b>8 oz. fuel bottle with fitting</b>	<b>\$10.00</b>
<b>Racing handle, 3" spacing</b>	<b>\$25.00</b>
metal frame, wooden grip, stainless cable (other spacing available by request)	
<b>Globee style glow igniter battery</b>	<b>\$50.00</b>
see the October 2020 <i>Torque Roll</i>	
<b>Clothespin type glowplug lead</b>	<b>\$10.00</b>
36" wires, Deans style connector	

**Shipping:** \$10.00 per order including fuel tanks, bottles, or handles.  
\$4.00 per order without fuel tanks, bottles, handles. I accept paypal or  
personal checks.

Paypal: [billbisch@hotmail.com](mailto:billbisch@hotmail.com)/ Mail checks to: William Bischoff,  
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