



ACADEMY OF MODEL AERONAUTICS CHARTERED CLUB #1255

# SERVO CHATTER

A PUBLICATION OF:

ANOKA COUNTY RADIO CONTROL CLUB, INC.

**JUNE 2017**

***THE MEETING WILL BE THURSDAY, JUNE 15, AT THE FIELD!!***

## **PRESIDENT'S CHATTER**

The May Fun Fly was determined with the coin flip. Dale Anderson won first place and Jeff Smith got second.

Events scheduled for June are as follows: Spring Fly In on June 10, club meeting on June 15 (at the field), Pattern Contest on June 17 and 18, and the Fun Fly on the 24th.

A reminder that nominations are open for the board, please consider joining the board. If you have a suggestion for improvements to the club field, please come to the club meeting and present your suggestions. It is important that the board hears what the club members are thinking, so they can make decisions that support those wishes.

The board approved replacing the field name sign with one made of steel. It will be the same size as the old sign and will be similar to the old sign. Landowners have given us permission to move the large sign by Highway 65 to the middle of the two roads that go east off Highway 65. That may be happening sometime in the near future. If you have experience moving signs of that size please volunteer to assist in doing so.

There's also a conversation about adding additional signs for other things at the field i.e. AMA and Club membership required. If you have contacts with sign manufactures that could do it please let a board member know.

Virgil Okeson

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

## **FROM THE VEEP**

Wow, it's June already. Did somebody speed up the clock or something? I feel like I'm in one of those TV commercials where everything in the background is just a blur. Buildings wiz by, people are unrecognizable, and I'm the slow thing at the center of it all. Maybe more Red Bull will help.

My Extra 330 project is moving along, albeit a snail's pace, but moving nonetheless. It's been a while since I've put something that flies together, and it's also the largest project that I've ever attempted. I'm sure it will fly, at least once anyway.

Hey this month I've got an OS AX 46 engine to head up the raffle. Yep, a nitro burning powerhouse just looking for a home on the nose of your airplane. Nitro, King of Fuels. It makes a top fuel dragster go from zero to just under 340 MPH, in 3.8 seconds, while covering 1000 feet. Yep, good stuff that Nitro, of course I'm using 15% and they are using 80%.

Tim Karash

## **MEMBERSHIP NEWS**

The meeting this month will be the second one at the field for 2017. 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

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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 four members whose terms end this year are Virgil Okeson, Jeff Flander, Tim Karash and Stan Zdon. At least four nominees are needed to fill the available positions. Tim, Stan and Virgil agreed to stay on the board for another term and Jeff Slater agreed to be nominated for the fourth position. Nominations are still open at the June meeting if you want to be nominated and join in on the FUN! Please consider serving on the board and becoming a FBM.

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:

45<sup>0</sup> 19' 44.4" North Latitude  
93<sup>0</sup> 13' 52.2" West Longitude

On July 8 there will be a Warbird Fly-In. If you have a plane that has military markings bring it out to the field and fly.

THE NEXT MEETING WILL BE AT THE FIELD ON JUNE 15 AT 7:00 PM. The summer meetings will be at the field through August. Because of the Pattern Contest on June 17 and 18 the fun-fly will be on Saturday June 24 at 10:00 AM.

Stan Zdon

## A Look Back

### June 1989

Newsletter editor Tim Brockman reported success with his new Goldberg Eagle 2 on floats. The challenges of float flying didn't discourage him, however he has ventured into free flight with a

Cox .049 helicopter and Guillows rubber powered model. Hmmm

Stan Zdon will CD the scale/pattern contests and to encourage worker bees, an Airtronics radio, will be raffled for just them. Also as a fundraiser, a TV, CD player, and hot air balloon ride are to be raffled off.

Jack Overbaugh sent out a "nasty graham" to the nine members who haven't returned the clubs videotapes. (Remember those?) One in particular was two and a half years overdue.

### June 1999

New pilot training has been brought to the forefront, as each instructor seems to have his own criteria for proficiency. Following much discussion, a standardized instructional program will be put together.

Mark Felland tried to "get by" when mounting a 40-size engine on 20 size motor mounts. They held up just fine until a harsh "bonk and go" flexed the mount enough to cause a hard prop strike and broke off a blade. Subsequent vibration broke the light duty mount, allowing the engine to attempt separation from the airframe. Despite the stripped throttle servo gears, the cable held on and closed the throttle.

The field was busy with events including the monthly Fun-Fly, Pattern contest, and upcoming Fun Scale.

Carey Thake appears to be bailing out on a Top Flight P-47D project as he is offering the kit as well as a long list of accessories for sale.

Tim Karash

## ACRC EVENTS

As you read this, the ACRC Spring fly-in will already be history, and this will also be the last reminder for those of you that are interested in attending or actually competing in the Pattern contest coming up on the weekend of June 17 and 18. All ACRC members are eligible to compete and if you do decide to enter, the entry fee will be

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waived. As far as I know, most of the current ACRC members would be eligible to enter in either the Sportsman or Intermediate class and if you've never flown Pattern before this would be a great opportunity to get your feet wet. If you'd like to come out and just watch the competition that would be great too. We will likely need at least a few volunteers to help things run smoothly so if you're asked to help, please do so cheerfully.

The last event in June will be a fun-fly on the 24th and then we're into July already.

I hope to see lots of you out at these events!!

Bob Proulx

## ACRC MINUTES

Board Members present: Virgil Okeson, Stan Zdon, Marc Tellevik, Bob Proulx, Tom LaRose, Tim Karash

**Members present:** 14  
8 plus board

**Membership:**  
96 members so far this year, however twenty previous members have not renewed as of yet.

**Treasurer:**  
Income \$1060  
Expenses \$2553.38

**Safety:** no report

**Training:**  
Five people currently training plus another 3 potential students. Tom LaRose reported one student may solo soon.

**Events:**  
Annual Spring Fly-In on June 10.

Shoreview Float-Fly community event declined due to short time frame notice. We will keep communication open with event planners for next year. Please advise Bob Proulx if you would be interested.

East Bethel Days event is still on track for July 15. Event coordinator is considering moving flying closer to main activities. Spectator safety may be a concern.

### Old Business:

Lawn mower/tractor storage has been arranged with Central Landscaping, but will be secure, outside storage.

Photos of our field upgrades to be sent to AMA for verification.

### New Business:

Wet fuel flyers are asked to be mindful of excessively long run ups on new seal coating. Too much oil may damage the new coating.

Our new fence is acting like a kid magnet. Seems they think it's a climbing toy. Reminder to all members that spectators are to remain behind pit area.

A program from AMA titled "Takeoff and Grow" (TAG). It is a one day event specifically set up as a introduction to model aviation. The AMA will grant monies for advertising, supplies, even purchase of planes. Tom LaRose to pursue details.

Our Allen Johnson memorial sign is beyond repair. Replacement cost estimate of \$170.00 for plastic backing or add \$10.00 for metal. A motion by Stan Zdon to replace the sign with the metal version was seconded by Jeff Slater, motion carried.

Board Member nominations for next year. Stan Zdon, Tim Karash, and Virgil Okeson terms are up. All agreed to run again, plus Jeff Slater may help out the board as time permits.

A request was made for additional wind socks at ends of fence. A motion by Stan Zdon and seconded by Tom Larose. Motion carried

**Show and Tell:** None this month.

### Raffle:

- 1st Spitfire MKII Tom LaRose
- 2nd Mini scale Dave Williamson
- 3rd Foam Safe CA Marc Tellevik

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## Board Minutes

Board members present: Virgil Okeson, Marc Tellevik, Stan Zdon, Tom LaRose, Bob Proulx, Tim Karash

Leader club application with the AMA needs to be filled out and submitted. Stan Zdon to finish and submit

Membership non-renewals to be addressed by sending an email to encourage renewal. Stan Zdon will send emails.

Wells Fargo Bank has changed rules regarding our checking and savings accounts. We may need to change banks to avoid excessive service charges. Marc Tellevik to pursue options.

Tim Karash brought up several ideas for membership recruitment.

The City East Bethel has a newsletter with space available for ACRC info

We have permission to move the large ACRC sign to area between the two driveways. This will allow Central Landscaping to park their "advertising" truck without blocking out our sign. Should finances permit, a 2nd sign in a VEE configuration could be added in the future.

Amy is onboard for food for all summer events.

Tim Karash

## ACRC INSTRUCTION

ACRC 2017 training is in full swing !

We now have seven students in rolled in the Intro Pilot Program. Those that have been using a flight simulator are using the skills learned to move along at a good pace in training. They should be a few ready to solo in the next few weeks.

**Have a goal or flight plan in mind for every flight!**

This can be learning a new maneuver, improving a maneuver you already know or learning how the model behaves in certain conditions (such as on high or low rates). This is not necessarily to

improve your skills (though it is never a bad idea), but more importantly so you do not surprise yourself by impulsively attempting a maneuver and suddenly finding that you've run out of time, altitude or airspeed. Every maneuver should be deliberate, not impulsive. For example, if you're going to do a loop, check your altitude, mind the wind direction (anticipating rudder corrections that will be required to maintain heading), remember to throttle back at the top, and make certain you are on the desired rates (high/low rates). A flight plan greatly reduces the chances of crashing your model because of poor planning and impulsive moves. Remember to think ahead!

Speed is great, but altitude is life insurance for you and your plane.

Tom La Rose

## PROPELLER BALANCING

Information from Bolly Products.

It is important that propellers be well balanced. The propeller should also sit square to the engine prop driver. Check for an equal height under each tip with the prop sitting on a flat surface. Many props (especially molded nylon types) will have an uneven bottom (and/or top) surface due to uneven material shrinkage. Check this before checking for equal heights below each tip. It can happen that the shaft hole isn't square to the rear face of the hub, for this it is a good idea to step or taper ream the prop, leaving only a small amount of the hole at the required diameter. Please note, unlike machine made products, which should be perfectly balanced (but often aren't), hand made props will require some balancing and finishing. Just to be safe, all props should be checked.

We use 4 types of prop balancers:

1.) **Basic Double Cone type.** This is the common easy to use type. Take care to hold this balancer square between the fingers. It is easy to create a false reading.

2.) **The Pin and Cone type.** This type is good for checking balance in 2 directions, a) along the length, b) across the hub. The position of the cone

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adjusts the sensitivity. High = insensitive, Low = sensitive or 'overbalance'. Make a series of spit sleeves to fit larger shaft diameters. This type of balancer is very good for multi blade propellers.

3.) **Tru-Spin type.** The tru-spin style of balancer has 2 sets of rotating wheels onto which the prop is placed via a shaft that is fitted through the hub of the propeller. These are the most expensive, but accurate and hardest to use. Caution, we have found the alloy wheel types to be far better than the plastic types. These balancers are also very good for balancing spinners. Note - many spinners are out of balance.

4.) **Magnetic type.** To a large degree these work on a similar principle to the basic double cone type, but without the friction of the fingers. The good versions are as accurate as the tru-spin type. They are at a disadvantage when balancing large, heavy propellers.

At Bolly we use all 4 types at different stages for different jobs when we factory balance a propeller.

Always balance by evenly removing material (sanding) from the top (curved) side of the blade. To remove material from the bottom may change the pitch and to remove material from the blade length or chord will create a dynamic imbalance. When removing the material, the choice of abrasive paper will depend upon the type of prop material. When modifying nylon base props, use a very fine abrasive paper as leaving any scratches on the surface is very dangerous; a deep scratch is potentially fatal. Wood props are easy to work with any appropriate abrasive paper. GRE / CRE props are very tough and will often require a very course paper for initial work, finishing with finer grades.

It is common for the prop to be heavy one side (across the blade). It is necessary to evenly remove material from the LE side of one blade and the TE side from the other, i.e. it is best to use a pin and cone or tru-spin type balancer.

### USING PROP BALANCERS

It is surprising how many modelers have never used a prop balancer, and even more surprising as

to how few know how to read what the balancer is telling them. With any balancer, and any propeller, the prop should stay stationary at any point throughout its 360 degrees of rotation. Sounds simple, but it isn't. If you have ever had a prop that refuses to stay put, or one that is different when rotated through 180 degrees, it is almost certain that the prop has a heavy side, across the blade (chord) as opposed to along the blade (diameter).

The technique we recommend is this:

- 1.) Check the blade horizontally to find the heavy blade and mark the blade H.
- 2.) Put the prop vertically, heavy blade down, and if the blade sits off center, mark a H on that side of the heavy blade. Tip - to help determine the heavy side of a prop - use a piece of clay stuck to a hub or blade.
- 3.) Now bias the material removal from that half of the heavy blade. In extreme cases material may be removed from the side of the hub, or even the opposing blade - but on the same side of the hub. Three and 4 blade props use the same principle, except it is often a combination of blades that need to be checked.

SUMMARY - Any of the prop balancers can be used, just remember to check the prop in horizontal and then vertical. If in doubt, check the direction of the imbalance with a small weight on the side opposite what you believe is the heavy side. This will also allow you to gauge the amount of material to remove.

### PROPELLER CARE

After spending time balancing the propeller, take care to keep it in balance on the field. Frequently clean off residue, i.e. - grass, insects, earth, etc. from the blade. A propeller should not be used if any damage or stressing is evident. Avoid storing propellers in a stressed position or hot environment, i.e. - model nose down, resting on the prop. The propeller may warp under these conditions.

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## PROPELLER SAFETY

Propellers are potentially dangerous. Please treat them with care, respect and common sense. Modelers have died from injuries caused by propellers. Remember a static propeller is safe; it is how they are used that causes the problems. Your safety (and those around you) is your responsibility. At Bolly we have a test bench where we frequently test our products. When testing a 20cc engine we had a prop kick loose (the prop nut wasn't tightened sufficiently), the prop flew forward 3 meters and hit the roof that was 4 meters above. It then bounced back to the test stand. It was a very good example of the potential dangers; luckily no one was nearby when it happened.

1. Correctly secure the propeller.
2. Do not stand to the side of, or lean over a rotating propeller. Always adjust an engine from behind.
3. Have a helper hold the model (or secure the model in some way), and keep spectators well clear.
4. Discard any propeller that is scratched, nicked, stressed or damaged in any way.
5. Almost all props sold will have an instruction leaflet, please read them and take heed of them.

## R/C DEFINITIONS

**PUCKER FACTOR:** A factor that exponentially gets higher, as your out of control plane gets lower. At the high end of the scale, changing your shorts is necessary.

**RADIO GLITCH:** A documented electronic occurrence, causing immediate and irreparable loss of control. The source of a crash when there is a possibility of someone else's radio in the close proximity to the plane.

**RECEIVER:** The part of your airplane that picks up interference.

**SKID PROTECTOR:** Another word for a spinner.

**SNAP ROLL:** After a nice high G roll, something snaps, usually the wing.

**SPINNER:** A critical part of the landing gear.

**SWEPT AREA:** The only part of your apartment that is not covered with balsa dust.

**TAIL-DRAGGER:** An R/C pilot that has just spent the last hour looking for his plane in the woods.

**THERMAL:** A mythical occurrence of rising air.

**TRAINER CORD:** A handy device for electronically installing false confidence into rookie pilots.

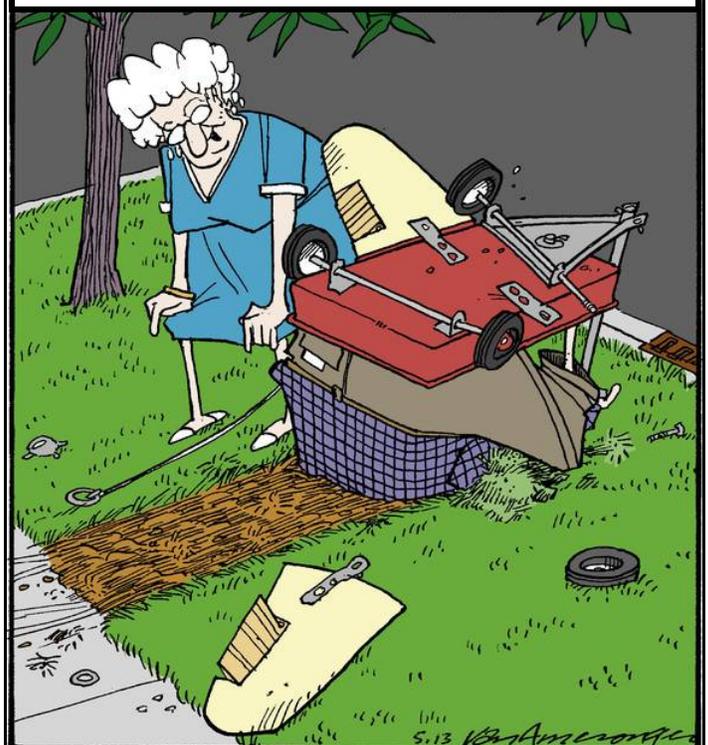
**TREE:** Implement used to separate wings from fuselage.

**UPWIND TURN:** Same as downwind turn. NO, IT ISN'T! YES IT IS!! NO, IT ISN'T! ETC.

**WETTED AREA:** After Rex the wonder dog finds the pit area.

**WING AREA:** What you get more of in the car by leaving the wife at home.

### Ballard Street by Jerry Von Amerongen



"Remember, Nelson, good ideas often fail at first."

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**ACRC SPONSORS**



Blackjacks Asphalt  
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 Aerospace Welding  
 Cambridge State Bank  
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**CALENDAR OF UPCOMING EVENTS**

Saturday – June 10  
 •ACRC Spring Fly-In

Thursday – June 15  
 •ACRC Meeting-At Field

Saturday – June 17-18  
 •ACRC Pattern Contest

Saturday – June 24  
 •ACRC Fun Fly #3

Saturday – July 8  
 •ACRC Warbird Fly-In

Thursday – July 20  
 ACRC Meeting-At Field

Saturday – July 22  
 •ACRC Fun Fly #4

Thursday – August 17  
 •ACRC Meeting-At Field

Saturday – August 19  
 ACRC Fun Fly #5