



The R/C Flyer

Volume 39, Issue 7

July, 2014

Next Meeting – July 10th, 2014, Clear Lake Park Building– 7:00 PM



IN THE PITS

by Mike Laible

I hated missing the June meeting but I take things went well. I heard the air condition didn't pass but a fan is on its way. Way to go guys, it will be nice to have a breeze under the canopy.

For a more pressing matter. Please make sure you comment to the FAA Interpretive Rule. You should have received an email from me showing all the info needed to make a comment. The main point is that FAA has for some reason input the definition of model aircraft as being:

when flown within 5 miles of an airport, the operator of the aircraft provides the airport operator and the airport air traffic control tower ... with prior notice of the operation

AMA has always had this safety rule:

(c) Not fly higher than approximately 400 feet above ground level within three (3) miles of an airport without notifying the airport operator.

The bad news is how you interpret this we are 4.8 to 5.1 miles from Ellington. Its not clear what size airport, how do you measure, etc.

How do we notify the air controllers – “We fly 4 to dusk , M-F, and SAT-SUN dawn to dusk, every week.” Would this suffice? A bunch of questions and they made a bigger mess than what it was.

So make sure you make your comments. Stay tuned, but until then business as usual. I will send out another email with a response that Charlie Tiexierra pu together.

On another note, I will also miss the July meeting. It seems I have been called up to the St. Louis production plant for some workmanship problems. Actually I was going to the NATS with my Dad but as it turns out we are just going to hang around and do some building on the Corsair and also fly the B-25 at a local park. He has never seen it fly so this will be a treat for him. I also arranged a meeting with the full size B-25 and will show the model along side the Zirolli B-25. It should be very special. The guys at the Comerative Air Force are excited to to see the scale model.

It was disappointing to read about the porta can increase. However, I think if you ask around \$118/month is about the norm.

Everybody take care and see ya in August. Don't spend to much

As always, Godspeed and safe landings.

Mike L.

JUNE MEETING

by Mike Laible and Kent Stromberg

I missed to June meeting so had to ask Herman and Russel for some help on the the meeting entertainment.

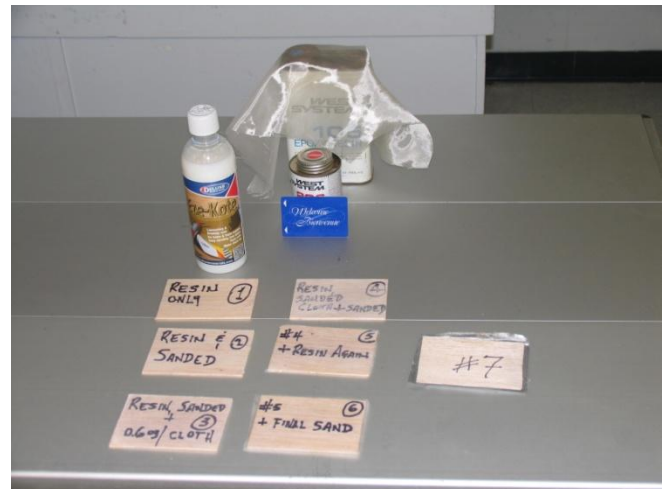
I know Herman was demonstrating the new covering material called Easy Coat. I have seen the advertisements and excited to see how it works on a model. This is Herman's write up:

A recent article in Model Aviation gave a great "thumbs up" to a new finishing resin, named Eze-Kote, imported from Britain. Wanting to reduce the cure time, plus getting rid of hours of sanding time, sounded like a truly remarkable invention. So, I ordered a bottle from the source listed in the magazine.

The product was received in less than three days. The container is one pint in size, is water-based, and cures is 15-20 minutes time at 50% relative humidity and 70 degrees F., according to the instructions on the bottle. Wow! Better than sliced bread!

So, I decided to perform a simple test on some scraps of bare balsa before I used this new product on my current warbird that is under construction. I appllied a heavy coat of the resin on the bare balsa, and sure enough, in about 20 minutes it was rock hard. I sanded the wood, then applied a scrap of 0.6 oz. fiberglass cloth to the piece, and put on another coat of the resin. And again, sure enough, it cured in 20 minutes. [NOTE: I am working inside my house, where the central A/C keeps the humidity down to a tolerable level.] I sanded this once again and applied the third coat of resin, hoping this third coat would fill the weave. The resin dried quickly, I sanded down the fiberglass-covered balsa, but I could still see the weave.

I was disappointed the product does not fill the weave. The good news is it is water-soluble, it is very easy to use, it dries quickly, and releases no discernible odors. I went so far as to add several more coats to the test strip of balsa, trying to finally get the weave filled so it does not show, but was never successful. Other than seeing a slight pattern of the weave in the fiberglass, it is fast, easy and very economical compared to the price of West 2-part epoxy.



Herman's sample test pieces.



One item I must bring up is I have always used West system 209 hardner. This gives you about 45 minute work time. 206 hardner is the same but only gets 30 minutes work time.

With both of these I sometimes got a oily film on the first couple of sanding passes. Larry Bailey gave me a can of 207 hardner. This is suppose to be less oily film and easier to sand. So far it is much easier to sand.



Rssuell's with FPV. Russ – make sure you register with the FAA.



Looks like a radar on top.

Well that is all for the June meeting. I miss the club meetings and can't wait to be back in August.

MINUTES

Membership committee	82 members
Safety committee	No report
Treasurer	

- \$5349.00 on hand It was announced by tres. That port a potty cost went up from 84 to 118.00. Discussion that increase should be put on Rocket Club. Bruce will look into this
- Tres. Also advised he has name tags not picked up. Herman will write up article for next news letter

New business

- Bruce made a motion that we get a fan for the tent area at flying site. Discussion: Should be weather proof . Herman suggest he would check with Granger for a 30 inch or better on Pedestal 120 volt and a chain and lock.
 - Motion carried 8 for 1 opposed 1
- Show and tell
- Herman demonstrated a new product called Easy Cote

MOM

- Russ Shanks Quad Copter

MAY MOM



Russell Shanks with his Quad Copter.

YOU GUYS SCARE ME

by Don White

Having been involved with model airplanes for over 45 years, I've had my share of X-acto

cuts, splinters and busted knuckles thanks to hand cranking a cantankerous old Fox .35 stunt control line engine when I was a kid. As soon as I had a real job and a real income, I purchased the largest starter I could find at the time and I've rarely stuck my finger in a prop since. My knuckles have been eternally grateful. But there's something I see frequently at the field that scares me.

After a lifetime of flying glow engines, I've recently made the jump to electric power on a large pattern plane. This thing has more power than any glow engine I've ever flown and it's ready to reach up and eat someone at any point once it's energized. That's why as soon as I had acquired the plane, I modified it to add a safety interlock that allowed me to plug in the 10S battery pack without allowing the power to reach the ESC until I was good and ready to spin the prop. If you watch me prep this plane, you'll also notice that I attach one of the safety hold downs provided by the club to the tail at all times until I have armed the ESC, tested the motor thrust and am ready to taxi out for takeoff with myself and all bystanders well behind the prop arc. So what is it that has me scared?

As a safety officer, I take my office seriously. But more importantly, as a friend I take the wellbeing of my flying buddies even more seriously. I've seen way too many pictures of the injuries incurred by even small electric airplanes. These things will bite you with no warning! I can't count the times I've seen people install batteries into an airplane that has no ESC interlock, pick up the plane and transmitter to walk out and hold the plane in such a way that their arm or hand or some other vital part like a wrist artery is in the path of the prop arc. If they happen to bump the throttle stick at that critical time it could mean a trip to the emergency room.

There are numerous options out there to improve the safety of our electric setups. For me with a 10S setup in a 2 meter pattern plane, I am using the heaviest Armsafe System <http://sharprc.com/> but there are other options. Check out the SafeStart from Dave's RC <http://www.davesrce.com/#!/products/vstc1=servo-devices> (nope, not this Dave!) Or in the case of not using any interlock, please treat your plane as if it's ready to bite you as soon as you install the battery. Be careful of where your fingers, hands, arms or any other important appendages are and make sure they are always behind the prop arc once the airplane is armed.

You've already spent more than you care to admit to your spouse on your most recent project. Why not spend another \$20 - \$40 to make it safer? I could save you the cost of a trip to the emergency and a long recovery time.

WHATS UP AROUND THE CLUB

by Michael Laible

I missed the June meeting because I had plans to attend the Warbirds over Texas in Denton, TX. This is the second time at this event and it was well attended once again this year. I noticed I didn't take a lot of pictures do to be occupied keeping everything in line with the B-24.

Two special treats for me at this fly in. One was flying with Bret Bowling (B-17) and Ben Roper (Lancaster). On Saturday we flew all three bombers in formation. We got a couple of great passes with all three bombers passin in formation. It was a crowd pleaser. Even dropped bombs on one pass – all of us.

Second was flying the SPAD in formation with four other WWI aircraft. It was a lot of fun,

doing wing overs one after another with all five planes following each other.



A Bell rocket with a 250 lb thrust engine.



A look down the flight line.



I guess I didn't realize this, but man what a lot of drab that with the SPAD and B-24 next each other.



And now for the bonus. I picked up two plaques, one for third place WWI and second year in a row the B24 picks up best bomber. The public loves it when all the turrets and guns move.

It was a great event and everyone had fun.



THE LIFE OF A LIPO BATTERY

by Russell Shanks

This month's column was inspired by Don White's question to me at the field, "What is the difference in brushed motors and the number designations that have been used with them?" Brushed motors are being phased out in the RC world because brushless motors are more powerful and efficient. But our SAM (Society of Antique Modelers) brothers are keeping the vintage rc planes alive and this



column is dedicated to our SAM 82 subchapter.

The following information was researched from the AdamOne.RChomepage.com site.

Electric motors have several designations such as 280, 300, 400, 480 and 600, which refer to the case length and also give an idea of their power and weight. For example a 480 motor has about 48mm case length, is heavier and is able to deliver more power than a 280 motor.

Generally a 280 motor is suitable to power models up to 400gr and a 480 motor may be suitable to models up to 800gr, while a 600 motor may power models up to 1200gr, assuming direct drive (without gearbox reduction).

Gearboxes are often used to reduce the motor's rpm at the propeller shaft, increasing their torque and allowing the use of larger propellers. Since the propeller blades also are more efficient at moderate rpm, this combination is often worth-while despite the increased weight. Indoors and slow flier models have often a gearbox which allows the use of relatively smaller and lighter motors improving the slow flight performance and prolonging the flight time. The drawback is that the top speed is reduced.



Brushed motors need some maintenance, since both the brushes and the commutator will wear after a while due to the friction. Most quality motors allow brush replacement. The commutator itself also needs cleaning as it gathers deposits of carbon and gunk due to the graphite powder from the brushes. It may be cleaned by a very light polishing action with scotchbrite or with a so-called commutator stick. The gunk can also be cleaned off while the motor is running manually, using a few drops of alcohol. If commutator is pitted or shows brush skipping and chattering means that it has been overheated and got deformed (out of round). It needs to be repaired, as polishing will not cure the deformation.

Brushes are usually made of three different compounds: Graphite, Copper and Silver. Brushes made of silver are normally used in competitive racing as they have low resistance, but they produce the highest commutator wear and also have medium brush wear and lubrication. Silver

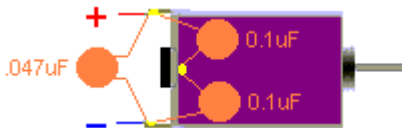


brushes produce sludge that only can be removed by lathing the commutator. Copper brushes don't produce sludge and work best at high rpm. These brushes produce medium commutator wear and have high brush wear and low lubrication. Graphite brushes

produce low commutator wear, have low brush wear and high lubrication but have high resistance, which means that they are not suitable for racing. Usually it's necessary to "break-in" a new brushed motor so that the flat brushes get a curved surface and thus increasing the contact area with the commutator. Running a motor with new flat brushes at full load will cause a lot of arcing, which pits the contact surfaces and degrades performance. The "break-in" may be done by

running the motor without load (without prop), at about 1/2 its rated voltage for about an hour or two. The brushes should get a curved surface without sparks/arcing. Some high-quality motors do not need to be "broken-in". This will be mentioned in the respective motor's manual. In case of doubt, just break it in.

Sparks that occur between the brushes and the commutator can cause radio interference. In order to prevent radio interference it is recommended the use of ceramic capacitors soldered between each motor terminal and the motor case. For extra security against interference, a third capacitor should also be fitted between the motor terminals.



Note: many Graupner Speed xxx motors have the first 2 of these capacitors already fitted internally.

Always fly two mistakes high!

HAWKER SEA FURY MKII

by Herman Burton

All the model airplanes I have had the pleasure of building since I entered this hobby in 1997 have been American aircraft. However, the lines and color scheme of the British Sea Fury intrigued me when I saw one at the EAA Oshkosh event last year. That initial interest has been my impetus for building this particular plane, which has been under construction now for most of this year. An out-of-state family wedding last month, and some travel time with the wife to see new and different sights in the northeast United States after attending the wedding, have kept me away from building for the better part of a month. And now the 4th of July is arriving tomorrow, further keeping me from building.

So, I thought a brief history of the Hawker Sea Fury might be of interest to the readers of the newsletter.

In the early 1920s a bright young designer named Harry Hawker formed the H.G.Hawker Engineering Company. This company refurbished other manufacturers' aircraft, and even built bicycles. Harry Hawker initially offered to assist Thomas Sopwith to bring his company out of bankruptcy, but that was not to be. After an unexpected and untimely death of Hawker, Thomas Sopwith became company president. In 1924 Hawker Aircraft started building planes under its own name.

The fledgling company built its first naval aircraft, called the Hawker Hedgehog, a fleet reconnaissance biplane. From there the company built its next plane, a Hawker Fury biplane fighter. Hawker also designed and built the first folding wing biplane for the fleet, named the Osprey.

As WWII was becoming more and more an inevitability in the late 1930s, Hawker was fully employed building the Hurricane, its first modern fighter, with retractable landing gear, folding wings, and sheet metal over a stressed airframe structure. An interesting side note is that Hawker designed the Sea Hurricane, which was a "use-only-once" fighter, launched from converted Catapult Armed Merchantmen or CAM ships. These were used in 1939, and were used to counter any serious threat to a British convoy. Such a defense required abandoning the Hurricane after its mission, since the ships had no recovery capabilities. It is a safe bet the pilots got very cold in the icy waters off Norway and Sweden before they were plucked from the water. Brrrrr!!!

Finally, in March, 1941, the British Admiralty got their act together, and built a ship with flight decks capable of launching and

retrieving aircraft! What a novel idea that must have been. [I am joking, of course-but sometimes the Brits seem hellbent for leather to do things the most difficult way possible.]

After the Hurricane, Hawker next developed the Tornado, after which they built the Typhoon. The Typhoon had some serious structural problems. The tail unit attachment to the rear fuselage developed an annoying habit of detaching itself in flight! Even the best of pilots were at a serious disadvantage trying to fly with no tail feathers.

Numerous prototypes of different models were built in the years to follow (*Editors note: Lets not forget about the Tempest.*), and the Sea Fury design was finally added to the Fleet Arms inventory in late 1943, with the first production plane coming off the assembly line in September, 1944. The Centaurus XII 18-cylinder water-cooled radial engine was fitted onto the front of the plane. The Sea Fury could fly at 485 mph in level flight, making it the fastest piston fighter ever constructed by Hawker Aircraft. There are numerous claims the Sea Fury is the fastest single engine propeller driven fighter aircraft ever built.

The first photo below shows the model under construction, with the pre-formed plastic oil cooler intakes and air intakes on the wing leading edges being fitted for the huge radial Centaurus XII 18-cylinder 2,450 hp. engine. My model will be fitted with a more modest 15 cc gasoline 2-stroke engine, made by OS.

I have worried about the ethanol in present day gasoline supplies, and the deleterious effects that material has on some of the components of modern engines. After having discussed this problem with several modelers, my choice to solve the ethanol problem is to use Coleman fuel, with Honda fully synthetic 2-stroke racing oil. Coleman fuel is a higher octane gasoline than regular,

and has had no other ingredients added to it, such as ethanol or other proprietary additives. I believe this choice of fuel will give me better performance, with fewer problems, plus longer engine life than trying to use the current commercially available gasoline supplies.

The second photograph shows the fully sheeted airplane, except for a small portion left open on the top of the fuselage to allow access to the tail feathers during final fit/assembly of the horizontal stabilizer and fin.

Until next month, happy landings!



Upcoming Events

Sept 18-20 B-17 Monaville
Oct 16-18 Jetoberfest Bomber Field

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Articles and Want Ads may be submitted to the Editor, MikeLaible at mrlaible@sbcglobal.net

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