



ACADEMY OF MODEL AERONAUTICS CHARTERED CLUB #1255

SERVO CHATTER

A PUBLICATION OF:

ANOKA COUNTY RADIO CONTROL CLUB, INC.

APRIL 2017

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

PRESIDENT'S CHATTER

On April 1 I attended the Willmar Area R/C Club show at the Kandi Mall. There were many nice airplanes on display and their show generated lots of local interest. While visiting with members attending, I met Geoff Barber who is a builder and author for RC Universe, you may have read some of his material. He was showing some of his work and a 1/6th Piper Pawnee kit from Airborne Models, which he completed this past winter and will be writing about it in the future (he has not flown it yet). I mention it here just for a point of interest that here we have a builder/modeler/author who lives in Minnesota. His Facebook page is AirBorne Models Showcase.



I want to thank Tom LaRose for grading the road into our club field, nice job Tom. I also want to thank Gary Titus for painting the wood fold downs on the club shelter. These are two of the things that have been done at the club already this year by

volunteers. When you see these members thank them for their volunteer efforts. I encourage all members, if you see something that needs attention, do something or bring it to the boards attention. We have events coming up that will need members help to make them successful; please consider volunteering. Contact Bob Proulx or one of the board members. Finally don't forget to post your membership card on the board when flying at the field.

Happy Flying

Virgil Okeson

FROM THE VEEP

WOW, it's April already. At least our schizophrenic winter weather is coming to an end. It's nice to see the yards starting to green up, but I'm not enjoying the springtime allergies. I've been keeping Kimberly-Clark in business for last couple of months. Oh, the joys.

My search for a Dave Patrick Extra 330 has finally paid off. I was able to score one new in the box recently. I've got an OS 160 two stroke to stuff in the nose that should drag it around the sky nicely. It's an ARF, by the way, so I should have it flying in, oh, two or three years.

For this month's raffle I have a couple of foam flyers. The first is a receiver ready P51 mustang done in the "Gentleman Jim" scheme. It has a 40" span, 2 pounds all up weight, and if you so desire, flaps and retracts can be added. Fun scale in a box.

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

Next I have a foam flattie Edge 540. Assembly, radio gear, and motor required.

I'll find some more goodies to throw in the mix for a nice meeting raffle. Come on out and support your club.

Tim Karash

MEMBERSHIP NEWS

I hope you will take time to read the flying site rules and refresh your memory now that the flying season is close at hand. This is especially important because a few years ago some changes were made to rule 10 and high-speed passes are now allowed over the runway in certain instances. The rules will be attached to the email you get with this newsletter. You should print a copy and keep it handy. If someone mentions to you that you are violating one of the safety rules please do whatever it takes to correct what you are doing. It is considered bad form to give them a hard time and then continue doing what you are doing. If it means that you have to stop flying and make repairs or go home to get something that you need, that is what the club expects you to do. The AMA insurance for you and the landowner provides coverage only if you are following the rules. It would be a shame to lose our field because of the ignorance and arrogance of a few fliers.

Part of Rule #2 states that members are to put their membership card on the frequency board and guests are supposed to use their AMA card. The reason for this is so that we can be sure that the fliers are either current ACRC members or guests with a current AMA. Fliers are not to use last year's cards, driver's licenses or business cards. If you lose your 2017 ACRC card and need a new one let me know. I will mail you a new card - FREE.

Don't forget that the first Fun Fly of 2017 is on Saturday, April 22.

The next meeting will be at Riverwind on April 20 at 7:00 PM. This is the last indoor meeting until September. The summer meetings will be AT THE FIELD.

Stan Zdon

A Look Back

April 1989

Not much happening this month as one side of one page covered it all. The treasurer's report was a bit disturbing as the club prepaid for the fuel order, jackets, and hats. This put a \$2300 hole in the bank account, leaving only \$600, even after deposits of \$1400 were made. I believe this is why members now need to prepay for such items. A nice selection of kits was purchased for raffle prizes.

April 1999

More meat on the bone in this issue.

President Mark Felland reported the board has approved the purchase of railroad ties to define the parking lot to pit area spaces. He also mentioned the need for a safety fence behind the flight-line. So that's where it started....

The March Fun-Fly was held on a breezy day with 11 participants. Most loops and rolls plus something else were the basis of the two events.

Stan Zdon reminded everyone to be mindful of the frequency you chose should you purchase a new radio system. Many ACRC are using the same frequencies, so review the usage chart prior to making your choice. Those were the days.

Membership was up to 106, plus junior and lifetime members. Our bank accounts continued to grow slowly, but moving in the right direction.

The board has discussed a program, similar to St Paul R/C, to encourage newer pilot to demonstrate their abilities by performing a list of specific maneuvers. Successful completion of the maneuver list awarded the pilot with a set "wings". It only took us 15 years, but I think we finally got it done!

6 Aircraft and an Olson 23 engine made Show and Tell a busy time. Half of the meeting minutes were descriptions of the items.

Tim Karash

ACRC MINUTES

Board members present:

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

17 Members present, plus board. Also Ed Belmore, a prospective member.

Treasurer:

Income \$850. Expenses \$183.31

Safety:

Brett Ohnstad reported ACRC needs only a few more steps to qualify for AMA Leader Club status. Brett will look into finalizing our status.

Training:

ACRC training program is ready to go. Instructors are in place to begin the year.

Events:

Bob Proulx reminded everyone of the upcoming events. A full schedule was published in recent newsletter. The 1st event is an a club Fun-Fly on April 22, followed by The MARCEE electric Fun-Fly on May 6 and the Spring Fly-In on June 10.

Plans and details for the Pattern contest on June 17 & 18, are coming together.

Old Business:

AMA grant paperwork had difficulties in transmission; the AMA did not receive some pages. The missing pages did not disqualify ACRC for the grant. Virgil has resubmitted the entire grant application and we are waiting for response.

The replacement flight-line fence position has been slightly tweaked. The 100 ft fence panels will be centered between the taxiways. Fence installation date will be moved to later in month due to recent weather conditions. Part of our agreement with "Don't Fence Me In" was a one year ad in the ACRC newsletter. The logo is under development.

A limited amount of asphalt millings (coarser than regrade asphalt) to be placed onto our field access road within the few next months as it becomes available.

New Business:

Tom LaRose is dealing with lawn mower storage for the upcoming season. A possible sale of Central Wood Products threw a temporary wrench into the works.

Show and Tell:



John Sager brought a scratch built glider from Skybench. A remake of the Olympic 2, standard class (100 inch span), it features a polyhedral wing with spoilers. It can be winch or high start launched.



John also brought a 1.5 Meter glider. It has a Glidertech wing, but he built his own fuse and tail, keeping the airframe weight to 12.8 oz. It uses rudder and elevator only for control. Launch is high start only.

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Tom LaRose brought a sound system for electric powered aircraft. It uses a transducer mounted to the fuselage rather than a speaker to create sounds. Six different aircraft engine sounds are stored within the control module for realistic sound that varies with throttle settings.

Raffle Prizes

1st	Phoenix Outragous ARF	Tom LaRose
2nd	Dubro prop balancer	Bruce Marten
3rd	Infrared thermometer	Virgil Okeson

Board Minutes:

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

Road fill needs to be discussed with Bobby Hoffman prior to ACRC dumping fill onto the access road. Update: Bobby has approved our road fill plans and requested us not to remove any dirt from curved portions of road.

Bruce Marten brought tee shirt artwork samples. He needs the ACRC logo if we wish to tee shirts and sweatshirts at the pattern contest. Brian Dorff to supply info for pattern contest shirts.

Tim Karash



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

ACRC EVENTS

ACRC summer event reminders:

We have a fun fly scheduled for Saturday, April 22. Come out and test your skills. The events may be crazy, but you'll definitely find out if your flying skills need polishing!!

Next up is the MARCEE all electric fun fly on Saturday, May 6. This event will be open to any electric powered models, Scale, Sport or otherwise. Lunch will be served at 12:00. Open flying should resume by 3:00 in the afternoon. The final event for the month of May will be another club fun fly on Saturday, May 20.

Stay tuned for more details regarding upcoming events for the month of June, including the annual ACRC Spring Fly-In and the 2 day Pattern Contest being hosted by ACRC. As always, we'll need volunteers to help with various tasks involved in putting on these events, so please step up and offer to help wherever you're needed. Thanks!!

Bob Proulx

ACRC INSTRUCTION

Time to get things out and dust them off. Flying season is here.

We have had more inquires into flight training. I expect it will be picking up with only about 3 weeks to the start of training.

A reminder to all instructors, there will be a meeting starting at 6:00 PM to go over our training program. It will be at the ACRC field on 4/19/2017 weather permitting. Come early and bring the trainer planes to wring out the bugs. If the weather is too bad the alternate meeting location will be at Max's in Soderville, same time, 6:00 PM.

Testing a R/C Electric Motor:

Note that only outrunner motors should be run with no prop; inrunners could shed a magnet with no prop when turning at 20,000 RPM or more. (Read your motor manual on this!)

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First:

Disconnect the motor (ISOLATE ALL THREE WIRES FROM EACH OTHER!) from the ESC, chuck it into a drill, and slowly speed it up while holding the stationary part with the three lead wires. The rotation should be very smooth, with no rattling, virtually no noise. Also, there should be very little drag. Run the motor with the drill at full speed (1000 RPM or higher if possible) for a minute or two. Nothing inside the motor should get warm or hot.

If so, you've got a shorted winding or two, you've got a real problem. Or, a magnet has come loose, dragging against the stator inside the motor. Also note if the "bell" of the motor wobbles while running the motor. If so, it can result in the magnets hitting the stator. The Hacker 40, 50 and 60 series outrunner motors have a third ball bearing to prevent this from occurring.

Second:

Keep the three motor wires isolated from each other, and label them #1, #2 and #3. Connect your voltmeter to an AC range, and connect to terminals #1 and #2. Wind up your drill to full speed, and write down the AC voltage. Then repeat this test on terminals #2 and #3. And again on terminals #3 and #1. All three voltage readings should be near identical, providing your drill is running at the same speed on all tests.

Third:

Checking for short circuits between the windings and the stator. Since the windings are all connected to each other, check for any connection between the motor stator laminations and the windings. Look for bare metal somewhere on the stator for one connection to the meter, and the meter windings to the other. If no steel bare spots are available, you will need a needlepoint on one of the meter probes to punch through the coating of the steel laminations. The meter should show an open circuit, or infinite reading. Again, any connection is bad news, and is cause to scrap the motor.

Wheels up, in the air! Wheels down, on the ground!

Tom LaRose

ACRC SAFETY

Now that it is April I am sure that many workshops are starting to come to life again. As important as shop safety is to you, I would be willing to bet that a few little bad habits have already started popping up. This is a good time to take a break to remind ourselves of the good habits that we need to get into in order to stay safe in the workshop.

A little housekeeping may be the first thing that can be improved upon in order to increase workshop safety. This may be especially true when we are getting the bug to build as much as we can as quickly as we can. Trips, slips and falls can quickly account for many minor injuries. Scrap material, old boxes, discarded covering, dropped tools and equipment can easily cause misplaced footing that could lead to an injury. I did this myself a few weeks back while cleaning out my workshop. I had left a grill cover lying on the workshop floor. This was a big item and I had given no thought to not being able to see this on the floor in order to avoid it. The problem was that even though I could see the cover, when I went to step over it, my foot still got trapped causing me to go down. My cat-like reflexes, which have saved me time and time again in the past, were of no use in this situation. I ended up spraining my knee, taking me out of commission for a few weeks.

Take the time to clean up a little. While the floor may be a good place for keeping big tools like drill presses and air compressors, it is no place for sockets and screw drivers. While you are down there picking up those items, take a moment to grab anything that could be a trip hazard. Maybe you will find a missing servo or that can of headlight fluid that you knocked off of the workbench. Personally I like to sweep up the shop with a big broom and a grain shovel. I then take a quick look through the debris to see what little treasures I can find before dumping the lot in the rubbish bin. Last summer alone I found about \$7.50 in loose change alone using this method.

In order for me to see what I am doing I have a lot of extra light in my work area. My workbench is at the back of my garage and even though there is a small window over the bench, I find that the light is

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not adequate enough or even consistent enough to do a lot of work. I have several bench lights that I use to work on detailed projects rather than one bright light source. I find that several lights cut down on the glare and the problems caused by shadows. I also try to make sure that these lights are on their own separate fuse from the main room lights. This is so that if I do blow a fuse on the bench top, I will still have the ability to see my way around the workshop safely, assuming of course that I have not gotten around to cleaning up the debris that fell on the floor that I mentioned earlier.

Should your workspace not be a regularly heated portion of your house, you might consider heating the area. If you do, you must use great care in doing so. This may include supplemental heating units such as a small garage heater that is plumbed to the same fuel source as the rest of the home. These are usually professionally installed and should be the safest albeit most expensive systems to heat your workspace. Other options may involve using electric, wood or propane space heaters. With wood or propane heating you need to make sure that you have adequate ventilation to deal with smoke, fumes and exhaust gases. With propane heaters, for example, it is too easy to be overcome by exhaust created even with open doors or windows in the room that you are heating. Electric heaters, while more expensive to run for a similar heat output, should not have the same issues associated with the propane. They are not without their faults. They are more likely to trip circuit breakers, especially if on the same circuit as your high intensity lighting. Also, some of the older electric space heaters do not have some of the safety features built in that the new units have for fire and electrical shock prevention

That space heater sitting on the floor by your feet keeping your tootsies nice and cozy warm can be very comfortable but keep this in mind. As another potential trip hazard, you could easily stumble over one of these units, twist your knee, knock out the lights when you short out the circuit breaker, and have to find your way out of your workshop by the light of the small fire that started with all the sawdust and glow fuel that you didn't sweep up off of the floor earlier.

Brett Ohnstad

Two-Cycle Engine Field Emergency Dirt in Carburetor

Every now and then, when you can't get an engine to run right, the culprit is dirt in the carburetor. The engine was running fine last time out, and you haven't changed the engine settings. Now it quits at full power and won't idle.

What's wrong?

If you haven't been to the field in six months, make sure you're using fresh fuel! Fuel that's been sitting around for months, especially if it's left in the fuel tank, could be your problem. If it's not the fuel, put in a new glow plug.

Check the clunk hung up in the fuel tank for clogged fuel lines. If your aircraft comes to a sudden stop, the fuel tank clunk can slide forward, getting stuck in that position. Having eliminated these possibilities, you may have a fuel draw problem caused by dirt in the carburetor, most likely at the narrowest part where fuel is drawn through the needle valve. If backing out the needle valve doesn't allow the engine to run rich like it should, it's time to flush the carburetor.

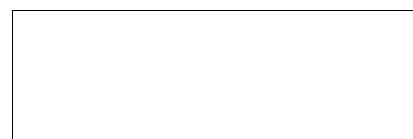
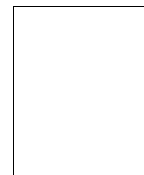
At home, you can disassemble the carburetor for complete cleaning. At the field, a quick fix is to back flush the carburetor with fuel. This doesn't require carburetor removal and can be done in just a few minutes.

Avoid getting dirt in the carburetor

In three words - use fuel filters! Somehow, dirt, or minute solid particles get into our fuel. In order to keep these particles out of my engines, I started using multiple fuel filters. Use one at the bottom of the fuel bottle or can. You'll soon find that once in a while, this first filter gets a bit clogged. Back flush it, and you start drawing fuel again. Use another fuel filter between the fuel pump and the aircraft fuel tank. Finally, always use a fuel filter between the aircraft fuel tank and the engine. When fueling the aircraft, disconnect the fuel line at the tank side of the engine fuel filter. This system works and eliminates the old problem of having to periodically back flush the engine to get rid of dirt. When flushing fuel filters, make sure you flush them both ways before inserting them back into the fuel lines.

SERVO CHATTER

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ACRC SPONSORS



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

CALENDAR OF UPCOMING EVENTS

Thursday – April 20

•ACRC Meeting-Riverwind

Saturday – April 22

•ACRC Fun Fly #1

Thursday – May 18

•ACRC Meeting-Riverwind

Saturday – May 20

ACRC Fun Fly #2

Saturday – June 10

•ACRC Spring Fly-In

Thursday – June 15

•ACRC Meeting-Riverwind

Saturday – June 17-18

•ACRC Pattern Contest

Saturday – June 24

•ACRC Fun Fly #3