



ACADEMY OF MODEL AERONAUTICS CHARTERED CLUB #1255

SERVO CHATTER

A PUBLICATION OF:

ANOKA COUNTY RADIO CONTROL CLUB, INC.

JANUARY 2015

THE MEETING WILL BE THURSDAY, JANUARY 15, AT RIVERWIND!!

PRESIDENT'S CHATTER

Christmas and New Years have come and gone, I hope everyone had a happy holiday season. For those of us that received a hanger addition, what are we waiting for, let's get busy and get them built. Let us know what you have in the works. Your club is a good resource for help with problems or upgrade advice.

I was unable to attend the Freeze Fly due to previous family commitment so I will have to wait to hear about it. Along that line might I suggest to the members who winter in other parts of the country and fly to snap some photos, write a description as to what is in the photo, then forward it to me and I will try to get it posted in the newsletter. That's one way we can stay in touch.

Just a reminder your ACRC Board will be meeting in February to finalize next year's flying dates and activities. If you have suggestions please let it be known.

Virgil Okeson

FROM THE VEEP

The Freeze-Fly was a lot of fun. I got to watch Andy perform a perfect scale maneuver with his Ag Wagon. He flew by, entered a left turn, stalled it during the turn, and spun it (four spins), nose first, right into the frozen ground, separating the engine and firewall from the fuselage. Then he turned toward us, smiled, and laughed. Great job Andy!

ACRC Forum - <http://anoka-rc.com/forum>

Mega Raffle – Tools for the Workshop

The theme of the raffle at the January club meeting is “Tools for the Workshop”. Since very few people attend the winter meetings, the January meeting is a great time to win some tools for your workshop. Below is a list of the 12 prizes. Five Grand Prizes and seven other prizes.



Grand Prizes

- 6" Fraction/Decimal/Metric Digital Caliper & Case
- 22 piece SAE/Metric Combination Wrench Set
- 51 piece SAE/Metric Socket Set
- 36 piece SAE/Metric Long and Short Hex Wrenches
- 18 piece Flat/Phillips/Torx Screwdriver Set with Rack

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Other Prizes

Toolbox with 4 Drawer Organizer
 3 ½ Inch 9-LED Flashlight
 Hobby Knife with 5 Fine Point Blades
 Big Button/Big Display Calculator

Prize Package #1:

Telescoping Inspection Mirror
 Telescoping Magnetic Pickup Tool

Prize Package #2:

Mini End Cutter Pliers
 Mini Linesman Pliers

Prize Package #3:

12" SAE/Metric Transparent Ruler
 9 inch SAE/Metric Square
 6" Protractor
 5½" Locking Clamp (aka Roach Clip)
 Bottle Opener and Cork Screw

Good luck. See you at the meeting.

Phil Vaughn

Anoka County R/C, St. Paul R/C and the other clubs in the area are working on their 2015 calendars. ACRC will be having a Fly-In in May, a Warbird Fly-In in June, a scale Fly-In in August and an end-of-season Fly-Out in September. A complete listing of 2015 events and their dates will be published in future newsletters.

TCRC ANNUAL AUCTION - The TCRC auction will be on Saturday, February 7, at Cross Point Church on 98th and Bloomington. Registration starts at 7:30AM and the auction starts at 9:30AM. Go to the TCRC website for more information:

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

Both Big Sky Hobbies and Hobby Warehouse will be at the auction to take your hard earned money.

The next meeting will be at **Riverwind** on January 15 at 7:00 PM.

Stan Zdon

MEMBERSHIP NEWS**SEASONS GREETINGS AND
HAPPY NEW YEAR!!**

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

This is the last month that you can rejoin for the regular \$50.00 dues. 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.

ACRC EVENTS

The weather for the 2015 annual Freeze Fly was exceptionally nice with temps around 20 degrees, light winds and sunny skies!! This was my first Freeze Fly in 30 years of membership with ACRC, and although I didn't bring a plane to fly, I had some fun anyway.

Turnout was impressive as well with several pilots and even more spectators. I didn't get an exact count, but I think there was something like 15 to 18 people at least.

Bob Svare was able to get a few nice group pictures, so maybe those shots, along with any others that were taken, will show up in the newsletter.

Thanks to those that brought a few hot beverages to share and an even bigger thank you to the club member that plowed the road in to the field and the parking lot. We all appreciated that!!

The board will be meeting soon to set the 2015 event schedule so keep an eye out for developments in the newsletter. It sounds like Bob Svare and Jeff Slater are negotiating for access to a

new location for us to do some indoor dome flying this winter, so hopefully we'll have further details at the January meeting.

Until then, stay warm and keep building.

Bob Proulx



Training: Dick Huber, a new member, has soloed

Safety: Brett Ohnstad, is looking for volunteers to set up a display case at the Anoka County Library. Must live in Anoka County. For info call or email Brett, his info can be found in board members on web page. www.anoka-rc.com

Membership: Current renewed membership is 40.

Finance: doing well, even after gift to the Hoffmans.

Events: Freeze Fly 10:00 AM at the field. Calendar for 2015 to come soon. A request for an interclub fun scale contest was brought up. Jeff Slater is looking for interest in indoor flying in Osseo by Fleet Farm. Cost is \$140.00 an hour and he is looking for many people to sign up to reduce individual cost. If interested contact Jeff.

Old business: The motion to move nominations and elections to May, June and July was passed.

New business: Bob Svare, asked for an additional electric fly in early spring for MARCEE. Question of when new event dates are coming out.

Yearly winner of Crash of the Month goes to Bob Proulx, and he is OK with that.

Show and Tell:



Andy Thunstrom with a Cessna 188.

ACRC MINUTES

Attendance: 21

New Board:

Virgil Okeson	President
Phil Vaughn	VP
Marc Tellevik	Treasurer
Andy Thunstrom	Secretary
Brett Ohnstad	Safety
Bob Proulx	Events
Tom Janos	Training
Stan Zdon	Membership.

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Tom Larose, FPV, quad copter, by Proex. Comes with sd card that records flight info.

Raffle winners:

- | | |
|--------------|--------------------------------|
| Bob Svare | Brandy, given to Phil Vaughn |
| Neil Olson | Glow starter and F glow plugs. |
| Ken Dinkel | Plug wrench |
| Phil Vaughn | Thermos |
| Stan Zdon | Medium CA |
| Jeff Slater | Thin CA. |
| Tom Larose | Fire stop extinguisher. |
| Tim Karash | cushion |
| Scott Oleson | Electric fuel pump |
| Tom Janos | Knee pad. |

ACRC TRAINING

Seasons Greetings everyone. I hope everyone had a happy Holiday Season and got lots of R/C Toys for Christmas.

Anyone that requires training this year or that is interested in being trainers please contact me, Tom Janos, at DesignerFirewood@gmail.com or 651-329-8449.

The following is a small excerpt from: www.Hooked-On-RC-Airplanes.com

What’s a good first RC Airplane?

Whether you’re getting help or want to learn how to fly RC planes on your own, a good first RC plane should be stable, self-correcting, and forgiving.

A glow powered RC trainer is a good choice if you have an experienced pilot at your disposal.

Glow powered trainers are larger and much more powerful than park flyers and they need a larger area to fly safely.

These planes can do some major damage if crashed into something or someone. So I urge you not to try to teach yourself how to fly R/C planes with a glow-powered trainer. It’s just not safe.

Park Flyers are perfect for teaching yourself to fly RC. Their relatively small size allows them to be flown safely at the local park or even your own yard if it’s large enough.

Made from plastic or foam, they are generally much more resistant to damage from crashes than larger trainers that are made from balsa wood.

Learning the Controls

Get familiar with the basic RC airplane controls of the transmitter. The transmitter sends a signal to the receiver inside the airplane which in turn controls every function and control surface just as a pilot would in a real airplane.

RC Flight simulators are worth their weight in gold as they allow you to learn how to fly RC planes without putting your pride and joy at risk! The physics and graphics of the latest generation of flight simulators are amazing. They’re about as close to flying the real thing as it gets, except when you crash you don’t cry!

The hardest part of learning how to fly RC planes is training your brain to react correctly when your model is flying towards you because everything seems backwards!

A simulator is perfect for etching this into your brain without tearing up your airplane.

Don’t think for a second that RC simulators are only for beginners. You can hone your flying skills and practice new maneuvers without putting your airplanes at risk. It’s also great to be able to fly when the weather is nasty outside. We have long winters here in the Minnesnowta!

I also wanted to add that when your brain tells you it is far too windy to fly for your experience level you need to listen to it.

Tom Janos

Heat Treating Music Wire

by Roy Vaillancourt

The music wire used by modelers to make landing gear and cabin struts is medium carbon steel heat-treated to spring temper or about 45 on the Rockwell C scale of hardness (RC45). On this scale, RC20 is soft, RC45 is tough, and RC60 is hard. Tough wire can be bent and cut using the proper tools and techniques, but sometimes it's just too difficult to work with.

One way to soften steel music wire is to heat it, which makes it easy to bend and form. But after heating and forming, the subsequent cooling -- often at an uncontrolled rate -- can make the finished wire too hard or too soft since its hardness is determined by the rate at which it cools. For some parts, the final hardness isn't critical. But a landing gear formed from wire softened too much won't spring back to its original position; and a gear made from wire cooled to a harder than normal state will snap on its first use. To restore the wire to its original specific spring temper, it must be heat-treated a second time and cooled at a controlled rate. To form wire easily, first anneal it; next, form or bend it to the desired shape; and then heat-treat the part back to spring condition -- that is, temper it. First the wire should be annealed at the location to be bent. To anneal it, heat the wire with a torch until it becomes a bright cherry red -- about 1400 degrees Fahrenheit. Let it cool completely to the touch. Don't quench it or blow on it. Just let it cool naturally away from any drafts. The wire should now be in the RC25 soft range, and it will bend easily. After forming once again heat the wire with a torch until it becomes bright cherry red, but this time quench it -- that is, cool it rapidly by immersing it in room temperature water. Plunge the steel into the water with a twisting, swirling motion to keep water vapor from insulating the wire against the cooling action of the water. At this point the wire should be very hard, probably above RC60. To test the hardness, try to make a mark on the worked area with a file. The file should slide off without cutting into the steel at all. If it cuts the wire, try the heat and quench cycle again. If the file still cuts the wire, it isn't high carbon steel. Get another piece of wire and start over -- you won't be able to add the necessary carbon to low-carbon steel. When the file test

signals success, the wire is ready for the final step, but not for use, because it's very hard and quite brittle, and will probably snap off. The final step is to temper the wire back to the desired hardness. Tempering is a form of annealing but is controlled so that the steel achieves a specific hardness. Start by sanding the wire with steel wool or emery cloth. Then heat it gradually with the torch. Watch for the following colors as a guide: straw color (350 degrees), followed by dark blue (600 degrees), and then medium blue (750 degrees). At this point, remove the wire from the heat and allow it to cool slowly. Don't quench it or blow on it; just let it cool naturally in still air. Once the steel returns to room temperature, it should be at the target RC45 hardness, which has a good spring temper. Try the file test again. You should be able to make a mark now, but only with some effort. If it passes this test, the wire is properly tempered. Besides parts for model planes, tempered music wire can also be used to make special purpose tools. Instead of tempering to 750 degrees (medium blue), stop at the straw color stage. The wire will be at about RC60, which is still very hard, but not brittle. Wire at this temper can be used to drill wood and plastics, and most aluminum and copper.

1. Rockwell hardness testing, named after Stanley Rockwell who made his first testing machine in 1921, is a general method for measuring the bulk hardness of metallic and polymer materials. Although hardness testing does not measure performance properties, hardness correlates with strength, wear resistance, and other properties.

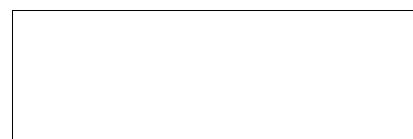
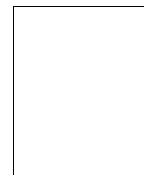
Rockwell hardness testing is an indentation testing method. An indenter is impressed into the test sample at a prescribed load to measure the material's resistance to deformation. A Rockwell hardness number is calculated from the depth of permanent deformation of the sample after application and removal of the test load. Various indenter shapes and sizes combined with a range of test loads form a matrix of Rockwell hardness scales that are applicable to a wide variety of materials. The Rockwell B and C scales are used for metallic substances.

2. Anneal: To heat and then cool (as steel or glass) usually for softening and making less brittle.

3. Quench: To cool (as heated metal) suddenly by immersion (as in oil or water).

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ACRC SPONSORS

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Cambridge State Bank
T & G Hardwood

*Deadline for the next newsletter is:
February 1, 2015*

CALENDAR OF UPCOMING EVENTS

Thursday – January 15

- ACRC Meeting

Saturday – February 7

- TCRC Auction

Thursday – February 19

- ACRC Meeting

Thursday – March 19

- ACRC Meeting

