



ACADEMY OF MODEL AERONAUTICS CHARTERED CLUB #1255

SERVO CHATTER

A PUBLICATION OF:

ANOKA COUNTY RADIO CONTROL CLUB, INC.

MARCH 2014

THE MEETING WILL BE THURSDAY, MARCH 20, AT RIVERWIND!!

PRESIDENT'S CHATTER

We have hit a warm streak and the itch has begun. The schedule has been completed along with lunch menu. There will be two potluck fly-ins this year. Details will follow as far as what the food theme is to be. As club members your part is to help out and bring some goodies.

We are getting close to our first fun fly of the season so get your planes ready. I'm keeping my fingers crossed that we have more pilots at our events this year. There has been a request for a couple SSC combat sessions this year. Dates are to be determined. For those interested please contact me by phone. We can lump in the blue foamies also for more pilots. The idea was to run on a Friday night in June, and possible in July. Any input is greatly appreciated.

That is it for the month. See you at the meeting.

Andy Thunstrom

FROM THE VEEP

It is time to start thinking about the upcoming flying season. We need to dust off our airplanes and check them over for hanger rash or any other storage type damage and make necessary repairs. We also check them over for any safety issues that might have developed.

Last month I talked about efficiency of battery-powered systems and how to calculate it. This month I will be talking a little about power requirements and how to calculate them.

Start by researching power requirements of the motor you will be using. The manufacture is a good resource for the specs on the motor or the information may be available on the data sheet packed with the motor.

The power requirements for a model, based on the "input watts per pound", can be found in the following guidelines. Use the flying weight of the model with the battery installed.

50–70 watts per pound – Minimum level of power for decent performance, good for lightly loaded slow flyer and park flyer models

70–90 watts per pound – Trainer and slow flying scale models

90–110 watts per pound – Sport aerobatic and fast flying scale models

110–130 watts per pound – Advanced aerobatics and high-speed models

130–150 watts per pound – Lightly loaded 3D models and ducted fans

150–200+ watts per pound – Unlimited performance 3D models

The above guidelines may vary depending on motor, efficiency, and prop size

Watts = Amps times Volts

Volts = Watts divided by Amps

Amps = Watts divided by Volts

Let us assume we have a 25 size aerobatic 3D airplane. The estimated flying weight is **4.1 pounds**; with a desired flying performance of **130 to 150 watts per pound**.

4.1 lbs x 140 watts per pound = **574 input watts of total input power** required to achieve the desired performance.

574 watts / 40 amp continuous motor current = **14.35 volt battery**

You must be sure that the battery chosen can supply the required current for the desired performance.

Do not forget about **burst current** requirements that would be higher than 40 amps continuous.

11.1 volts x 40 amps = 444 watts battery output power. (too low by 130 watts)

444 watts / 4.1 lbs = input power of 108 watts (Too low - see Sport aerobatic and fast flying scale model category in the table above)

14.8 volts x 40 amps = 592 watts battery output power (OK - 18 watts above required input power)

Will a battery work? Can the battery handle the motor current (amps continuous)? Battery capacity is defined as milliamp hours (mAh) (i.e.: A 3300mAh battery will provide 3.3 amps for 1 hour).

What is the power requirement of the motor (amps) and airplane flying performance desired (watts per pound) and what is the weight of model w/battery? Battery volts times motor amps equals battery output power in watts (compare that number to watts per pound requirement).

Battery amp-hrs divided by motor amps = hours x 60 = minutes

i.e. 3300mAh battery = 3.3Amps / 40 motor Amps = (0.0825 hrs x 60) = 4.95 minutes flying time.

Virgil Okeson

ACRC EVENTS

Hey everyone, March is finally here and believe it or not I think we may have a Spring of some kind eventually. I know many of us have snow banks so high in our yards we can't see over them, so its hard to think about fun flies and such. However flying time is approaching quickly and it's time to

start dusting things off and preparing for another year of new experiences!

This year I would like to use the website forums for sign ups in regard to items to bring to our events rather than emails and phone calls. Please check the forums for updates this year for what our needs may be for the events as they approach. The Spring Fly In will be a month later this year as I think maybe we would have a shot at better weather, and we are planning something with a little more zing and really good food similar to our fly out which is always a good time.

Chris Cone

ACRC MINUTES

February 20, 2014

11 members in attendance

President: Andy Thunstrom was missing because of the storm

Vice President: Virgil Okeson went over the great raffle prizes that he purchased. The lucky winners and what they won are at the end of the minutes.

Treasury: Phil Vaughn reported that we have money and that the books are up to date.

Training: Training will start as soon as we have some nice weather. There are already 6 - 10 pilots signed up for training. At future meetings transmitter setup and programming will be covered.

Membership: Stan Zdon reported that about 60 members have signed up to date. January was the last month to renew without a \$5.00 late fee.

Safety: In the future if the weather is bad the meeting may be cancelled. Check your email for notification.

Old business:

None

New business:

Stan will check with the field owner to see if it could be rolled this year.

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Show and Tell



Tom LaRose brought in his Super Sportster on skis. It has Hobby King gyro to help with the control.



Stan Zdon showed his Balsa USA Fokker Triplane. The die cutting was excellent for his kit. The instructions have you build the wings first. The top wing will be permanently attached to the middle wing. He plans to use an OS Surpass 155 4-stroke for the engine. Ailerons only on the top wing, but they are big! He is using graphics from www.callie-graphics.com. Stan estimates the model will weigh 14-15 lbs when done.

Raffle

Prize	Name
Nano QX	Stan Zdon
Screwdriver set	Tom LaRose
Fuel line	Matt Campson

Transmitter neck strap	Phil Vaughn
Fuel line	Paul Patton
Charge cable	Tom Janos
Fuel line	Stan Zdon
Thin CA	Matt Campson
Medium CA	Tom LaRose

Stan Zdon

MEMBERSHIP NEWS

ACRC currently has 78 (78) members signed up for 2014. Of these, 65 (67) are members that pay full yearly dues. The rest are wives of members, junior members and life members. The numbers in parenthesis are the membership numbers at this time last year. As you can see, membership renewal is about the same as last year last year. There are 49 full dues members, listed below, that have not renewed their membership for 2014. If you know any of these members personally, please call them and remind them to renew for 2014. If they all renew, the membership numbers will equal last year's numbers. The 2014 budget is based on a projected membership of about 100 fully paid members. If we drop much below that number we will have to cut services somewhere.

The March meeting is when ACRC has the annual club swap meet. If you have something you want to part with bring it to the meeting and get BIG BUCKS for it.

The ACRC freeze-fly and the TCRC auction are finished now and the flying season is almost here. The events scheduled for this summer are:

Spring Fly-In	May 31
Warbird Fly-In	June 14
Pot Luck Fly-In	July 12
Float Fly	July 23
Scale Fly-In	August 2
Electric Fly	September 6
Fly-Out	September 27

Monthly Fun Flies are scheduled for the Saturdays after the membership meetings. Get those airplanes ready and come out and have some fun. More information will be published as the year progresses.

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ACRC will be working with King Kong Hobbies in Coon Rapids this year for the fuel order. The prices are about the same as last year, some a little higher but most the same. An order sheet for fuel from King Kong Hobbies is included with this month's newsletter. It will have to be mailed to King Kong Hobbies by **March 31** and you will have to pick up your fuel at their store. If you have any questions call Stan Zdon at (763) 784-3121 or call King Kong Hobbies at (763) 390-0490.

The next meeting will be at Riverwind on March 20 at 7:00 PM.

Stan Zdon

Non-Renewals for 2014

- | | |
|---------------------|--------------------|
| Dale Anderson | Grant Johnson |
| Tina Anderson | Arion Mangio |
| Nickolas Aurandt | Bruce Martin |
| Joe Brennan | Marcus Martinez |
| Matthew Campson | Michael G. Mastros |
| Roy Carrigan | Michael J. Mastros |
| Ed Chargo | Andrew Noll |
| Dan Codner | John Odmark |
| Joshua Colbeck | Brett Ohnstad |
| Joseph Coleman | Kenny Olson |
| Chris Cone | Joel Parker |
| Christian Cone | Bob Proulx |
| Lee Cravens | Werner Remmen |
| Walter Dailey | Eric Sherman |
| Marc Davis | Larry Small |
| Michael Dorff | Paul Stafki |
| Christopher Elliott | Dick Stark |
| Jeff Flander | Chris Swentkofske |
| Jake Groetsch | Greg Thody |
| Matt Hoffman | Phil Vaughn |
| Allen Howe | JR Venegas |
| Preston Howe | Noah Venegas |
| Roger Jeffrey | Kris Westerbur |
| Doug Jelinek | Dohn Wiley |
| Raymond Jelinek | |

ACRC SAFETY

We have made it through the worst of winter so far, and this year has been one of the worse in a long time, but winter is not over just yet. And if you are feeling like me you are in the grip of a full on effect of "Cabin Fever". Although similar to the much acclaimed "Cat Scratch Fever" in that there is no direct medical cure, there are a few things that you can do to take care of a real bad onset of the "Fever". Well at least the Cabin Fever.

Exercise

Beyond all the physical benefits of getting exercise like maintaining weight and helping you to stay healthy, exercise can help with the mental effects of being cooped up inside for the winter. Lifting weights, running in place, or even just stretching can help to release the mood enhancing neurotransmitters within your body that help to lift your spirits. Any physical activities that you do can be beneficial.

Eat Well

The food that you eat and when you eat it can play a huge role in how you feel. Refined and processed foods tend to be devoid of nutrients that your body needs and can decrease your energy levels and affect your mood. This includes processed and refined foods like sugary foods, desserts, and beverages, along with white rice, and white breads. Much better choices include complex carbohydrates like whole wheat, fruits and vegetables. Food can be looked at like it is a drug or supplement that you take to improve your energy levels, stabilize blood sugars and improve your mood.

Get exposed! (...to the Sun)

Cabin Fever is about being stuck indoors away from direct sunlight, which is so much shorter already during the winter months. Sunlight exposure can promote the release of neurotransmitters in the brain in a similar fashion to that of exercise causing an increase in a person's mood.

Be motivated

Make plans to do something exciting. That may be a trip, or a party or anything fun with someone



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

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special. Anticipation can do wonders to elevate your mood. Even waiting on a parts delivery from some far away hobby shop can build anticipation and elevate the mood. Now you have a valid excuse for ordering more airplane parts – mood enhancements! You should also not have any excuse for not having several models ready for the flight line, now is the time to work on those projects that you have been putting off.

Relax

As the joke goes: I did nothing this weekend and it took me all weekend to do just that! Take time to relax. Grab a book or magazine, listen to some music by yourself, meditate or even try yoga. Do anything that gets you away from stress and feel free to give yourself permission to say no to doing anything every once in a while. Just don't skip the club meetings

Socialize

Getting out to meet up with family and friends can really take the edge off of being stuck in a rut. Nothing feels better than catching up an old friend that you haven't seen in a while and talking about something that interests you. That's why I mentioned the part about not skipping the club meeting.

Don't avoid the outside.

It may be cold out but staying active outside will not only keep you warm but it will also boost your energy and your spirits. This doesn't necessarily mean that you need to skate or ski to enjoy the out-of-doors in winter. Going for a walk or even getting outside to watch winter events can be mood enhancing even if you are not participating.

Follow your dreams and keep that battery charged!

It is far too easy to cut yourself short on one of the most important thing that you can do for yourself and that is to get plenty of sleep. It is very important to try to get 7 to 8 hours of sleep each night and it is also important to try to keep your bed time and rise time consistent. Normalized sleeping patterns can help you to sleep better and feel more energized throughout the day. Just as you cannot fly with an undercharged LiPo battery and hope to make up the charge when you leave

the field, you cannot make up for lost sleep during the week by sleeping in on the weekend. The end result is that you will be tired all week and the overcharge on the weekend will leave you still feeling tired. Need a quick recharge: take a 15 to 30 minute mid-day nap may just do the trick.

Just remember that it is only a few more weeks until the runway starts poking its head out from under its winter blanket. But until then, try these little tricks to make it through the last of the Cabin Fever into flight season. If it is in fact "Cat Scratch Fever" that you have, you might have to cure that on your own!

Brett Ohnstad

ACRC TRAINING

Last month I began the assembly of ACRCs newest addition to the training flight line. I started with fuel proofing the bare wood areas to protect our investment. ARFs always seem to lack some of the finer touches kit builders like myself consider part of the building process. After the fuel proofing I began with the actual assembly of the airplane which begins with the wing. Unfortunately that stopped as soon as I started. When I began prepping the wings to be joined and glued I discovered the left wing panel had a pretty substantial warp and twist. I quickly determined that there was no way for me to correct the warp and twist and that it would definitely affect the flight characteristics. I contacted the Tower Hobbies Customer Service Center and explained my findings. They were absolutely fantastic to deal with. They immediately shipped a new wing panel, no questions asked. The representative I spoke with on the phone was apologetic for the inconvenience and took care of all shipping costs. They did not want the old panel back to verify the defect, I was told to just trash it. Pictures of the wing and the fuel proofing process are on page 8.

It seems we may have turned the corner as far as the deep freeze goes so I better start getting the training ball rolling. A few fine club members have told me they were onboard to help with instructing this year, however I am now asking you guys to verify that you want to be on the

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instructors list for the 2014 training season. Please send me a quick email with your contact information (phone and email)

I would also like any club members needing instruction to send me an email with your name and contact information as well so I can get an idea how many new pilots we will start with. Wednesday nights will be "Training Night" again this year. Typically instructors start showing up between 4:30 & 5:00, weather permitting. If you are a new pilot this year or are continuing your training from last year, now is the time to give your airplane a thorough preflight inspection. Start at the spinner and check all nuts, bolts, screws control horns etc. If you have a spinner remove it, check the condition of the prop and make sure the prop nut is tight. Check the engine and muffler bolts. Check the condition of the fuel line, if it's iffy replace it. Cycle your receiver batteries and make sure you have the required identification tag inside including your name, address, phone number and AMA#. Having your aircraft 100% ready to go will maximize your flight time with an instructor. If you are new to the hobby and you are not 100% sure if your airplane is rigged correctly, bring it to the meeting if possible and I will be more than happy to give it a once over. My updated contact info is below. Please note my cell phone number and email change, I am consolidating down to one cell phone.

TRAINING TIPS

In one of my articles last year I talked about taxing. If you are a new pilot and a simulator user, select an aircraft that best resembles your trainer and practice taxing. Make high speed taxi runs up and down the runway until you are comfortable. One thing I noticed last year was once the new pilot was ready to work on take-offs and landings they often struggled with steering on the ground. The simulator is an excellent place to practice this. If you mess up, it's just a reset button, not damage to your trainer. See you at the meeting.

Scott Oleson
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 952-201-3352

AMA & SAFETY

According to AMA Programs Director Jay Mealy, much has been written about safety. As it relates to our model aircraft activities, safety is a word that is used in almost every paragraph of text written or conversation exchanged. It is a "must use" word in our area of interest if for no other reason than "it sounds good." But what does safety really mean when it comes to keeping a flying field?

The Webster's New World Dictionary, Second College Edition defines safety as "the quality or condition of being safe; freedom from danger, injury, or damage; security." Good definition, sounds right, and pretty much describes the condition that we would expect to find at a safe flying field, but is that the only definition of safety? Hasn't Mr. Webster pretty much nailed it? Doesn't that say it all?

No! Let's say that the next time you go to your flying field there are five other people present, and if you were to ask each of them what their definition of safety was, you would get five different answers. So now Mr. Webster has five other definitions to compete with, plus yours, which makes six. What I'm getting at is that there are probably as many definitions of safety as there are people.

"Hey," you say, "maybe we can't define safety but we all know what it is. You have to be safe so you can enjoy your hobby without getting hurt. You must be safe so others are not fearful or not enjoying their flying activities because of your unsafe behavior or visa versa." I guess what we are really bringing to light is that safety is nebulous. It is a tough concept to get your arms around, and even tougher to appreciate, comprehend, and most importantly, to put into action. For the time being let's assume everyone has a good grasp of what safety is all about and return to our original question.

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What does safety really mean when it comes to keeping a flying site? Clubs are faced with two categories of problems: external and internal. External problems are those involving neighbors, community, or any entity outside the club environment that may pose a problem that the club has no direct control of. On the other hand, internal problems are those such as “How do we get more members to the meetings?” “What is the best way to keep the gophers off our runway?”

In my experience, safety has to be the number one topic of conversation between a club member and me when a call is made to AMA Headquarters to discuss an internal problem. “We have a person (or persons) who just don’t seem to be able to follow the field rules and safety code, and we aren’t sure what to do.” Examples of this would be a member of the club who just never quite got the hang of making right turns, and because of this he (or she) is always flying behind the flightline over the pits, or the “show-boater” who ignores the field rules to selfishly fulfill some personal need for attention. We all could add to this list and we have all experienced this type of behavior.

The clubs that recognize this behavior as inappropriate and call for assistance are the clubs that survive. We can provide recommendations on how to correct such problems and provide examples of what other clubs have done in similar situations. The clubs that allow this type of behavior to continue unchecked and never attempt to rectify the situation or contact us for assistance are possibly setting a course for extinction.

The majority of modelers operate in a safe manner and are uncomfortable with the unsafe actions of other modelers. If the club as a whole is not doing anything to end these unsafe actions, then the members will begin to compensate for their discomfort in their own ways. It begins subtly. The number of active fliers at the field on any given day starts to decrease. Fewer members show up at club meetings. There is less participation in club functions such as workdays, picnics, and fun-flies. Members may start participating at other club sites or just decide to back off flying their models for a while. Whatever the cure may be,

they are going to pursue it because they are not having good, safe fun at their own flying site.

The negative results of unsafe flying practices can take many forms, with the end results being the same: loss of a club, loss of a flying site, or, heaven forbid, something much worse. For these reasons, it is imperative for clubs and all members to take a strong position when it comes to safety at the club field. Don’t allow people to do dumb things in the air, on the flightline, in the pits, or anywhere else.

Clubs that always operate safely have more fun and make more friends, both within the club and within their community, and virtually guarantee their longevity and success. Unsafe flight operations are like a rust spot on your car. If you don’t take steps to eliminate the rust, it will eventually consume your entire car or at least make it unusable. The same thing can happen to a club and its flying site.

HUMOR IN UNIFORM

During a commercial airline flight an experienced Air Force Pilot was seated next to a young mother with a babe in arms. When the baby began crying during the descent for landing, the mother began nursing the infant as discreetly as possible.

The pilot pretended not to notice, and, upon disembarking, he gallantly offered his assistance to help with the various baby-related items.

When the young mother expressed her gratitude, the pilot responded, “that’s a good looking baby, and he sure was hungry!”

Somewhat embarrassed, the mother explained that her pediatrician said that the time spent on the breast would help alleviate the pressure in the baby’s ears.

The Air Force Pilot sadly shook his head, and in true pilot fashion exclaimed, “And all these years, I’ve been chewing gum.”





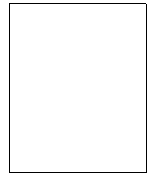
Above - Fuelproofing the trainer fuselage.

Below - The warped wing that was replaced.



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Aerospace Welding

Cambridge State Bank

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*Deadline for the
next newsletter is:
April 1, 2014*

CALENDAR OF UPCOMING EVENTS

Thursday – March 20

- ACRC Meeting

Thursday – April 17

- ACRC Meeting

Thursday – April 19

- ACRC Fun Fly #1

Thursday – May 15

- ACRC Meeting

