

**From: National Control Line Racing Association  
Melvin Schuette P. O Box 240  
Auburn, KS 66402**



**TO**



**The Planes of Fame Museum in Chino Ca, is home to 1 of only 2 Original Boeing P26A “Peashooters” left in the world. This one is flyable.**

**Torque Roll Issue #111  
December 2013**

## **PRESIDENT-Melvin Schuette**

To My Fellow NCLRA Members,

For most of us the racing season has changed to the building season. Have you started on your next project for 2014?

I am pleased to announce that Phil Valente, Jim Bradley, and Steve Wilk have been re-elected to their respective District Representative positions. I would like to welcome Ron Duly as the new Southwest District Representative, and Bill Bischoff as the new South Central Representative. Both Ron and Bill are familiar faces at the Nationals. Bill in fact is the Biscuit in Biscuit & Gravy racing team. However we still need District Representatives for the Northwest and Midwest Districts.

Speaking of elections; 2014 is when we elect the NCLRA President, Vice-President, Secretary/Treasurer, and News Letter Editor. This is when you decide if you want to keep the current leadership or choose someone else to take over. Personally I have decided to run for another term of office; however I would like to take a break from it after my second term. I will be honest with you the most difficult part of being the president has been writing my article every other month.

As many of you know the FAI passed a rule that in 2013 mufflers would be required in F2C Team Race. This rule has met with a great deal of opposition. Before the rule could go into effect the FAI postponed implementing the rule until 2015. The cost of the equipment required for testing the effectiveness of the mufflers and the time it would take to do the test would be all but prohibitive at any contest other than a world championship. If the rule is implemented all current equipment will become illegal. There will be no used equipment available for those wanting to get started in Team Racing. It is my understanding that only one of three current engine manufacturers may make an engine that will have muffler mounts, but they will not be developing a muffler for use in competition. A number of countries have stated that they will withdrawal from international competition rather in implement the use of mufflers in Team Race and fly the event under current rules. I have been told that the Ukrainians have been experimenting not with mufflers, but with a 3mm venturi. So far there are two benefits to the venturi restriction, the planes are quieter and they are also noticeably slower. Most testing has shown that the planes have been slowed to around nineteen seconds for ten laps, making them a lot easier on the pilots. The fuel range has gone from around thirty five laps per tank to around fifty laps per tank. There has been a rules proposal sent in by the U.S. and Italy that does away with the muffler requirement, but will implement a venturi restriction with a required number of pit stops will be required. The FAI rules process is quite different than the one used by AMA. If the FAI agrees to consider the rule change it is set as an agenda item for the Technical Meeting in April. The country that puts in the rule proposal needs to send a representative to the Technical Meeting. AMA has decided to only partially fund the cost of sending a U.S. representative.

The NCLRA has been asked to donate to the cost of sending a representative to the meeting. The NCLRA will only donate NCLRA funds if the majority of the responding members agree to do donate and what amount of money is to be donated.

As many of you know Jim Ricketts has retired from racing. He has a number of propellers that are ready to race for sale. If you are interested in purchasing any of these contact Jim at [jrick5884@sio.midco.net](mailto:jrick5884@sio.midco.net).

Remember to send in your membership renewal.

Melvin

## **NORTHEAST - Phil Valente**

### **WARBIRD**

1. Al Ferraro.....5:11
2. Tom Schaefer....5:42
3. Steve White.....6:36
4. Phil Valente.....7:01

### **CLOWN- SPORTSMAN (7.5 Min)**

1. Jim Vigani.....128 Laps
2. Raul Diaz.....127
3. Dave Edwards.....121
4. Steve White.....121
5. Tom Schaefer.....106
6. Al Ferraro.....101

### **FOXBERG**

1. Al Ferraro.....9:21
2. Jim Vigani.....9:58
3. Tom Schaefer...10:52
4. Jim Gall.....12:06
5. Steve White.....12:07
6. Phil Valente.....12:55

## **SOUTH CENTRAL - Bill Bischoff**

Hello everyone. Thanks to my massive write-in campaign (ha!), I am the new rep for the south central district. I understand that I am supposed to write about what's going on in the district, so here's what's happening in Dallas. The Dallas Model Aircraft Association recently hosted the F2C team trials. I suspect Dave Rolley will have much more to say on the topic, but I've got good news and bad news. The bad news is that only two teams were good enough to secure a spot on the 2014 team. Congratulations to the Fluker/Lambert team and the Fischer/Wilk team for their performances. The GOOD news is that there enough interest locally that we now have THREE teams working on F2C. Besides the world famous(?) Biscuits-N-Gravy team and the third place team of Patrick Hempel and Bill Lee, we now have the team of Lester Haury and Allen DeVeuve. Both of these gentlemen are previous members of the US F2D combat team. What that means is we can have some real live 3-up practice! Dave Rolley and Lynn Boss from Denver have said they would even come join us

occasionally. Hopefully, we'll be sending a full contingent to Australia in 2016!

The other thing that's stirring the troops these days is the revamp of our local Sportsman Goodyear event. As mentioned in the last newsletter, we are planning to allow the blue head Magnum XLS 15A and ASP S15A engines as an alternative to the Fox 15 BB. I have included a summary of the proposed new rules, and let me stress that these are Dallas rules, not NCLRA rules. Clubs are free to structure their unofficial events to suit their own needs and purposes. Locally, these changes seem to be getting a very positive response. Between my own plans and what I got from Doug Mayer, I've got plenty of different designs. Lester Haury is working on laser cutting some kits. John McCollum is going to make a batch of "official" venturis, which I plan to get anodized blue. This will not only look stylish along with the blue head, but should deter "tampering". These venturis will be available for cost, which I'm thinking will be about \$7-8.00. It may be even less if the anodizers will stick my small batch of parts in with another job.

The Dallas contest dates have been selected for next year. In all cases, the racing events will be on Saturday. The events will be Mouse I, Sportsman Goodyear, Fox/ Goldberg, Super Slow Rat, and Quickie Rat. the dates are April 26, June 14, August 30, and October 11. I would actually like to see a couple of smaller contests as well, perhaps just Sportsman Goodyear and F2C. Of course, we would have to work around things like VSC and the NATS, but we might find a weekend somewhere.

By the next issue, we should be well immersed in winter, otherwise known as building season. How about some pictures of your latest creation? You can send them to me, or send them directly to Les Akre. If you don't, you can't complain about all the pictures of my airplanes!

## **DALLAS 2014 SPORTSMAN GOODYEAR SUMMARY**

For many years the Fox 15BB has been the only competitive engine in our Sportsman Goodyear event. Some of these engines run very well, others not so much. In recent months we have been working with the Magnum and ASP engines as alternatives for Sportsman Goodyear. What we have found is that they are of consistent quality, their ABC design makes for excellent restarting, they are fast, and work well right out of the box with no special fitting or modifications. All of these qualities make them attractive to novices and experienced competitors alike.

Once satisfied with their suitability, we were then faced with the task of drafting rules that would allow them to compete with the Foxes on an equal basis. Based on our testing, I believe the proposed venturi and airframe restrictions will accomplish that goal.

To summarize, here are the proposed changes/ additions to the rules:

1) REQUIRE .015 STRANDED LINES FOR ALL ENTRIES. This will slow all the models down a bit, and stranded lines are MUCH easier to deal with!

2) REQUIRE 3 PIT STOPS IN THE FINAL FOR ALL ENTRIES. Not all of the Fox entries can make the final in only two pit stops. The ASP and Magnum get much better mileage and can easily make the final in two pits. Requiring three pits for everyone levels the field, and emphasizes the team aspect of racing a bit more.

3) ALLOW THE MAGNUM AND ASP ENGINES, BUT REQUIRE STOCK ENGINES AND A SPECIFIC VENTURI SIZE. Based on current testing, a 6mm venturi puts these engines on par with my (better than average) Fox. A venturi restriction is also a proven method of keeping an event's performance under control, as it can easily be changed.

4) REQUIRE EXTERNAL CONTROLS FOR MAGNUM AND ASP POWERED AIRPLANES (only). Admittedly, my new airplane with external controls isn't quite done yet, so I can't say exactly how much the external controls will slow the airplane down. I believe that requiring external controls will make the event more attractive and accessible to new racers. If necessary, we could grandfather existing airplanes for a year, allowing modelers to just change engines on their current models. My feeling is that the new engines are different enough from the Fox that people will build new airplanes.

Please note that these rules are not firm yet, and they are not in effect. I want to put these rules out for review and comment by all interested parties. Read them if you have an interest, and email me if you have an opinion. I would like to have all this nailed down by the first of the new year.

## **DMAA SPORTSMAN GOODYEAR RACING 2014**

**OBJECTIVE:** Sportsman Goodyear racing is intended to be a low-key sport racing event which can be enjoyed by both novices and experienced racers. By disallowing expensive, high performance racing engines, both cost and performance are kept down to a level which all modelers can manage.

**APPLICABILITY:** All AMA general and CL general rules, the AMA Unified Control Line Racing Rules, and rules for event #317 Control Line Scale Racing shall apply unless modified below. In the case of a dispute, the event director shall have the final decision.

**ENTRIES:** Once a contestant has used an aircraft or engine in the event, that aircraft or engine may not be used by another contestant in the same event.

**CONTROL LINE SPECIFICATIONS:** Models must employ two multi-strand lines of at least .015" diameter. Line length shall be 52'6" +/- 6", measured from the grip portion of the handle to the center line of the fuselage. Pull test is 25 pounds.

**RACES:** Heat races shall be 80 laps, with a minimum of one required pit stop. Feature races shall be 160 laps, with a minimum of three required pit stops. Races should run three-up whenever possible.

FIELD LAYOUT: The inner circle shall have a radius of 58'.  
The outer circle shall have a radius of 68'.

MODEL SPECIFICATIONS: Per Control Line Scale Racing.  
The builder of the model rule shall not apply. Only one fuel tank is allowed, with a maximum capacity of one fluid ounce. The fill, vent, and pickup tubes shall have a maximum outside diameter of 1/8". Quick fills are prohibited. Fuel shutoffs are permissible. Hot glove or hot thumb electrical contacts shall not be permitted.

ENGINE SPECIFICATIONS: Non-schneurle ported engines may be of plain bearing or ball bearing construction. Schneurle ported engines must be of plain bearing construction only, except that the Fox 15BB schneurle engine is specifically permitted in accordance with the constraints outlined below. Plain bearing conversions of ball bearing engines are specifically prohibited.

The following major components of the engine must have been produced by the original manufacturer for the specific engine in quantities of at least 1000: the complete crankcase including front and rear ends, or upper and lower portions as applicable, the crankshaft, cylinder and piston. Engine parts may be modified by removing material only, except that cylinder plating is permissible. Non-stock cylinder heads or head buttons may be employed, however glow engines must use a 1/4-32 thread glow plug if the stock cylinder head or glow head is not used.

ENGINE SPECIFICATIONS FOR MAGNUM/ ASP ENGINES ONLY: Beginning in 2014, the Magnum XLS 15A and ASP S15A engines may be used as described below. These two engines appear identical other than the name on the crankcase. They are characterized by schneurle porting, ABC piston/cylinder metallurgy, dual ball bearings, and a 4 bolt blue anodized cylinder head. As of this writing (11/05/13) The Magnum XLS 15 is being sold by hobbypeople.net as part #210605, and the ASP S15A is being sold by hobbypartz.com as part # 72P-S15A. These numbers are included for identification purposes only; engines may be obtained from any source. The regulations below apply to these engines only, and supercede the specifications in the previous paragraph.

Engines must be of stock configuration only. No material may be added or removed (except through normal wear and use), except the engine mounting holes may be enlarged or elongated. No non-stock parts may be substituted except for the glow plug, venturi, needle valve assembly, ball bearings, gaskets, screws, prop washer and prop nut.

Engines shall be equipped with a venturi and spraybar meeting the following specifications. The venturi shall have an inside circular bore of no more than 6.0 mm. The venturi shall maintain this diameter for at least .155" at the throat of the venturi where the spraybar is located. The spraybar assembly shall be located precisely through the center of the venturi bore, and shall have a constant circular cross section of at least .153" diameter for the portion of the spraybar in the throat of the venturi.

MODEL SPECIFICATIONS FOR MAGNUM/ ASP ENGINES ONLY: Lines may attach directly to the bellcrank,

or leadouts may be used. The bellcrank and leadouts or lines must be external to the normal contours of the wing. The line/leadout guide(s) may be inset into the wing, but shall cover no more than 1/2" of the lines or leadouts. The bellcrank may pass through the fuselage but must be visible and not fully enclosed. The pushrod and elevator control horn shall not be recessed or enclosed in the fuselage. Fuel shutoff linkages are exempt from any of the above regulations.



Bill Bischoff's new magnum .15 powered "Booray" Sport Goodyear Model.

## SOUTHEAST – Jim Bradley

Not too much to report this month. The electric clown has fallen behind due to some medical issues that had to be addressed. I'm in the healing phase now so maybe I can resume my plan to get the electric Clown ready to fly. I have acquired one last piece that I needed and that was the timer to run the ESC, Electronic Speed Controller. The timer I selected is from Will Hubin and is the basic one that the electric stunt guys are using. There are a few things that are not racer friendly right now but Will has indicated that they can be worked out for version of the timer for racers. Hopefully I'll have more to write about on the project for the next Torque Issue and some pictures.

On another front the NCLRA is forming a committee to evaluate changing the NCLRA Clown rules to flying on 60 foot lines and allowing shutoffs to be during the race. This was tried at the last NATS and seemed to be judged as a success. The pilots especially seemed to like it as it made the flying much more enjoyable instead of being a F2C training event. Several of the NCLRA districts rep, have appointed someone in their district to collect thoughts from through their district. If you live in a district that doesn't have a NCLRA rep you can always E-mail me at bmp4carbon@aol.com with your thoughts and inputs.

We are getting into the holiday time of the year so I want to wish all of you HAPPY HOLLIDAYS 's and GOOD RACING next year. May your pit stops always be 1 flip.

Jim Bradley

## SOUTHWEST – Ron Duly

I'd like to thank the fine fellow that wrote my name in for this prestigious position. I'd really like to. REALLY! This is a do-over for me so join me on this journey. SCAR (Southern California Air Racers) is our local racing group. As fine a collection of curmudgeons as has ever been assembled. One exception to our grumpy group is Krystina Kusik, Jed Kusik's young daughter. She has developed into a fine pilot and can compete with the best.

We race six times a year at Whittier Narrows recreation area in El Monte Ca. with four events (more or less) per contest, varying the events as interest dictates. At our last contest, at least three teams put up official times in each event and two events had five teams. We invited Les Akre down from Canada to show us how a real Racer does it. He managed to win every event and take home a carload of trophies. Well, not quite. We don't give out trophies 'cause none of us needs another dust collector. Our reward is trying for a personal best time. The money we would spend on trophies goes to the Los Angeles County Parks Dept. (\$60.00 per day and \$2.00 per person). Special awards, such as for most laps flown in Clown, may be given at the end of the year. One of the events that we fly is SCAR Goodyear. This is a simplified version of AMA Goodyear (or Scale Race or whatever...). Exposed controls, \$150.00 max-priced engines and allowing a mono-wheel are the basic rules. The idea was

to keep the cost and speeds down and get away from the dreaded two-wheel turn-in at takeoff. Great idea until a Sport Moki showed up and blew everyone away. Other than that, Don Burke has had good luck with a Magnum 15, same as groups in Colorado and Texas are trying. The Racers in Australia have a different approach. They have an event called "27 Goodyear". If a plane exceeds 27 seconds for 10 laps an extra pit stop is required. As for engines, a Brodak 15 proved to be a clone of the FOX 35 – a real vibrator at high rpm. That one is best left for Stunt. Anyway, our event is a pleasure to fly and we'll watch what other areas settle on for their rules. As much fun as it is to fly, we'll keep our local rules and not try to make it a NATS or AMA event.

Who else races in the SW Division? I can't make you rich and famous unless you let me know you are out there. Our next local racing contest is in December. Let me hear from you!

Ron Duly

### VIRGIL WILBUR RACES - 10/12-13/2013

#### TQR

entrant	pilot	pitman	engine	heat	final
1 L. Akre	D. Hull	L. Akre	K&B	3:02.44	6:21.56
2 J. Holland	D. Mayer	J. Holland	K&B	3:15.47	6:50.33
3 D. Burke	R. Duly	D. Burke	O.S.35AX	3:24.35	7:09.34
4 D. Mayer	D. Mayer	J. Holland	K&B	dnf	

#### MOUSE1

entrant	pilot	pitman	heat 1	heat 2	final
1 L. Akre	D. Hull	L. Akre	2:31.27	0:00.00	5:02.49
2 K. Kusik	Krystina	Jed Kusik		2:50.23	2:38.89 5:08.31
3 M. Callas	D. Mayer	M. Callas	3:21.72	3:27.54	6:48.49
4 J. Holland	D. Mayer	J. Holland	5:38.34	2:34.37	0:00.00
5 D. Hull	D. Hull	L. Akre	2:47.41	4:11.40	0:00.00

#### SCAR GY

entrant	pilot	pitman	airplane	engine	heat 1
1 L. Akre	D. Hull	L. Akre	Stinger	NORVEL	4:38.76
2 D. Hull	D. Hull	L. Akre	Buster	O.S.15CVA	4:41.56
3 J. Holland	D. Mayer	J. Holland	Deerfly	ST15X	5:06.89
4 D. Burke	R. Duly	D. Burke	Cosmic Wind	.15CVA	5:22.84
5 D. Mayer	D. Mayer	J. Holland	Outrageous	FORA	5:41.50

## FOX/SSR

entrant	pilot	pitman	engine	heat	final
1 D. Hull	D. Hull	L. Akre	B25	5:34.29	5:23.43
2 J. Holland	D. Mayer	J. Holland	B25	6:13.60	5:46.25
3 D. Burke	R. Duly	D. Burke	B25	6:04.99	ball of fire
4 M. Callas	M. Callas	L. Akre	B25	7:09.88	

## FOX

1 K. Kusik	Krystina	J. Kusik	Fox 35	11:20.64
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## CLOWN

entrant	pilot	pitman	engine	7-1/2 min	best
1 L. Akre	D. Hull	L. Akre	MOKI	160	160
2 J. Holland	D. Mayer	J. Holland	Picco	141	141
3 K. Kusik	Krystina	J. Kusik	ROSSI	139	139
4 R. Duly	R. Duly	D. Burke	Fora	138	138
5 D. Mayer	D. Mayer	J. Holland	MOKI	136	136

## F2CN

entrant	pilot	mech.	engine	heat1	heat2	final
1 L. Akre	D. Hull	L. Akre	Nelson RI	4:40.83	4:28.05	9:37.96
2 D. Mayer	D. Mayer	J. Holland	PROFI	4:21.69		9:56.58
3 J. Holland	D. Mayer	J. Holland	PROFI	4:09.88	4:07.29	
4 D. Hull	D. Hull	L. Akre	Nelson FI	4:37.87	4:37.87	



**Doug Mayer poses with the remains of Don Burke's SSR entry at the Virgil Wilbur Contest. Hey this thing is still hot!**



## STRANGE HAPPENINGS

**Southwest Rep Ron Duly and Doug Mayer point to Jim Holland's Quickie Rat tank which flew off during a race. It bounced off the chain link fence surrounding the Tether car track only to land on the handrail over 100 feet away.**

## F2C Activities - Dave Rolley

F2C Silencer Rule: (From the minutes from the 2013 Plenary meeting)

4.3.4 Characteristics of a Team Racing Model Aircraft Amend paragraph b) as follows and re-number the subsequent paragraphs:

- b) The maximum exhaust outlet area is 60 mm<sup>2</sup> at the cylinder liner projected exhaust outlet or crankcase exhaust outlet. If a silencer is used the measurement is taken at the exhaust outlet of the silencer. The piston face at the exhaust outlet shall not be visible from the exterior of the model aircraft when side or front exhaust engines are used.
- c) The aircraft shall be fitted with a silencing system, either separate or integral, which reduces the noise by at least 14 dB(A) when tested on a standardised audio noise generator. This silencing system must be able to be connected to the noise generator.
- d) The silencer or exhaust outlet shall have a maximum outlet area of 60mm<sup>2</sup> and shall be outside the aircraft.
- e) The entire silencer system must be gas tight between the crankcase outlet and the silencer outlet.
- f) The silencer system shall be checked in accordance with the procedure in Annex 4M
- g) A test of the gas tight fitting of the engine and the exhaust system shall be conducted as a random check in the line check area during warm-up as follows: when the gas outlet of the silencer on a running engine is shut off with a finger or plug, the engine should stop immediately.

This rule is currently scheduled to go into effect in 2015. Overall the international F2C community has responded negatively to this rule. Many nations, including the USA, have expressed their displeasure to the CIAM and requested

that the CIAM vacate this rule. The letter I sent to the CIAM is later in this newsletter.

This summer modelers in the Ukraine experimented with limiting the venturi diameter to 3mm. The goal of this exercise was two-fold. Without assigning a priority to the goals, there was a desire to make the event more accessible by slowing the models and there was a desire to reduce the engine noise without resorting to silencers. Both of the goals appear to have been achieved. (See the description in Melvin's column). As a result, at least two proposals restricting venturi diameter have been submitted to the CIAM. One by the USA and one by Italy. The text of the USA proposal is included below.

The FAI rules process is very different from the methods used by the AMA. It is very important to present the proposal in person within the F2 (Control line) Technical Subcommittee and to personally lobby the voting members of the CIAM. The disposition of the silencer rule issue and the proposals offering an alternative approach to the silencer rule may well determine if there is a F2C event in the future. The AMA has determined to limit its financial outlay for all things to do with the FAI. This affects all events, not just the F2 events. Please consider supporting the NCLRA contribution toward the travel expenses of the USA F2 Technical Subcommittee member to the April 2014 meeting.

To: Antonis Papadopoulos: CIAM President  
Gerhard Wobbeking: 1st vice President, CIAM Bureau  
Kevin Dodd: CIAM 2nd Vice President  
Andras Ree: Treasurer, CIAM Bureau  
Bengt Olof Samuelsson: Chairman C/L technical committee  
Massimo Semoli: Secretary  
Jo Halman: Technical Secretary  
Subject: USA F2C Community Position on the F2C silencer rule

Lady and Gentlemen,

This letter is to inform you of the consensus of opinion of the current F2C competitors in the United States of America concerning the F2C silencer rule.

We cannot support the recently approved silencer rule together with its compliance-testing document. We firmly believe that these changes are overly complex and do not have the support of the vast majority of worldwide competitors.

We have decided to introduce domestic rules that will allow us to continue flying F2C competitions with our existing models, both in the USA and abroad with any other nation that does the same. The only difference between our rules and the 2015 CIAM approved rules will be that silencers will not be mandatory.

Even at this late stage, we respectfully request that you reconsider whether the interests of F2C are being best served with the introduction of these particular rules.

You have received rules change proposals from the United States and Italy that deal with this issue. We believe they represent a viable alternative to the current F2C silencer rule. We request the Bureau accept these proposals and that they be placed on the Plenary agenda for consideration next April.

Respectfully,  
David Rolley  
United States Academy of Model Aeronautics

Chairman, F2C Team Selection Committee

Don Burke  
Stewart Willoughby  
Walt Perkins  
Bill Lee  
Anton Wittkamp  
Antonio Livaudais  
Bob Heywood  
Jim Ricketts  
Mike Hazel  
Dale Gleason  
Bruce L VanHoozen  
David Fischer  
David Rolley, Jr.  
Jim Bradley  
John E. Holliday  
Frank Williams  
Jed W. Kusik  
Melvin Schuette  
Michael Greb  
Adrian Land  
Bill Bischoff  
Steve Wilk  
Lynn Boss  
James M. Gall

**Proposal submitted by:** USA

**Sporting Code Volume:** F2

**Heading of section:** *Control Line Model Aircraft*

**Class:** F2C

**Number & heading of the paragraph:** 4.3.4b through g (As listed in the Plenary minutes of 2013, Pg 33-34) and Annex 4M as defined in the Plenary Minutes

**Page number if appropriate:** 37 and 109 of current F2 Sporting code, pages 33-34 of 2013 Plenary

Minutes

**Type the text changes in the space below:**

Change paragraphs b) through f) as defined below and remove Annex 4M

- b) The maximum exhaust outlet area is 60 mm<sup>2</sup> at the cylinder liner projected exhaust outlet or crankcase exhaust outlet. **If a silencer is used the measurement is taken at the exhaust outlet of the silencer. The piston face at the exhaust outlet shall not be visible from the exterior of the model aircraft when side or front exhaust engines are used.**
- e) ~~The aircraft shall be fitted with a silencing system, either separate or integral, which reduces the noise by at least 14 dB(A) when tested on a standardised audio noise generator. This silencing system must be able to be connected to the noise generator.~~

- ~~d) The silencer or exhaust outlet shall have a maximum outlet area of 60mm<sup>2</sup> and shall be outside the aircraft.~~
- ~~e) The entire silencer system must be gas tight between the crankcase outlet and the silencer outlet.~~
- ~~f) The silencer system shall be checked in accordance with the procedure in Annex 4M~~
- c) The air intake venturi shall be circular and shall be no larger than 3mm. This shall be checked during normal model processing and again in technical control as needed. A 3mm go/no-go gauge shall be used. All air for combustion entering the engine shall come through the venturi.**

~~Annex 4M~~ (I.e., delete Annex 4M as defined in the 2013 Plenary Minutes)

**Type out the reasons in the space below:**

It has become quite apparent that imposing a silencer on F2C models will have a serious negative effect on ALL F2C flown WORLD\_WIDE and will benefit only a very few flying sites. The vast majority of sites around the world where F2C is flown are not now nor have been affected by noise issues.

This change should become effective immediately (1/1/2015)

**Type out supporting data for proposed technical amendments in the space below:**

Demonstrations of the proposed change at a World Cup event in the Ukraine during the summer of 2013 showed that the 3mm venturi both slowed the models to a reasonable rotation rate, and correspondingly significantly reduced the sound level from the models. This was obtained with NO modification to the engines or models other than a new venturi. It was also seen that the small venturi resulted in significant range increase and would allow a single-stop 100-lap race unless minimum pit-stop requirements were imposed. (It is suggested that this sort of fine-tuning be requested of the F2 Technical Committee, e.g., a smaller tank size or a minimum number of pit-stops.)

Several nations have indicated they will simply withdraw from international competition rather than impose unneeded silencers on F2C.

Data gathered early in 2013 show that the VAST MAJORITY of F2C flying sites around the WORLD are not now nor have been on danger due to noise constraints. This data may be viewed at

<http://www.wrlee.com/Miscellaneous/FlyingSiteStatus041813.xls>

All current F2C equipment (models and engines) will have to be replaced to remain competitive in order to comply with the silencer requirement. The negative side-affect is that all of this obsolete equipment will no longer be legal for new competitors to buy and use as they enter the sport.

A drastic change such as requiring silencers for F2C will simply force many of our ageing pool of competitors to drop out rather than suffer the horrendous expense of new equipment.

## 2013 Dallas Team Selection Finals – Dave Rolley

A view of the 2013 F2C Team Trails from the greasy end of the lines...

The Denver Team: Lynn Boss, Pilot & Dave Rolley, Mechanic.

Let see, new pilot, 9 engines (in pieces), 5 models (3 unflown), & all the practice being in Denver. Great! What could go wrong? Let's go!

The models included the two models and engines Charlie and I took to the 2009 TT. The other models were Cobra (all carbon) models and the engines were some of our old ones with integral head cylinders and a few I had picked up from eBay for practice engines and parts engines.

Lynn and I had been practicing with the 2009 wooden wing model using an APC 6.5 x 5.0 prop. As you would expect from Lynn, his takeoffs, flying, & landings were very good. It seems like I spent more time working with him on the circle protocols (pit line, segments, & how to get into and out of the pit) than the flying. And that really paid off. Maybe if I had done that with Melvin Schuette or Charlie Johnson they wouldn't have gotten so discouraged in actual racing. Of course, Charlie and I had to learn those things by trial and error. Plus by getting stomped on in Europe. Our (Lynn and I) work on the circle at his house made the transition to 2 up racing much easier for Lynn.

**Planes:**

By the time the contest was over we found out that only 2 of the models were suitable for racing. The 2009 wooden wing model and one of the the Cobra models that was brand new when I bought it were the only ones suitable. The 2009 carbon wing model had some kind of control stiffness in the air and Lynn felt he had no control when it slowed down. One of the Cobra models has a Lerner tank in it that was useless. The model was sold to me as having been used at the 2012 World Championships complete with engine and tank. If that configuration was really used at the 2012 WC, they never got the engine to start. I've talked to John Broadhead (Great Britain) and Grant Potter (Australia). They have given me the information to sort out the tank. The third Cobra had a stripped out engine mounting bolt position. Even though all three Cobra models were Profi engine and tank models, none were ready to use as received and except for the new one, they needed more work than I had time to give them.

Both the 2009 wooden wing model and the one Cobra model we used had their moments. Although the engine went hard quickly (12 - 15 laps), Lynn found himself passing Dave Fischer (Yugov engine model with retractable LG) early in two different races. If I had managed to get the right amount of DII in the fuel for the conditions, things would have been different.



## **Fuel:**

At breakfast on the Saturday morning of the team trials Dick Lambert suggested I needed at least 1.5% DII for the day. Unfortunately with everything else I had on my mind, I didn't really comprehend the information he was passing on to me. Had I followed his suggestion the outcome may have been different. Oh well, live & learn.

Since the team trials I have gone back to my fuel notes and done some further research on Cetane improvers and why we are using them. The bad thing is I had all the information to make the correct decisions. I just didn't have the clear reasoning to correctly apply it in the situation.

I have been fighting engine settings which seemed easy on the ground but consistently went cold in the air and required what seemed like too much compression to get the heat in the air.

Discussions with Lance Smith and Mark Elkins (both from Australia) several years ago led me to believe that I was using too much DII in my fuel (1.5 %). At the 2013 NATS I ran 1.2% with good results and in September I was running 1.0% here in Denver with very good results. That was the fuel mixture I brought to Dallas. (Note: a hot day in Denver results in a density altitude in the 9000' - 10000' MSL range and provides meaningless performance data for the sea level to 3000' MSL density altitude observed at most locations where racing occurs.)

What I forgot was the relationship between DII and air temperature. The racing in Dallas was at roughly 55 degrees F for both days.

The result of this analysis is a wonderful generalization. The lower the temperature the higher the DII concentration required. It looks like something in the range of 1.5% - 1.6% DII would have been about right. BTW, we only talking about 5ml - 6ml more of DII per liter of mixed fuel.

## **Engines:**

This summer, at the NATS I found the cause for the poor engine performance at the 2009 TT. There were two things. First, clearance between the intake rotor and the crankshaft is critical. Second, the rotors are pretty much matched to the backplate. You can't always swap rotors between engines. You need to move the rotor and backplate combination. And then the clearance between the rotor and crankshaft has to be set with backplate gaskets. So on Tuesday night I found out I needed more backplate gaskets. Easy right? Just fire up the mill and make some. It has been 3 years since I used the mill. That took a lot longer than I ever thought it would.

While reassembling the #1 engine a head bolt broke off in the crankcase. Only this time I couldn't get it out. Fortunately I had a spare crankcase. Unfortunately it wasn't one that Greg Settle had reworked ceramic bearings. You don't realize how good Greg's bottom end jobs are until you compare them to a really good crankcase from the factory and realize the good

factory crankcase feels like it has sand and glue in it by comparison.

On Thursday night and Friday morning, while Lynn installed lines and LG in the models, I spent the time cleaning and assembling engines. Lots of carbon to clean off from a lot of running.

The best engine was one of Greg's bottom ends with the arc'd ramp in the rotor. Once I got the rotor clearance set we were getting 17.9/10 in practice. More than fast enough to make the team. It would have been faster with the right DII and wouldn't have gone hard in the race. We ended up with two good engines that we swapped between models to get the setup we needed.

## **Flying:**

Saturday: We didn't get our fuel until Friday night. No flying until Saturday morning. I'm not sure it would have helped to fly on Friday. We went expecting temperatures in the 70s. The reality was temperatures starting in the low to mid 40s. They improved to low 60s by 3pm. But the day's racing was done by 12:30p. It is the coldest conditions I've ever tried to run a diesel in.

Lynn's first race was with Tom Fluker (Tom Fluker/Dick Lambert). His second was with Dave Fischer (Dave Fischer/Steve Wilk). His last race of the day was with Tom again. At the end of the third race Tom told me to give Lynn something faster, that he was ready for it.

Our first race was 4:34 on the 2009 wooden wing model using an APC 6.5 x 5 prop. Second race was a DNF. The engine over heated and I couldn't get it back in the air. However, we came off the ground strong and Lynn was passing Dave until the engine went hard. A big grin on Lynn's face and a surprise for Dave. Third race was 4:12 on the wooden wing model and using a FC-13 x 155mm prop.

We went for lunch and came back to set up one of the Cobra models for the next day. Working through the models and engines to get the right combination of equipment took until late afternoon. But at the end of the effort we had a model running 17.9/10 using a FC-13 x 155mm prop. We were getting 1 flip starts and 1 flip pits. Lynn was adjusting to the Cobra model and handling it well. BTW the wood wing model has 3 quarters for tip weight (leftover from Melvin's and Charlie Johnson's try as a pilot) and the Cobra has no tip weight. The Cobra also is not as forgiving in the air as the wooden wing model. Lynn did a very good job in the transition between the models.

Saturday:  
Heat 1: 4:34  
Heat 2: DNF (30+ laps)  
Heat 3: 4:12

Sunday: The morning temperatures were about the same as Saturday. Maybe a little colder. I had to use the warmup prop to get the engine started. During practice I noticed that even holding back, Lynn couldn't get the engine to warm up. So I added a little compression. Things looked good for our first heat which was also the first heat of the day.

This time Lynn was matched with Patrick Hemple (Patrick Hemple/Bill Lee). We had a little wait after our last flight on the practice circle and going to the circle for our heat. I couldn't get the engine started during the warmup. Never a good sign. When the countdown got to zero I hit the prop and it went through the glove and my finger tip like a hot knife through butter. I kept flipping until the other team got 50 laps. I was flinching each time I hit the prop and could not get any power into the prop. That heat was a DNF.

After the race it was off to patch up my finger and glove. It wasn't a "stitches needed" kind of cut. Just hurt like all get out and bled like a stuck pig. Got the bleeding stopped and the blood out of the glove (made the inside of the glove slippery). With a Band-aid on my finger and electrical tape wrapped on the glove it was back to the practice circle. Other than needing the warmup prop again, everything was back to where it needed to be. For the second heat I ran the engine until we went to the ready area. They were processing us so fast and going straight to the circle that I wasn't getting the runtime in the processing area that I'm accustomed to.

The second heat once again had Lynn matched with Dave Fischer. We were off like gangbusters and again the engine went hard. Lynn brought it in for adjustment and we were back in the air in short order. Only something had changed. The model really slowed down. The engine sounded a little hard but was stable so I let Lynn keep it in the air until the next pit. When I grabbed the model I saw the problem. The cowling was gone! That heat was a DQ. The aft fuselage is open on the Cobra models so it acted like a big parachute. I figure the model was fast enough to cool the engine with the cowling gone even with the much heavier load. So we had a DNF for that heat and we were out of the running for a team slot. The cowling was on the ground behind me. I didn't see it come off and I don't know if it landed there or someone saw it come off, retrieved it, and placed it there for me.

We withdrew for our 3rd heat and that left 1 heat in the Team Trials for the third slot. Neither of those teams hit the performance level required for the third slot.

Sunday:

Heat 1: DNF (0 laps)  
Heat 2: DQ (30+ laps)  
Heat 3: WD

Overall:

I'm disappointed we didn't make the team. I think if I had correctly handled the fuel we would have made the team. Like every TT I've attended I've learned something that will make a difference in the future.

I'm very pleased with Lynn's performance as my pilot. He did very well and drew compliments from Fluker/Lambert and Fischer/Wilk as well as the jury. I really hope he wants to continue with this.

It really was a good weekend!

## **F2C Team Trials Results – Dave Rolley, Chairman, AMA F2C Team Selection Committee**

Contest Date: October 19 – 20, 2013

Hosted by: Dallas Model Aircraft Association (DMAA)

Location: Dallas Hobby Park, Dallas TX

Contest Director: Dave McDonald

FAI Jurist: Dr. Laird Jackson

Required Performance to make the USA 2014 World  
Championship Team:

Average of fastest 3 times

Average faster than 3:40

USA 2014 World Championship Team:

Tom Fluker / Dick Lambert

Dave Fischer / Steve Wilk

The conditions were as difficult as you could imagine. Cold temperatures, medium humidity, and a light to medium breeze. Both days were in the 40s at 9am.

The teams that qualified for the 2014 World Championship Team earned their positions!

The best thing about this Team Trials was the participation. This includes the contest organizers and the contestants.

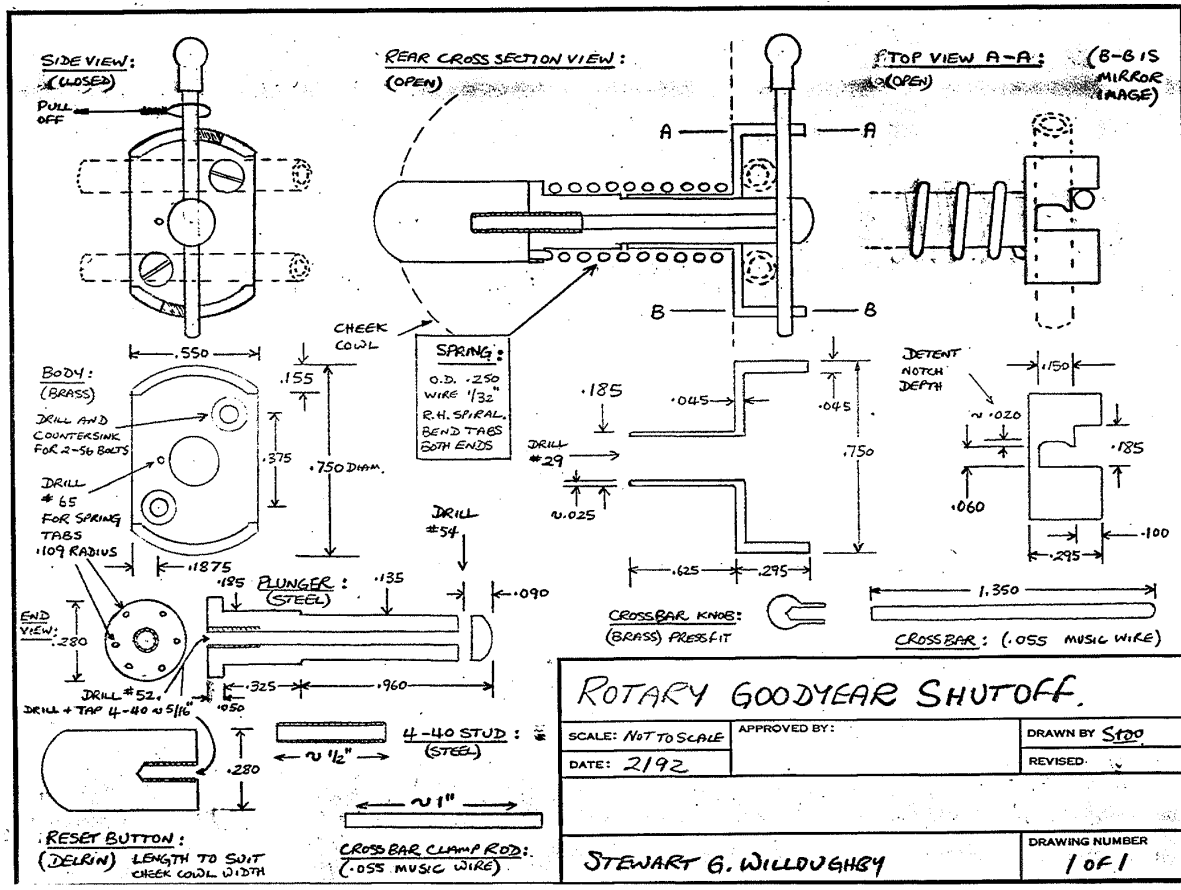
With the cancellation of the Blue Grass F2A / F2C World Cup contest and the loss of the support infrastructure for the Team Trials, the DMAA members stepped up to host Team Trials. We drew 6 teams that were serious about making the team and an additional 4 teams that came to the TT to support the F2C Team program in the USA. I don't think that has ever happened before. There were 10 teams total entered.

The result of the effort by all these folks means that the USA F2C team will have the opportunity to compete at the WC in 2014, 2016, & 2018. In addition, the number of teams that participated was enough to ensure some AMA funding for team expenses for those WC.

Thank you to all participants.

Results F2C Team Trials October 19-20, 2013

Team Pilot/Mechanic	Round 1	Round 2	Round 3	Round 4	Round 5	Round 6	Final Avg.	Place
Fluker/Lambert	03:26.8	03:17.3	03:17.4	03:13.7	03:21.1	WD	03:15.5	1
Fischer/Wilk	03:28.7	03:24.5	03:20.6	03:44.7	03:28.9	WD	03:24.8	2
Hemple/Lee	DQ	19 laps	03:53.5	03:55.6	35 laps	03:45.7	03:51.8	3
Brozo/Wallick	03:46.6	04:01.5	05:03.0	04:14.6	05:02.1	04:09.4	03:59.2	4
Bischoff/Greb		04:43.0	04:14.0	04:23.7	30 laps	WD	04:26.9	5
Boss/Rolley	04:34.7	DNF	04:12.8	DNS	51 laps	WD		
Green/McDonald	04:00.1	03:50.6	32 laps	WD	WD	WD		
Lester/Allen	03:57.8	66 laps	04:02.3	WD	WD	WD		
Johnson/Fluker	68 laps	03:58.2	04:10.4	WD	WD	WD		
Jackson/Andrews	05:30.5	35 laps	DNS	WD	WD	WD		



## CONTEST CALENDAR

**NOTE! Confirm all contest details with Contest Director!**

**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**

None

### **NORTHWEST DISTRICT**

None

### **MIDWEST DISTRICT**

None

### **SOUTHEAST DISTRICT**

None

### **SOUTH CENTRAL DISTRICT**

None

### **SOUTHWEST DISTRICT**

#### **December 7-8 Toys For Tots Speed & Racing**

All Speed events including electric, 301-310, 606-607, Perky, NASS Sport Jet & C-Speed

Racing Sunday only, events include: SCAR Goodyear, Super Slow Rat/Fox Race,

Musciano Log Racing & Quickie Rat

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

Racing & CD: Jed Kusik 714-669-0205

Speed ED: Volunteer

## **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) 3:16.47 Lambert/Fluker 7/07/09

(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**

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**

Op (7 ½ Min.) 167 Laps Les Akre/ Dave Hull 07/05/11

Op (15 Min.) 344 Laps Les Akre/Andrew Robinson  
07/14/10

### **NCLRA TEXAS QUICKIE RAT**

Op (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



**Miss Cosmic Wind, one of the many race airplanes on display at the Planes Of Fame Museum in Chino Ca.**

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Should the NCLRA Donated money to help pay the expenses of sending a US representative to the FAI Technical Meeting in Poland in 2014?

Yes \_\_\_\_\_ No \_\_\_\_\_

If Yes how much should the NCLRA donate?

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