



ACADEMY OF MODEL AERONAUTICS CHARTERED CLUB #1255

SERVO CHATTER

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ANOKA COUNTY RADIO CONTROL CLUB, INC.

JANUARY 2020

THE MEETING ON THURSDAY, JANUARY 16, IS AT RIVERWIND!!!

PRESIDENT'S CHATTER

Freeze fly 2020

Just got back from the freeze fly. Access to the field was reasonable. Just a few cars needed help getting out. I have 24 discharged battery packs signifying I did my share of flying.

I flew a variety of planes and all came home without the need for repair.

Thanks to Bruce we had great chili and cornbread. I brought dogs and brats. The pavilion was kept quite warm with two grills and a heater added later by Tom.

Last I counted we had 14 members show up. Not all flew but the cooperative weather allowed for some good conversations.

I think it was a great way to start the new year.

Jeff Slater

VICE PRESIDENT

Ok I will come out of hibernation and write a few words.

We still have a limited number of tickets remaining for the Waco F5C ARF; I don't know the exact count as there are other board members selling tickets. If you would like to purchase a ticket contact me at vicepresident@anoka-rc.com or messenger me, or thru the ACRC facebook page. Or contact Jeff Slater or Marc Tellevic. Phoenix Models Waco F5C 25 1/6 scale ARF 25 chances @ \$20ea



Waco F5C

I have a few planes in mind for the next raffle, but am always looking for input, if you have a plane you would like to see in the drawings let me know! We will likely not be purchasing the next plane until spring when the field is back to regular season use. We also have a Sig Something Extra balsa kit that we are hoping to give away at our regular monthly raffle. Due to the value of this kit we need to have enough ticket sales to justify giving this one away, so come to the meetings!

OK, back to the cave, night all.

Tony Hahn

MEMBERSHIP NEWS

SEASONS GREETINGS AND HAPPY NEW YEAR!!

The Freeze-Fly is over and but I did not make it. The temperature was too much for my aging body. I stayed home and worked on my new plane instead.

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Membership applications were included with the November and December newsletters that were mailed out. Members that read the newsletter online can download a membership application from the website. After January 31 a \$5.00 late fee will be added to your dues. This will also be the last newsletter that you will receive via snail mail because it is part of last year's membership. If you don't want to miss any of the newsletters, be sure you renew on or before January 31. If you don't have your AMA by the end of January you can send me your application and dues and I will mail you your ACRC membership card when you verify your AMA.

Anoka County R/C, St. Paul R/C and the other clubs in the area are working on their 2020 calendars. A complete listing of 2020 events and their dates will be published in future newsletters.

TCRC ANNUAL AUCTION - The TCRC auction will be on Saturday, February 1, at Cross Point Church on 98th and France in Bloomington. Registration starts at 6:45AM and the auction starts at 9:00AM. Go to the TCRC website for more information:

http://www.tcrconline.com/pages/auction_seller_registration.htm

Big Sky Hobbies will be at the auction to take your hard earned money.

The next meeting will be at **Riverwind** on January 16 at 7:00 PM.

Stan Zdon

A Look Back

January 2002

18 Years Ago

Post holiday quiet time settles in at ACRC. A uneventful Freeze-Fly went off without a hitch.

The contest calendar for 2002 had many proposed events with the IMAC event fizzling until next year, however the Scale Flyers of Minnesota have not chosen a site for their Scale-masters qualifier/Fun Scale event.

Speaking of contests, the new Pattern Maneuvers were listed for Sportsman and Intermediate levels.

January 1992

28 Years Ago

Lee Cravens is ACRC's representative to MAAC which is sponsoring a Mall Show at Apache Plaza. RCD-Hitec will be performing transmitter checks for a very minimal price.

Bob Svare and Jeff Slater got adventurous by using Bob's unfinished house as a take off runway. Both managed to fly between the wall studs and off to the wilds of Isanti County.

Safety Officer John Shenton reminded everyone that should you cut your finger when starting an engine with a gloved hand, you have an increased danger of infection due to glove particles in the wound. Please go to the emergency room and have the wound cleaned and check on your tetanus shot status.

Tim Karash

ACRC FUNDRAISER

The holidays are behind us now. That new motor was a gift from Santa, right? Decorations are put away for another year. Christmas cards or occasional gift still drizzle in from friends and relatives. Did you remember to send a gift to _____? I gave a few relatives a calendar and they were much appreciated. Just a suggestion if you still have a gift list to complete.

As things are winding down, we have quite a few calendars out and unpaid. I would like to have things finished up by the February meeting.

Just a reminder; those who still have calendars out are:

Bob Barton
 Marc Tellevik
 Ryan Kontak
 Duane Orson
 Jeff Flander
 Joe Boettcher

Please return any unsold calendars (in good condition) or better yet, bring us the cash.

Tim Karash

ACRC MINUTES

18 Members present.

New member& visitors - None

President: Jeff Slater started the meeting at 7:03 and greeted all present.

Vice President:

Tony Hahn showed the Waco ARF that is being raffled off. Nineteen tickets remain.

Membership report:

25 members signed up so far for 2020.

Events:

The next event is the Freeze Fly on January 1.

A Pattern Contest is scheduled for June 13 & 14.

Safety report:

No safety issues in the past month.

Treasurer's Report:

Income: \$2025.00

Expenses: \$1564.00

Training: - Training is finished for the year.

Old Business:

Tim Karash reminded members to sell calendars.

Raffle:

- | | | |
|------|----------------|--------------------|
| 1st | Jake Groetsch | Screwdriver kit |
| 2nd | Ed Belmore | Tx Case |
| 3rd | Dennis Buster | Battery checker |
| 4th | Paul Rono | CA Glue & accel. |
| 5th | Bruce Martin | T-Wrenches |
| 6th | Ryan Kontak | 6" Scale |
| 7th | Mike Dorff | Aircraft puzzle |
| 8th | Jim Van Norman | Voltage alarm |
| 9th | Dennis Buster | Knives |
| 10th | Marc Tellevik | Building triangles |
| 11th | Tom LaRose | X-Acto knife |
| 12th | Paul Rono | Sanding drums |
| 13th | Ryan Kontak | Voltage alarm |
| 14th | Tim Karash | Head light |
| 15th | Jeff Slater | Groove tool |

Stan Zdon

2020 ACRC FREEZE FLY



FROM MY WORKSHOP

Bob LaBrash - St. Paul Radio Control

My major model build over the last two years has been a 1/5 scale SBD-5 from Jerry Bates' plans. I cut out the parts myself and constructed 99% of the model using Gorilla Glue that had been thinned with Acetone at a 1 to 1 ratio by volume. The only areas not using the modified Gorilla Glue was for the landing gear mounting blocks where the joints were not close fitting enough and required Epoxy to fill and bond across the gaps. Also, the Gorilla Glue, even with the acetone content, will not bond the plastic canopy material. I used Goop or the similar E-6000 for that application. I have never found R/C 56 to give satisfactory results in that use. Absolutely all of the other bonds were created with the Acetone-diluted Gorilla Glue, balsa-to-balsa, balsa to hardwood, hardwood to hardwood, balsa to plywood, and plywood to itself. I even installed the Robart Hingepoints with the Acetone-diluted G.G. I just made a couple of applications in the holes and onto the hinge points, letting the acetone flash off a little between applications before insertion into the holes.

I also used the diluted G.G. for laminating 3 layers of 1/64th aircraft plywood together with the center ply set crosswise to the top and bottom sheets for making the upper and lower flaps and also the center sheets of the rudder and elevators replacing the 1/16 ply sheet specified in the plans. Straight, light, and stiff laminations!

The advantage of using the Acetone-diluted Gorilla Glue (G.G.) over the straight material is that it is so much thinner and can be applied with a brush in a very thin layer, preferably on both parts to be bonded. Because so little adhesive is applied, there is very little tendency for the parts to be pushed apart by the resulting chemical reaction of the G.G. with any moisture it finds in the substrates. I found that simple pinning or light weight or pressure was enough to keep the parts in contact (necessary) while the glue cured, a matter of just several hours. I'm retired and have time to wait for the glue to bond!



The Gorilla Glue has such incredible bonding characteristics that even though very little glue has been applied, the resulting bonds give 100% fiber failure. There is very little foam-out at the edges of the bond line where balsa sheeting has been applied to the balsa or plywood wing ribs or fuselage formers because of the very minimal glue application. It was noted that any of the diluted glue that was applied to the nearby areas of the balsa sheeting resulted in a hardened surface similar to that obtained with the application of Zap finishing epoxy diluted 50% with denatured alcohol. (I use that mix to apply lightweight fiberglass cloth to the exterior of the balsa sheeting on the wings and fuselage). This mix of glue also appears to hold the glass cloth down as well as the finishing resin but I probably won't use it in place of the finishing resin. The epoxy resin works really well. Why change from that method.

I edge-glued the balsa wing sheeting with the Acetone-diluted Gorilla Glue applied by brush to both edges of the trued-up sheets and held the sheets in contact with masking tape on both the front and back sides. Any squeeze-out of the glue was cleaned up while fresh with a towel wetted with Acetone and the glued-up sheets were placed between parchment papers on a flat surface with a little weight across the tops of the sheets and allowed to cure overnight to reach full strength.

The cured bonds could not be broken at the bond lines. Testing the bonds always resulted in the wood breaking anywhere else but at the bond line. Impressive adhesive strength, to say the least. For applying the completed wing skins (glued with the diluted G.G. in the same manner of the individual sheets) I wetted the edges of the ribs and placed the skin momentarily into position so as to pick up the position of the wetted ribs. Then, an additional stripe of the diluted G.G. was applied to the marked areas on the skin. Then the skin was put into place and weighted down with some magazines for a couple of hours. Perfecto!

A REALLY exciting use for the Acetone-diluted Gorilla Glue is to blend it into some Prather Phenolic Microballoons (or the same material from a boating supply source), adding enough of the

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glue to obtain a peanut-butter consistency which in this form, can be troweled or pressed into place to form shaped fillets, or fill low spots in the surface of the model, or pressed into a lump that after several hours becomes hard but tough. The resulting solid is very light weight (about 2X the weight of contest balsa of the same volume) and can be carved, machined, or sanded (without clogging up the sand paper). As a ding filler, the area next to the ding absorbs enough of the glue to harden the wood next to the ding and makes it easy to sand to a smooth transition. The sanded surface will have some very small openings that can be surface filled with any other light weight filler to give an overall smooth surface. You can also gradually build up large areas too.

When used for fillets, it can be spread into place with a spoon or tongue depressor and further smoothed out with a finger dipped in acetone (doesn't scare me). I tried using Nitrile gloves once but they ended up stuck into the bond line! The better idea is to apply a liquid hand and skin shield available at the paint section of the hardware store to your hands before working with the G.G. adhesive.

Keep in mind that any of the glue coming into contact with the skin like your fingers will quickly pick up any dirt from your work area and it will become a permanent feature of you for several weeks depending on how long it takes you to grow new skin. Using the skin shield helps prevent that from happening. Also, just cleaning any FRESH glue from your hands with an Acetone-wetted towel works really well too. That's how I came across the BIG IDEA! ACETONE to dilute the glue. Use fresh dry Acetone from a can such as KleenStrip, and the diluted glue will stay thin and usable for months. If it thickens some, just add some more Acetone to thin it out again. In either case, stir or shake the mixture until uniformly thin. Some very small bubbles may be observed for a day or two, probably just the G.G. finding a very small amount of moisture in the Acetone. These little bubbles disappear eventually.

I have found that the following mixtures DO NOT work:



Acetone-diluted Gorilla Glue with GLASS Microballoons (Probably a surface treatment chemical present)

Acetone-diluted Gorilla Glue with Chopped Fiberglass (See above)

Either of the two mixtures above mixed with Phenolic Microballoons.

Not tried: Acetone-diluted Gorilla Glue with fumed Silica (like Cabosil M-5 for example)

The clear or no-color form of Gorilla Glue (labeled White Gorilla Glue) does not work in the above mixtures nor nearly as well as regular brown Gorilla Glue with straight Phenolic Microballoons. Instead of becoming a solid hard mass in about 2 hours, the equivalent mix with the White G.G. takes days to become solid and hard. Even when fully hardened, this mixture lacks the strength compared to the regular concoction.

A word about the solid casting resulting from the mixture of Phenolic Microballoon and the Acetone-diluted Gorilla Glue: A one-ounce cup of the mixture will swell up about 3/16" or about 5%. Upon examination of the interior of the casting, it is seen that there are many small open cells and a few larger openings.

But the overall casting is tough and very light. One can make a casting between sheets of plastic clamped to a given thickness and the resulting shape is that thickness and has only minor surface porosity defects.

When used for making fillets, this slight expansion basically makes up for the loss of the Acetone and so the volume put into place is pretty much the same after curing. The surface is readily sanded, shaped or carved. The material bonds very well, even to the surface of fiberglass or to the bare balsa such as in the junction of the vertical fin or the stabilizer to the fuselage or fin. One can mask along the fillet pattern before laying down the material to allow feathering out the material at the edges.

One can also prime the bare wood area with the Acetone-diluted Gorilla Glue and letting it cure before adding the fillet material for improved adhesion.

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If you try to apply the mixture to a freshly wetter area, it just slides around and it is difficult to shape it into place.

If the thickness applied is very thick, some cracks may appear upon curing. Simply fill these with freshly made mixture, wipe smooth and let it cure.

The Gorilla Glue is a polyurethane based adhesive and requires some moisture from the substrates to catalyze the reaction to become a solid (or foam if it is allowed to expand freely). I have used the Acetone-diluted Gorilla Glue during the winter in our Northern area with average humidification giving a Relative Humidity reading of about 25 to 30 % during the coldest spells. I have not needed to use any additional moisture during the use of the diluted adhesive during this time. During the summer, there is no problem at all.

I believe that the Acetone helps find some moisture in the location of the bond line but so little active Gorilla Glue is being applied to the area, not much moisture is needed anyway.

Next flying season, I will take the SBD-5 out for its first flight. If it falls apart in the air, please disregard the previous statements!

SPMRC COMBAT

I'm checking into possible membership interest building combat planes and participating in combat events at the SPMRC field. Initially I will assist anyone to get an airplane ready based on the level of completion desired. I plan to charge the following prices for the various stages of completion:

- Complete diagrams and a parts list will be provided FREE to any member interested.
- Plane cut out of the foam board ready to be covered \$7.00
- Plane cut out and covered ready to assemble \$15.00
- Plane completed ready for the electronics \$25.00
- Plane completed to Bind and Fly (except for receiver) \$100.00

If you have an any interest regarding participating please send your email to mrmills53@yahoo.com.

A few members have mentioned a desire to have a build session when I have shown the planes at the club meetings. If I receive enough interest in future 2020 combat events from the membership, I will work with the board to set up a build session. We'll just have to wait and see how much interests the membership has regarding combat planes.

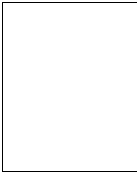
For those of you that don't know me here's a short BIO: Name: Marshall Mills

I started flying in 1982 and was a Rochester RAMS member until I left in 1985. From 1985-1989 I flew daily with a small club located in central Texas. I was at Grassfield RC club in mid-1989 until I signed up as a SPMRC member in 1991 and remained current until around 2002, retired in 2014, and decided to renew my SPMRC membership July 2019

Marshall Mills - St. Paul Radio Control



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ACRC Website - <http://www.anoka-rc.com>

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ACRC SPONSORS
 King Kong Hobbies
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CALENDAR OF UPCOMING EVENTS

Thursday – January 16
 • ACRC Meeting-Riverwind

Saturday – February 1
 • TCRC Auction

Thursday – February 20
 • ACRC Meeting-Riverwind

Thursday – March 19
 • ACRC Meeting-Riverwind

Thursday – April 16
 • ACRC Meeting-Riverwind

Saturday – April 18
 • ACRC Fun Fly #1

Thursday – May 21
 • ACRC Meeting-At Field

Saturday – May 23
 • ACRC Fun Fly #2