



February 2012

Thunderbolt

Editor's Note

By now I'm sure that you have read most or at least some of the February Model Aviation magazine. New president Bob Brown introduced himself by laying out changes to the Academy and the MA. He points out the FAA will certainly be a major focus in the coming months and will soon be releasing their proposed rulemaking notice. So stay connected to the AMA website for updates. Depending on the outcome, AMA is proposing another letter writing campaign to voice our concerns that may restrict enjoyment of our hobby. See pages 12, 13 and 176 of the February MA issue for details. The delay in when MA goes to print is not the most effective vehicle to get timely news. Go to AMA's website www.modelaircraft.org and click on the "Government Relations" button.

District VII VP Bill Oberdieck wrote his farewell column, signing off with his CAVU and will be replaced by Tim Jesky from Monroe, Michigan. Considering that District VII covers Iowa, Minnesota and Wisconsin as well as Michigan, our state seems to be prominent in the Academy. It might be a good idea to invite our new district VP to one of our club meetings.

Has anyone been out flying? This has been a very mild winter to date and there have been nice days. If you do fly, send me some pictures, especially with people in the shot.

I sent an email to all Ribcrackers and friends and called a few with a question concerning the replacement of battery packs. The one reply I received was a good one and is published in this issue of the Thunderbolt. Send or call me with your criteria on changing out a battery. I will publish all responses in the March Thunderbolt.

The Thunderbolt didn't win any prizes in the AMA 75th newsletter contest. Take a look at the website to view the winners. First place went to Fox Valley Aero Club, a suburb of Chicago. What a newsletter! Twenty pages and very impressive. I'm looking at all winning newsletters, gathering ideas to improve the Thunderbolt. One thing that is prevalent in Fox Valley's winning entry is articles from all the club officers. Hmmmmmm...how about it, officers? You write it, I'll print it. Other winners are: The Las Vegas RC Club, Rapid City Propbusters RC Club in South Dakota and Chino Valley Model Aviators, Inc., in Arizona. To view the winning entry, go to AMA's website, type "75th newsletter contest winner" and view a real class act.

Thanks to Greg, Scott, Gerald, Warren and Matt for articles and pictures used in this month's Thunderbolt. Your contributions make our newsletter and club better. See you at the meeting.

Don



February Club Meeting

Monday, Feb. 6, 7:30 pm

*Livonia Senior Center
5 Mile & Farmington, Livonia*

Ribcrackers January Meeting Minutes - Jan. 9, 2012

Meeting started at 7:28

The meeting minutes from last month were approved.

Treasurer's Report (Dennis Robbins) – Not much change in our accounts. Some small bills were paid. Budget will be presented at the next meeting.

President's Report (Gus Dabringhouse) – The executive board will start doing board meetings 2 weeks prior to the actual meeting.

Vice President's Report (Scott Cruz) – Porta-potty was righted but it is lying on its side again. There is a theory that it may be done purposely to prevent people from using it since we aren't paying to maintain it. Scott fielded a suggestion from Roger that we just move the flight line behind the current fence that is separating the pits from the spectators rather than the proposed distance. Dennis hopped on board and suggested that the fence be replaced with a real fence complete with top rail so that people can lean on it without knocking it over.

Secretary's Report (Matt Jerue) – Time to renew your membership. Don't forget to renew by the March meeting. Renewals after March meeting will incur late fees.

Editor (Don Unsworth) – Don got an impassioned complaint from Ralph because no one told him about the Christmas Party. Officers need to keep in mind that not everyone has access to email. Don't forget to include people that don't have access to email with a phone call. Don could really use some help from the members with submissions for the newsletter. Submit whatever you got: Workshop area, building tips and projects, etc...HELP!!!!

Announcements:

- Congratulations to Warren for first flight of the year using Ken's plane
 - Hank presented Warren with the first ever first flight of the year trophy.
- There is a rumor that Derrick may be back this year.
- Model of the Month discussion – should we do away with the gift card to the winner? After both

sides of the argument were presented we put it to a vote and it was decided to keep the gift card award.

- Jim McGrath suggested that we could do a group project during one of the meetings to repair a crashed airplane/helicopter to show how it is done.

Raffle

Field Stand was won by Don Unsworth

Battery Charge went to Jim McGrath

Accutthrow was snapped up by Dennis Kirkwood

Ron McHale won the blue ticket

Model of the Month

- Greg Gordon brought in a Tower Hobbies Trainer that needed resurrecting. Wings were replaced and mount was changed from rubber bands to screw-down. OS 40 max gives it power.
- Roger Wilfong brought in an old Widget that suffered a midair collision with a P40. Roger showed us what he had to do to put the chewed up wing back together.

Prize was donated back to the club by the winner.

Dutifully Offered, Gerald Klose



Where is the trophy?

Don't forget to re-up your AMA and Ribcracker memberships

My BF109F Scratch Build Experience

By Greg Gordon



What possess anyone to take an idea and create something starting out with absolutely nothing? Well it could be desire, passion, self achievement, or just plain stupidity. I think in my case I could fit pretty much into any one of these categories with the latter being more likely. It all started with a plane that I won through a bidding war from a local club auction. I use the word won very loosely. It was a Sig Astrohog that had a lot of flight time. The plane also had too much wing dihedral for my flying style. So when the flying season came to a wintery halt, my initial thoughts were to reduce the wing dihedral so I

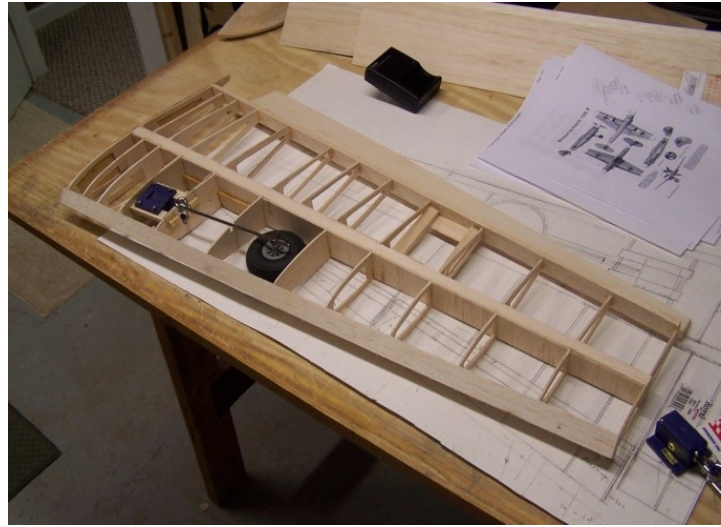
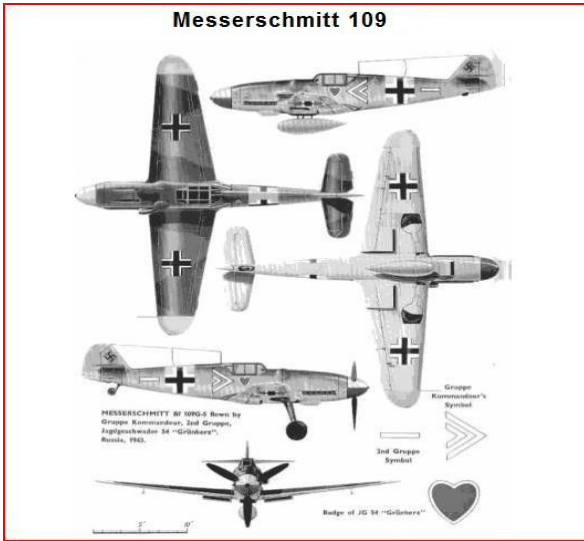
started to refurbish the wing by first removing the existing wing covering and soon discovered that several major repairs were performed on the wing panels. At the time I thought I would just build a new wing so I made a list and purchased some balsa materials from the local hobby store. However, it seems I got a little ahead of myself, before I forged ahead on the new wing I looked at the fuselage and once again I discovered some previous repair work along with a very oil soaked bulkhead. I decided the plane was a total loss and proceeded to scrap the plane for everyone's safety. Just another lesson learned on what not to buy and just considered it a donation to the club.

In the mean time I had all this wood that I just purchased and besides that what would keep me busy for the remaining six months of winter. I thought to myself I love World War II planes so why not build one from scratch! Great idea right? This is where the stupidity comes to play. It is easy to get excited about something when it's just a thought in your head. Now that I was excited about the idea I immediately started thinking about all the great American fighter planes that I could enjoy building. I

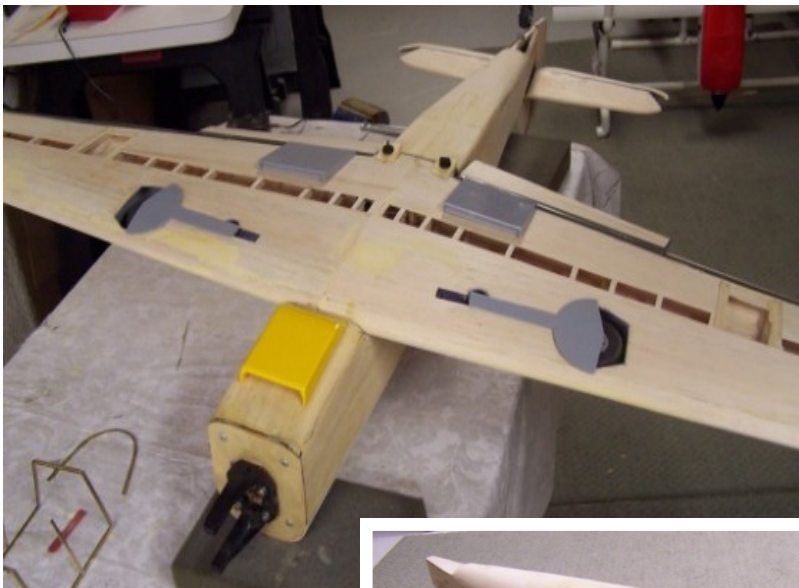
thought about the P-51 Mustang, P-47 Thunderbolt or even the P-40 Warhawk which were all historic fighters but after a long list of great fighter planes, I thought what plane do I see the least of or is very rare in my neck of the woods. The BF109 Messerschmitt came to mind. I thought that every great American fighter plane needs a good arch rival for a dog fight once in awhile. So I finally decided and set out to build a fairly inexpensive relatively speaking plane with the majority of parts made by hand but with enough detail to distinguish it as a Messerschmitt 109F.



Perfect I said so I forged ahead and began browsing the internet and found a couple of sites that had a good scale representation of a BF109F series. I then took the plan, side and top views of the plane and printed them separately on an 8 ½ x 11 paper. This was now my scaled down master print and from this point on I proportioned each major detail of the plane to a larger scale onto poster board which then became my full size plans. The scale or multiplier that was used was an odd ball number to achieve a 63" wing span which would allow an existing good performing FS91Asp motor to be used as the power source.



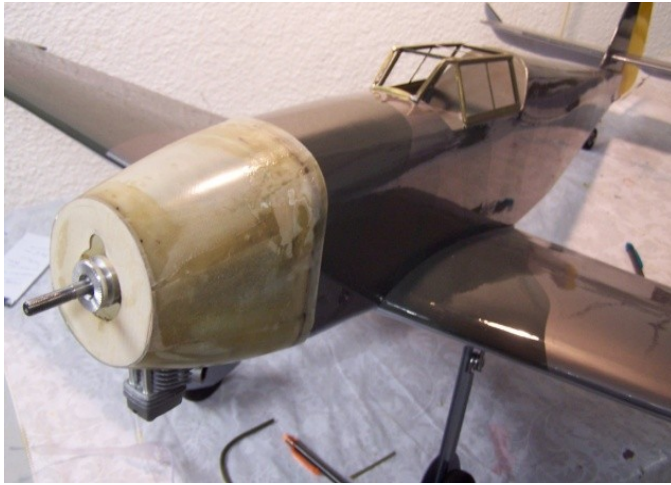
The wing was the first section to be built starting with a slightly larger chord and rib profile to accommodate for the retractable landing gear which was difficult to fit into a smaller scaled down plane. This meant the plane was not to a true scale from the start but all I wanted was a plane that looked stand-off scale. The many rib pieces were then stenciled onto balsa wood then hand cut with a razor blade. The spruce spars were reinforced with vertical grained webbing between each wing rib for additional strength which I copied from a high performance glider that I built several years ago. Some ribs were constructed from plywood giving the structure additional strength. A couple of air intakes were added to the bottom of the wing to simulate some of the standout characteristics of the BF109F wing.



The actual BF109 landing gear was originally part of the fuselage which was great for maintenance and transportability but I made the model with retractable gear in the wing which eased the model building. However, I kept the original shape and theme which has a narrow wheel base that made taxiing and take-offs very difficult.

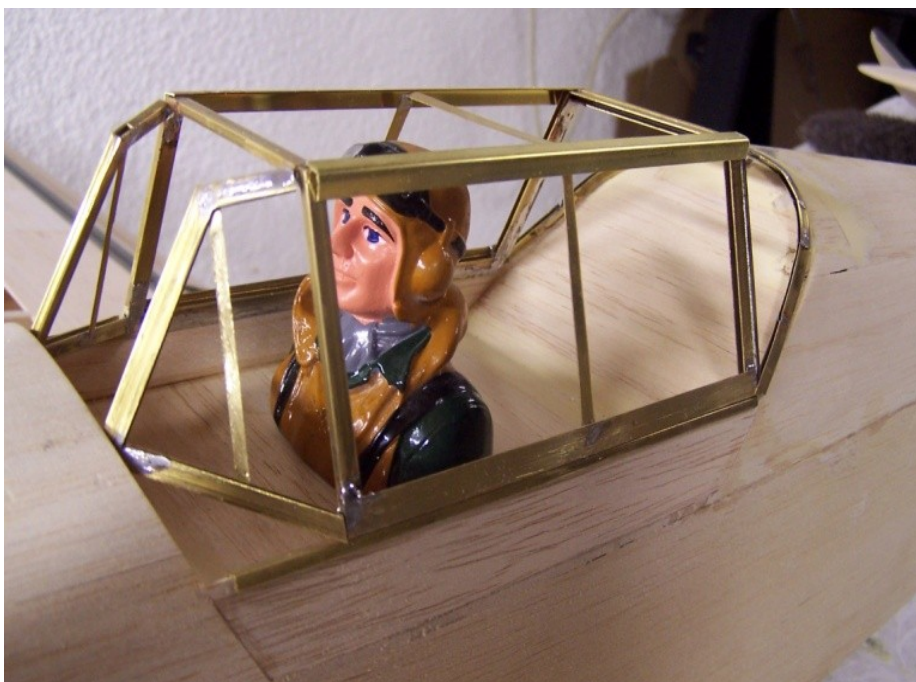
The fuselage frame was built much the same way as the wing.





The cowl however was pieced together using what I believe was a fiberglass cowl from an Extra 330. I had to slice it into four pieces and used plywood sections to create a general shape that resembled a BF109 engine cowl. I then applied resin and fiberglass cloth at each joint. With a lot of sanding, it turned out to be a little heavy but the look was great and the fit to the fuselage was pretty good too. The exhaust was hand carved from spruce and then painted black. Depressions were formed into the cowl to simulate the 50 caliber machine guns and the engine air intake which stands proud of the fuselage was also added to complete the scale look.

The canopy was constructed using brass extrusions available at most local hardware stores. The extrusions were cut to size and silver soldered into place. The window panels are thin sheet plastic from a poster board picture frame purchased at a convenience store. The panels were easily cut to shape with scissors which were then inserted into the brass frame extrusions. The construction of the canopy was very difficult and tedious which took me two attempts and a lot of time to get it right. I hope it holds together at least through its maiden flight.



The covering material that was used was Monokote because of the vast colors available to get the right color scheme I was looking for. The only problem was the silver was not offered in a flat sheen so a gloss or high sheen was used knowing that a flat spray could be applied later if desired. Each patch or panel had to be ironed on separately which was another very tedious process but I was quite impressed when it was finished. Time and hard work prevailed for me this time.



What started as a fixer upper completely evolved into something I did not expect. With a lot of time and always more money than originally anticipated the model was a success in my eyes. Even though the model has its faults; overall it was a great experience with many lessons learned along the way that can be applied to future projects or at least communicate to others on mostly what not to do. This summer I hope to enjoy its maiden flight after putting it on display for a year now. Hoping for the best.

Question of the Month:

What criteria do you use to determine when to change out a battery?

With proper maintenance NiCad and NIMH receiver batteries can last quite a few years. By maintenance I mean regularly discharging and recharging using a battery cycler/charger. This will tell the condition and capacity of the pack. A battery is considered to be no good when its' MAH capacity is not at or above 80% of its' rated capacity, i.e. a 600mah pack should reach at least 480mah after cycling ($600 \times 80\% = 480$). A battery should be cycled at least once every year to check its' condition before flying season begins. Standard overnight charging (without occasional cycling) will diminish a packs capacity over time. All of your packs should be

tested before the flying season begins every year. If you don't have a battery charger than has cycling capabilities find a way to have your battery pack(s) checked, be it borrowing a charger/cycler or having someone check them for you. All of this also holds true for packs that are brand new. I have seen new packs that did not reach their rated capacity right out of the box. It was not until after a few cycles on the charger that they reached their peak so be careful when buying new packs as well, they may need to be cycled a few times before using them in an airplane. All of this holds true for your transmitter packs as well.

Warren

Raffle



Your Editor won the field stand.

Ron McHale won the Blue Ticket



Dennis Kirkwood wins an Accutrow.

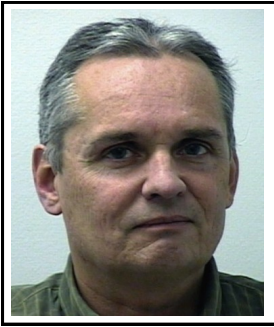


*Jim McGrath
is winner of a
battery
charger.*



**Can you believe
this is a Tower
Hobbies Trainer?**

Introductions, Observations, and Reminiscences *Scott Cruzen*



Greetings to all the Rib-crackers club members from your new Vice President, elected by a landslide majority at the December meeting (i.e., I failed to take

a step back

q u i c k l y

enough when Hank pleaded for volunteers to take his seat.)

As a relatively new club member myself, I've only had the opportunity to meet about a third of the club membership so far. I did manage to get out to the field most every weekend during the past flying season, so I think I've met most of the really hard-core fliers. The rest of you probably saw my name pop up in the officer listing in last month's Thunderbolt and thought, "Wait a minute, who the heck is that guy?"

Well...that seems like a reasonable question, so I thought I might be excused if I monopolized a page of this month's newsletter to give you all a bit of a bio. I figure what's the worst that could happen?

Well...okay, the FBI might find out where I've been hiding all these years, or we might have a large increase in attendance at next month's meeting as outraged members armed with farm implements call for impeachment, but hey...I figure it's probably worth the risk.

While I've only been a club member for a year, I've been around the hobby pretty much all my life. My dad was in the Air Force and was an aviation nut and a modeler, and he got me started out pretty young flying control line and free flight models. That was back in the days when single channel pulse radios were still common, so that gives you an idea of my...uh...vintage. I got into RC models back in the 60's

and messed around with them for several years, until college and raising kids seemed to occupy all the time (and money) that the hobby demanded, so eventually I sold off all my planes and focused on my other interests. I've played musical instruments in various bands almost all my life and I got into building custom guitars, mandolins, and fiddles, thinking it might be a good post-retirement money-making hobby. I found out after doing that for a while that the labor required to produce a good instrument, the high cost of materials, and the relatively low price you can get for the finished product, yields an hourly wage that would make a Wal-Mart greeter snort coffee out his nose. I built furniture for



Hand made F-5 Mandolin

a while too, but you can only make so much before you have to start giving it away to friends, or else rent a storage unit.

The fact that you could now fly RC aircraft without dealing with those nasty little engines sold me on getting back into the hobby. I picked up a T-Rex 450 clone and fooled around with it until I could fly it around and do mild aerobatics like flips and loops with some degree of success, then moved up to a 500-size heli. After lots of crashes I found that I was 1) marginally competent at basic heli flying; 2) substantially lighter in the wallet; and 3) really, really good at repairing these infernal contraptions. About that time I also got a flight simulator. (Note: this should be done in the reverse order as it costs a lot less to crash the sim.) After 18 months or so with the helis, I started to notice parallels to the old days of glow-powered RC airplanes, namely that every hour of

flying requires way too many hours of tinkering, tuning, and repairing. The fly-to-fix ratio - as I call it - seemed to be a tad on the low side. The old saw that a "helicopter is a random collection of parts that sometimes flies," is even more true of models than full scale. And trying to learn to fly a heli with a cheap, poorly performing gyro is like being in the fifth circle of Dante's inferno. After getting into an argument with my 450 one day - and losing spectacularly - I decided that maybe I should take up milking cobra venom, bear baiting, or some other relatively safe hobby. That was my most expensive crash in a long and impressive line of crashes, total cost: over \$1,000. (\$125 in parts and \$900 in emergency room bills... ask, and I'll show you the scar.)

Although instrument and furniture building didn't pan out quite as I'd expected, I at least wound up with some nice one-of-a-kind instruments and furniture, a penchant for doing fussy woodworking...and a well-lighted, well-equipped basement shop. My shop was designed for instrument-building, which involves making lots of complex shapes with compound curvatures, hand carving and fitting, gluing, inlaying, and finishing, which - it turns out - makes it just about perfect for building airplanes as well. A couple of years ago,

after a long time away from the hobby, I happened to see a guy flying an electric RC helicopter and got bitten by the bug all over again. One part of the hobby I'd always despised, and part of the reason I gave it up, was futzing with those nasty little #!@&* glow engines (with apologies to those of you who actually enjoy this, or claim you do). It seemed like a typical trip to the flying field consisted of half an hour setting up, two or three hours of flipping props trying to get the engines tuned well enough to fly reliably, ten minutes applying Band-Aids to knuckles, a couple of short flights punctuated by dead stick landings,



The "Cave"

half an hour wiping slime off the airplanes, then a trip to the bar with the buddies to drink and commiserate. Listen, I don't know if you all know this, but it turns out that it's actually possible to just go straight to the bar and avoid all that frustrating intermediate stuff altogether!

Since I had made the investment in radios, receivers, servos, batteries, etc, I decided to set the helis aside for a while and give airplanes another go, but with electric power this time. Aha, now we're talking! I've always enjoyed building just as much as flying, and I don't mind repairing too much either (in fact, several of my planes have been totaled 3 or 4 times.) In the old days most of my planes were scratch-builds or built from plans. These days I don't have the time for that, but building and modifying ARFs is still enjoyable and I really do enjoy messing with the electric power systems. The power density available in today's brushless motors and LiPo batteries is absolutely amazing...and I don't have to clean up slime or apply Band-Aids, and no dead stick landings! Well, almost none anyway. Eventually, I'll probably get back into scratch building again, but in the interim I've been accumulating airplanes at an alarming rate. Even with attrition, my shop is full of planes and they're starting to creep out into the rest of the house. At the end of this past summer my wife declared, "There's no room for any more @\$#!*% planes in this house, you can't build any more until you crash a few." Sounds like a challenge to me, and it's one I'm pretty sure I'm equal to!

So what other tidbits can I toss out? I'm a lifetime denizen of southeast Michigan, married for 38 years with two grown sons. I'm a U of M alum, so you'll understand why the PT-19 is one of my favorite planes (hint, check the color scheme.) I'm a private pilot, as I expect many of you are as well - since the airplane bug tends to infect many aspects of our lives - and I work at Williams International in Walled Lake, maker of small turbine engines for missiles, UAVs, and bizjets. In the 36 years that I've been there, we've built and tested some of the most unusual aircraft around, many of which would be great candidates for modeling...but that's a story for another article, or maybe a slide show at one of the winter meetings.

Well, that's my story, and I'm sticking to it. I encourage any of you that I haven't had the chance to meet to say hi at the meetings or stop by the field to shake hands. As the new VP, I'm here to represent your views, but I can't do it if I don't know what they are, so don't be bashful. I'd also like to encourage everyone to contribute to the Thunderbolt, Don does a great job editing it but he needs a constant stream of content so take a few minutes and let us all know about your latest project, most amazing save, most spectacular crash (remember the time you hooked up the aileron servos backward? Come on, admit it, you've done it!), or send in pictures of your fleet, or your shop, or whatever. We also need your ideas for club events for the coming year, so bring them up at the meetings or email them in.

I've got a battery heater and a transmitter cozy, so I'm not afraid to fly in winter weather. If any of you are so inclined, shoot me an email and we can get together for some frigid flying. Anybody ever see an F-86 on skis?

Scott "Two Left Thumbs" Cruzen



*Hello, my name is Scott
and I'm an RC Addict*

UPCOMING LOCAL EVENTS

February 4 - Skymasters Swap Shop

February 18 - Thunderbirds Swap Meet- Kalamazoo

February 6 - Ribcrackers Club Meeting

February 18 - Sun Dancers Swap Meet-Port St. Lucie, FL

February 12 - Mid Mich RC Swap Meet—Chesaning

March 5 - Ribcrackers Club Meeting

Check out the many local flying events on pages 152 of Model Aviation, February issue.

MODEL OF THE MONTH



Greg Gordon pulled off the shelf one of those “gonna do” tasks of replacing a wing and re-covering an old Tower Hobbies 40 Trainer. *Looks like new, Greg.*



Roger Wilfong showing off his repaired Widget after a confrontation with a P40 recently at an indoor fly. *Good save, Roger.*

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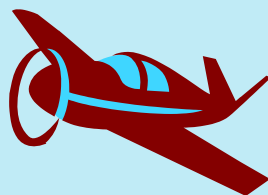
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