



ACADEMY OF MODEL AERONAUTICS CHARTERED CLUB #1255

SERVO CHATTER

A PUBLICATION OF:

ANOKA COUNTY RADIO CONTROL CLUB, INC.

MAY 2011

THE MEETING WILL BE THURSDAY, MAY 19, AT THE FIELD!!

FLIGHT TRAINING

Great News. We have two additional new pilots in training. Please welcome John Sager and Steve Stroh. Thanks to a generous anonymous donation of a low wing plane for training plus donations and assistance from club members, we now have a club total of two planes and the perfect number for discovery flights at events like our upcoming May Fly-In.

Through May the open training day is Thursday from 4:00 PM to 7:00 PM. Please check the Instruction link on the web site for any last minute schedule changes.

Dale Anderson -- Instruction Coordinator

612-481-6405

TIPS & TRICKS

From the newsletter of the Rocky Mountain Modelers, Ft. Collins, Colorado

Vinegar

To remove epoxy from yourself safely, use white vinegar. It's smelly, safe, and very cheap!

Flexible sanding block

A flexible sanding block can be made by contact cementing sandpaper to one side of a urethane sponge. Your sanding block can conform to any curve.

Handy soldering jig

Here's an easy way to solder a threaded coupler. Place the coupler in the jaw of a wire stripper and stretch a rubber band around the handle. This provides the needed tension to hold the coupler (or whatever else) in place while soldering.

—Mel Marcum, Eugene, Oregon

Installing landing gear

When installing landing gear onto the fuselage with plastic or nylon bolts, place a thin 1/16-thick sheet of light plywood or balsa between the aluminum gear and the bottom of the fuse. This way, if by chance you land hard and shear the plastic screws, you have a better chance of getting a grip on a section of the broken plastic for easier removal. *[Tech editor's note: Possibly. But better would be to heat the tip of a screw driver in a butane touch and push the hot screwdriver into the broken bolt, it will make a very nice screwdriver slot.]*

Wire bending

When bending identical parts from small gauge wire, tape the wires together and bend both simultaneously.

Radial engine cowling

Some two-liter soda bottles have a black plastic reinforcement on the bottom. This piece makes an excellent radial engine cowling for your next project. *[Tech editor's note: The rest of the bottle can be used for canopies and emptying the bottle first can be fun, too.]*

Jim Trump, Corvallis, Oregon



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

MEETING MINUTES

April 21, 2011

Meeting called to order at 7:06 PM

20 members present.

1 new member - John Sager

1 guest - Randy Graven

Board Reports:

Vice President: Jeff Flander reviewed the prizes for the evening's raffle. They include a Twist 40, a Slow Stick and miscellaneous other prizes.

Safety: Andy Thunstrom told about a member cutting his finger at the combat match. Lots of blood!. Andy also gave a report on the combat match. There were 8 fliers, 1 mid-air and 1 ditch landing. The next matches are May 1 and June 12.

Membership: Stan Zdon reports that there are now 93 renewals.

Events: Marc Davis reminded everyone that the first Fun Fly will be this Saturday April 23. We also have another Fun Fly trophy for 2011. The Spring Fly-In will be May 14.

Treasurer: Roger Jeffrey gave us a detailed financial report. The club is in good shape.

Training: Dale Anderson reported that the training night will be Thursday from 4:00 PM - 7:00 PM

Old Business:

None

New business:

A Cub Scout group contacted Eric about using the field for launching rockets. More information will be presented after further contact with the group.

Show and Tell:

Stan Zdon: Built up a Black Baron Special from old plans just to compete in the fun-flies. Covered in Monokote, has flaperons, and weighs 5 1/2 lbs.

Raffle:

1st	Randy Graven	Twist 40
2nd	Randy Graven	Slow Stick
3rd	John Sager	Glow Igniter
4th	Steve Stroh	Temperature Gauge
5th	Tim Karash	Universal Charge Leads
6th	Marc Davis	File

Stan Zdon

YOU'RE ADDICTED TO RC, WHEN...

1. When the power steering goes, you tell the people at the garage to change the servo.
2. If you worked feverishly in all your free time, it would take three years to clear up your backlog of kits.
3. You host a fun-fly when it's so cold that one of the events is starting your engine.
4. You accept a crash as an opportunity to start a great new kit.
5. Every time you pass a garage sale, you look for wings.
6. If you spend more money at the local hobby shop in one hour than you make in a month.
7. You keep your old van just to transport airplanes in.
8. When you go to Home Depot and the PVC pipe and fittings section gives you ideas for new wing racks instead of plumbing projects.
9. The smooth tarmac bike trail at your local park has funny airport markings sprayed on it.
10. Your car has a ski box on its roof, yet you never go skiing.
11. You have a "special room" for your airplanes.
12. You have a gallon drum of adhesive in your shed.
13. You have at least three different heating irons.
14. Your neck shows a white strip that is the same width as your transmitter strap.

MEMBERSHIP NEWS

The meeting this month will be **AT THE FIELD**. The starting time is 7:00PM 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.

ACRC members should remember and follow the safety rules. We all have mental lapses from time to time so gently remind others when you see them having a **SENIOR MOMENT**. Starting engines with the plane faced other than toward the runway and full RPM run-ups in the pits seem to be the most frequent violations of club rules. If you just visualize where the prop blades will go if the blades break off it will help you remember why the club has these rules. The plane should be started in the pit area and moved to the run-up area for the high RPM run-up.

The flight stations are close enough so pilots can communicate their intentions concerning take-off, landings, etc. Be sure to let other pilots know what you are going to do. Shout out "coming out", "taking-off", "landing", "on the field" etc. Remember, if the wind is from the north, you should be flying from the 5 stations by the south half of the runway and vice-versa.

Be sure that you are standing on or behind the flight station blocks. If you stand ahead of the blocks you could be blocking the view for someone who is landing and if you are standing way ahead of the blocks you are definitely in a Danger Zone. All flying is to be done beyond the runway. This even applies to Micro-Electric planes (See Rules 9 & 10). Once you land, clear the runway and taxiways as quickly as possible. If you have to do maintenance on your plane or change the battery, it should be taken back to the pits.

THE NEXT MEETING WILL BE AT THE FIELD ON MAY 19 AT 7:00 PM. The summer meetings will be at the field until August. There will be a fun-fly on Saturday May 21 at 10:00AM.

Stan Zdon

ACRC EVENTS

The first fun fly is in the books and the Spring Fly-In is just around the corner. The 2011 flying season is now in full swing and most of us have made it out to the field to shake the cobwebs off those flying fingers.

This month we had to cancel combat due to high winds, but there is talk of rescheduling this for a weekday evening; look for emails with details on the rescheduled date. In addition to the Spring Fly-In, the May fun fly and early June Pattern Meet are on the calendar in the next few weeks. Stan sent out the new patter maneuvers last month so it's time to start practicing. If you have not done a pattern meet before you will be amazed at how much of a better pilot you will be after you compete. It's a whole different game when you have to follow a predefined set of maneuvers and you're being judged on your results. I don't want to scare anyone away as this is a very low stress event. The pattern meet is open to all levels of flyers with four different levels planned; Sportsman, Intermediate, Advanced and Masters. Matt Campson is the CD for this event again this year, thanks Matt!

Pattern Meet Contact - Matthew Campson CD

PH: 612-987-0191

Email: matthew.campson@mspmac.org

The April Fun Fly was a big success. There was a record turnout with 20 participants competing and plenty more as spectators. The weather could have been a little nicer but that didn't stop anyone from have a great time. We started the year off for the second year in a row with the taxi event to warm everyone up. Like last year this was a very challenging event due to the strong winds from the north. Several planes had issues with the downwind leg of the event and a few planes even took to the air on the up wind leg. Several flyers had programmed special mixes on their planes in an effort to give them more down thrust to keep the planes on the ground during the high speed taxi. Chris Cone was the big winner with a blazing 24.9-second time for one figure eight lap

around the runway. Christian Cone had the second fastest time so the Cone's will be a family to watch out for this year.

The second event was guessing your time to perform a takeoff, three loop/roll combinations and land. Scott Oleson was the winner of this event guessing a time of 45 seconds with wheels down at 47 seconds. Nice job Scott.

The last event was closest time to 1 minute. In this event you simply take off and land as close to one minute as you can. Dave Boll nailed this event with a time of 1.00.06, that's only 6 hundredths of a second off the mark. We would all like to say that Dave programmed the timer on his radio only Dave's radio doesn't have a timer!

The overall results are posted below but Dan Thiede just goes to show you that you don't have to be first to win the event. As Dan shows you just need to be consistent. Congratulations Dan. I just wanted to pause to point out that while we are keeping track of the total points for the season the fun flies we haven't lost sight of the name, it's a FUN fly, and we are keeping the rules to a minimum and the fun at a maximum. We had several first time participants at this event and I think they will tell you they didn't feel out of place or overwhelmed. We have a great club and everyone is always willing to lend a hand to help a fellow club member.

Marc Davis

UPCOMING EVENTS

- May 14, 2011 ACRC Spring Fly-In
- May 19, 2011 Club Meeting
- May 21, 2011 Fun Fly
- June 4, 2011 ACRC Pattern Meet
- June 12, 2011 Combat Fly
- June 16, 2011 Club Meeting
- June 18, 2011 Fun Fly
- June 25, 2011 ACRC Warbird Fly-In

Name	1st Evnt	2nd Evnt	3rd Evnt	Total Pnts	Place	Pnts
Phil Vaughn	6	11	12	29	9	17
Doug Jelinek	7	13	14	34	12	14
Ray Jelinek	12	10	2	24	5	21
Andy Thunstrom	14	4	5	23	4	22
Bob Moser	18	3	9	30	10	16
Dave Dentz	11	15	6	32	11	15
Dan Thiede	5	9	3	17	1	25
Marc Davis	17	2	7	26	7	19
Joe Parent	13	14	11	38	13	13
Rodger Jeffery	18	7	16	41	14	12
Dave Boll	18	2	1	21	3	23
Stan Zdon	8	5	8	21	3	23
Kris Westerbur	4	16	18	38	13	13
Dale Anderson	15	16	10	41	14	12
Paul Rono	9	12	4	25	6	20
Scott Olson	10	1	17	28	8	18
Christian Cone	2	6	12	20	2	24
Chris Cone	1	8	15	24	5	21
Chris Elliot	16	17	18	51	15	11
Jeff Flander	3	7	13	23	4	22

V Is For Airspeed

V for victory – we're all familiar with that expression. But what about V for airspeed? It's important for our aircraft to attain a minimum amount of airspeed to become airborne and also important to maintain it throughout the entire flight. But how much do we need? How much is enough? Can too much be a concern? From an aircraft performance perspective there are several designated speeds for specific phases of flight.

Continued on Next Page



These speeds may be an operating limitation (for full scale aircraft) commonly abbreviated with a number/letter code, preceded with the letter 'V' and referred to as 'V speeds'. Without airspeed indicators on our aircraft, we rely on experience and familiar flight characteristics/control inputs to fly our planes safely. Let's take a look at a flight and see where we simulated reaching and applying some of these operating speeds. Applying takeoff power, hearing the electric motor whir up or the engine sounding normal, the airplane accelerates down the runway and we reach the take off decision speed (V1); looks like it's ready to fly. Soon after rotation (V R) and lift off, we establish a pitch attitude for a normal climb (usually V Y – best rate of climb speed) and raise the landing gear if applicable (V LO – maximum landing gear operating speed). We can go fast (V NO – maximum structural cruising speed) or we may throttle back a bit and just enjoy flying around. A cruising speed is normally less than the speed at which full and abrupt control surface movement can take place without damaging the airplane (V A – design maneuvering speed). Above this speed however, these same control inputs can overstress the structure. Flying too fast (V NE – never exceed speed) is also a concern. Get too slow (V S – the minimum steady flight speed at which the airplane is controllable) and a stall occurs. Slowing down for the arrival and approach, if our plane has them it may be time to extend partial or full flap settings (V FE – maximum flap extend speed). Slowing down a little more and it's time to extend the landing gear (V LE – maximum landing gear speed). Slowing down too much again (V SO – stalling speed or the minimum steady flight speed in the landing configuration) and a stall occurs. Configured for landing, we can now concentrate on maintaining a final approach speed (V REF – reference landing speed); to the runway and get ready to flare, touchdown, rollout and taxi back to the ramp. Another safe flight accomplished within the specific airplane designated operating limitations. Fortunately our planes are much, much stronger than full size aircraft. Most of the time we can fly and maneuver around without too much concern about control inputs or operations

at any airspeed, but it might be something to consider. We can still lose gear doors, flaps, flutter a control surface and rip the wings off with abrupt maneuvering depending on the type of model we are flying and if we're not careful. There are a few products available for determining model speed, altitude, onboard battery capacity and radio signal quality that can be installed in the airplane itself. A few transmitters are now equipped with some built in similar telemetry. Airspeed data would be a nice feature to have, primarily to establish a stall warning indication. Through experience when we fly our aircraft we're able to see how good a job we're doing at complying with some of these important 'airspeeds' to ensure consistent and safe flight operations. Maintain airspeed!

EVENT CALENDAR

- | | |
|-----------|--|
| May 14 | ACRC Spring Fly-in - 10:00 am |
| May 19 | ACRC Club Meeting @ Club Field |
| May 21 | ACRC Fun Fly - 10:00 am |
| May 21 | Sodbusters Combat SSC Fly-in |
| May 22 | Hobby Warehouse Spring Swap |
| May 22 | Big Sky Hobby Spring Swap Meet |
| May 22 | Sodbusters Scale Sunday Fly-in |
| May 21-22 | Blaine Aviation Days |
| May 27-29 | North Country Model Controllers
Spring Fun Fly, Bemidji, MN |
| June 3-5 | XFC @ AMA National Flying Site |
| Jun 04 | SPRC 3 Event Fun Fly - 10:00 am |
| Jun 04 | ACRC Pattern Meet - 10:00 am |
| Jun 08 | SPRC Club Meeting @ Club Field |
| Jun 10-12 | AMA National Electric Fly-In |
| Jun 10-12 | Bismarck Aircraft Modelers Island
Hoppers Fun Fly |
| Jun 11 | SPRC Scale Fly In - 10:00 am |
| Jun 16 | ACRC Club Meeting @ Club Field |
| Jun 18 | ACRC Fun Fly - 10:00 am |
| Jun 18 | Sodbusters Combat SSC Fly-in |
| Jun 24-26 | TCRC Electric Fly-in & Campout |
| Jun 24-26 | MARCEE Electric Fly-in |
| Jun 25 | ACRC Warbird Fly-in - 10:00 am |
| Jun 25-26 | North Country Model Controllers
Collective Madness, Bemidji, MN |

LET'S BE SAFE FIRST

By Scott Stoops/FlyRC

The traditional safety structure of AMA clubs has done a lot to reinforce good safety habits over the years. Unfortunately, with the advances made in electric flight and its often less organized and more isolated nature, we have many up-and-coming pilots who have little, if any, way to learn good safety practices. From time to time I will offer suggestions that will help keep you, your model and, most important, any spectators stay as safe as you can be. This is a great hobby for sharing with younger family members, and it is incumbent upon us to teach younger modelers how to be safe.

Your model airplane's most dangerous part is its propeller. Even the smaller "park flyer" propellers can cause significant damage. In the full-size aviation world, we assume that the propeller can turn at any moment. This is a great approach to dealing with your model airplane as well.

SIMPLE TIPS TO KEEP YOU SAFE

- Treat every propeller as if it may turn at any moment.
- Treat every propeller as if it will fail structurally at any moment. Keep all body parts clear of the propeller arc at all times.
- Remove the propeller from the motor whenever you are doing ESC/motor setup, testing and programming.
- Properly secure your electric aircraft before you attach any power source; remember, it may start at any moment.
- Be sure to properly secure your model with a tie-down or have a helper hold it before you start its engine or motor.
- Between hand-props, give glow and gas airplanes a firm tug to ensure that the tie-down is holding them securely. One of my friends lost a few fingers when his model jumped forwards after starting with a loose tie-down rope.

- When tuning your engine, you must stay clear of the propeller arc. Preferably, tune the needles with the engine shut down.

- If it's available on your transmitter, use a throttle lock or a throttle kill function to avoid an unplanned application of throttle until you're ready to fly. I use this function religiously—but I never trust that it is activated! Check!

- Always tell spectators not to touch or move your model's propeller.

- Never, ever reuse a damaged propeller. The cost of an injury far outweighs the cost of a new propeller, even if it takes a quick drive to the hobby shop.

- Keep a first aid kit in your workshop and in your car.

Contributed by Stan Zdon

PROPELLER SAFETY

From the Rouge Eagles R.C. Club, Medford, Oregon

Respect and alertness are mandatory if you want to keep all your fingers. If you continually ignore safety, you or someone close to you will be injured eventually. By adopting good safety practices we can minimize risk and enjoy our wonderful sport for many years.

The most destructive type of propeller injury, aside from being struck by a flying aircraft, is when the engine is operating at or near full throttle. At full speed, a .40-size, two-stroke engine with an 11 x 6 propeller can generate as much power as a 10-inch table saw. Just as a table saw demands your respect and attention, so does an aircraft propeller.

Before you mount your propeller or even start your engine, you should take a moment to review some basic pre-flight recommendations for propeller safety.

Continued on Next Page

General Propeller/Rotor Blade Inspection and Preparation:

1. Look over for obvious nicks or gouges.
2. Flex it gently back and forth along its length and look for cracks.
3. If you find any damage, other than some minor scuffs at the tip, discard immediately.
4. Wood propellers cause less damage than composite propellers.
5. Remove the sharp edges from composite propellers using fine sandpaper. Just take off the edge. Do not alter airfoil.
6. Always use a balanced propeller. Vibration is the enemy.
7. Make sure the propeller arc is visible by painting the tips a contrasting color.

Ground Safety:

1. Always have someone hold the airplane while starting.
2. Use some form of eye protection, like safety glasses.
3. After starting, move around behind the propeller to remove the glow plug igniter and to make other engine adjustments.
4. Never ever reach over a spinning propeller.
5. Be conscious of the propeller arc. Do not let spectators stand in line with, or in front of, the spinning propeller and don't you stand there any longer than necessary.
6. If starting by hand, use a thick glove or chicken stick.
7. Use an approved spinner or propeller hub.
8. Before starting, be sure the propeller is on tight. If the engine came with backup safety nuts, use them.
9. Have a first aid kit stocked and available.

It's easy to forget these safety items when at the field and some say it's just too much trouble. But safety is everyone's responsibility!

Contributed by Stan Zdon

Tips & Tricks

Trick to using Robart pin hinges

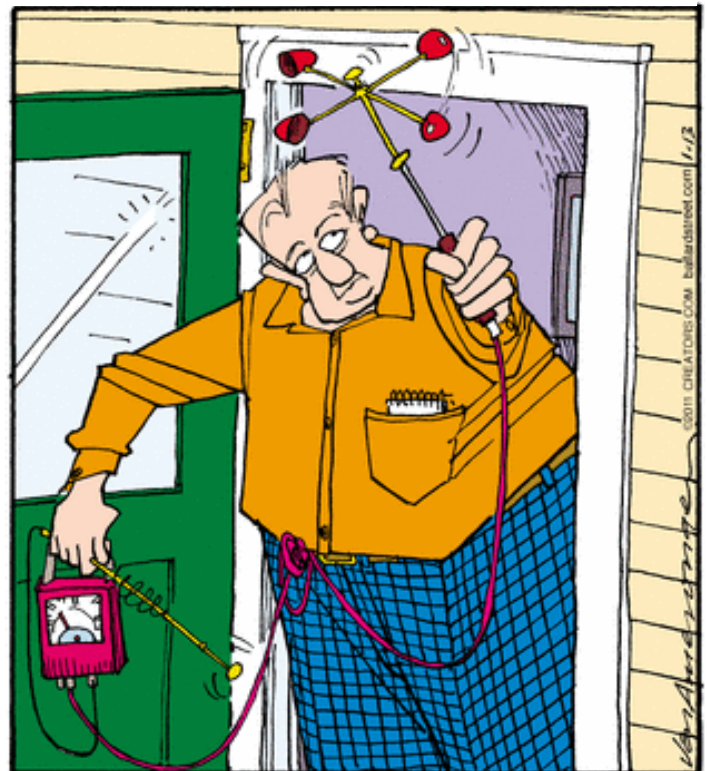
I was installing Robart pin hinges on my T-34 Mentor. I can never get both sides perfect ... no matter how carefully I measure, so I came up with a neat trick to make them perfect.

On the stabilizer (in this case three hinges on each side) I mark out where I want the holes, then I clipped off ¼ inch of T-Pin tip and, using pliers, push the short pin into the stabilizer where I marked. I left about 1/8 inch or less sticking out (either end works, but I pushed the pointed end into the stabilizer).

Next I made sure the elevator was perfectly aligned with the stabilizer then pressed the two together. The pins left a mark on the elevator (or rudder) where to drill the holes. I guess you could use the same method with CA hinges.

—*Dave Raczka, Brauer's Aviators, Pendelton, New York*

Ballard Street by Jerry Von Amerongen



Ray's dislike of the wind keeps him constantly vigilant.

SERVO CHATTER

902 - 88TH LANE NW
COON RAPIDS, MN 55433



ACRC BOARD MEMBERS

PRESIDENT

Erik Castrodale

president@anoka-rc.com

TREASURER

Roger jeffrey

treasurer@anoka-rc.com

VICE PRESIDENT

Jeff Flander

vicepresident@anoka-rc.com

INSTRUCTION COORDINATOR

Dale Anderson

instruction@anoka-rc.com

MEMBERSHIP SECRETARY

Stan Zdon

membership@anoka-rc.com

FIELD SAFETY OFFICER

Andrew Thunstrom

fieldsafety@anoka-rc.com

RECORDING SECRETARY

Steve Ulrich

secretary@anoka-rc.com

CONTEST COORDINATOR

Marc Davis

events@anoka-rc.com

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

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

SERVO CHATTER EDITOR

Stan Zdon

newsletter@anoka-rc.com

CONTRIBUTORS THIS MONTH

Dale Anderson

Marc Davis

Stan Zdon

ACRC SPONSORS

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

*Deadline for the
next newsletter is:
June 1, 2011*

CALENDAR OF UPCOMING EVENTS

Saturday – May 14

- ACRC Spring Fly-In

Thursday – May 19

- ACRC Club Meeting

Saturday – May 21

- ACRC Fun Fly

Saturday – June 4

- ACRC Pattern Contest

