

Radio Control Club of Detroit



The wind is our friend!

Gravity always wins!

Volume 61, Issue #1

Newsletter Date: June 2013



**John McCormick-Sea Fury-Quadra 75
75cc Gasser**



Gary Weeks-P 47-50cc Gasser



Joe McMillan-Super Sportster-OS 160FX Glow

RCCD Big Bird Fly In 2012

Our 2-day Big Bird Fly-In was, again, blessed with good weather, a well trimmed grass field and plenty of fun. We had 25 pilots and many brought 2 to 3 airplanes to fly. There were plenty of planes, flight time and prizes for the weekend. Warbirds seemed to be the plane of choice but we also had many sport planes, biplanes, scratch builds, ARFs and even an antique monoplane-Jim McCoul's scratch built Antoinette with an older OS.91FS engine.

We had one flight where many of the big Warbirds headed for the air at one time. John McC made a note to self...be sure to get airborne before retracting the landing gear. There was only one mishap and that was Larry Chaltron's Mustang that had trouble with a low altitude Immelman and altimeter problems....meaning, he crashed. It was a nose-bender.

Ernie Varilone, our CD, did a great job of organizing our Big Bird Event and had everything well covered from fire extinguishers to food. Thanks to all who helped and flew.

Lou Tisch



Ken Sulkowski-EAA BiPe-Quadra 100cc Gasser

Continued on page 3



Hello fellow club members

I'm baaack. This starts my fifth year as President and I must say that so far every year gets better for me. It never ceases to amaze me how our members step up to the plate and take on any job that makes this club the success that it is.

The flying season has finally started up after a long dark cold winter, and it did not get here a moment too soon. I think that just about everyone I know had a bad case of cabin fever.

The field looks to be in great shape and should be all set for another great season.

Our first event, WOW is only days away and promises to be a stellar event if the weather cooperates. Mike has put an enormous amount of time promoting and getting things ready and hopefully his hard work will pay off. Also, all of our other events are sanctioned for the year and hopefully they will be graced with good weather and participation.

Officers:

- President: John McCormick
- Vice Pres: Peter Van Heusden
- Secretary: Phil Laperriere
- Treasurer: Mike Pavlock
- Culinary: Jerry Laperriere
Rainell Veres
- Web Master: Noel Hunt
- Field: Jim Fitch
- Safety: Phil Laperriere
- NL Editor: Lou Tisch
- Club Wear: Herb Mills
- PR: Gordon Gibbons
- Membership: Willie McMath
Steve Surbaugh

Club meetings have been going great, with good participation and some interesting member projects being shown. That's it for now, I hope to see you taking advantage of our great facility.

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See ya at the field
John

Editor's Tiny Little Edge of Reality

We had three magazine articles published from our club activities. The **first article** is an Online Exclusive Feature on the AMA website. This is a collaborative article by Noel Hunt, Rex Phelps and Lou Tisch about our 2010 Joint Fly In. It is published complete, including over 50 photographs.

<http://www.modelaviation.com/ea2010flyin>



The **second article** is published in the Fall 2011 issue of High Flight Magazine (page 107), the quarterly publication of the International Miniature Aircraft Association (IMAA). This is the Chapter Report (Chapter 206) on our June 2011 RCCD Big Bird Fly-In.

The **3rd article**, written by Noel Hunt on our Club's Stik Build Project, was published in the June 2012 Issue of Model Aviation, the publication of our AMA. The article is on pages 38-41.

We now have a **team** working on the Newsletter. Tom Franks is helping out with the photography and Keith Jones & Peter Mlinarcik are helping with the writing. Thanks for jumping in to give a hand fellas...much appreciated.

Thanks all, Lou Tisch

RCCD Big Bird 2012



Joe Tasse-Sukhoi-80cc Gasser



**Noel Hunt-Yellow Aircraft AT-6
Zenoah G-62 Gasser**



**John McCormick-Club President
Balsa Nova-OS 120**



**Willie McMath-Lovings Love-Scratch Built
1/3 Scale-Electric Power**



**Ken Remenchus-Space Walker ARF
76 GMS Engine**



**Ken Remenchus, Sr-Aeronca Champ
Saito 150 4-Stroke Engine**

Continued on page 4

RCCD Big Bird 2012



**Bruce Bresky-Telemaster
90 Size Engine**



**Bruce Bresky-Staudacher
1/3 Scale-100cc Gasser**



**Larry Chaltron-Super Stearman
72" Wingspan-160 Magnum Twin**



**Larry Chaltron-Edge 540
88" Wingspan-DLE 55 Gasser**



**Calvin Mitchell-AJ Slick Edge 540
89" Wingspan-Desert Aircraft 50cc Gasser**



**Calvin Mitchell-Aeroworks Edge 540
106" Wingspan-BME 100cc Gasser**

Continued on page 5

RCCD-Big Bird-2012-continued



**Don Veres-Pica T-28
OS 120 Engine**



**Gary Weeks-T-28
40cc Gasser**



**Dave Asman-Extra 260
85" Wingspan-Desert Aircraft 50cc Gasser**



**Lou Tisch-Cermak Pitts S2B
60" Wingspan-YS120 4-Stroke Engine**



**Dave Durocher-Super Chipmunk
OS 200 4-Stroke Engine**



Don Veres-B 25-85" Wingspan-Electric Power

Continued on page 6

RCCD-Big Bird-2012-continued



Gary Weeks P-47 taxi for mass Warbird Flight



John's "note to self"-Get Airborne prior to retracting landing gear.



Don forgot to bring air pump? Even Grandson is wondering.



Above: Larry Chaltron is practicing his low-level Immelmann.



Right: No Larry, it wasn't "HIS" fault!



Richard Javery-Extra 260-DA100 100 cc Gasser



Jim McCoul-Scratch built Antoinette-96" Wingspan-0S.91FS for power with dummy engines heads.



Gary Weeks-Gauntlet-180 4-Stroke-1/6 Scale



Thanks for a great Big Bird Fly-In.....Lou

RCCD-ALL STAR 60-SCRATCH BUILD PROJECT

The Radio Control Club of Detroit hosted the 2012 scratch build club project plane, "The All Star 60". This was the second in a series of scratch build projects offered by the club. The first scratch build project, "The Ugly Stik" was so successful, it self promoted the second club project plane. As with the first club project plane, the intent of this club project is to further promote the building of great flying airplanes, along with promoting camaraderie among the club members.

After contemplating various previously designed model airplanes, and polling a number of club members, a plane similar to the "Four Star 60" was the most popular of the plane designs. This design type became the choice for the second club project plane and led to the birth of "The RCCD All Star 60"

The RCCD "All Star 60" design is similar in size and function to the Four Star 60, inheriting it's great flying features. Our concept or design altered the build sequence and construction to fit our production and building needs. Our design carried forth the critical aeronautical dimensions of the Four Star 60 design. The turbulator main wing design is one feature of the plane that gives it the exceptional handling characteristics, along with it's light weight construction. The empennage or tail feathers are designed light weight using a built-up truss construction with the horizontal stab and vertical fin covered with 1/16" balsa sheeting for added strength. The control surfaces are covered with only the final covering for lightness. The fuselage is also designed light weight with many lightening holes in strategic locations to eliminate excess weight, yet maintain the needed strength.

"The RCCD All Star 60" project plane design, along with it's detailed construction manual with accompanying photos, is available on and through the club's website. www.rccd.org. If the build sequence and process is followed using the detailed construction manual with accompanying photos shown on the club's website, there was no need for a detailed full set of plans to build this plane, saving each builder approximately \$15.00 to \$20.00. If desired, one could use a set of plans for the four star 60 design, only as a visual build reference, keeping in mind there are many design/construction differences between the planes. A "short kit" was made available (at cost) to the RCCD club members. This "short kit" contained critical N/C laser cut parts, standard stock size balsa, hard wood and lite ply, servo wire lead tube, formed canopy and a partial paper build plan to hand construct the empennage or tail feathers of the plane.



Jerry

Jim

Mike

Phil

Continued on page 8

RCCD-ALL STAR 60-SCRATCH BUILD PROJECT

A minimum of a four channel R/C radio system, a .60 size engine/motor and it's supporting hardware, covering material, decals, and paint, the landing gear/wheels, and any hardware needed to complete the plane is the builder's choice and expense, and were not included in the "short kit".

Although construction was at each builder's home for the most part, some time was devoted at each club meeting to discuss progress and provide any needed direction. The wood working and building technique was left up to the individual builder. There were builders participating in this project that had no building experience at all and other builders that were considered master model builders. The first few Ground Schools of 2012 were devoted to subjects related to the build, such as: the build techniques, hardware selection and installation, covering etc. Between meetings, participants were encouraged to get together in small groups for build sessions (these were great social events too!!!). The builders could also just pick up the phone and call or send an email if there was a need for discussion or a question on any part of the project.



Peter Van

Norm

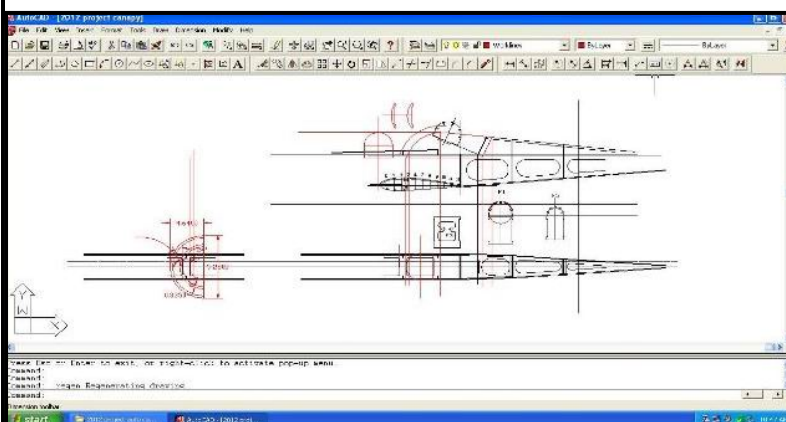
George

Pete

Joe

The project was led by Pete Mlinarcik, George Dudek, Joe Svatora and Dick Babisch. Peter Van-Huesden, Norm Zielinski and Noel Hunt, along with some technical and building help from club members with model building experience. The Prop Shop was the go-to supplier for the wood and materials for the kits.

The design and preparation of the tooling, laser cutting, canopy vacuum forming and packaging of the short kits was documented and shown on the club web site. Early preliminary design work, from the computer, is shown to the left.



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RCCD-ALL STAR 60-SCRATCH BUILD PROJECT



Peter Van & George working with the Laser Cutter making parts.



Canopy pattern for vac forming



Norm forming & pulling a canopy.



Installation step for the canopy.



Stacks of wood...about half already delivered to Peter Van for laser cutting.



George and Joe packing up short kits, getting ready for deliver to the club meeting.



In order to keep the process running smoothly, somebody has to sit and manage...Pete.

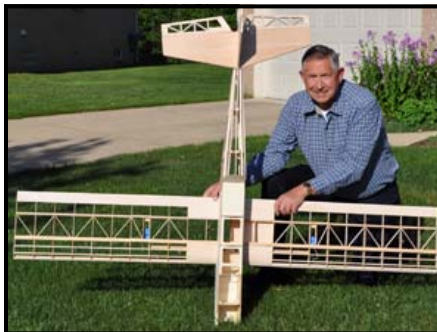
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RCCD-ALL STAR 60-SCRATCH BUILD PROJECT

There were forty two participants in this project. Shown below are a few of the builders attending a club meeting.



As photos were sent in by some of the builders, their build progress was documented on the club web site. The following are some of the photos sent in by the builders (in random order):



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RCCD-ALL STAR 60-SCRATCH BUILD PROJECT



Continued on page 12

RCCD-ALL STAR 60-SCRATCH BUILD PROJECT



As you can see in the photos, there were planes built in various colors and trim schemes and a few were “kit bashed” to reflect the individual builder's concept of a plane they wanted to build.

Building these club project planes certainly accomplished what this program is all about. It seems all of the club members have shown a renewed interest in the club activities, especially the members that participated in the project.

We are currently in the third project plane program and again we have a large contingent of builders participating and another great project developing but, that's a story for another time.

Article by: Pete M.....Rattlesnake



TIPS, TOOLS, GIZMOS & GADGETS

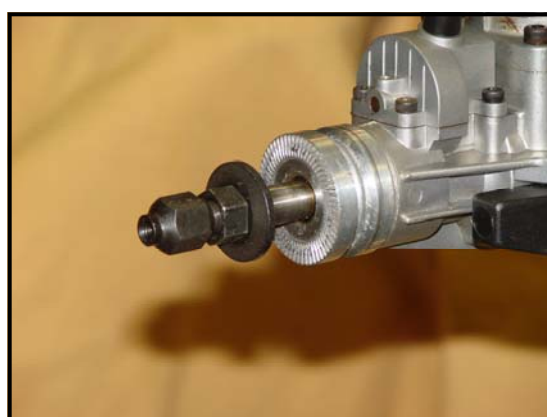
Necessity still appears to be the mother of invention but we're not talking about an invention. We're merely looking at a way to do something differently. I have a Saito 150 4-stroke engine that I couldn't get to run properly and couldn't get the prop tightened enough to stay in place. An investigation found that the threads at the back area of the prop shaft were not allowing the nut to be tightened. The solution was easy, I went to Production Tool Supply and bought an M8x1.25 die to chase the threads. That was the easy part. The difficult part is keeping the prop shaft from turning while I'm cutting the threads. Way too many engines have been “disfigured” with vice grip



M8x1.25 Die



Strap Wrench in place to hold prop shaft for cutting threads.



Threads cleaned and prop washer & prop nuts fit properly.

marks on the engine. Turns out that the perfect solution comes from the plumbing industry...a strap wrench. Holding the shaft with the strap wrench worked perfectly with no marks on the engine.

Solution found!

Lou

Learning to Use Flaps

I am not an expert on flaps. However I have gathered information from reading about them, and experience from using them. I hope what I have learned will be of use to you.

Why flaps?

Increasing lift; increasing drag and increasing total wing area are some purposes that flaps serve: However, for our model applications, we are mostly concerned with lift and drag.

What kind of Flaps?

The accompanying table (to the right) shows the many types of flaps. For our model application, we are usually operating with conventional flaps, split flaps, or flaperons.

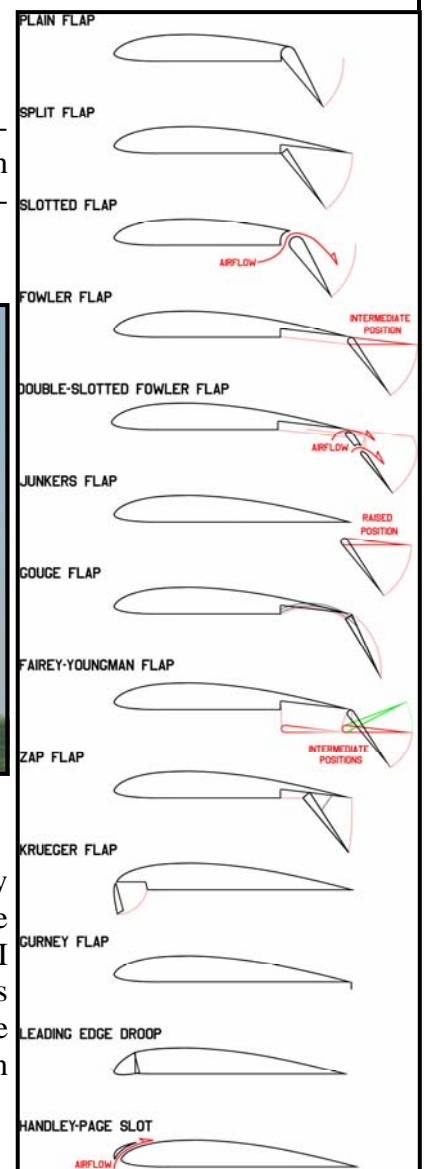
How much flap deflection?

At slight deflection, the lift increases without much drag. With more deflection, the drag increases a lot. Full deflection of 45 to 60 degrees is typical. In pictures of full size Spitfires landing (photo below), you will see angles approaching 90 degrees!



How to control flaps from the transmitter?

A proportional control, like a knob or slider gives you the ability to select any amount of deflection from none to full. The disadvantage of this, is that while your fingers are on this control, they are not fully on the two primary sticks. I prefer to program the flaps on a three-position switch: Up is no flaps; mid is partial; and down is full flaps. I also like to employ a device that slows the servo speed, so the flaps deploy slowly and smoothly. This minimizes sudden pitch changes when the flaps are deployed.



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Learning to Use Flaps

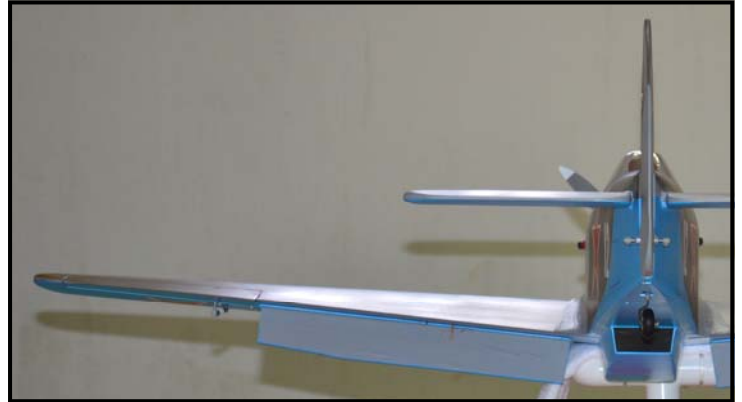
What mixes (if any)?

Before trying a landing with flaps deployed, go up high, slow down and then deploy the flaps to find out if the plane changes pitch angle. There may be no pitch change, or the plane will "balloon" and then settle into a normal attitude. If so you are lucky and no mix is needed. More likely the plane will pitch up or pitch down. A pitch up requires down elevator mixed in with flaps. A nose down requires up elevator to keep the plane flying level. In these mixes, Flap is master, and Elevator is slave. A mix rate of 5% to 10% has been typical in the planes I fly.

What to expect?

When flaps are deployed, lift progressively increases and at the same time so does drag. A heavy warbird with a high wing loading will benefit greatly if flaps are deployed during landing. The increased lift means the plane can fly slower before it stalls. And this means that you can land it slower.

Before we continue with flaps, a few words on wing washout. Washout is a feature where the wing root is aimed slightly up compared to the wing tip. The idea is that as a plane's angle of attack increases (goes nose-up) the wing stall will start at the root, while the wing tips continue to fly. The reduced lift at the root causes the plane to drop its nose while the tips continue to provide roll control.

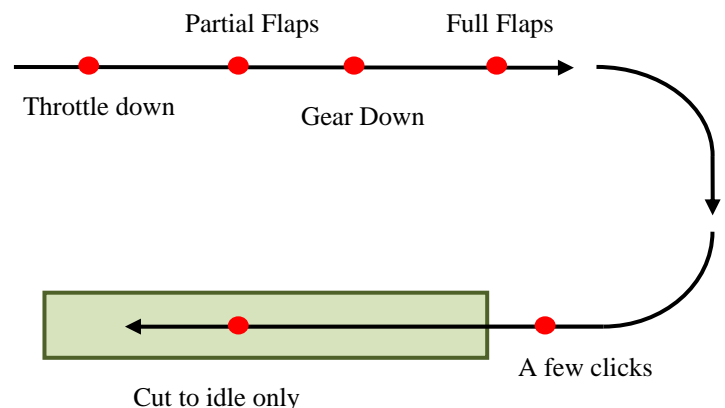


Deployed flaps have the same effect as drastically increasing wing washout. The wing trailing edge (T.E.) for the flap span is lowered, while the T.E. in the aileron area remains the same. Roll control is maintained down to a much slower speed than without flaps. A caution here: This benefit does not occur with flaperons, because the entire wing trailing edge is lowered. Flaperons will increase lift and drag, but I have not had much luck with flaperons.

So for our heavy warbird, not only can we fly slower, but we also have better roll control at those slower speeds.

Warbird landings just got a whole lot easier!

Here's how I use flaps for landing:



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Learning to Use Flaps

- On the downwind leg of the landing pattern, I reduce engine rpm. This will be to about 1/2 to 1/3 throttle, depending on the aircraft.
- Right after the aircraft slows, I deploy partial flaps, extend the retracts if required, then deploy full flaps. Never deploy flaps at high speed.
- I try to fly a steady descending path through the turn - either two 90 degree turns or one 180 degree turn. I use throttle to maintain the intended descending path and elevator for pitch attitude - slightly nose down.
- By the time the aircraft completes the turn to line up with the runway, I will be at or just above idle.
- At about 10 to 15 feet above the field, I make sure the throttle is a couple of clicks above idle, so there is a good flow of air over the tail surfaces, and there is no chance of stalling. All that additional flap drag is trying to stop the plane. That drag must be offset, either by dive speed, or prop thrust. I like to rely a bit on both.
- Now I use elevator to flatten the dive slightly and if I time it right, the wheels touch the grass when the flying speed is just above a stall. The flap drag and the drag from the grass will quickly get the speed down below flying speed. I try to keep the throttle at those few clicks above idle, so I get good rudder authority for a straight slow-down run. I let the tail settle to the runway on its own. Then cut to idle.



I seem to get better results with a wheel landing than with a three-point landing.

Now that is how I hope it is every time!! Alas, I am not that consistent and each plane is a bit different. But the more I practice, the more often I get it right.

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Learning to Use Flaps

If at any time, it just does not feel right, I will open the throttle, go around and set up again. Some things to watch for:

- If you are too low on the downwind leg, you can't fly the steady descending turn/s. Go around and start a bit higher.
- If you are diving at the field after the last turn, you started too high. Go around and start a bit lower.
- If you are in the habit with your sport plane, of cutting to idle and gliding in, get used to using the throttle during approach.

So what about lightly wing loaded planes? Perhaps you have said, or heard "My 4 Star floats all the way down field when I try to land. There is no way it will land with flaps!"

Really? Flaps do increase lift, but at full deflection of 45 to 60 degrees, they add incredible amounts of drag. Drag slows planes. The StarDuster (kit-bashed 4-Star) has relatively small flaps, but deployed at about 50 degrees they do a great job of reducing the amount of field needed for a landing. And I still have the throttle a couple of clicks above idle - force of habit!



The only time I have found model flaps needed for take-off is for a tail dragger that sits fairly level and so does not permit "rotation" for take-off. Partial flaps (about 15 to 20 degrees) help to break the plane free of its ground stance.

Using flaps effectively has given me something new to learn. They really help with landing Warbirds, but for the touchdown the rpm must be kept higher than idle to avoid a stall, while also ensuring there is a good flow of prop wash over the tail surfaces. If you have a plane with flaps, learn to use them. I hope my trials and mistakes are helpful to you as you learn.

Article by Noel Hunt

Recreation 101 and the Radio Control Club of Detroit

The Radio Control Club of Detroit has a working relationship with the Michigan Department of Natural Resources that began in the 1980's. This relationship has provided the club with the opportunity to lease land for a flying field in Wetzel State Recreation Area since that time. When RCCD was asked to participate in the DNR's new Recreation 101 program by hosting an "Introduction To Radio Control Flying" event, the members were all for it. We believed it was an opportunity to strengthen the club's relationship with the Michigan DNR and our neighbors.



Noel Hunt explaining the intricacies of flight.

On the day of the event we were blessed with perfect flying weather and a good turn out. Ken Sulkowski presented a detailed short history of RCCD. Bruce Thoms complimented a display of models with a talk geared toward explaining the broad spectrum of ways to participate in the sport of radio controlled flying. Chris Hass performed a demo flight showcasing giant scale, 3D aerobatics. To say that Chris took their breath away would not be an understatement. Helicopters and other fixed wing aircraft were also flown.

The point man for the club in this project was Herb Mills. Our lead-time was short but Herb quickly gathered a small committee and contacted Jacquelyn Baker and Sam Rettell of the Michigan DNR. They spearhead the Rec. 101 programs out in the parks. We let them know the club was very much on board with the idea and eager to help. Jacquelyn and Sam are well qualified in their positions and a plan for the first ever "Recreation 101 Introduction To RC Flying" event came together in short order. Notices were posted on club and DNR web sites. Flyers were printed and distributed. There was as much promotion for the event as we could manage in the short time available.



Joe Tasse (orange shirt) & Noel Hunt (down fence line)-Buddy Box Flying.



Joe Tasse explaining R/C flight controls.

Next came buddy box

flying for all the interested parties who signed up to give it a go. Joe Tasse and Noel Hunt were our buddy box instructors. In all, 16 buddy box flights were completed. Sam and Jacquelyn were among the 16! The responses from participants were totally positive. It was a great way to simultaneously promote model aviation and show what a variety of activities Michigan State Parks have to offer. The club hopes to make working with the DNR to promote recreational opportunities in Michigan State Parks an annual event.

Web Info: www.rccd.org www.michigan.gov/DNR
www.michigan.gov/wetzel

TIPS, TOOLS, GIZMOS & GADGETS-Exhaust Solutions

I have a Hanger 9 CAP 232 with a Saito 180 4-stroke engine that has been begging to get into the air. The engine is side mounted and that has made it difficult to get any exhaust system to fit properly. I had



Male/Male fittings requiring a connecting sleeve.

several elbows and flex tubing but I couldn't find sleeves that would connect male/male fittings to allow me to create the exhaust system that would work like I had planned. The only solution was to make my own sleeves and thus necessitated bringing my Logan Metal Lathe out of storage.

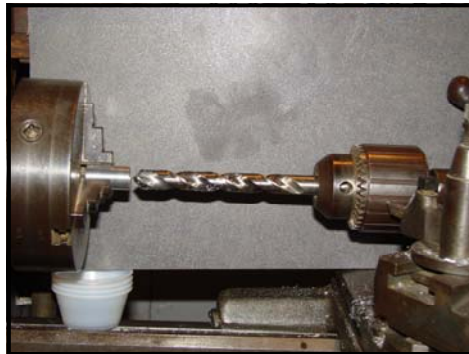


Logan Metal Lathe-circa 1946

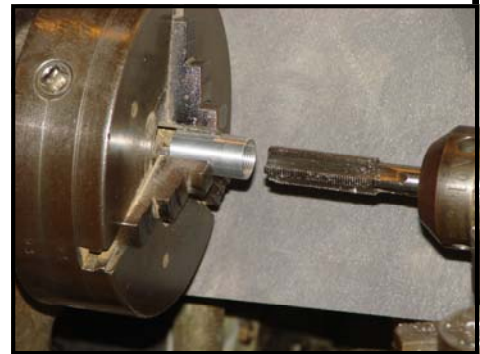
There was definitely a renewal learning curve since the lathe had been inactive for 10 or more years. My oldest son, Brian, is a machinist and really helped shorten the learning curve on this project with expertise and some aircraft aluminum. Production Tool Company supplied a larger drill chuck (USA made-3/4" capacity), 13 mm drill bit, 14 mm tap along with a die and new die holder to do out-side threads on other exhaust parts that I wanted to make too.



Aluminum rough cut to diameter.



Drilling with 13 mm drill prior to threading.



14 mm threads cut with tap, using back gears to slow lathe.



Sleeve parted off, chamfered .



Sleeve and exhaust system.

The project began with roughing the aluminum down near the final diameter. That was followed with the 13 mm drill to bring the inside diameter to the required size for threading. Once that was done, I changed to the back-gears to slow the lathe down and threaded the piece with a 14 mm threading tap. After tapping, I was able to bring the sleeve down to a final dimension, part it off and chamfer the edges. This gave me a sleeve that is threaded to accept the male threads on each side, successfully joining the two exhaust elements. Lou Tisch



Exhaust system installed.

Classified Section

Cessna Skylane

Built by Bill Hackett
Built from Hostetler Plans
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Includes Power Supply & Charger
Phone: 586-209-6595
\$1500 obo RTF



Classified Section



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Bipe w/ Fox.40
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**Thunder Bug
Balsa USA
Airframe
58.5" Wingspan
\$60
Contact:
Lou Tisch
See Business Card
To the Right**

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 Buccaneer, Christen Eagle, several Mustangs, Pylon and fun-fly ships.

The 1st kit to be introduced 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



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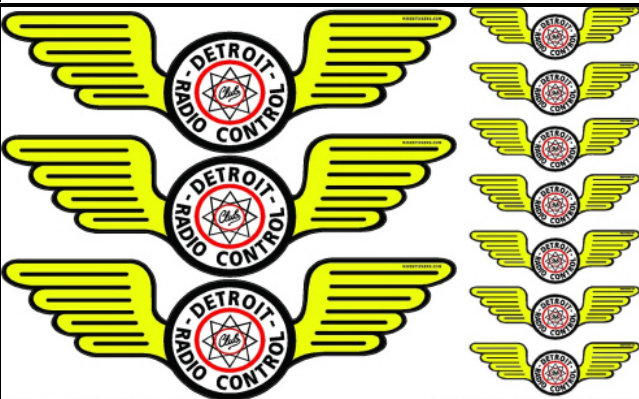
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Go to: www.MikeStickers.com and click on the RCCD Logo. This will take you to a page with the vinyl stickers along with ordering instructions. As well as stickers for your models & bumpers, you'll find the reverse sticker for the inside of your windows.

This is also the place that made the Pilot Stickers that were given out at the Christmas Party. Be sure to let MikeStickers know that you are a member of RCCD.

Lou Tisch



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Gravity Always Wins !

We're on the web
www.rccd.org



Coming Events-2013

Club meetings the 1st & 3rd Thursday of the month.

June 22, 2013	Great Lakes Scale-All Scale
June 23, 2013	Great Lakes Scale-Warbirds
June 29, 2013	DNR-R/C 101 Event
July 20, 2013	C/L & R/C 2x2 Fly In
July 21, 2013	R/C 4-Stroke Rally
Aug. 1, 2013	Club Mtg & Steak Out-Field
Aug. 10-11, 2013	Big Bird Fly In-Mini Fest
Aug. 18, 2013	Open Combat
Aug. 31-1, 2013	Club Fly-In, Fun Fly, Picnic

Please check the website for updates : www.RCCD.org

Come on down, the game is afoot!

