CONTROL LINE
COMPETITION NEWSLETTER

RACING - SPEED - COMBAT - STUNT - CARRIER DECEMBER 2019

HOUSTON AIR-TO-AIR COMBAT: LESTER HAURY 1ST, MIKE GREB 2ND, JIM PLAKE 3RD STEVE BLACKWELL 4TH, AND JEFF GITCHEL 5TH SEASON RESULTS IN THIS ISSUE.

MACA OVERALL TOP TWENTY FOR 2019 PLUS TOP TWENTY IN F2D, 1/2A, SPEED LIMIT, AND FAST COMBAT.

ENGINES AND EQUIPMENT FOR SALE. YOU CAN ALWAYS USE MORE STUFF!

THE BREATHING CRANKCASE HAS THE 3MM F2C VENTURI CORRUPTED OTHER EVENTS? IT'S POSSIBLE, NOT LIKELY, GOOD HEADLINE THOUGH.

THE CHEATER'S COOKBOOK UNCOVERS SOME NOVEL WAYS TO EXPLOIT GRAY AREAS IN THE RULES OR JUST BLATANT CHEATING. GREAT FUN.

CONTEST CALENDAR MMXX

January 25-26	SW Regionals Tucson, Arizona
February 8	Roseburg, Oregon Four fun fly events See flyer
March 10-14	Vintage Stunt Championships XXXII Tucson, Arizona
March 20-22	Tucson F2d Top Gun
April 4-5	Gold Country Combat Duel 1/2A, 80mph, 15 Fast See flyer
May 16-17	Detroit, Michegan Combat, Carrier, and Racing
May 21-24	Karlskoga World Cup Speed, Stunt, and Combat
May 22-24	Northwest C/L Regionals AAA Roseburg, Oregon
June 13-14	Kansas City F2d KCRC Field
July 7-15	The First West Wyalong National Championships Australia
July 11-19	AMA Nationals Muncie, Indiana
August 7-16	World Cup & World Championship Wloclawek, Poland
August 22-23	FCM 21st Annual Stunt Championships Muncie
September 3-6	Italy & Great Britain World Cups See flyer
September 5-6	James Mears Memorial Combat Bash Air-To-Air and Nostalgia Combat
September 12-13	Michegan State Championships Combat, Carrier, and Racing
September 24-27	Canada and USA F2A World Cup events St. Louis, Missouri

Before you set out on a cross-country trek check with the CD or ED to confirm contest dates.

Link to F2 World Cup Events: http://www.fai.org/world-cups/f2-control-line
Link to Weather Underground: http://www.wunderground.com/
Link to Flying Lines: www.flyinglines.org

HOBBY SUPPLIERS

Vintage Performance Model Airplanes: Quality kits produced by Stan Fronabarger. Precision laser cut, rave reviews, look at the MACA Facebook page. Stan's website: **www.vintageperformancemodelairplanes.com**

CFC Graphics: Graphics for your Air-To-Air Combat model, Racer, etc.
http://www.cfcgraphics.com

Partner Productions: Current & Vintage Speed Plane plans. Box 205 Maple Ridge, BC V2X – 7G1 Canada 604-612-4060 cpartner@telus.net Chris Sackett

Eichenberger Products: Carbon Fibre and Composite Epoxy/Glass props for Speed and Racing. Carbon tops for 21-40's and more. Steve Eichenberger 480-730-0016
seichenberger@cox.net

Old Magazine Plans On CD: **e-mail Tom Wilk at:** tawilk636@live.com
If he doesn't have it, you probably don't need it.

Eliminator Props: http://eliminatorprops.com/store/

BMJR Models: Freeflight, R/C, Control Line and Accessories. www.bmjrmodels.com

Mike's Racing Products: See June 2012 S.C.A.R. Newsletter
http://controlline.org.uk/phpBB2/files/mikenorthlist_209_423.pdf

OPS Engines America: Bill Hughes williamhughes4@att.net
Engines/Parts Prices start at around $150.

Core House: http://home.earthlink.net/~philcartier/webcat/catalog.html
Kits, cores, SLC covering material

Marc Warwashana: Don's wheels, fastfills, etc. whellieman@gmail.com

Pat King's website: www.pdkllc.com Mockingbird Slow Rat and more.

Brodak Manufacturing: http://www.brodak.com

Douglas Mayer Model Airplane Plans: Multiple Goodyear plans, Turbo Mouse I, Alley Rat II Quickie Rat. All plans FREE as a PDF, $15.00 for hard copies.
Douglas Mayer **Douglasmayer58@gmail.com** 310-463-0525

Adriano Molteni: Ultra high quality flying lines, Nelson style plug, F2d models, props and mounts. adrieanto@gmail.com

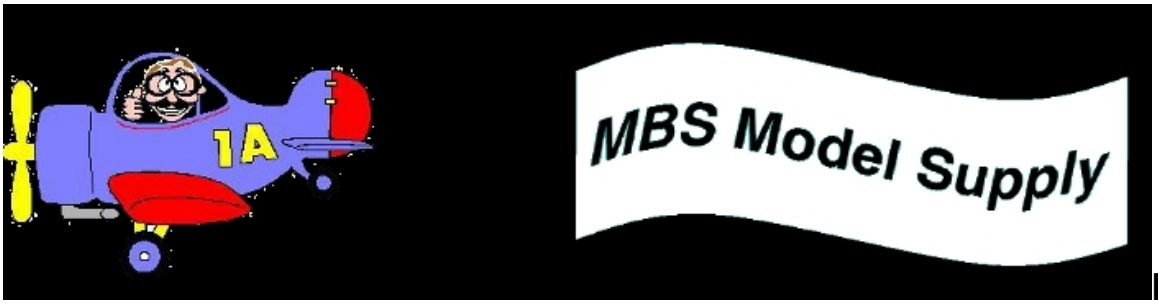
The Craftsman: Stunt and Racing Engine Tuning (OS, S.T., Fox, K&B, Cox) Custom Kit Building - Ready to cover. Contact: **Jed Kusik** jedeeflyer@aol.com

Doctor Diesel (Eric Clutton) P.A.W. Diesels: www.cafes.net/doctordiesel
doctordiesel@cafes.net

Engine Gaskets: ICBIMproducts.com Laser cut gaskets for current and Vintage engines.
Larry Berman – Owner **lounlou@aol.com**

Sportsman Goodyear: Parts and accessories including venturis and needle valve assemblies for the Magnum/ASP 15, landing gear, and fuel tanks. **billbisch@hotmail.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 **zzclspeed@aol.com**



MBS Model Supply
P.O. Box 240 Auburn, KS 66402-0282 **http://mbsmodelsupply.com/**
Phone: After 5:00p.m. Central time or weekends only (785) 256-2583 Cell: (785) 221-7042
The ASP 15 with proper venturi is now available from MBS Model Supply for $80.00.

TCA Racing Accessories **http://www.tca-srl.it/Home/SITO/index.html** High tech Italian glowplugs, click on the Blue Line (Nelson and GloBee styles).
E-mail for info: **Antonio.Giandrini@gmail.com** or **Adriento@gmail.com**

Robin's View Productions: Foam wings, cores and Lost-Foam building fixtures for built-up wings. Nifty electric motor mount called the Hardnose Mount also available. PDF building manuals available for free! Just e-mail your request to Bob Hunt. **robinhunt@rcn.com**

Walt Ghio: Nelson plugs, fuel tubing, bladder material. f1bwalt@comcast.net

Lee Machine Shop: Syringes, venturi selection for many engines, prop bushings, motor mount drill guides, etc. **http://www.leemachineshop.com/** **sales@LeeMachineShop.com**
827 SE 43rd Street Topeka, Kansas 66609 785-266-7714

Planet Hobby: NovaRossi aircraft engines are the world's standard for power, performance, and reliability. Phone: 901-755-1536 Web address: **www.PlanetHobby.com**

Fuel Shutoffs: Dale Long: **DirtyDshutoffs@dslextreme.com** Guaranteed to work! USA only.

Enya U.S. Engines+Parts: Complete Enya parts inventory. We specialize in C/L parts. Call or e-mail for your needs. Shipping worldwide. **Http://stores.ebay.com/thecontrol-linestore**
Bob Brooks 954-234-0863 **shtterman@aol.com**

Microfasteners: Hobby enthusiasts of all types trust MicroFasteners for all of their hardware needs. **www.microfasteners.com** **info@microfasteners.com** 1-800-892-6917 610-438-6177 Kathy Bechtel – Owner

Streamer Shuttle: **http://streamershuttle.blogspot.com**

Eugene Toy & Hobby: Control Line supplies, UPS daily
www.eugenetoyandhobby.com
(541) 344-2117

TYMME: Custom-made venturis and mufflers Scott Riese (503) 246-4631
Riese5080@comcast.com

Membership For Everyone

National Control Line Racing Association: **http://www.nclra.org/**
Membership is now FREE! Go to the NCLRA website and click on the **Join or Renew** tab. Members, as well as Non-members, can view all the electronic newsletters from October 2002 through the most recent (January 2019 as of this posting). A paper copy of the newsletter will incur a $10.00 fee. NCLRA President Bill Bischoff has added NCLRA to the Vendor's Corner on Stunt Hangar, here's the link: **http://stunthanger.com/smf/nclra/**

Navy Carrier Society: **http://www.navycarriersociety.org/joinNCS.aspx**
Electronic Membership for 2019 is FREE! Printed newsletter is $10.00.

North American Speed Society: **http://clspeed.com/membership**
https://www.facebook.com/groups/107346039286541/about/ Membership is $35 for USA and Canadian residents, and $45 international. A special membership with a digital only newsletter is available for only $20.00. PayPal OK

Combat Flyers Association Vintage and F2d Combat in the UK.
http://combatflyers.co.uk

Contact: Admin@combatflyers.co.uk

The latest three issues of their newsletter can be found on Flying Lines: http://www.flyinglines.org/competition.newsletter.html

MACA Miniature Aircraft Combat Association: MACA doesn't have a newsletter anymore but you can get current contest results, new products, and comments from members on their Facebook page: **https://www.facebook.com/groups/107346039286541/**

Academy of Model Aeronautics
http://www.modelaircraft.org/ If your permanent residence is outside the USA and you want to compete in AMA sanctioned contest be sure to check out Affiliate Membership.

PAMPA Precision Aerobatics Model Pilots Association
http://www.pampacl.org/ Digital Membership $28.00
Print $53.00 USA Print Canada & Mexico $63.00
Print International $88.00

Adrian Duncan's website: There's no membership fee but you'll feel like a real *insider* after looking at this site for a couple days. Basically, it's the history of model aviation in one spot. http://adriansmodelaeroengines.com

MACA TOP TWENTY FOR 2019

Overall Top Twenty pilots after 60 events

1.	Jeff Rein	1215 points
2.	Russ Wilcox	1117
3.	Chuck Rudner	1030
4.	Bob Mears	952
5.	Richard Stubblefield	905
6.	Jeff Johnson	738
7.	Don Jensen	681
8.	Greg Machen	637
9.	Bill Maywald	615
10.	Chris Collins	604
11.	Neil Simpson	539
12.	Andy Mears	528
13.	Mike Alurac	485
14.	Dave Fischer	395
15.	Buzz Wilson	363
16.	Andy Minor	359
17.	Austin Minor	335
18.	Greg Wornell	264
19.	Cary Minor	251
20.	Don Repp	242

1/2A Combat Top Twenty

1.	Jeff Rein	439
2.	Russ Wilcox	309
3.	Don Jensen	214
4.	Chuck Rudner	151
5.	Buzz Wilson	138
6.	Chris collins	127
7.	Greg Machen	121
8.	Mike Alurac	92
9.	John Knoppi	85
10.	Neil Simpson	81
11.	Gene Pape	79
12.	Lee Letchworth	71
13.	Don Repp	64
14.	Jeff Johnson	42
15.	Richard Stubblefield	39
16.	Robert Smith	37
17.	Bill Maywald	28
18.	Chris Gay	27
19.	Craig Campbell	27
20.	Rylan Ritch	27

F2d Combat Top Twenty

1.	Chuck Rudner	392
2.	Richard Stubblefield	376
3.	Bob Mears	331
4.	Austin Minor	298
5.	Russ Wilcox	298
6.	Jeff Johnson	280
7.	Greg Wornell	252
8.	Andy Minor	244
9.	Bill Maywald	225
10.	Dave Fischer	221
11.	Michael Willcox	206
12.	Andrey Nadein	197
13.	Mark Rudner	196
14.	Cary Minor	190
15.	Andy Mears	174
16.	Alexander Prokofiev	168
17.	Allen Deveuve	155
18.	Jeff Rein	147
19.	Don Jensen	147
20.	Rylan Ritch	143

Miniature Aircraft Combat Association Top Twenty

Fast Combat Top Twenty

1.	Jeff Rein	367
2.	Jeff Johnson	259
3.	Greg Machen	257
4.	Richard Stubblefield	236
5.	Mike Alurac	234
6.	Russ Wilcox	230
7.	Don Jensen	225
8.	Chuck Rudner	218
9.	Bob Mears	213
10.	Chris Collins	203
11.	Neil Simpson	202
12.	Bill Maywald	187
13.	Buzz Wilson	133
14.	Dave Fischer	126
15.	Andy Minor	91
16.	Don Repp	71
17.	John Knoppi	68
18.	Lee Letchworth	66
19.	Andy Mears	60
20.	Gene Pape	49

Speed Limit Combat Top Twenty

1.	Bob Mears	396
2.	Andy Mears	294
3.	Russ Wilcox	280
4.	Chuck Rudner	269
5.	Jeff Rein	262
6.	Neil Simpson	256
7.	Richard Stubblefield	254
8.	Chris Collins	199
9.	Bill Maywald	175
10.	Greg Machen	169
11.	Jeff Johnson	157
12.	Don Jensen	95
13.	Mike Alurac	93
14.	Buzz Wilson	92
15.	Don Repp	90
16.	Roy Glenn	55
17.	Robert Smith	54
18.	Lee Letchworth	50
19.	Dave Fischer	48
20.	Gene Pape	43

Air-To-Air Combat Series 2019

Air to Air Combat Series 2019

	Pilot	Feb 17 Garland*	April 27 Garland*	9/21 GSW Fort Worth	10/12 Garland*	12/7 Scobee	Totals
		* AMA Sanctioned	* AMA Sanctioned		* AMA Sanctioned		
1	Andy Mears	2306	2970	2884			8160
2	Jim Plake		1171	1960	2792	1838	7761
3	Steve Blackwell	1988	1096	1521	1567	1570	7742
4	Bob Mears	2665	2025	2811			7501
5	Richard Stubblefield	2548		2049		788	5385
6	Jeff Gitchel	1453	1166		1535	1196	5350
7	Allen DeVeuve	1003	2882				3885
8	Mike Greb			1672		1993	3665
9	Chris Hess	1683		1800			3483
10	Malcolm Davis		2509				2509
11	Prenice Hill	2437					2437
12	Jeff Johnson		2190				2190
13	Gary James	1250					1250
Organizer	Lester Haury	2144	2438	2246	2365	2580	11773

Northwest Competitor of the Year
*** RUSS HESTER ***

Russ signals for a launch at the 2019 Fall Follies in Salem, Oregon. Russ and Greg Machen (6th in standings) during a match. Russ debriefs with Gene Pape (9th). It must have gone well for Russ.

It seems just the other day when Russ was a teenager flying combat at Vacation Isle in San Diego. He's now living in Florence, Oregon and captured the Northwest 2019 Competitor of the Year crown scoring points flying both Combat and Racing.

The annual Competitor of the Year title recognizes the flier who scored the most points in Northwest control-line competition standings as compiled by *Flying Lines*.

Second place in the 2019 standings went to Chris Cox of Delta, B.C. who scored all his points in Precision Aerobatics. It was Cox's seventh appearance in the top three. Third place was a three-way tie between Paul Walker of Deer Park, Washington, Howard Rush of Olympia, Washington and John Thompson of Eugene, Oregon. Paul and Howard earned all their points in Precision Aerobatics. John scored points in both Combat and Racing.

The Northwest Competitor of the Year started in 1980 with John Thompson topping the list. There is a gap during 1989-1990 when Flying Lines wasn't published. A full report can be found on the Flying Lines website: **www.flyinglines.org**

UK Vintage Combat Calendar 2020

admin@combatflyers.co.uk

- Sat/Sun 14th/15th March - Buckminster (F2D/F2E/Vintage)
- Sat/Sun 25th/26th April - Buckminster (F2D/F2E/Vintage)
- Sunday 10th May - Old Warden (Vintage)
- Fri/Sat/Sun 29th/30th/31st May - Buckminster F2D Training with Audrius Rastenis
- Sat/Sun 30th/31st May - Buckminster (F2D/F2E/Vintage)
- 14th June - Bristol Gala (Vintage)
- Fri/Sat/Sun 19th/20th/21st June - Weston Park (Demo/Show)
- Sunday 26th July - Old Warden (Jack Marsh Oliver)
- Sat/Sun 8th/9th August - Buckminster (F2D/F2E/Vintage)
- 29th/30th/31st August - BMFA Nationals Barkston Heath (TBC) (All Classes)
- Sat/Sun 12th/13th September - Buckminster (F2D/F2E/Vintage)
- Sunday 20th September - Old Warden (John Oliver Trophy)
- Sat/Sun 10th/11th Oct - Buckminster (F2D/F2E/Vintage)
- Sat/Sun 24th/25th Oct - Buckminster - Combat Reserve Date

Notes :- All dates are provisional. Saturdays at Buckminster are practise and competitions days for F2D & F2E. There should also be the opportunity for vintage practise as well. There will be a charge of £8 per flyer (unless you are a season ticket holder, then no charge) for the day, payable to the BMFA. Fees for CFA competitions remain at £15, this will include the £8 to go to the BMFA at Buckminster competitions.

What do you do with a couple dozen plugs that instantly blow their seal? The price was good but the Fireball plugs turned out to be *old stock* rather than a new improved product. There was a epoxy we used in the early 70's that cured the blown seals but nobody could remember what we used. Regular JB Weld lasted until the engine warmed up, and then....poof! The High Heat JB Weld is supposed to be good for 450F. To use the JB Weld you cut off a portion and knead with your fingers. It's very stiff and stirring with a stick is out of the question. Wash your hands thoroughly after mixing. Probably someone with more patience could do a better job of applying the goo but it isn't very user friendly when trying to put it on a small object like a glow plug. Repairing an exhaust header might be simpler. Well, does it work? Tentatively, the answer is yes..... if some runs on the test bench qualify. If the fix holds up the next step will be to see if the plugs with blown seal can be permanently repaired.

The Profile Team Race event, F2CN, had nearly vanished in the USA but recently there has been renewed interest. The **HAWK**, as shown above, is a recent example of a high quality offering for the class and it could also be used in F2C too. The engine is made by Vladimir Sosnovsky with a conventional removable sleeve (AAC) and the rear bearing fixed to the crankshaft with a threaded ring. The front bearing is also locked in place by a reverse thread ring. Heat is required to remove the front bearing as well as to remove the crankshaft/bearing from the crankcase. The conventional thread ring holding the bearing and crankshaft together is fixed with Loctite 270, so more heat is required to separate the two (120-195F). The rotary

valve has four holes for connection to the crankshaft which allows the venturi to be oriented in any direction, just be sure the valve opens as the piston goes up. You can view this engine as well as other items at: **www.control-line.eu** or e-mail questions: **ext2cl@gmail**

Breathing Crankcases: The *3mm safety venturi* did serve to slow down F2C models but there was an unintended consequence. Some of the teams were able to get over 50 laps per tank and thus eliminate one pit stop in the 100 lap heat and semi races. After the World Championship in Perth the rules were modified to require two pitstops. Thanks to the 3mm venturi most teams had little trouble making 33 laps per tank and the real bonus was that pit stops were more spread out and there weren't three models coming in at the same time. A little bit of speed also crept back in. The fast guys were so close in speed it was like watching a NASCAR restrictor plate race. The speed differential wasn't great enough to allow a pass according to the rules. That 3mm venturi was a real headache and rules prevented sub piston induction, so where else can a whiff of air come in? Enter the breathing crankcase where a passage goes from the front bearing to some sort of controling valve at the rear of the crankshaft (beyond the Editor's comprehension). A committee studied the possibility and has come up with a recommended way to test for such engineered leakage.

The *breath of fresh ai*r through the front bearing is much easier with a F2d engine (4mm venturi restriction) because this passage can just dump in with the normal airflow which is timed by the cut out in the crank. And there's the problem of corrupting some of our Racing events that state a maximum size venturi (Quickie Rat and Sport Goodyear).

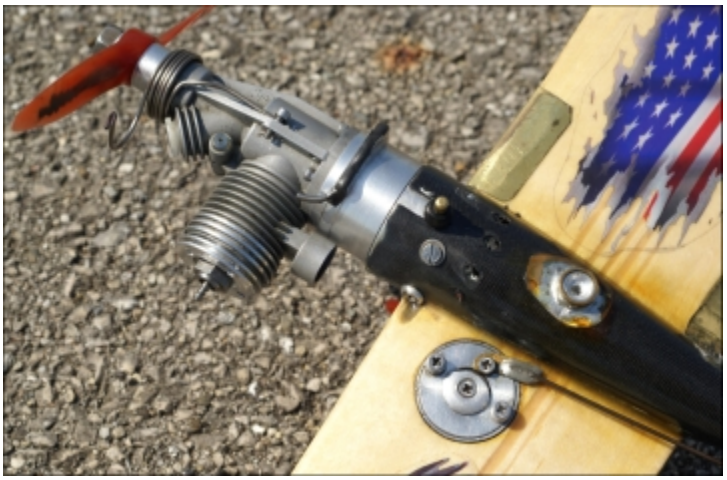
OK, so it's not likely that any F2C teams have actually used this and even more unlikely that anyone flying our sporting events would bother, but they could. Read the next section about cheaters.

The Cheaters Cookbook: Cheating is really bad sportsmanship but sometimes it can be interesting, especially the failures. Toward the top of the failure column was the guy who showed up with an HP 40 in his fast combat model. A 36 is the maximum size engine allowed but this contestant de-stroked his engine to a 36 by using a *short rod.* Don't send e-mails, we know that displacement is determined by bore/stroke. This was the most miserable running HP 40 we'd ever seen, so we just let him fly it. Did he actually put in a shorter rod? Imagine the intake/exhaust timing, and the compression, maybe 5:1. This guy did get the last laugh when a couple years later he admitted that the Slow Combat model he also flew that day actually had a pacifier hidden in his fake fuel tank.

Some tricks are well known, like dropping in a Fox 40 liner and piston into your 36 or adding the stuffer backplate and special head to your supposedly stock Fox 35 stunt. Using high nitro fuel in place of the mandated 10% is so easy. One high level F2d competitor in Europe was suspected of using his own high nitro fuel. The officials would provide him with his *new fuel* as

he was preparing his models in the flight circle.

Exploiting gray areas in the rules has been great fun for some modelers. The simple rules for Mouse Race require a reed valve 049 engine with integral tank. That's nice, but why use a Cox engine when a Cyclon is so much better? Even the best Cox engine men have trouble with the frustrating little monsters. Using SIG 35% nitro fuel solves a lot of the problems but the engine draws air and debris through a passage on the bottom rear of the tank and often causes problems with the reed working properly (or at all). Just when you think you've got everything sorted and you're blazing around you'll have the rod or crank break. It's possible to solve every problem with the Cox, John McCollum recently showed everyone how it's done at the Dallas Fall Finalé.....but that's John.



Here it is, reed valve with an integral tank, and there's even a spring starter. Fast fill and hot glove contacts too, and a real engine! Wayne Trivin and Bob Whitney produced a few of these world beaters but they were too fast for their own good. A few examples are still around, this one belongs to Les Akre, Jim Holland also has one but he's back in the UK. Some of the California contests were **Cox Only**, there was sort of a gentleman's agreement that left the engines in the workshop. None of the engine makers (Cyclon, Fora, etc.) seem interested in producing a reed valve 049. Making something that might be banned doesn't make good economic sense.

Now, back to actual cheating. If you have an interesting tale, please send it to the Editor and it will be published in the next newsletter, anonymously of course.

Something to do on a rainy day. Dale Long sent me some prints from the recent contest at Whittier Narrows. Years ago I'd made a slide copier using an old Spiratone copier from back in the film camera era. I cut off the end and used some JB Weld to attach a simple adapter to my Sony digital camera. They're made for just about any brand camera and their intended use is to allow you to use your old film camera lenses on your new digital pride and joy. This simple adapter doesn't allow your camera to focus at infinity but they do make adapters with an auxillary lens but the quality reminds me of taking a picture through a shower curtain. Anyway, I didn't use this setup, I had an actual print, so I just scanned it on my HP all-in-one printer. This is a pretty old scanner, you probably have something that works a lot better. I tried both high and low resolution but it didn't seem to make any difference. The digital copy seemed to have a lot of flakes on it, so I cleaned the scanner and dusted off the picture. Apparently the light from the scanner reflects off the textured surface

of the print. You may think the print is very smooth but the scanner doesn't see it that way. That's Bob Kerrr, His Editorship, and Paul Gibeault in the picture.

So, armed with the slide copier and the scanner I'm able to easily digitize old pictures and slides I have packed away. Lately, more and more people have been posting these old pictures on various Facebook pages, I guess they're a few steps ahead of the Editor. Oh well....something to do on a rare rainy day in Southern California. I'm awaiting your pictures.

July 11-12	Full F2d Combat (Open Entry)
July 13	F2d Fast Combat
July 14	Slow Combat
July 15	1/2A Combat
July 16	36 Fast Combat

Friday	July 17	Scale processing and static judging
Saturday	July 18	Flying and banquet
Sunday	July 19	Flying and awards

Other event schedules will be listed when they become official, but should be similar to 2019.

For sale: Wiley 36 *Nelson Clone Version* $300.00 Absolute collector item.

Contact Bob Burch at: **rburch4458@sbcglobal.net**
Please don't buy this engine if you plan to *flip it* on eBay for a quick profit. --*Ed*

K&B 40 NCLRA Quickie Rat engines: Bob Christ has a half dozen of these engines built by Vic Garner for sale at $75.00 each. Vic used a special metal for the ring and they're set up with near zero end gap, so they require quite a bit of break-in time to seat properly. Run the engine too hard too soon and you can expect disaster. I assume these engines have the old .312 bore venturi, a current-rules .292 venturi is available from Lee Machine shop: **http://www.leemachineshop.com** Don't toss out the old venturi since it fits not only K&B engines but works perfectly in an HP 40 too.
Contact Bob Christ at: **azpropnut@aol.com**

There used to be an ad for Ritch's Brew in the vendor section but it went missing sometime in the past. It'll be back in place in the next newsletter. Ritch's Brew is the official fuel for many National events that require a *spec fuel* (like Combat and Racing). Check out the Ritch's Brew site at: **www.ritchsbrew.com**

If you've ordered fuel from one of the mail order sites you probably have run into the problem of having extra fees added to anything in a larger container than a quart. Four quarts in a box is fine but a gallon container isn't. I've received several 65-70 gallon pallets from Ritch's Brew that were shipped by UPS Freight. The first couple batches were in five gallon containers that had a very handy spigot. This works perfectly for events like Racing where contestants fill bottles they use for refueling during pitstops. Gallon sizes are handy for events where contestants will draw fuel with a syringe or fuel bulb from a lid that's equipped with vent/pickup fittings. Shipments using UPS Freight come in a big truck, so if you live on a narrow, long easement (like me) you'll want to have the fuel held for you at the local UPS Freight depot. I just go pick up the fuel and leave the pallet for them to deal with. I didn't see the latest F2d 5% nitro and 15% oil on the site when I looked, e-mail or phone to get it what you need.

You might have some of the *old spec fuel* in the garage that you want to blend into the current fuel. You'll probably have to go to the local chemical shop for methanol but Maxima's Castor 927 is available in most motorcycle shops as well as Klotz synthetic. My local shop has a twice yearly sale where the Castor 927 is actually cheaper than AA castor. Use your high school algebra to calculate how much oil and alcohol you'll need to add/subtract for a given mixture. Most gallon containers have enough airspace that you can slip in about eight ounces of oil if your goal is to have a higher oil content. Be aware that many commercial fuels are pretty low in oil and nitro content is calculated by weight and not volume. Ritch's Brew contains exactly the quantity advertised, 10% is actually 10%. I'd take the easy way out and just play it safe with Ritch's Brew. --*Ed*

H&R Flyaway Combat Shutoffs

Our shutoff's come with either 2" or 3" bellcranks with variable tensions that are rated by the amount of line tension required to deliver fuel to the motor. The slower the speed, the lower the tension of the shutoff used in that event. The following is a description of which shutoff to use for which event flown, listing the tension required on the lines to keep fuel flowing to the motor.

1/2A combat 2" bellcrank .75 lb. line tension

AMA slow combat (70MPH) 3" bellcrank 1.5 lbs. line tension

80 MPH combat 3" bellcrank 2.5 lbs. line tension

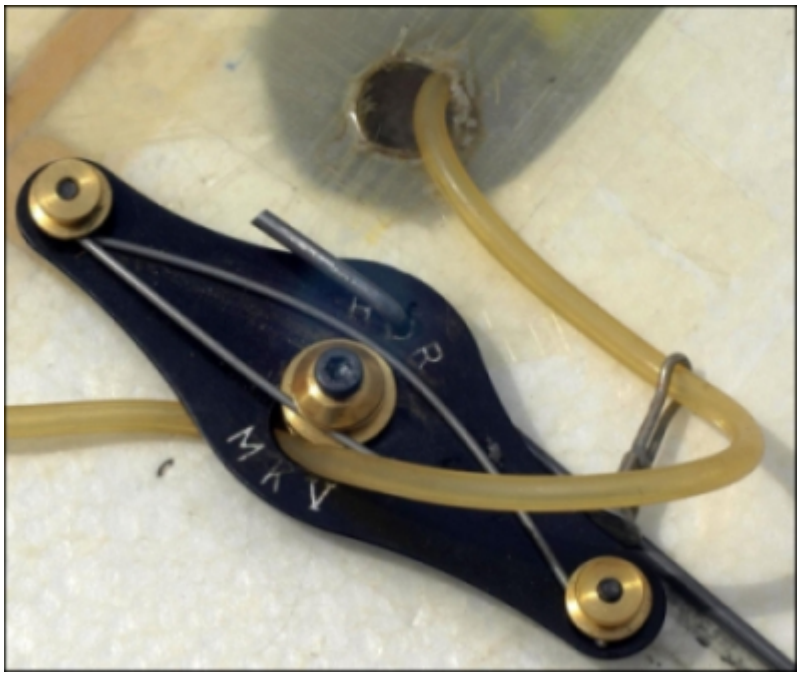
80 MPH combat 2" bellcrank 2.5 lbs. line tension

F2D combat 2" bellcrank 2.5 lbs. line tension

Fast combat 3" bellcrank 3.5 lbs. line tension

Fast combat 2" bellcrank 2.5 lbs. line tension

Note: The Fast and the F2D shutoffs are designed to function even in the extreme conditions where the lines break at the handle which is common in those two events. Also when our shutoffs are used with either the .049, or the .15 motors which run at more than 30,000 RPM, if the motor starts to shut down in flight you can hit level on the controls and pull your arm back which will open the shutoff and the motor will continue to run. Our shutoffs can be used for either internal, or external controls, with, or
without lead-out's, with line clips or direct hookup. They are almost indestructible, guaranteed for life,
and so far to my knowledge they have a 100% success rate in flyaway conditions. Over the last 19 years more than 1,000 have been sold and I expect a few more will be sold before we discontinue the product. For more info contact me at
Jeffrey_a_rein@yahoo.com



BRITISH 2 0 ITALIAN

3rd GBR WORLD CUP 2 57a Coppa d'Oro

3 - 4 September o 5 - 6 September

AEROPORTO F. BARACCA
VILLA SAN MARTINO DI LUGO ROMAGNA
GPS 44'23'58.0"N 11'51'15.7"E

F2 A B C D

BMFA

ACRO CLUB LUGO Francesco Baracca

FAI

Information & Registration : www.aeromodellugo.org
- Aero Club Lugo - Tel. +39 0545 76400 - Fax. +39 0545 76577 - e-mail : info@aeroclublugo.it -
- Lanzoni Luigi - mobile phone +39 368 607198 - e-mail : llanzoni@racine.ra.it -
- Pirazzini Elvis - e-mail : elvispirazzini@libero.it -
- Vernon Hunt - phone +44 07973 817 331 - e-mail : extremechaosltd@hotmail.com

Early Announcement

Early Announcement

Karlskoga World Cup 2020

At 21st - 24th of May 2020 Karlskoga and Sweden will have the annual **World Cup** Contest.

C/L Flyers from all around the World are welcome to fight to be a Winner.
Mark this date in your calender **NOW** and join us in 4 days of joy!! **WELCOME!!!!**.

World Cup Classes: F2A – F2B – F2D

Additional Classes: Minispeed, Semispeed, Weatherman Vintage Speed, Semistunt, F2C Team Racing and Goodyear Racing (F2F).

Preliminary schedule:

Thursday:	F2B, Semistunt, Minispeed, Semispeed, Weatherman.
Friday:	F2B, Semistunt, F2C, Goodyear Racing (F2F)
Saturday:	F2A, F2D
Sunday:	F2A, F2D

Judges:

F2A:	Göran Olsson	SWE
F2B:	Roger Ladds	GBR
	Kauko Kainulainen	SWE
	Claus Vinding Christensen	DEN
F2C:	Göran Olsson	SWE
	Ingemar Larsson	SWE
F2D:	Vernon Hunt	GBR
	Ingemar Larsson	SWE
	Niklas Karlsson	SWE

Registration can be done via email to ingemar.larsson.vis@telia.com.
All other info can be found at www.f2d.n.nu where you also can see registered pilots.

2020 FAI F2 „WARSAW WORLD CUP" FOR CONTROL LINE MODEL AIRCRAFT

for Seniors and Juniors

August 07 – August 08, 2020 Wloclawek POLAND

EVENT SCHEDULE

07-08-2020	**Friday**	**Arrival of Participants, FAI Jury & Judges – Registration** F2A, F2B, F2C and F2D Rounds
08-08-2020	**Saturday**	F2A, F2B, F2C and F2D Rounds
09-08-2020	Sunday	Reserve Day

IMPORTANT NOTES:

1. **Entries are limited**
2. **Registration will be available ON-LINE ONLY using the official 2020 F2 World Championships website.**
3. **Registration rule - first come first served.**
4. Number of competitors for F2A: maximum 30.
5. Number of competitors for F2B: maximum 30.
6. Number of teams for F2C: maximum 28.
7. Number of competitors for F2D: maximum 34.
8. **One competitor can start only in one class.**
9. **Entry Fees will be anounced on: 2019-12-01 at the Official 2020 FAI F2 World Championships website.**
10. **Opening of entries date: 2020-01-02 18:00 CEST**

Contest Director:: TBA

2020 FAI F2 WORLD CHAMPIONSHIPS FOR CONTROL LINE MODEL AIRCRAFT

for Seniors and Juniors

August 09 – August 14, 2020 Wloclawek POLAND

EVENT SCHEDULE

09-08-2020	Sunday	**Arrival of Participants, FAI Jury & Judges – Registration of Teams**			
10-08-2020	**Monday**	**Processing - Official Practice - Team Managers' Meeting** **OPENING CEREMONY AT AIRFIELD**			
11-08-2020	**Tuesday**	F2A Flight **1**	F2B Flights **1** & 2	F2C Round **1**	F2D Rounds
12-08-2020	**Wednesday**	F2A Flight 2	F2B Flights **1** & 2	F2C Round 2	F2D Rounds
13-08-2020	**Thursday**	F2A Flight 3	F2B Flights 3 & 4	F2C Round 3	F2D Rounds
14-08-2020	**Friday**	Reserve day	F2B Flights 3 & 4	F2C Semi-final **1**	F2D Rounds
15-08-2020	**Saturday**	F2A Flight 4	F2B Fly-off **1**, 2 & 3	F2C Semi-final 2 F2C Final	F2D Semi-finals F2D Final
		CLOSING CEREMONY AT AIRFIELD **Banquet**			
16-08-2020	Sunday	Departure of participants			

IMPORTANT NOTES:

1. **Organisers reserves the right to change this schedule if necessary**
2. Lunch time from 12:00 to 14:00

Contest Director:: Marek DOMINIAK POL

Note that entry for the World Cup is first come, first served! Entries open at 1800 CEST on January 2nd using the official WC site. The 34 F2d slots will be snapped up in a flash. If you're planning to enter, you need to stay on top of this.

Northwest Fireballs, Western Oregon Control-Line Flyers, Eugene Prop Spinners and Roseburg area CL fliers present ...

Oregon flying fun!

Four control-line fun-fly events

Everyone invited — No entry fee! 10 a.m.-3 p.m.

If the weather is bad, go to the alternate site listed for "hangar flying" socialization!

Wednesday, Jan. 1 at East Delta Park, Portland

Pot luck lunch, plus coffee and doughnuts

Bad weather meeting site: Elmer's at Delta Park; cell 503-867-2101

Info: Northwest Fireballs, Richard Entwhistle, 503-867-2101

Saturday, Feb. 8 at Sunshine Park, Roseburg

Bad weather: Elmer's restaurant at I-5 Exit 125; cell 541-537-0061

Info: Dave Shrum, 541-672-8893

Saturday, March 28 at Bill Riegel Model Airpark, Salem

Bad weather: Flight Deck restaurant, 1 block south of the flying field; cell 503-871-1057

Info: WOLF: Mike Hazel, 503-871-1057

Saturday, May 2 at Can Do Ranch, Junction City

Bad weather: The Kozy restaurant, 1600 Coburg Road, Eugene; cell 541-554-8848

Info: Eugene Prop Spinners, John Thompson, 541-689-5553

• Bring any and all airplanes ... do any kind of flying! • Every flight is an entry in the "flying raffle." • Flying raffle prizes will be awarded after a drawing

Come to *all four* fun-flies and support *four* great Oregon CL flying groups!

Academy of Model Aeronautics membership required

2020 Air to Air COMBAT

75 mph control line combat series

DMAA Event - Garland Hobby Park	February 23
DMAA Event - Garland Hobby Park	April 26
DMAA Event - Garland Hobby Park	June 13
James Mears Memorial - Lubbock	September 5
DMAA Event - Garland Hobby Park	October 11

**More events to be added

Rules at:

streamershuttle.blogspot.com

Vintage Stunt Championships XXXII

March 10-14, 2020

Flying Site: Christopher Columbus Park, 4600 North Silverbell Rd, Tucson, AZ 85745

Pilots meeting: Daily at 7:30 AM. Official flights start no later than 8:00AM.

Hotel: Holiday Inn Express, 565 West Grant Rd, Tucson, Az. 85745 Phone: 520-624-3200 (code: VSC)

Classic & Super 70's Appearance Judging - Wed. (Mar 11) starting promptly at **4:00PM at the flying site.**

Ringmaster S-1 Ringmaster required, no BOM, flown on grass. You may enter OTS, IGN OTS, and Ringmaster OTS if you wish.

Exhibition Event – We invite you to fly or exhibit something COOL, interesting or representative of any early era of control line. Exhibition to be held on Wed Mar 11. No pre-entry or fee required. Just show up with a current AMA license and show us something cool.

Entry Deadline: **Saturday Feb. 29, 2020.** By this date and time we need to have received your entry. John Callentine's mailing address is on the registration form. Registration form is also available for download at www.ccmaconline.org **or** www.azucontrol.org/ Our policy is to return your entry fees if you have registered and cannot attend for any reason

Awards Banquet: sign-up is held open until after the start of VSC. If you wish to attend the banquet and have not signed-up, Sign up with John Callentine at the flying site by **8 AM, Wed March 11**. Refunds for the banquet **cannot be made after 8 AM, Wed. March 11**

Raffle: Drawing at Appearance judging on Wed – donations welcome and appreciated – Contact Jim Hoffman

REGISTRATION FORM: VSC-XXXII (32) March 10-14, 2020

NAME: _____ AMA # _____

STREET: _____ CITY: _____ STATE: _____ Zip _____

EMAIL ADDRESS: _____ License Plate # and State: _____

Needed if you would like entry confirmation (Only if staying at flying site overnight)

FOR ANY AND ALL EVENTS: I hereby certify that I have read all information accompanying the entry form, and that the model(s) entered by me will be built by me (if required) and flown in compliance with the current Competition Regulations (both AMA and PAMPA), and will previously have been successfully flight tested and proved to be airworthy in accordance with the Official AMA Safety Code.

BOM rule, as it applies to VSC is posted on websites listed at bottom of page

Signature: _____

EVENTS ENTERED:

OTS @ $20.00 _____ (Tues. 10Th – Wed. 11Th)

Classic @ $20.00 _____ (Thu. 12Th – Fri. 13Th)

OTS Ringmaster @ $20.00_____ (Fri. 13Th – Sat. 14Th)

IGN OTS @ $20.00 _____ (Sat. 14Th)

Super 70s @ $20.00_____ (Sat. 14Th)

- *OTS/OTS IGN-current PAMPA rules, BOM not req'd*
- *Ringmaster - no BOM rule. No bonus for self-built models*
- *Classic & S/70 – no BOM. Zero (0) for appearance if you are not the BOM.*
- *OTS/Classic - Two rounds each day using 2 asphalt circles. Highest score from each circle will be added together for the final score & placing.*
- *S70 – flown on asphalt circles. Will try for as many rounds as possible in a single day.*
- *Ringmaster – Two rounds, one each of two days, best single flight*

ARF's, ARC's, purchased or borrowed models are allowed in all events, but, models entered in Classic or Super 70s receive a zero (0) for appearance points. No more than two contestants can fly the same plane in the same event. Example: Contestant 'X' and contestant 'Y' can fly the same plane in Classic but no one else. This goes for OTS, OTS Ign, S70 and Ringmaster as well. For more details refer to the web sites below

Awards Banquet Meal Selections (Hotel Tucson City Center, Sat. Night March 14, 2020)

Beef Top Sirloin _____ **@ $40.00, Names:** _____

Chicken Marsala_____ **@ $40.00, Names:** _____

Salmon _____ **@ $40.00, Names:** _____

Entry must be received no later than Saturday Feb. 29, 2020.

Make Checks Payable to John Callentine (Email Johncallentine@gmail.com)

Mail to: John Callentine, 5625 W. Owl Ridge Rd., Tucson, AZ 85745

PayPal also accepted. Send to John Callentine as a friend, not a business

CD: Jim Hoffman:
2658 W. Montgomery Drive
Chandler, Az. 85224
Home 480-897-0630
Cell: 480-329-3316
Email: windswept4@cox.net

Assistant CD: Leroy Black
25526 W. Rio Vista Lane
Buckeye, AZ 85326
Cell: 623-326-4110
Email: Lindyle1@yahoo.com

John Callentine
5625 W. Owl Ridge Rd
Tucson, Az. 85745
Home: 520-743-7835
Cell: 520-631-5420
Email: Johncallentine@Gmail.com

CHOLLA CHOPPERS WEB SITE: www.ccmaconline.org

CENTRAL AZ CONTROL LINE CLUB WEB SITE: www.azucontrol.org/

Something for the adventurous. Back to back World Cup events in Mongolia. Mongolian Airlines has purchased some Boeing Dreamliner 787-9's that will connect Ulaanbaatar with Paris, Berlin, and the West Coast of the USA. Service won't start until 2021 though.

The Complaint Desk has closed.

The Editor has left the building.

Don't forget to buy your souvenirs at the concession booth.