Radio Control Club of Detroit



The wind is our friend!

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Gravity always wins!

Model Aircraft Show

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- Club Wear: Herb Mills
- PR: Gordon Gibbons
- Membership: Willie McMath

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Schedule of Current Events



Space was a little tight for our **Model Aircraft Show** at the Gibralter Trade Center as we were up against the Mom-To-Mom Sale on one side of us and the Gun Show on the other side of us. Now, you have to imagine the poor husband that has been dragged to the Mom-To-Mom sale and looks across the room and sees....ohhhhh, model airplanes.....ohhh, guns & knives. "I think I'm going to like it here this weekend". I know we "hosted" some of those husbands each day as the smiles, interest and questions told the story



Our Model Shows continue to give our club the opportunity to introduce our community to the hobby of model aviation. At the last club meeting, we benefited in that two new members and their children joined our club after meeting with us at the Model Aircraft Show at Gibralter.

The Presidential Podium



Greetings fellow club members,

Well we have started another season just about like last season: Wet, Wet, Wet.

Larry and Keith are trying their best to keep the field cut, but Mother Nature is showing them who the boss is.

Watts Over Wetzel has been rescheduled for August 7th due to the rain. We were anticipating that this would be a great success for the club by making it a 2 day event, but hopefully having it in the summer will ensure a good day.

Next up in the month of June is our Big Bird, which is also a 2 day event and promises to be a great event if the weather cooperates. We have some really great prizes to give away at this event thanks to the great deal Matt at the Prop Shop gave us. Matt has always been very supportive of the club, so be sure to remember that when you need hobby stuff.

Also, towards the end of the month of June is our scale event which has also expanded to 2 days, with the Saturday being for scale Warbirds only. Merlin has been working on some great pilots prizes for this event too.

If you haven't been to a club meeting in awhile, you are really missing out. The meetings have been very enjoyable, with some really great presentations of new planes and other items of interest to the hobby.

That's about it for this newsletter. I am looking forward to a great flying season this year. Stay safe guys.

John

The Editor's "Knife Edge of Reality"

Something worth checking into is the **AMA** *Insider*, the AMA National Newsletter. As an AMA member, this is part of the advantages of membership. Go to: **www.modelaircraft.org/insider.** You can sign up and automatically receive the bimonthly newsletter. It's an excellent and informative publication.



If you have **something to contribute to the RCCD Newsletter**, an article or anything, please give me a holler. I'd like to be the "editor" as opposed to the "writer". ;)

An idea for the newsletter that comes near and dear to the hearts of many of us is "Building & Flying". Take a minute and drop me a paragraph about your favorite Building Tip......Favorite Flying Tip......Favorite Engine Tuning Tip.....Favorite Swap Meet Tip-for buying or selling. You get the idea. Let's see how many ideas we can muster to share.

duckguylsb@juno.com or (586) 790-2678

Thanks much, Lou Tisch

Model Aircraft Show



Over at the North End of the Show, Gordon Gibbons (Event Coordinator) worked with kids and their parents on the Flight Simulator, giving them a slight "taste" of what Radio Control Flying is all about. Then they were told of the opportunity to win an R/C system in the Raffle.

Ken Sulkowski & Willy McMath (left) manned the club booth, selling raffle tickets for a complete R/C system, including model, engine and Radio System. Willy also explained the electric Lovings' Love (picture below) model that he scratch built. He started with a small 3-view drawing and scaled up his own planes and built it complete. Outstanding job!







There were over 40 model aircraft on display, built by club members. Merlin McLellen brought 9 planes, including the nice Mustang on the left. George Dudek brought his "Ugly Stick in Progress", which is a part of a complete club project you can read about on the website. John Miklas brought one of his Navy Jets with a true turbine engine.

To complete the show, we have Gordon congratulating the winner

of the raffle prize, a complete PTS (Pilot Training System) prop jet and equipment. Nice job Gordon Lou Tisch.





Toledo 2011



As Dorothy might have said, "...Nitros, Gassers and Electrics, Oh My!"

Some folks are driven to attend the Auto Show and others are driven to attend the Boat Show. Fortunately, we flock to The Toledo Show each April, the Mecca of Modeling, with it's siren song of organized chaos in the arena of Seagate Center. Once we've made the mandatory trip through the Swap Shop area, it's down to the main auditorium with the vendors and display models that are entered into the various competitions.

It sure is nice to be able to sit down one-on-one with the various vendors to get those nagging questions answered that raise their head when we're in the middle of a project. I always (now, that is) make a list of each vendor I want to contact along with my shopping list of items I need. There are many show specials that make this time so valuable. I can drop over to Radical R/C and swap out some crystals for ones I don't need. Electro Dynamics always runs a sale and I needed a couple of their EDR-103 kits for on-board-glow. Each year I pick up a couple cases of 15% nitro fuel from Wildcat for both 2-stroke & 4-stroke motors. I was able to pick up a missing pipe from a B&B muffler on a G-45 that was on a swap meet find. We made the mandatory trip to Boca Bearings for ailing engines. Mike bought a cockpit kit for his L-4 from Dynamic Balsa. Transmitter and receiver batteries were picked up at Batteries America. We're trying some of the Flash C/A after talking to the manufacturer. Latched onto some pre-ordered cowls, for a couple ships, from Fiberglass



Specialties and fuel tank compartment sealer from Klass Kote. Added 2 rolls of fuel line from Sullivan, spool each of Gas & Glow fuel line. Susan Ross had some of the servos we needed and we got a couple of DVDs from Platt. That was all followed up with our renewals at IMAA for Giant Scale and raffle tickets at the AMA booth. Yes, there are winners in that raffle. Three years ago, Mike won a Sukhoi kit for signing up for IMAA along with winning a motor and another kit from the AMA raffle. The first year I went to The Toledo Show (1977), I spent \$1 on a raffle ticket and won a 5 channel KGL radio system. That's what got me into Radio Control and it's been downhill ever since.

Toledo 2011

I was going to show some shots of the booths/vendors but there is so much to see of the airplanes in competition that I must feature the models. One of the most incredible finishes on a model was on the huge Cobra 400 but it is difficult to get a good photo with the reflectivity of the finish. There are photos of that as well as many others on the Toledo Show website (www.toledoshow.com). I've highlighted/included some of the coolest models I found and there are more than that which I couldn't even fit into the newsletter. Have a look around and enjoy the models featured at the Toledo Show. Lou Tisch





Super Kaos built by Bob Noll

Super Stearman N56772 by Kenneth Myers Commerce Twp Michigan











Fokker D8 By Gary Pizzini Brownstown, Michigan

Flying Red Horse Air Racer by Mark Rettinger Roseville, MI

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Toledo 2011



Model 12 Turbine Bipe by Jeff Holsinger



Falcon 56-Vintage R/C by Bob Noll-Endicott, NY



YAK UT-1 by Keith Shaw



Tank on M25 40-Ton Transporter by Chris Weiss



F-18F by Curtis Wade-Detroit, Michigan



"WAG" Vintage R/C by Charles Chomos

Kid's Nights



The kids we host for RCCD's twice annual Kids' Night event hold a special place in the hearts of all who help make this event happen. Most of children come from backgrounds that, even at their early age, have already put them at somewhat of a disadvantage in life. Last summer's Kids' Night events were once again an unqualified success. The first and most important requirement is good weather. We were fortunate enough to have warm temperatures and,best of all, light winds. Even the bugs seemed to give us some special consideration!

As has been our custom, the kids were presented with a little simplified education in the basics of how airplanes actually fly and then a little preparation for some buddy box flying with our well qualified instructors who volunteer for the event. Food and goodies help add to the fun atmosphere that we are working hard to provide. These things





Ken Sulkowski explaining, "...When you pull this stick back, the plane "should" go up"!

might sound simple enough but the fact is we have a wide range of ages and backgrounds among the kids and this makes it more of a challenge than one might expect.

Kid's Nights



Hard concentration on basic flight training and buddy box flying is fun but it can leave the kids starting to feel the need to stretch out a little and blow off some steam! We have the perfect solution for that all lined up for them in

the way of a large batch of specially prepared Guillows Sky Streak rubber band powered planes. Thanks to the work of our Kids' Night volunteers, these planes are modified to outperform the "straight from the package" model by a quantum leap. We teach the kids how to wind their plane' motors and a proper launch technique. We make a serious effort to get each and every kid's plane trimmed out so that it will fly well enough to climb out and make at least one



Russ Hope training on the buddy box and getting a little "sideline advice".

easily guess, the child is sometimes not so happy about losing their plane. We have found that profuse congratulations on such great flight along with two, yes TWO, replacement planes seems to smooth things over pretty well in these cases.

full circle in flight. We have nearly a 100% success rate. Many of these little planes will even make two or three circles. It doesn't take long at all for the kids to catch on and progress to flying the plane on their own. Typically there are two or three planes that fly so well they go OOS (That's free flight lingo for Out Of Sight). This, of course, is one of those bittersweet kind of situations. The adult mentor (I like to call them "Flight Mechanics".) is overjoyed to see the little plane fly so well but as one might



Kid's Nights

I think that the times we live in have changed kids a lot from what most of us remember but in other ways kids will always remain the same. Kids still love to do things on their own and revel in the sense of accomplishment that it brings them. Seeing their own plane take to the sky and fly on it's own is still sure to bring a sense of wonderment to just about any kid.



Thanks so much to all of those who turn out to help make this most worthwhile community service event the success it has always been. We really do need your help to make Kids' Night happen and I know that each of you gets your real "thank you" when you see the look in those kids' eyes and hear the laughter and shrieks of joy as they chase after their planes on our club field. Special thanks also go out to Matt at The Prop Shop for his generosity in helping our club get the planes we need for our event.

Don Veres mentoring a focused flier.



By Bruce Thoms



"Hm...that should put us about 7 mistakes high". "...might be good enough"!



Glow Engine Carburetors 101:

by Noel Hunt

With my first glow engine, I remember wondering about the magic that happened in that thingy near the front of the engine. With time, experience, reading, and the help of fellow modelers, I got to understand that the magic was fuel/air mixing and the thingy was the carburetor. Perhaps what I learned may help someone else.

For optimum combustion in an engine the correct ratio of fuel to air is needed. If there is too much fuel, it runs "rich" and the engine does not reach its full power potential. If there is too much air, the engine runs "lean", combustion temperatures rapidly rise and engine damage will result. We adjust the fuel to air ratio entering the engine by mixture adjustments on the carburetor. The intent here is to help you find that happy place between rich and lean.

There are two main types of carburetors on R/C glow engines:

Two needle type. (see Picture 1)

- The main needle adjusts the overall fuel flow to the carb'. This needle is either on the carb, or remote-mounted at the rear of the engine with a fuel tube to the carb'.
- The idle adjustment needle controls the <u>amount of</u> <u>fuel</u> only from idle to slightly above idle. This needle usually is adjusted from the side of the carb' opposite the main fuel port, often through the center of the throttle arm.

Main needle and air bleed type. (see Picture 2)

- The main needle adjusts the overall flow of fuel to the carb'. (Same as the two-needle type). Again, this needle is either on the carb', or is mounted at the rear of the engine with a tube from it to the carb'.
- The air bleed adjustment screw controls the <u>amount of air</u> at or near idle. It does this by partially shutting off an air bypass hole.

So the fundamental difference is that <u>at idle</u>, the two needle carb' uses <u>fuel</u> restriction and the air bleed carb' uses <u>air</u> restriction to achieve the correct fuel/air mixture.



Two-needle carburetor



Air-bleed carburetor

Don't Adjust the Mixture:

Yes, this article is about adjusting a carb', but the best advice is don't touch the needle valve or idle mixture. That is, unless you are sure there is something wrong with the mixture. Check everything else first:

Again.....check everything else first:

- Check the tank & fuel hoses for air-leaks; free clunk; fuel tube kinks; etc.
- Is a fuel filter plugged?
- Are the needles vibrating from their set positions?
- Is the carb' securely mounted to the engine (no air leaks)?
- Is the cowl causing a strange air flow to the carb'?
- Is your glow plug good?
- Is your fuel good?

Once needles are correctly set, they should not need to be changed unless there is a <u>significant</u> change in weather, prop, glow plug, or fuel. If you just feel compelled to needle-tweak, switch to electrics!

When an engine is new, set the main needle for a relatively rich setting. Do not adjust the low speed mixture unless it is WAY off (most unlikely). Most engines need about 10 full flights before you fine-tune the idle mixture. To avoid engine quits at idle, accept a high idle rpm when an engine is new.

OK, so you have decided you need to adjust the needles. Perhaps you had to rebuild an engine after an Oops! Here's how I go about it. The sequence is very important in some cases so start at the top and stay with the sequence. WAIT! – double check the other stuff again! Leaks, clunk, fuel, etc. Still sure the mixture needs to be adjusted? Last chance?:

Adjust the mixture:

- 1. Read the engine manual and follow the instructions!...... OK, so you can't find the instructions, and you are reading this.
- 2. You really need to use a tachometer for this. It can be done by ear if you know what to listen for, but the tach' takes out the guess work.
- 3. Initial Needle Positions:
 - a. If the engine was running but not great, skip to the "Main Needle" section.
 - b. If the engine barely runs, or you just rebuilt the carb', close the main needle (clockwise) and close the throttle barrel.

THEN on a 2-needle carb' close the idle mixture adjustment until it stops (clockwise). Do not force it. It is important to do this after the barrel is closed otherwise the low speed needle could stop the barrel early. Note that the idle needle is part of the barrel assembly and as the barrel rotates closed, it (with the idle needle) also slides sideways, towards the spray bar. The low speed needle slides into the spray bar, restricting the fuel flow. (see Pictures 3 & 4)

continued on
page 12
On an air-bleed carb' look down the air-bleed hole and
use the adjustment screw to half-block the hole. (see
Picture 5)



3. Two-needle carb' barrel open. Note barrel is position is slightly left of closed position in picture 4. The idle needle is withdrawn from end of spray bar.



4. Two-needle carb' barrel closed



5. Begin with the air-bleed hole half-blocked

c. Fit a clean (new) piece of fuel tubing to the carb fuel inlet fitting.

- d. Open the carb' barrel to wide-open-throttle. While trying to blow into the fuel tube, open the main needle (counterclockwise) until you just hear air hissing. Open another ½ turn. For most carb's this will be about 2 to 4 turns from closed. This is a good rich starting point for the main needle.
- e. On a 2-needle carb', close the barrel again, then open it very slightly (equivalent to the idle position, or just a sliver of the venturi hole showing. (See Picture 4.). While blowing into the tube, open the idle mixture adjustment screw, until you just hear air hissing. That's a good starting point for the low speed setting. Remove the clean/ new fuel tube and connect the tank fuel tubes to the engine.
- f. Open the throttle barrel to about ¼; flip the prop without the glow igniter connected, until fuel is seen in the fuel tube going to the carb'. If needed cover the exhaust outlet with your thumb while flipping.
- g. Attach a glow driver to the glow plug and start the engine at this ¹/₄ throttle position. Leave the glow driver connected for now. With the main needle at 3 to 4 turns out, the mixture should be really rich, and the glow driver will help sustain combustion.
- 4. Main Needle: Use a tachometer if at all possible. It is much better than your ear!
 - a. Fully open the throttle gradually over about one second.
 - b. With the throttle wide open, close the main needle slowly, listening to the rpm change and watch the tach'. As you close the main needle, RPM will increase to a maximum and then the RPM will drop off quickly as you go too lean. Open the needle to the maximum rpm point. When you find maximum rpm, open (counter clockwise/richen) the needle so the rpm drops by about 300 to 400 rpm from the peak. (about 30 to 45 degrees of needle rotation). Remember: This will be slightly richer than at peak RPM - indicated by the star in the chart.



5. Idle mixture:

- a. Gradually (about 1 second) close the throttle to idle. A high idle rpm may be needed to prevent the engine from quitting. Let it idle for about 30 seconds. (Yes that'll seem like forever!)
- b. With the engine at idle, pinch and hold the fuel hose. Pinching the hose cuts off fuel, forcing a leaner mix.

i. **LEAN:** If the engine immediately quits, it is too lean:, open the idle mixture adjustment (counter clock wise) about 45 degrees (see sketch), no more. On an airbleed carb' close (clockwise) the air-bleed screw about 45 degrees. Do not adjust the idle mixture with the engine running. Aside from being unsafe, the vibration makes fine adjustment almost impossible. Restart the engine and try again. For another "lean" check; open the throttle. If the mix is too lean, the engine will immediately die.

ii. **GOOD:** If after about 3 seconds of pinching the fuel hose, the engine rpm starts to then quits, the mixture is OK.

iii. **RICH:** If the engine rpm remains the same for a longer time, then starts to climb it is too rich: Close the idle mixture adjustment (clockwise), about 45 degrees, no more. Do not adjust the idle mixture with the engine running. Restart the engine and try again.

For another "rich" check; open the throttle. If the mix is too rich, the engine will "splutter" and you will see fuel droplets out the exhaust. The engine might die, or after a moment of spluttering, it will clear and run OK.

climb

6. Fine Tuning (You can now remove the glow driver):

- a. Once you get the idle mixture close, open the throttle and re-set the main needle. It may or may not need it.
- b. Now return to idle and fine tune the idle mixture. Let the engine idle for about 30 seconds: Repeat the pinch test, but adjust the idle mixture by only about the width of the screwdriver blade (see sketch).
- 7. Final Mixture verification:

The intent is to confirm both the main and idle mixtures are just slightly rich, so that anything that causes lower fuel pressure (almost empty tank, vertical climb, etc) will not result in a lean condition. As the tank level gets lower, the mixture will get more lean, causing overheating, engine damage, and a dead stick landing.

Nose-high test:

Open the throttle, <u>then</u> raise the plane and point the nose straight up. The reduction in fuel pressure that this causes, will make the fuel mixture slightly leaner. The rpm should increase by about 200 to 300 rpm. If the rpm does not increase, DO NOT FLY. Open the main needle so that there is a distinct rpm increase when you lift the plane's nose.

You can perform the nose-high test at idle, but I have found the pinch-test described above to be better.

Another way of testing open throttle setting is to apply a quick pinch and release to the fuel supply hose. This will cause a momentary fuel "starve" and therefore a leaner mixture. The rpm should briefly increase in response to the pinch. If the rpm does not increase, DO NOT FLY. Open the main needle a couple of clicks, so that there is a distinct rpm increase in response to the pinch.

That's how I do it. Others may have variations of this, but the elements will be the same. Always aim for slightly rich settings and you will be rewarded with reliable engine performance – like magic! Noel Hunt



Scale Fly In



Scale planes, especially warbirds, create a rush like no other aircraft. In evidence here is Jim Beavers (on left) prepping his scratch built B-17 for flight (assisted by Merlin). This B-17 has a 139" wingspan and sports 4 Saito FA91 4-stroke engines. You can see the smoke trail as it claws for the sky, letting you know that the engines are running rich and safe. Incredible sound!



Also in flight attendance is this beautiful Hawker Typhoon (and I'd give you the owners name if I was able to remember it-it'll come to me later). The Scale like flight of this giant was incredible to watch and the landings were like it was tip toeing on lily pads. Very cool.



This giant Sopwith build and flown by (yup, another lapse in memory) performed very scale like and looked majestic in the air as well as on the ground. The little "Fairey" was another cute little scale number of his. It flew well but was a handful on the ground.



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Scale Fly In





Howard Motten with his Aeronca. Howard is one of the great fliers in the club and takes any model and makes an aerobatic champ out of it.



We'll follow this with a (formerly) well built YAK 54 owned (previously owned) by Larry Chaltron. It appears to have been performing a figure "9" with less than desireable results. Ouch!





Ken Sulkowski with his nicely done Aeroworks Edge 540T



"Tundra Cub" Lou Tisch prepping for flight 80" WS & OS70FS for power

Scale Fly In



Mustang owned and flown by Joe Tasse



Beautiful Taylorcraft owned and flown by Joe McMillen



Don Veres helping Joe prep his Shoestring Racer



Sig Skybolt owned and flown by Herb Mills



Great looking T-28 owned & flown by the same fella who owns the Hawker on page 14



35% Carden Edge 540



Super Decathlon



This Super Decathlon is another excellent model built by Bill Hackett. It has a 101" wingspan and has 5 great flights on it. He wasn't sure at the time just what motor is in it but just give him a holler. Asking: \$2000 obo Built by Bill Hackett Contact: Bill Hackett 586-209-6595

35% Carden Edge 540



Carden 35% Edge with DA 100-True Turn Spinner-Sullivan Smoke System-1 JR 8411 on each eletor-2 JR 8611 on rudder with match box-2 JR2721 on each aileron with match box-JR 811 on throttle-Duralite battery-JR 649Rx-Carden wing & tail bags-NO hanger rash-For more pictures go to Carden web site - 35% gallery # 4.

\$3995.00 For more info call Don Held 231-584-2662

Classified Section



Extra 260

This is a kit built, Extra 260 ready for your batteries and ready for the air. It is well built and in very good condition. This Extra 260 comes with a 3W-100i-B2 Twin with Electronic Ignition & Receiver (Hitec RCD Supreme-Super Slim-JR Ch. 24). You will need your own batteries (Ignition Batt. & Receiver Batt.).

Also included: Cannister Mufflers, Aluminum Spinner, 2 HD-Switch & Charge Jacks, Remote Fueler and Servos:HS-700BB (Hi-Torque)-Rdr, El, Ail.

Wingspan: Approx. 100" Asking \$1100 obo &/or trade

Extra 260 3W-100

<u>Contact:</u> Lou Tisch duckguylsb@Juno.com 586-709-5378 (cell) (see business card this page) Lock Stock & Barrell, Inc.



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Dealer for: Brodak & Black Hawk Models

FRANK CARLISLE -- c/l expert

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Anchor Bay Models

(renamed from MALT Model Aircraft)

Mike Andros & Lou Tisch purchased Grant's Custom Aircraft out of St. Clair and relocated the operation to Lou's Shop in Clinton Township (see LSB card below). Currently, there are molds for 10 models, including: PBY Catalina (109" ws), Grumman Widgeon, Republic SeaBee (single & twin), Lake Buccanneer, Christen Eagle, several Mustangs, Pylon and fun-fly ships.

The 1st kit to introduce will be the SeaKing (Red plane shown below)

As operations progress, we will be presenting the model kits in succession. Keep your eyes open for the introduction of our first kit.

Thanks all, Lou & Mike Full Scale Aircraft photos courtesy of aircraft websites





Lou Tisch duckguylsb@juno.com www.lockstockbarrell.com www.eallendecoys.com



Classified Section

RCCD Decals for Bumpers, Windows and Models





Coming Events-2011

June 11-12, 2011	Big Bird Fly In	
June 25-26, 2011	Great Lakes Scale	
July 23, 2011	C/L Fly In & RC 2x2 Fly In	
July 24, 2011	4-Stroke Rally	
Aug. 09, 2011	Kids' Night (2)	
Aug. 20-21, 2011	Open Combat Challenge	
Aug. 27, 2011	EAA Ch. 13/RCCD Joint Fly In	
Sept. 03, 2011	Club Fly In	
Sept. 04, 2011	Club Picnic & Fun-Fly	
Sept. 10-11, 2011	Tom Brett Memorial Pattern Contest	
Dec. 13, 2011	Christmas Dinner/Party	
Please check the website for updates : www.RCCD.org		

