



ACADEMY OF MODEL AERONAUTICS CHARTERED CLUB #1255

SERVO CHATTER

A PUBLICATION OF:

ANOKA COUNTY RADIO CONTROL CLUB, INC.

JUNE 2021

THE MEETING ON JUNE 17 WILL BE AT THE FIELD!!!

PRESIDENT'S CHATTER

FLYING IS WELL UNDER WAY

To all that participated in our first two events this season I give a big THANK YOU.

It was a great meeting last evening. I called Bob Hoffman today. He agrees there needs to be some improvement to the road and said he would work on it in the next week when it dries up a bit. He mentioned he may get Bruce to re-grade.

Another thanks to those that bought planes from the Lyle Sorensen estate. I hope to see them flying soon.

I won't be available much this month but, feel free to call or email me with any concerns. I hope to be back in the saddle by July. Get out and bust some holes in the sky for me.

Jeff Slater

MEMBERSHIP NEWS

THE JUNE MEETING IS AT THE FIELD.

The meeting this month will be the second one at the field for 2021. The road should be in good shape and hopefully it will be a good day for flying. The starting time is 7:00 PM and if you get there early you can get in some flying before the meeting. Remember that you should be using your current membership card to mark your channel and guests should be using their AMA card to verify their AMA membership.

Because of a recent By-Laws change nominations for the ACRC Board now take place at the May and June meetings with the election at the July meeting. The three members whose terms end this year are Tony Hahn, Jeff Slater and Stan Zdon. Tim Karash agreed to serve a one-year term as recording secretary. If you feel the urge to serve as a Board member let us know at the next meeting.

The nearest hospital is in Wyoming, MN and is the easiest to get to. Just take Hwy 22 (Viking Blvd.) east across 35W and turn right on Hwy 61. The hospital is about a block south of Hwy 22. If you have to call 911 for an ambulance they will want to know where the field is located. The road where we turn off of Hwy 65 is 197th and the address of Central Wood Products 19801 NE Hwy 65, East Bethel.

The GPS coordinates of the field are:

45⁰ 19' 44.4" North Latitude

93⁰ 13' 52.2" West Longitude

THE NEXT MEETING WILL BE AT THE FIELD ON JUNE 17 AT 7:00 PM. The summer meetings will be at the field through August. The next fun-fly will be on Saturday June 19 at 10:00 AM.

Stan Zdon



A LOOK BACK

JUNE 2003

18 YEARS AGO

President Tom Wesley stepped down from his board position to pursue a medical career. The incredibly talented, but humble, Vice President will step in as president. Dave Dentz volunteered to fill the open position until elections this fall.

The Spring Fly-In was a huge successful event. Over 100 spectators were in attendance, with 45 completing trial flights. We had 21 pilots and 10 of them went home with a raffle prize.

Stan Zdon will CD a Fun-Scale contest in July.

Brian Dorff reported on a successful Pattern Contest with 7 pilots in the sportsman class and 5 in the intermediate class.

17 competitors attended the May Fun-Fly.

Dan Stahn picked 22 of "101 Secrets for Super Landings" from full-scale magazine, Plane and Pilot, that apply to R/C as well.

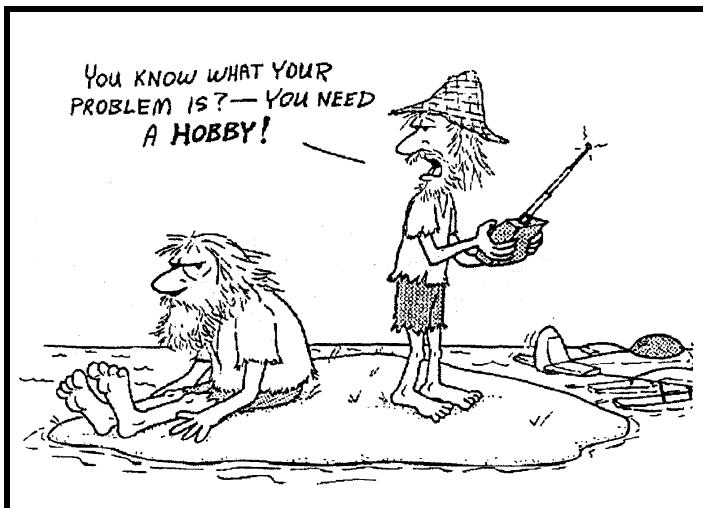
JUNE 1993

28 YEARS AGO

The new runway is in!! An army of volunteers was rolled out 7500 square yards of sod. Thanks guys, it still looks great.

A small plane Fun-Fly was scheduled for electric only in the morning and glow power in the afternoon. Glow engines limited to .15 cu in displacement.

Tim Karash



ACRC MINUTES

12 Members present.

President: Jeff Slater started the meeting at 7:01.

The next meeting is **AT THE FIELD**.

Vice President: Nothing to report.

Membership report:

65 members are signed up so far for 2021.

Events:

The ACRC Spring Fly-In was May 15.

14 pilots wre at the event.

The Pattern Contest is on June 12 & 13.

Pilots should bring their own food; water and chips will be provided.

Training:

Training will started on April 14, evenings only.

Safety report:

None

Treasurer's Report:

Expenses:	\$445.84
Income	\$1285.00

Old Business:

Ted Fruth airplane sale	\$635.00
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New Business: Tim Karash, Ryan Kontak and Jeff Slater were nominated for the Board.

Show and Tell:

Tim Karash showed his Flying Machine powered wit an OS 46 SF.

Raffle:

- | | |
|-------------------|--------------------|
| 1.) Virgil Okeson | Airplane |
| 2.) Duane Orson | Parts holder |
| 3.) Ted Sander | Screwdrivers |
| 4.) Marc Tellevik | Heat shrink tubing |
| 5.) Ted Sander | Wheels |
| 6.) Virgil Okeson | Low voltage alarm |

Stan Zdon



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).

SERVO CHATTER

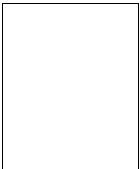
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ACRC SPONSORS

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Woodworking Plus
Blackjacks Asphalt
Rivard Companies

CALENDAR OF UPCOMING EVENTS

Thursday – June 17

- ACRC Meeting-at FIELD

Saturday – June 19

- ACRC Fun Fly #3

Thursday – July 15

- ACRC Meeting-at FIELD

Saturday – July 17

- ACRC Fun Fly #4

