

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



TO



**New Midwest Rep T.J. Vieira supplies the cover
Shot for this issue; his new DR-90 Nemesis Sport
Goodyear Entry.**

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**Torque Roll Issue #150
June 2020**

PRESIDENT - Bill Bischoff

Covid 19, social distancing, quarantine, call it whatever you want. It has totally shut down the contest season so far. The CL World Championships have been postponed until next year. Where does that leave us? Hopefully at home building stuff. This issue should highlight what some of us have been working on. As a bonus, we are also featuring another Sport Goodyear plan by Doug Mayer. This time it is one of my favorites, the 1988 version of BooRay. Some of you will recognize it; several of you have borrowed mine.

One thing that the pandemic can't stop is time. That's right, it's officer election time (**Go to back page of this issue for ballot**). Long time officer Melvin Schuette has decided to step down, and I think he deserves a big Thank You for his service to the NCLRA. Everyone be sure to thank him next time you order from MBS Model Supply. I'll take this opportunity to say "thanks, Melvin". I would also like to say, prematurely but optimistically, welcome back to former officer Tim Stone, who has agreed to run for Melvin's spot.

I'm hoping that there will be actual contest results in the next issue, including the NATS. Regardless, I encourage everyone to send in their favorite tips, hints, and techniques, and especially pictures of new projects. We will get through this!

SOUTHWEST - Doug Mayer

I write this report in a very challenging time in our society. First we had the Covid-19 virus, and now we are experiencing social unrest due to racism and police brutality in the killing of a black man, George Floyd. This is not a political editorial, it is a model airplane newsletter, so I will keep it brief. All people should be treated equally, and justice should serve all people. My heart breaks when I witness our country tear itself apart with rage and frustration. I know we will get thru this, but we all need to work harder as a society to provide better equity for all. We should all do our part when the opportunity arises. I wish that our country could get along like we do as a SIG community.

I find the most rewarding part of my involvement with this airplane hobby to be the friendships and camaraderie that are built with our fellow modelers. Every event at the field gives us an opportunity to check in with old friends, and share conversations about airplanes and our lives. We chat, we hang out, we laugh, and we compete to see who the better racer on any given day is. The out of town contests are even more exciting because you see people that you may not have seen in many years. Another level of friendship and camaraderie can also be found online in emails with friends, or forums. Bill Bischoff and I communicate regularly, and he and I share information on Formula One race planes. To date, I have drawn several Sport Goodyear designs for Bill. We worked together on Knotty Girl which was published in the Torque Roll last year. I have also drawn Scarlet Screamer and Margret June. And drumroll please.....This month the Torque Roll will publish my latest drawing for Bill, Boo Ray!! Bill has already built 2 examples of this type, and he asked me to update my drawings to his latest standard. Refer to Bill's construction article later in this issue.

For this latest drawing, (**included near the back of this issue**) I have shown the custom shutoff that Bill makes that can be bolted directly to the motor backplate. This is a great innovation and makes for a very clean front end for your racer. I bought a few shutoffs, and fuel tanks from Bill, and they will be going on my next 2 airplanes, and I will start to show this as standard equipment on my Sport Goodyear airplane designs. Information for Bill's shutoff's, tanks and landing gear is shown on the drawings.

On another note for camaraderie, Bill has confirmed that he and Kari will be coming to Los Angeles for the Virgil Wilbur contest in October. Right now, the Virgil Wilbur contest is scheduled as a 1-day contest (Sunday) but if we can drum up enough support we might be able to make the VW a 2-day contest like we did last year. Last year was very successful, and I expect the support to be there again this year for a 2-day event. We will keep you posted as things develop. Bill, we'll keep the light on for ya!

Although the June 14th contest has been cancelled, there is Good News on the horizon!! Los Angeles County is loosening restrictions on public recreation areas, beaches, hiking trails, etc. from the Covid-19 pandemic. We are now in Phase-2 openings, which specifically **DOES** include model airplane facilities (**Whittier Narrows, Sepulveda Basin**). I spoke to one of our fellow modelers, Greg Kovach, and he is going to be calling all the guys to drum up participation. We hope to have a good day of racing to report next time.

On a closing note, I received a crazy text message from Greg that said, "Look what I got for my Birthday!" Look at the attached photos. In a nutshell, it is Dave Dawson's entire control line collection of airplanes. I asked, what is the hitch? Apparently, Dave is moving out of town to the high desert, and he and Greg are long time friends and flying partners, so Dave gave Greg all his airplanes. I am sure Greg will be a good caretaker and keep Dave's planes safe and sound for years to come. Greg, try not to crash too many of them, (I hope Dave is not reading this!)

Peace out friends. Be safe, keep your hearts filled with love and compassion for your fellow man.



Part 1 of Dave Dawson's fleet of Control Line racing models. Parts 2, 3 below.

NORTH CENTRAL – Paul Gibeault

So, President Bill Bischoff emails me a notice that this month's N/L is due! What the heck is there to report on with no flying and no contests going on? No problem! Let's get back to basics with: "Fuel Blending 101."

Making your own 2 Stroke glow fuel

Some people living in out of the way areas are on occasion finding themselves without suitable fuel. As somebody who has blended his own C/L & R/C championship fuels for many years, here are some ideas on to how to blend your own custom glow fuel and never again be caught short. Your first task is to obtain the fuel **ingredients**.



Oils: I use two types of oils. Straight (first pressing) castor oil is most easily available from your local SIG dealer. The best of which is called "Benol" as is sold by Klotz. Benol is pure castor oil with a film strengthener additive. Although not *technically* legal for FAI use, it's a bit *better* than straight castor. Some bike & go-cart shops also stock castor oil under the names of Bakers AA, Blendzall and others. Any castor oil sold for Internal Combustion (IC) engine use is suitable for our purposes. The negative of using drugstore bought (USP) castor oil is that it is not de-gummed & although it will work, tends to cause a **rapid buildup of carbon varnish** inside the engine. This means you will need to do regular de-varnishing of your piston, cylinder & head which is a hassle most of us are better off avoiding.

Synthetic oil: Is also available from SIG sold under the Klotz label. A note about Klotz who offer several types of oil. We are mainly interested in the Klotz Techniplate KL-200 which is their 100% synthetic oil, and their Super Techniplate which is a **blend** with 80% synthetic & 20% castor oil. The full 100% synthetic oil is what I use. Going to the Klotz website can give you more insight into their various oils and oil numbering system. <https://klotzlube.com/>

There are other synthetics available from Union Carbide such as their UCON LB625, as well as several in Europe from Model Technics. The key here to remember is: Ball bearing ABC/AAC engines **need no castor oil**, and all synthetic oil blends run just fine and run much cleaner. Any engine with iron pistons, iron piston rings and or plain bearings really do



need to use **some** castor oil for engine and bearing longevity. Most of our old C/L engines fall into this category. (Cox, Fox, K&B, SuperTigre & older O.S Max's) It turns out that an **oil blend** of both synthetic & castor oil offers better protection & higher performance than either one individually. For best performance the ratio (obtained from the late Bill Wisniewski) is 3->1 synthetic to castor, with a 20% total oil content. Bill once told me that even the all synthetic oil K&B fuels **still contained 2% castor oil**. Total oil content is a contentious issue in some C/L circles, but I have found that 20% half & half castor synthetic runs very well and will do no engine damage in any of the above mentioned engines. It is the **regulation standard** in most all classes of racing and speed. This oil blend (confirmed by a Klotz Technical Rep at the 1999 Nats) has properties **superior** to either straight castor or straight synthetic oil blends. As well, the oil blended fuels run much cleaner & deposit much less carbon inside the engine, because the synthetic oil acts as a detergent while still keeping the superior high temperature protection provided by the castor oil. As well the synthetic oil acts as a stabilizer to keep fuels with high percentages of nitro in solution. Win-Win as I see it. It turns out the very popular and excellent running SIG Champion fuels (and several others) use just this 50-50 castor/synthetic oil blend in their fuels (unless specifically stated otherwise). Some fliers find bumping up the oil content advantageous, but that's mostly because they are looking for a certain kind of a stunt run. 25+% total oil fuels are preferred on very old engines such as the Fox 35 Stunt and SuperTigre 46 stunt engines to yield a nicer 2 -> 4 break type of run in Stunt. They will also run **more stable** using an all castor fuel or a higher 25% total oil content blended fuel. Fox .35 Stunt engines for example have poor cooling fins and are thermally unstable. Higher oil content fuels often allow their run to become more stable. CD's in the Northwest allow 2 fuel types in Sport Racing. One with 20% all castor & one with half & half castor/synthetic. Both work fine & neither causes any engine damage for racing purposes. They do this to satisfy both camps which is really thoughtful of them.

Nitromethane: This appears to be the most expensive ingredient to obtain. Cities that have drag race strips can be a source. Chemical supply houses are another (but more expensive) source. Some fuel manufacturers in the USA (i.e. Excalibur Fuels out of Tucson) will often sell you straight nitro & components, but of course you must make an inquiry (or know somebody there) in order to go that route. I'm lucky to be able to use a network of model friends who help me with nitro. My last nitro came from a contact in Calgary who supplies the r/c boat racing community with fuel. So, you may have to get creative and make some phone calls.

Methanol: This is the easiest component to source locally. Available easily from chemical supply houses, methanol comes in several grades with various impurities. I recommend a minimum of reagent grade methanol. Lab grade is the very purest, but much more expensive & not really necessary for our purposes. Methanol is also an ingredient available at some race tracks as well. Methanol is hygroscopic (water absorbing) so its storage containers must be very well sealed. If not, the methanol absorbs moisture from the air & soon becomes

watered down and unusable for our purposes. If I'm unsure, I use a **Nurnberg's Hydrometer** to read the specific gravity of the chemical. For methanol we're looking for a S.G. of .795 and for nitromethane a S.G. of 1.124 @ 25 degrees C.



Other chemicals & additives: For very special purposes other components can be added in small amounts such as Acetone, Ether, and Propylene Oxide. Those additives are used by advanced fuel blenders for specific purposes that are beyond the scope of this general article. 1-2% of Ether (or Diethyl ether) can be added to make for a **very easy starting** glow fuel for **Winter Flying**. Acetone can be used to extend the flight time of a model that is short on range when the tank size is limited. Propylene Oxide is a power additive that allows nitromethane to liberate more oxygen and is sometimes used in very high performance Vintage Speed and racing applications. It's a **carcinogen**, so must be treated with great care. Prop. Oxide also tends to lose its effectiveness over time and so (like diesel fuel) does not store very well at all.

Mixing Containers: Shown are chemistry graduated cylinders of various sizes. I have achieved consistent results using laboratory graduate measuring cylinders. 250 and 500 ml sizes are my favorite ones. Glow fuel needs to be mixed preferably at room temperature (20 degrees C) in a **clean area in a well ventilated room** or preferably outdoors. Rubber gloves are used to prevent any harmful raw fuel chemicals from touching your skin.



It should be noted that the **bottom** of the fluid **meniscus** is what should match the desired line on the measuring graduate. I normally add the oil first, followed by the alcohol, then the nitro. Once done I seal the top of the graduate with a clean plastic sandwich bag tied on with rubber bands. I then turn the sealed graduate upside down and shake until the solution is homogeneous. I allow the mixed fuel to settle then look at the solution through a **bright light** to ensure the entire mixture is clear & homogeneous. If it turns a milky color, that's indicative that moisture has somehow gotten into the solution, rendering the batch no good. (Mixing fuel outdoors when it's very humid or raining can cause this to happen). From there, I pour the final mixed fuel solution through a Coleman felt fuel filter or coffee filter paper into its final container.



Properly sealed **metal** containers are the preferred container with which to keep fuel in for long time storage. I have found the examples used for acetone or lacquer thinner sold in some home improvement/hardware stores to work excellent. Polypropylene plastic containers are a second choice. In any case they must have **well sealing caps**.



After the new fuel blend is in its container, I lay it down on a clean paper towel for a while and come back to see if there is any dampness which would indicate a leaky cap.

Other interesting applications: If you have a known blend of fuel and wish to change the oil or nitro content, I find going to the on line fuel calculator makes it simple. When adding extra nitro, you end up lowering the oil (and less importantly the methanol) percentage content in the process. There are several calculators on line, but this one listed below works well enough for me. This calculator easily shows for example:

PROBLEM: How do I change my Gallon of SIG Champion 35% nitro fuel (w/ 20% oil) to increase the nitro content to 40% while still keeping my oil at 20%, and still keeping my final mix quantity to less than 128 oz. total, so that it all fits in my regular one gallon container?

NitroRC.com Custom Fuel Blend Recipe:

According to the figures you just gave us, your current fuel has, **35%** nitro content and **20%** oil content, leaving **45%** methanol. You have indicated that you wish to increase your nitro content by **5%** to a new total percentage of **40%**, and your oil by **0%** to a new total of **20%**. In order to accomplish this you will simply need to add **11.3** ounces of nitro and **2.8** ounces of castor/synthetic oil to your **113** ounces of fuel. When you're done, you should end up with **127.1** ounces (0.99 U.S. gallons) of newly blended, custom fuel.

Note than in order to stay within your 1 gallon container restriction, you will **first need to withdraw 15 oz. of fuel from your gallon jug. So (1 U.S. Gallon) 128 oz. – 15 oz. of fuel leaves 113 oz. left in the jug, **before adding the extra nitro & oil.** **

EASY! You can do all kinds of other neat calculations with this extremely easy to use program tool.

Be aware that 4 litres is just a bit too much fuel to pour into an American 1 gallon fuel jug, so plan your mix accordingly.

<http://www.nitrorc.com/default2.asp?Introduction=http://www.nitrorc.com/fuelwv>

I hope this has been of interest. If you have any further questions or comments, I can always be reached at home. Cheers, Paul

P.S. For those who have always wondered what was in the Original Cox "Red Can" Racing Fuel? Below is the Cox factory specification sheet.

INGREDIENT	% OF MIX BY VOLUME	SPECIFIC GRAVITY @ 60° F.	SPECIFIC GRAVITY @ 70° F. OF MIX	FUEL CHECK- SPECIFIC GRAVITY
METHANOL	50%	.7955	.81775	.9251 = SPECIFIC GRAVITY @ 60° F.
CASTOR OIL	18%	.9625	.17343	.9161/.1381 = ±.01 TOLERANCE
NITRO METHANE	30%	1.1210	.33870	19/22 = CONVERSION TO BAUME SCALE
* DOW LUBE XA180-6	2%	.7045	.01820	CASTOR OIL 8.0326 LB. PER GAL. NITRO METHANE 9.487 LB. PER GAL.
* NOTE: DOW LUBE SHIPPED TO US UNDER LABEL "KLOTZ KL-201".				

MIXING FORMULA		P	750 GAL. OF #50000 CONTAINS	910 GAL. OF #50000 CONTAINS	ADD TO #50000
START WITH	700 GAL. #50000 FUEL	METHANOL	455 GAL. - 65%	455 GAL. - 50%	0
ADD	3.8 GAL. CASTOR OIL (305 LB.)	CASTOR OIL	126 GAL. - 18%	164 GAL. - 18%	38 GAL.
	1.68 GAL. NITRO METHANE	NITRO METHANE	105 GAL. - 15%	273 GAL. - 30%	168 GAL.
	4 GAL. DOW LUBE	DOW LUBE	14 GAL. - 2%	18 GAL. - 2%	4 GAL.
TOTAL	910 GAL. FUEL MIX	TOTAL	700 GAL. - 100%	910 GAL. - 100%	210 GAL.

FLASH POINT 61° F. REF. U.S. TESTING & CO. REPORT # LA 20210, DTD. 9-12-77

ECO NO.	REV.	RELEASED	DESCRIPTION	DATE	BY
2780	*	RELEASED			

MATERIAL	TOLERANCES UNLESS OTHERWISE NOTED	L. M. COX MFG. CO., INC.	
FINISH	ANGLES ± 1/4° FRACTIONS ± 1/64 IN. DECIMALS ± .005	100 E. WARNER AVE.	SANTA ANA, CALIFORNIA
HEAT TREAT	DRAWN KUN	TITLE RACE POWER FUEL	SCALE 51000
	CHECKED	DATE 4-11-77	SIZE A



T.J. Vieira's first Sport Goodyear, a bischoff designed "Margaret June" Magnum .15 for power.

to scratch build, but might be bitten by thought of a kit, and there are a bunch of people on the Facebook group I help to moderate that might go for a kit as well. What's the worst that could happen? Nobody buys it? You miss 100% of the shots you don't take! And we gotta try and make this discipline of CL as easy to get in to as possible.

MIDWEST – T.J. Vieira

Hi everyone! This is my first column as the new Midwest Representative, so I may as well take a moment to thank Bob Heywood for his service as the Midwest Rep and promotion to "Just Racer Bob" and introduce myself. I'm T.J. Vieira (as you have probably already read above...), and I've been in to modeling as a general hobby since I was a kid. It started with plastic models and rockets, then RC cars (1/10 scale nitro touring), a little with RC planes, RC heli's for a few debt ridden years, and high power model rocketry. This is my second competition season, third season flying CL. I prefer to think of myself as an enthusiastic amateur, and hardly an expert!

OK, enough of that. If you'd like to know more about my background, feel free to shoot me an email or give me a ring, happy to talk! But, on to the upcoming season. Last year, I campaigned a "Margaret June" designed by Bill B. (plans available from AMA), some of you may have seen my GLORIOUS first race ever at the NATS! Tim and Bill certainly saw it, as they were in the circle with me! That outstanding display of SUCK was followed by a rent-a-racer flight in Dallas for their Fall Finale, which went IMMENSELY better! For this year, I decided on a DR-90 Nemesis, of my own home brew. It was also my first time playing with a fiberglass finish and epoxy paints, as I've always used tissue and dope before. I gotta say, I'm pretty well sold on resin now! I can't wait to see you guys at the NATS to see how she stacks up! I have also been working with a laser cutter about possibly kitting it, we'll see if that pans out. I know a few guys around here in Ohio that are too unsure of their abilities

I'm also pleased to announce the return of racing to Dayton! Over the winter during the Buzzard club meetings, "Just Racer Bob" and I decided to stir the pot a little, and get the Stunt Grunts to agree to us holding a race on what would typically be the second day of our carrier meet in October. We'll be running DMAA Sportsman Goodyear, SSR/Foxberg, and mouse racing if you'd like to come out and play! Contact me for info, or check out the Buzzard's facebook page to let us know you'll be there @daytonmodelairplanes

I've also sent in rules for a proposed "club level" event, and maybe even an "after hours at the NATS" event for you guys to take a look at. It's designed to get everyone playing in the same sandbox. Stunt, Racing, Speed, and even Combat! No Carrier, as I felt that would get too complicated for an evening setup, and no Scale as there aren't many that would like to put that effort in just to roll it up in a ball (potentially). But, take a look, and I'd like your feedback!

SRT Triathlon

-Planes shall be commercially available, and have between 350 and 400 sq.in. of wing area. Examples:

- FliteStreak (both profile and super combat)
- Super Clown
- Skyray
- Ringmaster (profile and imperial)
- Peacemaker
- Galaxy

-Constraints on planes: aesthetic changes are allowed, however all moments/areas of stationary flight surfaces must be the same (ex: wing tip shapes for last 2" of wing may be changed, super combat flite streak may

have a carved top/bottom block, larger or smaller elevators may be used, but horiz./vert. stab must have original area maintained and must remain the same for entire event) CD to have final ruling of compliance.

-Event to be completed in Stages

-Stunt

-Shall consist of Beginner pattern, with the addition of pilot's choice of two additional maneuvers from the full PAMPA pattern (ex: addition of inverted flight, outside squares, etc). Judges to be informed prior to flight. 6 minute time limit from the signal to judges. 3 minutes from time Pilot is called to circle to signal for flight start.

-Race

-Minimum of 2, maximum of 3 pilots in the flying circle. 80 lap qualifier heat(s) with 1 mandatory pit, 160 lap main with 3 mandatory stops. DQ (from race portion only) if stop requirement not met. Shutoffs allowed.

-Two way speed

- Timed from takeoff, 7 laps upright, 7 laps inverted, quickest overall time wins. Inverted flight laps to start when timing pole plane is crossed in a normal inverted attitude, with 5 – 10' of altitude. 5-10' max altitude for entire portion of contest excepting altitude requirement for safely entering/exiting inverted flight.

-NOTES

-Speed and Stunt are one and done events! Racing to place 1-2-3 only (number of heats required determined by entrant count), no consolation bracket, min 2 heats (qualifying and main)
-People's Choice Appearance (no point system, popular vote by officials only) can be used as tie breaker

-Engine

-Engine used must be the same engine throughout the event, except in the event of CONFIRMED catastrophic failure, judges to confirm before swap for damage and compliant engine type. Venturi size is unrestricted. No addition or removal of metal, except in the case of venturi modification. For BB engines, aftermarket bearings are acceptable. Removal or addition of head shims is acceptable. Tuned Pipes, mufflers, open exhausts are permitted, but must be run in the chosen configuration for the duration of the contest. Pipe/muffler changes can only be for failure of component, for same style/dimensions of pipe/muffler. If a suitable component is not available, contestant must move to open exhaust.

-Engine shall have max displacement of 0.36 cu.in. bushed or ball bearing allowable. Examples:

-EVO 36
-Fox 36X or Combat Special
-McCoy 35
-Fox35
-Brodak 25
-OS 25FP
-OS 25LA
-OS35AXII

- Props

-Must be commercially available wood or nylon (no carbon or 'glass). May be changed between events for optimization.

- Lines

-.015" stranded 60' for speed and racing
-.015" stranded for stunt. Line length unrestricted for stunt, within AMA safety code.
-Pull tests to comply with AMA safety code

-Fuel

-10% nitro, 20% oil 80/20 syn/castor, remainder methanol. This is spec for the ENTIRE event! Iron liner/sleeve engines may run NCLRA/NASS "fox fuel" 10% Nitro, 25% all castor, remainder methanol.

-Tanks

-May be changed between events. No pressure, no fast fills, uniflow may be directed into the air stream, shutoffs permitted

-Landing gear

-must ROG, one wheel minimum, gear must remain constant throughout contest, may be of different configuration that original kit/plans

-Field requirements

-Entire event must take place on the same type of circle, paved or grass is ok, but must remain constant.

-Overall scoring

-20 points for first, 18 for second, 16 for third, etc. for each event. High end of points can be scaled for entry numbers. This is intended to prevent a tie. However, in the event of a tie, combat or 240 lap race with 5 stops, highest appearance judging vote, or capitulation is acceptable. Tied contestants may agree upon method of settlement (combat, racing, appearance judging, or capitulation). If contestants cannot decide, CD shall choose method of tie-breaker, which may include coin toss in place of capitulation.

-Bonus points for closest to average in BOTH speed and stunt (NOT racing)

-Closest to average gets 5 bonus points added to their overall score

Until next time, may your hot starts always happen on the first flip!

SOUTH CENTRAL - Bill Bischoff

Kelly Hite has returned to the circle after a long layoff. In the latter half of the '90's and early 2000's, Kelly was a top carrier competitor, with multiple NATS wins and a couple of records to his name. He was also a competitive racer. Life got in the way for a while, as it often does, but now its good to have him back. He dusted off his Quickie Rat, and Sport Goodyears, including his 20+ year old Norvel powered Cassutt, and is also building a Invictus for his new SH 15. He decided that he needed a couple more handles, so he recently built these. (At the time of the photo, the cables had not been installed) They are very nicely done, as is every he builds. I hope they to see competition soon.



The Pitts "Li'l Monster" Goodyear Racer B. Bischoff

If you remember Tim Stone's history lesson in the last newsletter, the Pitts Li'l Monster was a popular Goodyear model in Chicago in the early 70's. I started going to contests in the Chicago area in 1974, and I honestly don't ever remember seeing one. To this day, I haven't seen one other than in pictures.

If you're like me, the picture of the real plane may be your first exposure to the design, and the plans may be your first exposure to the model. When Glenn Lee's construction article came out in 1975, it was the first time I had ever even heard of the airplane. I suppose it's fitting that a Pitts is currently being built by Bill Hughes. Bill is a member of the Treetown Modelaires, the same club that Tim and Glenn Lee belong to. Bill is a former racer and flew speed with Glenn for many years. Choice of model aside, I am just happy that Bill has decided that it might be fun to fly some Sport Goodyear after such a long absence from racing.



Treetown Modelaires club member Bill Hughes new Sport Goodyear model "Li'l Monster". A popular model in the Midwest in the mid 1970's.

1988-89 BOORAY for Sportsman Goodyear B. Bischoff

I don't really know why, but I've liked this version of the well-known BooRay since the first time I saw it in Hirsch's book. My new one is the third one I've built. The first served double duty as a Sport Goodyear with a Fox 15 and as an AMA Goodyear with a Nelson. The second one was my first Sport Goodyear dedicated to the Magnum/ ASP 15. The success of this model led to the first one becoming exclusively dedicated to AMA Goodyear. The second one has enjoyed much success as a loaner airplane, often beating me and my own entry.

Believing that you can't have too many Goodyears, I decided to build a "fresh" BooRay to try out a few things, including one of Ray Harvey's CNC carved wings. I could have built the model from my own minimal pencil drawings, but I really wanted a more comprehensive and presentable set of plans to share with others. This is where Doug Mayer got involved.

Besides being a good friend, Doug has made several different Goodyear plans on the computer, keeping the pertinent details and basically just changing the outlines. I had already gotten Doug to do plans for "Knotty Girl" and "Scarlet Screamer", but somehow I was able to beg/whine/pester him enough to draw the "Booray" plans for me as well. They are presented in this issue and will be available on the NCLRA web site.



As for the model, here are a few notables. I used titanium landing gear, since somewhere along the way I obtained a set of straight down gear. I don't know that they offer any particular advantage over aluminum gear, but I had them so I used them. I opted for a bigger, fatter cheek cowl for a more scale appearance, and liking the finished result I'd do it again. I built the stab and elevator out of 1/16" balsa outer laminations and a 1/32" ply core cut out for pinned nylon hinges. For my money, it wasn't worth the trouble compared to 1/8" basswood and sewn hinges. The Ray Harvey pre-made wing was definitely worth it. Starting with a ready-to-glass wing sure sped up the building process, and the sticker shock is already forgotten.



The finish is my standard regimen of Z-Poxy finishing resin and 1/2 oz glass, Superpoxy primer, and Klasskote color. In this case, the purple is Klasskote's Monokote matching metallic plum. It's not on their list, but they definitely made it. FWIW, the primer and colors added only one ounce of weight. I put 3/4 oz of tail weight on it before I flew it, and it shakes down and lands to my satisfaction, so I called that good. I am using a CB Associates 1 1/4" spinner from MECOA. It works fine and looks good, although the adapter nut needed to be turned down a bit to fit all the way up inside the spinner cone. To do this, I put a headless 5MM screw in the cordless drill, threaded on the adapter nut, and spun it against the disc sander until the nut would fit far enough into the spinner. The flying weight is 22 oz. and best speed so far is 21.5 sec. I am looking forward to getting a chance to race it soon.



NATIONAL RECORDS

SLOW RAT (.25 engine)

Op (70 laps) 3:01.52 Jim Gall/ Les Akre 7/04/11
 (140 laps) 6:17.59 Russ Green/ Bill Lee 7/07/09
 (no Jr or Sr record)

½ A MOUSE 1

Jr (50 Laps) 2:37.57 Scott Matson 7/15/99
 (100 Laps) 5:17.68 Scott Matson 7/17/99
 Sr (50 Laps) 2:44.68 Dave Rolley Jr 7/15/99
 (100 Laps) 5:20.11 D.J. Parr 7/16/98
 Op (50 Laps) 2:12.3 Jim Holland 7/16/04
 (100 Laps) 4:22 Ryan & Gibeault 7/15/99

½ A MOUSE 2

Op (70 Laps) 3:01.24 MacCarthy/Kerr 7/11/03
 (140 Laps) 6:18.13 Whitney/Hallas 7/10/09

SCALE RACING

Jr (70 Laps) 2:50.65 Bob Fogg III 7/16/91
 (140 Laps) 6:08.55 Bob Fogg III 6/23/92
 Sr (70 Laps) 3:15.12 Doug Short 7/11/00
 (140 Laps) 5:40.05 Bob Fogg III 7/11/95
 Op (70 Laps) 2:39.38 Willoughby/Oge 7/15/97
 (140 Laps) 5:33.04 Bob Fogg Sr 7/16/91

F2C TEAM RACING

Op (100 Laps) 3:42 Fisher/Wilk 7/13/15
 (200 Laps) 6:43.32 Fisher/Wilk 7/16/12

F2CN (NCLRA RULES)

100 Laps 4:14.84 Bill Lee/ Russ Green 7/07/11
 200 Laps 8:37:10 Wallick/Brozo 7/15/13

NCLRA 'B' TEAM RACING

Op (35 Laps) 1:24.34 Burke/Duly 7/12/05
 (70 Laps) 3:05.73 Green/Lee 7/10/09
 (35+70 Laps) 4:33.91 Green/Lee 7/10/09
 (140 Laps) 6:08.80 Green/Lee 7/10/09

RAT RACING (.15 RULE)

Op (70 Laps) 2:44.6 Jim Holland 7/15/04
 (140 Laps) 5:33.1 Jim Holland 7/15/04
 Jr-Sr No record established

NCLRA FOX RACE

Jr (100 Laps) 5:57.11 Scott Matson 7/11/99
 Sr (100 Laps) 5:28.09 Scott Matson 7/16/02
 Op (100 Laps) 5:32.55 Tim Stone/Bob Oge 7/10/05

NCLRA CLOWN RACE

Op (7 ½ Min.) 150 Laps Bischoff/ Lee 7/15/15
 Op (15 Min.) 284 Laps Bischoff/Lee 7/15/15

NCLRA TEXAS QUICKIE RAT

(70 Laps) 2:58:72 Bill Lee/Bill Bischoff 7/18/13
 (140 Laps) 6:07.01 John McCollum/Bill Lee 7/14/05

NCLRA SUPER SLOW RAT

(100 Laps) 5:14.30 Bill Lee/Russ Green 7/05/09

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

NORTHEAST DISTRICT

June 15 – 20 Carmichaels, PA, Brodak Fly In, stunt, scale, racing, combat, carrier & speed
June 27 & 28 Dresden, Ontario, Beanfield GP, combat, stunt, and racing
July 4 & 5 Centennial Park, Toronto, stunt, scale, combat & racing ?
July 25-26 Dresden, Ontario, SOCC, combat, stunt, and racing
September 12 -13 Rouge Park, Detroit, Michigan State Meet, combat, carrier & racing
September 19-20 Centennial Park, Toronto, stunt, racing & combat

NORTH CENTRAL DISTRICT

None

NORTHWEST DISTRICT

49th Northwest Control-Line Regionals on Memorial Day
Re-scheduled to September 18 - 20

The Regionals this year offers 46 separate competition events. The contest will be held at Roseburg Regional Airport in Roseburg, Oregon. Limited RV space is available on site. Motels, restaurants and camping are within a short driving distance. The nearby Hampton Inn will be the Regionals host hotel.

This AMA AA-sanctioned contest features four PAMPA classes of Precision Aerobatics, Old-Time Stunt, Classic/Nostalgia 30 Stunt, sportsman and expert classes of Profile Stunt; AMA Fast, High-Performance 1/2-A, 80-mph, Vintage and 15 Fast Combat; Profile, Class I, Class II, .15, Sport 40 and Nostalgia (profile and Class I/II) Navy Carrier; Mouse I, Northwest Sport, Northwest Super Sport, and Northwest Flying Clown Racing, Sportsman Flying Clown Racing; Authentic, Sport, Profile, 1/2-A and Fun Scale; and 1/2-A, 1/2-A Proto, A, B, C, D, FAI, Jet, Sport .21, .21 Proto, Northwest B Proto, Formula 40, F2D Proto and Northwest Sport Jet Speed.

Information about the contest and copies of the contest flyer and advance entry forms can be downloaded from the flyinglines.org website. Rules for Northwest competition events also are at flyinglines.org.

Further information on the Regionals can be obtained from John Thompson, 2456 Quince St., Eugene, OR 97404, [e-mail](mailto:JohnT4051@aol.com) JohnT4051@aol.com, or phone (541) 689-5553.

SOUTHEAST DISTRICT

None

MIDWEST DISTRICT

July 13-17 Speed & Racing NATS – Muncie, IN
Check the AMA website, modelaircraft.org for details.

October 3 & 4 Dayton, Ohio, carrier & racing

SOUTH CENTRAL DISTRICT

DALLAS 2020 RACING CONTEST SCHEDULE
(contests typically also feature other events)

June 13-14 Cancelled Saturday- Quickie Rat, Super Slow Rat, Sport GY, Mouse I, Fox-Goldberg.

September 5-6: Saturday-Quickie Rat, Super Slow Rat, Sport GY, Mouse I, Fox Goldberg.

October 9-11: Saturday- Quickie Rat, Super Slow Rat/ Fox Race (combined), Sport Goodyear /Sunday F2CN, Clown, Mouse I, Fox-Goldberg.

All events held at Dallas Hobby Park. Contact Bill Bischoff for details (billbisch@hotmail.com)

SOUTHWEST DISTRICT

2020 Whittier Narrows Speed, Combat, & Racing Contest Calendar
1511 Loma Av, Whittier Narrows Park, S. El Monte, Ca, 91733
Speed Circle Coordinates are DEC:+34.042737, RA:-118.070392
TENTATIVE

June 13-14 Cancelled Bill Nusz Speed and Herb Stockton Racing Memorial, sanction #

Racing Sunday only: mouse 1, SCAR Goodyear, NCLRA Clown, Super Slow Rat/Fox Race and Quickie Rat

CD: Howard Doering [h.714-638-4937](tel:714-638-4937) [c.714-394-5304](tel:714-394-5304)

Racing ED:

Sept 12-13 Wayne Trivin Memorial Speed and Racing, sanction #

Racing Sunday only: mouse 1, SCAR Goodyear, NCLRA Clown, Super Slow Rat/Fox Race and Quickie Rat

Speed CD: [Howard Doering h.714-638-4937](tel:714-638-4937) [c.714-394-5304](tel:714-394-5304)

Racing ED:

Oct 24-25 Virgil Wilbur Memorial Speed, Combat, and Racing, sanction #

Racing Sunday only: mouse 1, SCAR Goodyear, NCLRA Clown, Super Slow Rat/Fox Race and Quickie Rat

CD & Speed ED: [Howard Doering h.714-638-4937](tel:714-638-4937) [c.714-394-5304](tel:714-394-5304)

Racing ED:

Dec 5-6 TOYS FOR TOTS Speed, Combat and Racing, sanction #

Racing Sunday only: mouse 1, SCAR Goodyear, NCLRA Clown, Super Slow Rat/Fox Race and Quickie Rat, Musciano Log Racing

Entry fee: 1 new unwrapped toy, approx value \$10-\$20.

Speed CD: [Howard Doering h.714-638-4937](tel:714-638-4937) [c.714-394-5304](tel:714-394-5304)

Racing ED:

Combat ED: Don Jensen flyjensen56@verizon.net Cell 909-576-3430

NOTES:

1. Contact CD or ED to confirm contest dates before traveling long distances.
2. All speed events included for AMA, NASS, and Northwest rules.
3. All Racing events Sunday only, 313, Quicky rat, NCLRA, super slow rat, NCLRA clown
4. Same Racing events each contest
5. Clown will be flown on 60' lines per NCLRA NATS rules
6. Other Racing events may be flown if two entrants show up ready to race
7. All combat is top 20 MACA score eligible. Sat: 80 mph dbl elim & HP 1/2a 42 foot, snl elim. Sunday F2D fast double elim & f2d cuts, single elim.

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

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Les Akre

write in _____

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Tim Stone

write in _____

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