



ACADEMY OF MODEL AERONAUTICS CHARTERED CLUB #1255

SERVO CHATTER

A PUBLICATION OF:

ANOKA COUNTY RADIO CONTROL CLUB, INC.

DECEMBER 2017

THE MEETING WILL BE THURSDAY, DECEMBER 21, AT RIVERWIND!!

PRESIDENT'S CHATTER

Winter has finally arrived, so it's time to make sure our batteries, motors, and airframes are properly stored. Speaking of airframes it is also time to check them for repair needs.

We also can break out our simulators and make sure we don't lose our touch with the sticks. By the way, check out Tom LaRose's article. You'll find out how to meet other club members on line via simulator and fly together. It is also a good way to stay in touch.

Consider attending club meetings. Let the board know if you want events. Only three are planned for next year. If you want to do something out side of what is planned, as it is now, you will have to organize it, and it will have to be held during open flying. The field will not be closed to open flying.

To the snowbirds amongst us, travel safely and take care. If you do any flying take some pictures and send them back or post on club site. Make us who stayed up north jealous.

Don't forget to renew your AMA and ACRC membership.

Make sure you have your "Christmas wish list" sent off to Santa.

Everyone, have a Merry Christmas, and we will see some of you at the December meeting.

Virgil Okeson



FROM THE VEEP

Holy Moly Rocky! Mother Nature has certainly thrown the winter switch this time. One day it's tee shirt weather, the next it's parkas and boots. But we like it here, right? I guess that means we are deep into the building season now. Perhaps Santa will bring you a new project or other goodies to finish what you have started.

Okay electric flyers, I'm throwing down the gauntlet. For the December raffle, I've got something that will put excitement at the field: Great Planes Proud Bird EF 1 sport / racer. That should do the trick. No wimpy stuff here. Power the ARF with the low end of the power recommendations and it's a sleek sport flyer, but step it up a notch to the high end and you have a 100 MPH racer. Show us your stuff, electric flyers. Show the wet fuel flyers what electrics can really do. Maybe you can make some converts at the same time.

The ARF isn't the only thing up for grabs at the December meeting, so come on out, brave the weather and support your club.

Tim Karash

MEMBERSHIP NEWS

HOLIDAY GREETINGS!!! I hope that you have been good so that Santa will bring you a lot of goodies this year and maybe a **EXTRA-SPECIAL** treat. If you haven't put in your request yet, just leave a Tower Hobbies catalog lying around with the appropriate pages marked.

Continued on Next Page

You still have a few weeks until Christmas. Just remind your significant other that it takes less money to fly large R/C airplanes than it does to support the local tavern.

There is an application included in this newsletter and if you lose it you will have to pick one up at the meeting or send me a self-addressed stamped envelope. Members who read the newsletter on line can print the application and rules from the ACRC website. Remember, **ALL** current members have to fill out a 2018 application and have their year 2018 AMA verified before they can be issued a 2018 membership card. Dues for 2018 are \$75.00 and if you rejoin after January 31 there is a \$5.00 late fee. Please rejoin as soon as possible after you get your November Servo Chatter and your AMA card for 2018. It is easier to set the budget if the majority of the dues are in by mid-January.

REMEMBER - I need verification of your **2018** AMA dues. Sending a copy of your 2017 card will only delay the processing of your application. Please also include a small stamped self-addressed envelope. It's not that the club cannot afford the stamps, but it makes it easier for me as I do membership for both ACRC and SPMRC. Thanks

ACRC FREEZE FLY - Put skis on your plane and get ready for some winter flying on January 1.

TCRC ANNUAL AUCTION - The TCRC auction will be on Saturday, February 3, at Cross Point Church on 98th and Bloomington. Registration starts at 7:00AM and the auction starts at 9:00AM. Go to the TCRC website for more information:

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

The next meeting will be at Riverwind on December 21 at 7:00 PM.

Stan Zdon

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



A Look Back

December 1989

28 Years Ago

Sadness on the front page of this newsletter. One of ACRC's founding members, Milt Jewell, has passed away. Milt was the club's first secretary and served on the board throughout the years in nearly all positions. Milt has taught many of our members how to fly.

Outgoing president Lee Cravens gave a brief description of his first flight of a modified "stand-way-back-and-squint" scale P51. Lee drew up the plans and scratch built the aircraft with an elongated fuselage.

Speaking of first flights, December 17th is the anniversary of the Wright brother's first flight at Kitty Hawk.

December 1999

18 Years Ago

President Mark Felland took "Literary Liberties" with Clement Moore's "The Night Before Christmas", adapting the verse to an R/C modeler's version of Christmas.

Dan Stahn wrote an eye-opening article on potential workshop hazards. Fumes from the various chemicals and glues that are used in model building, plus the fine, powder like dust of balsa wood can present many health hazards.

Scanning through the previous month's meeting minutes, I see that I won a Coverite iron. It's still in the box waiting for my faithful Top Flight iron to die.

The second in a series of articles by Don Nix founder of Power Master fuels, discussed glow fuel composition, the pros and cons of castor vs. synthetic, and why certain engines "like" certain oil.

Submitted by

Tim Karash

ACRC MINUTES

Board Members Present:

Virgil Okeson, Marc Tellevik, Stan Zdon, Tom LaRose, Tim Karash, Jeff Slater, Bob Proulx, Brett Ohnstad

19 members present.

Membership Report:

20 members are signed up as of tonight for 2018.

Treasurer's Report:

Expenses: \$386.60

Income: \$86.00

Training Update:

Tom LaRose is pursuing the possibility of inviting Cub scouts for introductory flights. The scouts may earn a merit badge for this activity.

Events:

None scheduled at this time other than indoor flying at Maple Grove Golf Dome as published in last month's newsletter.

Old Business:

Training planes are in need of repairs and a possible update of one to a larger size.
Board to discuss at next meeting.

New Business:

The ACRC \$30.00 Training fee combined with the AMA Intro Pilot signup sheet will be treated as a voucher toward annual membership fee.

The flying field grass runway section has gotten rough over the years and tall weed are encroaching the area. Many suggestions for weed clearing by ditches were discussed. Also a heavy roller could smooth things out a bit. Landowner Bobby Hoffmann, may be able to help us, however his schedule might not give him time to do the work. Club to look into a rental roller.

Raffle:

1st Decathlon ARF	Bob Barton
2nd Soldering Station	Calvin Braseth
3rd Screwdriver Set	Duane Orson
4th Battery Box	Calvin Braseth

Board Minutes

Board Members present:

Virgil Okeson, Tim Karash, Marc Tellevik, Stan Zdon, Tom LaRose, Bob Proulx, Brett Ohnstad.

Upcoming Events:

The club Event Coordinator is a resource for information and planning of an event, not someone who does it for you.

A club member will be the Contest Director (CD) for the event and be in overall charge of all activities. The CD may delegate duties to other people as he sees fit.

Smaller events can be held during normal open flying days, with a short portion of time dedicated to the particular event participants. This is to be done only after a consensus of all pilots at the field that day. Prior newsletter and/or email announcement would be greatly appreciated.

The 2017 Pattern Contest was an overall success, especially since much of the planning and arrangements were done remotely. Brian Dorff may have additional pilots for the 2018 contest.

Training Planes:

The board agreed on purchasing one or more trainers from the TCRC auction this winter. A motion was made by Marc Tellevik to spend \$200 - \$250 on planes. Seconded by Brett Ohnstad, motion carried.

Training Plane Clarification:

A question was raised - can we use pilot's plane during the 60 day training period or must we use club plane? AMA Safety Code allows the use of the student pilot's plane, provided it is checked out by a AMA member and deemed airworthy.

Safety Clarification:

A fire extinguisher is required at the startup location (pit) for all gasoline powered aircraft. This is per ACRC field rules.

Grass Runway:

Dethatching of the grass runway area will be done in the spring

ACRC TRAINING

Winter has set in so remember the RC flight simulators. See the links in last month's Chatter News Letter.

Don't forget the full size aircraft simulators can be a great way to increase you flying time this winter.

Xplane 11 www.x-plane.com
 Virtual Pilot3D www.virtualpilot3d.com
 Flight Gear www.flightgear.org

If you already have the Phoenix Simulator <http://www.phoenix-sim.com> and are looking for some fun flying with other club members, go to (Multi player) click to open and select (Go Online) to fly with other club members. Look for Janes Field. Enter it and use capitol letters ACRC for the password. If Janes Field is not up anyone can create it for others to join. Be sure to use the same click on Create enter Janes Field. Use ACRC password so others from the club can join you.

If you have suggestions to do with training in the upcoming 2018 flying season, please bring It up at the club meeting or send to the club email.

instruction@anoka-rc.com

Wishing everyone a Happy Holiday Season,

Tom La Rose

SOLDERING TO CELLS

Soldering to Ni-Cds is not a good idea. Try to use the welded tabs and solder to those if at all possible. Soldering to the positive button will have a very high probability of destroying the nylon seal. You just can't get the button hot enough to get a good solder joint without compromising the integrity of the nylon seal ring. This ring is under compression and raising its temperature will allow it to relax and the sealing properties are history.

If you can hold a penny between two fingers long enough to get a good solder joint with #18 stranded wire or braid, then go ahead and solder to

your cells, otherwise get cells with solder tabs. Remember that nylon is a good insulator, electrical and thermal. There is no thermal path for the soldering heat to dissipate when heat is applied to the cover button of a cell.

I realize this flies in the face of all the electric flight "experts" that assemble their own packs but it is never the less fact. You have never seen a pack assembled by a cell manufacturer or any other pack manufacturer (outside of the hobby market) where connections are soldered directly to a cell. There is a reason.

The Sanyo Cadnica Sealed Type **Nickel-Cadmium** Batteries Engineering Handbook states the following:

Section 10 General Remarks and Precautions - 5 Safety Instructions (page 48)

"Never solder a lead wire directly to Cadnica battery terminals. Soldering heat may damage the safety vent in the positive cap. After a terminal plate is spot-welded on the battery terminal, solder a lead wire on it."

Sanyo Twicell Sanyo **Nickel-Metal Hydride** Rechargeable Batteries Engineering Handbook

Section 5 Important Cautions for Handling Batteries 5-3-3 - Do Not Misuse Batteries

"Never solder a lead wire or plate directly to Twicell batteries. The heat generated by the soldering may melt the insulation, damage the gas release vents or protective devices, cause leakage of battery fluid, heat generation, bursting or fire."

General Electric **Nickel Cadmium** Battery Application Manual

"Never solder directly to the nickel-cadmium cells, only to solder tabs or wire leads. A hot soldering iron placed directly on the cell is likely to cause seal ring and vent seal damage as well as damage to the separator systems."

First let me say that I am not on a crusade to stop the modeling world from soldering directly to cells in construction of packs. All that I'm trying to do



is to alert modelers that there are some caveats they should consider in making the decision to solder or not. In the electric propulsion application and particularly on the competitive side, the reduction of pack resistance plays a key role in obtaining maximum performance. Direct soldering has been found as one means to achieve this. Soldering directly to cells that are destined for flight control operation is not justified and can compromise the reliability of the packs. These packs are frequently hidden away in the plane and are not frequently available for inspection for any leakage and corrosion that may have resulted from damage to seals/vents from direct soldering that can compromise the reliability of the control system. The risk (safety-wise) of soldering directly to cells is minimal but quite dramatic on the rare occasion that it does surface. There are probably more “incidents” resulting from abusive charge regimes than from actually soldering. Of course the question always comes up was the soldering contributory to the ultimate cell burst?

As far as warnings on the product as sold through hobby channels one has to consider that no cell manufacture sells directly to the public. Sales are through one or more levels of distribution, original equipment manufacturer or pack assembler. It is the responsibility of the cell manufacturer to inform the OEM or pack assembler of possible hazards in assembly. This is done quite adequately in the engineering handbooks made available by the cell manufacturer. If the OEM or pack assembler chooses to ignore them, or passes cells on to the end user without informing him, that becomes his

responsibility. Fortunately the hobby market is infinitesimal compared to the overall market for batteries. This makes risk exposure equally infinitesimal to the cell manufacturer and they are further insulated by one or more layers of distribution. This is not to say that the cell manufacturer cannot be held responsible. In several cases I have been involved in as an expert witness the cell manufacturer has been able to show due diligence in conveying information to the OEM or pack assembler so that they were not held liable for misapplication of the product by the end user. This “minimal risk exposure” is probably the only reason why a major industrial manufacturer (like Futaba/OS) even messes with the hobby - can you think of anything more dangerous than a model engine with an exposed APC prop? It just tells you how insignificant this hobby is in the overall scheme of product liability.

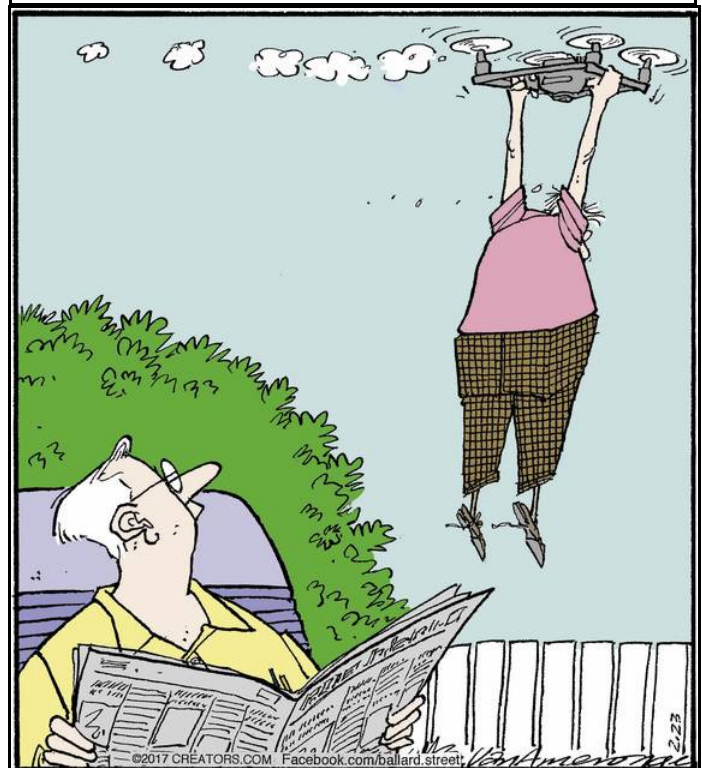
Bottom line: Soldering directly to cells is not recommended. Do it understanding the risks and possible trade off to performance, safety and reliability.

C. L. Scholefield 12/2001



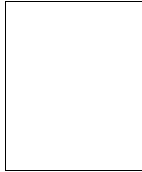
The Cat Did It!!

Ballard Street by Jerry Von Amerongen



Always be sure you know how powerful your drone is.

SERVO CHATTER
 902 - 88TH LANE NW
 COON RAPIDS, MN 55433



Fence Me In
 Quality Fence Installation & Repair for Less!

Charlie Swanson
 Owner
 fencemeinmn@gmail.com

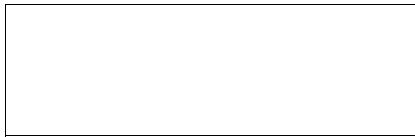
763-807-5340
 fencemeinmn.net

Custom Woods Vinyls Chainlinks Wrought Iron

BLACK JACKS
 Sealcoating &
 Asphalt Repair

Barry
 (952) 992-0243
 blackjackssealcoating.com

Serving the Greater
 Twin Cities Area



ACRC BOARD MEMBERS

<u>PRESIDENT</u> Virgil Okeson president@anoka-rc.com	<u>TREASURER</u> Marc Tellevik treasurer@anoka-rc.com
<u>VICE PRESIDENT</u> Tim Karash vicepresident@anoka-rc.com	<u>INSTRUCTION COORDINATOR</u> Tom LaRose instruction@anoka-rc.com
<u>MEMBERSHIP SECRETARY</u> Stan Zdon membership@anoka-rc.com	<u>FIELD SAFETY OFFICER</u> Brett Ohnstad fieldsafety@anoka-rc.com
<u>RECORDING SECRETARY</u> Tim Karash secretary@anoka-rc.com	<u>EVENT COORDINATOR</u> Bob Proulx events@anoka-rc.com

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

SERVO CHATTER EDITOR
 Stan Zdon
newsletter@anoka-rc.com

CONTRIBUTORS THIS MONTH
 Tim Karash
 Tom LaRose
 Virgil Okeson
 Stan Zdon

ACRC SPONSORS
 Blackjacks Asphalt

FENCE ME IN
 Quality Fence Installation & Repair for Less!

King Kong Hobbies
 Abraham Technical
 Aerospace Welding
 Cambridge State Bank
 T & G Hardwood

CALENDAR OF UPCOMING EVENTS

Thursday – December 21
 •ACRC Meeting-Riverwind

Monday – January 1
 •ACRC Freeze Fly

Thursday – January 18
 •ACRC Meeting-Riverwind

Thursday – February 15
 •ACRC Meeting-Riverwind

Thursday – March 15
 •ACRC Meeting-Riverwind

Thursday – April 19
 •ACRC Meeting-Riverwind

Saturday – April 21
 •ACRC Fun Fly #1

