ACADEMY OF MODEL AERONAUTICS CHARTERED CLUB #1255

S E R V O C H A T T E R

A PUBLICATION OF:

ANOKA COUNTY RADIO CONTROL CLUB, INC.

APRIL 2012

THE MEETING WILL BE THURSDAY, APRIL 19, AT RIVERWIND!!

PRESIDENT'S CHATTER

The flying season is pretty much here. We have combat and a fun fly to open up to, starting this month. I see members at the field warming up the fingers, along with buddy boxes starting to get in the swing of things. It looks like we are going to have a busy summer with the new members and the events. There is nothing better to see then people participating in events. They are fun, enjoyable, and improve flying skills. If you don't have a plane for a fun fly bring what you have and try. No pressure, it is fun to do and nobody cares how well or how badly you do. Last year a member flew in a fun fly with a foam Cub. Believe it or not, he did surprisingly well, and had a great time doing so. I hope that guy comes back again, it was even fun to watch. We have some new members in the club and that is great, welcome. I myself have taken a new member under my wing to help get flying; hopefully we can get a few more to help out. Please contact Dale Anderson; the help is greatly appreciated. We have a great club that continues to grow with great members so let's keep that going.

Andy Thunstrom

ACRC COMBAT

The first combat matches are April 15. The first round begins at 11:30 AM with 25s and roughly noon or so for 15s. Those participating this year will be at the field somewhat early for pilots meeting. For those wondering, do not stay away from the field thinking you cannot fly. That is not the case. The event is run in a manner that there is a heat about once an hour depending how things go. There is plenty of time to fly between combat rounds. There are fliers that come to field and fly and watch because the field is open between rounds. When they are not flying and the round starts we have found nobody has been disappointed with the entertainment. So, that being said, I hope to see more people at the field. The fee for combat is $15.00 for the year, and we will talk about the year-end prize for the end of the season. The entry fee goes towards ribbon, sting, etc. So have your planes ready to go.

Andy Thunstrom

Anoka County R/C Instructor List

Please note that it is up to the new pilot to contact an instructor for flight lessons. It is good practice to get a hold of an instructor prior to a training session.

Dale Anderson	(612) 481-6405
Lead Instructor	
Mike Flander	(763) 439-6959
Dan Thiede	(763) 227-3173
Jim Taylor	(612) 868-0419
Jim Wright	(763) 786-7047
Doug Lewis	(763) 670-7678
(Helicopter and Plane)	

ACRC EVENTS

Our flying season kicks off with our first Fun Fly on April 21. I am looking forward to it and I hope to see a lot of pilots turn out. I have been reviewing the fun fly cards and getting an idea for what the events will be for the Fun Flies. I am always open to new ideas so let me know if you have any suggestions.

A reminder that May 19 is our Spring Fly-in and I am still looking for volunteers to help out with the event. It's coming up fast so please let me know if you can help out.

John Sager

2012 CONTESTS

Anoka County R/C and St. Paul R/C will both be having pattern contests this year.

SPMRC will be hosting a Classic Pattern Contest on May 12. Classic Pattern is the old-style pattern without scored turn around maneuvers; just one maneuver per pass. The maneuvers and diagrams of the maneuvers along with the rules can be found at the following website.

http://www.ballisticpattern.com/Rules%20Files/rules%20small.pdf

If you have any questions call Brian Lundberg at (763) 788-0608 or Stan Zdon at (952)-454-7978.

Anoka County RC will be having a Pattern contest on June 2 and it will be an AMA sanctioned turn around style pattern contest. The maneuver for the Sportsman and Intermediate classes are in the next column. If you have any questions call Stan Zdon at (952)-454-7978.

ACRC will also be having a Fun Scale Contest on July 7

Get out there and practice. You will have some purpose to your flying other than just boring holes in the sky.

- **15. Sportsman Pattern Maneuvers.**

1. Takeoff (U)		K=1
Enter Box Going Upwind		
2. Straight Flight Out (U)		K=1
3. Half Reverse Cuban 8 (T)		K=2
4. Straight Flight Back (D)		K=1
5. Stall turn without Rolls (T)		K=2
6. Two (2) Inside Loops (U)	*(Exit Box)*	K=2
Enter Box Going Downwind		
7. Two Point (2/2pt) Roll (D)		K=2
8. Half Cuban Eight (T)		K=2
9. Double Immelmann without Rolls (U)		K=2
10. Immelmann Turn (T)		K=2
11. 45 degree Down line (D)	*(Exit Box)*	K=1
Enter Box Going Upwind		
12. Vertical Up line (on Center) (U)		K=1
13. Split - S (T)		K=2
14. One Horizontal Roll (D)		K=1
15. Half Reverse Cuban 8 (T)		K=2
16. Cobra without Roll (U)	*(Exit Box)*	K=1
17. Landing		K=1
		Total K=26

(U) - upwind (D) - downwind (T) - turnaround

- **16. Intermediate Pattern Maneuvers.**

1. Takeoff (U)	K=1
2. Reverse Cuban Eight with 1/2 Rolls (U)	K=3
3. Stall Turn, Full Roll Up (T)	K=2
4. Two (2) Horizontal Rolls (D)	K=2
5. Half Square Loop, Exit Inverted (T)	K=1
6. Square Loop from Top, Exit inverted (U)	K=3
7. Half Loop from Top (T)	K=1
8. Two Half Rolls Reversed (Pause in Center) (D)	K=3
9. Humpty Bump with options (T)	K=2
10. Non-Rolling Triangle Loop (U)	K=2
11. Half Reverse Cuban Eight (T)	K=2
12. Double Immelmann with 1/2 rolls (D)	K=3
13. Top Hat, 1/4 Rolls Up & Down (T)	K=2
14. Square Loop on Corner (U)	K=3
15. Reverse Shark's Tooth, Half Roll on 45 degree up line (T)	K=3
16. Cobra with 1/2 rolls (D)	K=2
17. Humpty Bump (Pull, Push, Pull), 1/2 Roll Up (T)	K=2
18. Stall Turn, 1/4 Rolls Up & Down (U)	K=3
19. Landing	K=1
	Total K=41

(U) - upwind (D) - downwind (T) - turnaround

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 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 2012 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 2012 is on Saturday, April 21 and the Spring Fly-In is on Saturday May 19. The Pattern Contest will be Saturday, June 2 and the Fun Scale Contest will be held on Saturday, July 7. The list of maneuvers and the descriptions of the maneuvers for Sportsman and Intermediate Pattern will be emailed along with this newsletter. Get out there and practice. You will have some purpose to your flying other than just boring holes in the sky. If you have any questions about the maneuvers for the pattern or scale contests call Stan Zdon at (763) 784-3121.

The next meeting will be at Riverwind on April 19 at 7:00 PM. This is the last indoor meeting until September. The summer meetings will be AT THE FIELD.

Stan Zdon

Tips & Tricks

Airplane Cleaner

· 5 cups hot water

· ½ cup ammonia

· 1 cup rubbing alcohol

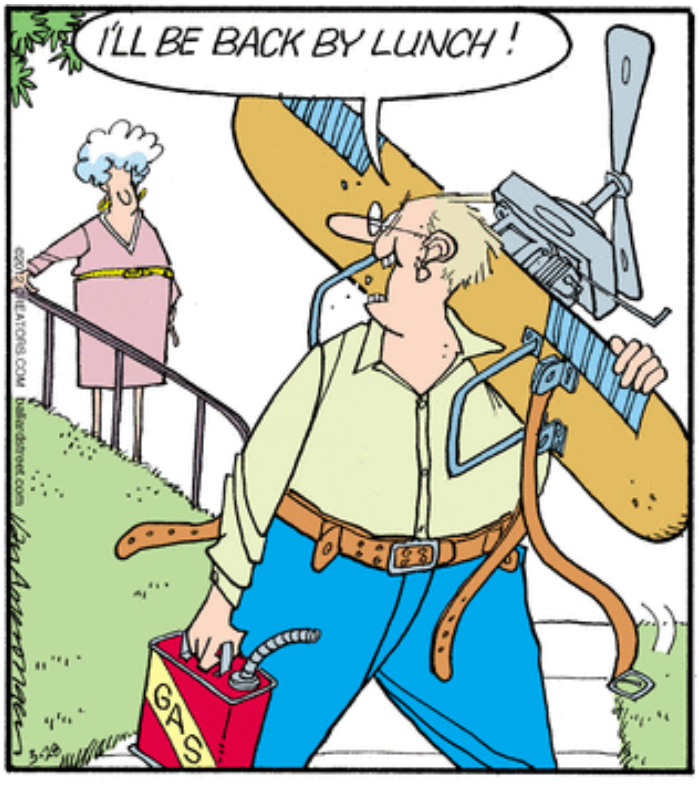
· 1 oz. of Dawn dish detergent

Mix all the ingredients in a clean milk jug; pour enough into a small spray bottle for field use. This solution cuts through the old buildup on the underside of your airplane, and leaves it squeaky clean.

Caution: Dawn seems to be the only dish detergent that cuts through the oils and does not leave a residue on the model.

—From the Utah Valley Aeromodelers, Lehi UT

Ballard Street by Jerry Von Amerongen



EVENTS CALENDAR

Apr 15	**ACRC Combat Fly - 10:00 AM**
Apr 19	**ACRC Meeting - 7:00 PM - Riverwind**
Apr 21	**ACRC Fun Fly - 10:00 AM**
Apr 28	Grassfield Fly-In and Feed
May 06	**ACRC Combat Fly - 10:00 AM**
May 12	CPA Pattern Contest (at St Paul R/C)
May 12-19	Joe Nall Fly-In - Triple Tree Aerodrome, South Carolina - www.joenall.com
May 17	**ACRC Meeting - 7:00 PM - Field**
May 19	**ACRC Spring Fly-in - 10:00 AM**
May 19	***Hobby Warehouse Swap Meet***
May 19	TCRC Spring Float Fly @ Bush Lake Beach, Bloomington, MN - 11:00 AM
May 19-20	Blaine Aviation Weekend (Jane's Field)
May 20	**ACRC Fun Fly - 10:00 AM**
May 20	***Big Sky Hobby Spring Swap Meet, Eagan, MN - 8:00 AM to 12:00 PM***
May 26-28	North Country Model Controllers Spring Fun Fly (www.NCMCRC.com) - $20.00
June 2	Grassfield E-Fly-10:00 AM-3:00 PM
June 2	SPRC Heli Fly 10:00 AM-5:00 PM
June 2	**ACRC Pattern Contest-10:00AM**
June 8-9	North Mankato Electric RC Fly In
June 9	Northwest RC Scale Heli Fly 9-10 AM start, $12 Landing Fee
June 16	SPRC Scale Fly -10:00AM-5:00PM
June 16	TCRC Electric Fly & Campout
June 16	Sodbusters Float Fly
June 16	MRCHA Grassfield Heli Fly
June 21	**ACRC Meeting - 7:00 PM - Field**
June 23	**ACRC Fun Fly - 10:00 AM start**
June 30	**ACRC Warbird Fly-10:00 AM**

CRASH ETIQUETTE

from the Long Island Radio Control Society, NY

While bent over your model tweaking the needle valve, too often you hear "I ain't got it …" followed by a low frequency thump. Usually several expletives will be inserted, some used imaginatively. A hand-crafted masterpiece of airframe miniaturization crammed with state-of-the-art electronic equipment and powered by an exquisitely machined engine is no more. The pilot who is frequently the builder/owner has made an unscheduled landing or has discovered the radio in his hands has a greater range than the eyes in his head.

Your immediate problem is how to react. Generally, it is considered bad form to immediately ask if you may borrow the pilot's glow plug battery.

Any equipment related reasons for the crash you hear are, by definition, reasonable. Pilot error is too rare and sensitive to suggest, so don't say, "That's odd, I haven't had any problems on that frequency today," until at least an hour after the crash. Offer to help go look. Don't say "It sounded like it hit something solid." Note that most lost models are found and returned. Don't ask if he has his name and phone number on the model, or wonder out loud if the model hit a house or a car.

If it looks like more than enough people have volunteered to help with the search, try to weasel out of going. There are ticks and poison ivy out there, and seeing a grown man cry isn't pleasant. If the pilot takes a plastic bag with him or comes back empty handed to get one, assume the worst. Actually, in a really bad crash, two hands and a pocket are enough space for anything worth salvaging.

Whatever you do, don't hold a postmortem on the spot. The pilot probably doesn't want to discuss:

- Battery condition
- Poor construction
- Pilot error
- Used rubber bands
- Fuel tank capacity
- Light blue covering
- Model selection vs. pilot skills

As best you can, avoid specifics, sound supportive, and look appropriately grave. You'll want the same consideration someday.

ON THE SAFE SIDE

by Jim Tiller, On the Safe Side Author

DISPOSING OF BATTERIES

You can't be in this hobby without using batteries. With the proliferation of electric flying, even more batteries entered our lives. These batteries eventually go bad, so we are faced with how to dispose of them. For many years it was the trash can. Now, with all the exotic combinations, it is more of a hassle. "Green" environmental laws and regulations are also a consideration. In some states, it is illegal to dispose of any kind of battery, even alkaline cells, in the trash.

The easiest and most environmentally friendly way to dispose of all your batteries is to put them in a plastic bag, and when you've collected enough, take them to a battery recycler. Many hardware stores or homes centers have boxes or bins that will take batteries. There are also battery retailers such as Batteries Plus or Interstate Batteries that will take them. There is even a website that will send you a box to put your batteries and other hard-to-dispose-of items such as fluorescent bulbs. When it's full, you just drop it in a FedEx box. (www.lamprecycling.com/)

LiPo cells are the ones that are the biggest concern for most fliers. There is plenty of Internet information about the care and feeding of LiPo batteries. You simply *cannot* charge LiPo batteries without a proper peak charger and a fireproof container. If they overcharge, they build up gases. If those gases produce enough pressure, the cells will rupture energetically (notice I did not write explode), releasing those gases that then combust mixing with air. Most have read and heard the horror stories associated with LiPo batteries.

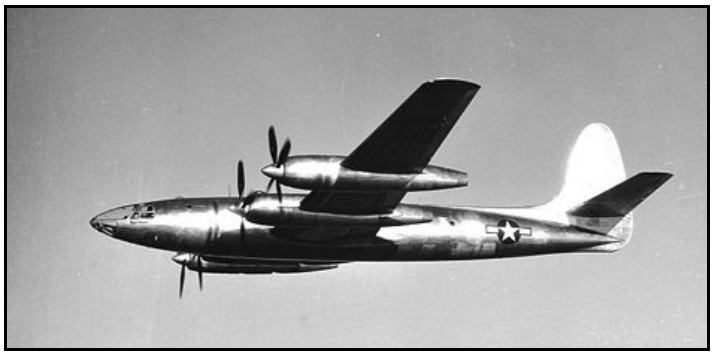
But this essay is on disposing them. If you simply must dispose of them yourself, here are some simple instructions, but you can search the internet for a more complete set.

Before you dispose of a LiPo battery, you should discharge it. Don't try to discharge a damaged pack. If it is damaged, skip down to soaking the cells in salt water. Many LiPo chargers also discharge the same packs. If so, just discharge the battery to the lowest point allowed on your charger (less than 1 volt per cell). Follow the same safety instructions while discharging as you do for charging.

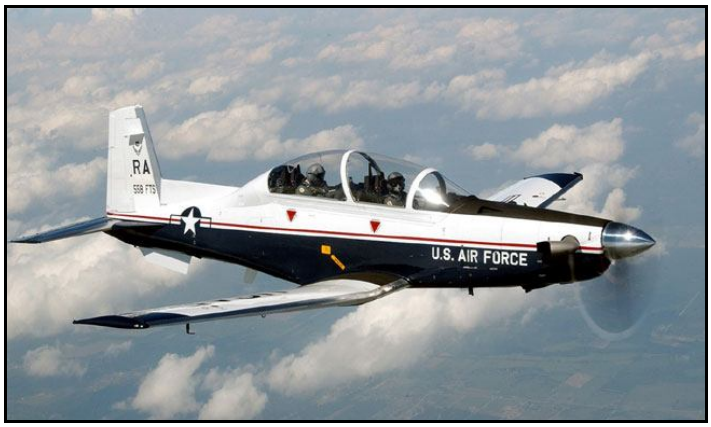
If your charger won't do it, a 12-volt light bulb wired between the poles will do the job for smaller packs of three cells or less. Let the pack discharge an hour or so after the light bulb goes out.

Soak the cells in salt water ($^1/_2$ cup of salt per gallon) for a few days. Soaked and discharged LiPos are safe to put in the trash or the recycling bag depending on local regulations.

The biggest environmental concern is the Nickel Cadmium (Ni-Cd) and Nickel Metal Hydrides (NiMH) batteries. First of all, the metallic residue can be recycled and reused. Second, they are toxic waste if they find their way into the landfill and/or our water supply.



XF-12 Rainbow



NAME THE PLANE

LANDINGS

by Bob Wilson, Franklin NC

Not wanting to be outdone by my friend Gerry Goepfert, who wrote about attaching a bubble canopy, I'm going to write about how to making a better landing with your RC model. I still occasionally draw a few haw-haws when I make three landings in one, but at my age I'm entitled.

As a full-scale pilot, I learned that it was most important to enter a downwind leg, which should be more or less parallel to the runway, followed by a turn to base leg and then to final approach, all of which is known as the landing pattern. For our models, the downwind leg should not be too high and usually 100 feet is plenty and as close in as practical. Our airport, called OTX in Franklin, North Carolina, is 400 feet of groomed Bermuda grass with an additional 100-foot over-run and we commonly land 42% gassers with no problems.

But, allow me to review some of the mistakes I see in making a landing approach.

Either because of stubbornness, or embarrassment, newbies often attempt to force their airplane to land regardless, rather than performing a missed-approach and go-around, and simply try and jam the airplane into the ground. Ouch! Teach yourself that if you aren't lined up - too high, too low, or whatever - hit the throttle and make a go-around. Take an afternoon and practice nothing but repeated landings and takeoffs or touch and gos. With enough practice, your brain will learn so that things become instinctive.

I often see pilots feed in power and grab for as much altitude as possible during a missed approach. The problem here is that they are now way above landing altitude and to get to the runway again, they have to dive, which builds up too much speed and often overshoot the runway again.

Another mistake I see often is failing to slow down during the downwind leg. In a full-scale aircraft, if you haven't already done so, this is where you want to get your flaps and gear down and start slowing for landing. The same thing applies to our model aircraft. How much power to use depends on the aircraft, but I usually cut power to roughly one half during the downwind leg and when on final, I cut it even more and then cut to idle at touchdown (assuming I haven't bounced). If you find yourself in a bad bouncing situation, feed in power and make that go-round. (My buddies will tell you I have been known to bounce pretty high but don't listen to them.)

So here's my advice to the newbie:

- Make your downwind leg parallel to the runway.
- Keep the downwind leg as low as practical for your airport. 100 feet is good.
- Begin slowing down during the downwind leg.
- If you have to dive to land, you're too high and/or too fast.
- Teach yourself to automatically go around if you mess up the approach.
- Work that throttle continually during your landing, using power as needed.
- Visualize a railway track in the sky and stay on the track. Downwind, base, and final.

WINDY WEATHER FLYING

From the A.M.A Insider

By Ivan Cankov

All too often, on an otherwise nice but windy day, folks just don't fly. Obviously, for a beginner, that's common sense, but for someone who has some experience, the wind can be a challenge that adds some spice to flying.

While it's easy to see that experience level has a lot to do with how much wind is too much, it may not be quite as apparent that the type of model you're flying also can have a great effect on your ability to handle winds. Let's go through some airplane features to see which ones give us the best flying characteristics to handle winds and the resulting turbulence:

Continued on Next Page

Size: In general, the larger the airplane, the better it will handle winds of all kinds; large models don't "flop around" as much!

Dihedral: The more dihedral in a model's wings, the more they are going to be affected by crosswind gusts; it is hard to keep the wings level, therefore lineup to the runway is difficult in a crosswind situation.

Wing Loading: The higher the wing loading, the less an airplane will be affected when hit with a gust.

Aspect Ratio: Lower aspect ratio (stubby) wings will be less bothered by gusts; there is less leverage for side forces to upset the airplane, and lower aspect ratio wings have a greater tolerance to changes in angle of attack caused by gusts.

Power: Having the power to overcome the force of wind is necessary. The same thing goes when you get into a sticky situation.

Lateral Control: Ailerons are beneficial in a crosswind landing and takeoff phases. The ability to dip a wing into a crosswind without changing heading is essential, as is the ability to rudder the airplane parallel to the runway heading while keeping wings level with ailerons while landing.

Landing Gear: Models with tricycle landing gear are easier to land and take off in a crosswind than tail draggers; in addition, the wider the spread on the main gear, the better.

Maneuverability: This one is a bit harder to quantify. You want a model with stability, yet you do need good maneuverability to cope with gusts. Therefore, you want a model that is stable, yet responsive.

Wing Mounting: Generally, a low-wing airplane will handle crosswinds better. This is because the center of gravity of the airplane is nearer, in a vertical sense, to the aerodynamic center of the wing. Therefore, a side gust does not roll the model as easily. Moreover, by mounting the main landing gear on that low-wing model, they can be spread wider.

It's unfortunate that almost every preceding item is in direct opposition to the characteristics found in many popular trainers. The main exception is the requirement for tricycle landing gear. But even with trainers, there are differences. Compare a Seniorita with the Kadet Mk2. While the Seniorita may be a bit slower and a bit easier to fly, the Kadet, with its ailerons, higher wing loading, lower aspect ratio, and lower dihedral, is a far better airplane when flying in windy conditions. Going a step further with the same kit manufacturer, the Cougar(.40) / Cobra(.60) kits embody all the right characteristics for windy flying.

In closing, I offer Confucius' only known saying about RC flying: "To learn to fly in wind, one must fly in wind!"

SAFETY IN THE WORKSHOP

Keep it Clean

Many injuries result from poor housekeeping in the shop. Trips, slips, and falls account for the bulk of these mishaps.

Scrap material and wrappings, loose parts, scattered tools and equipment, or oil spills can cause injury. Debris should be swept up and disposed of. Parts should be kept on workbenches. Tools should be placed where they cannot fall and cause damage or injury. Oil spills should be covered with absorbent material and cleaned up.

Lighting, Heating, and Ventilation

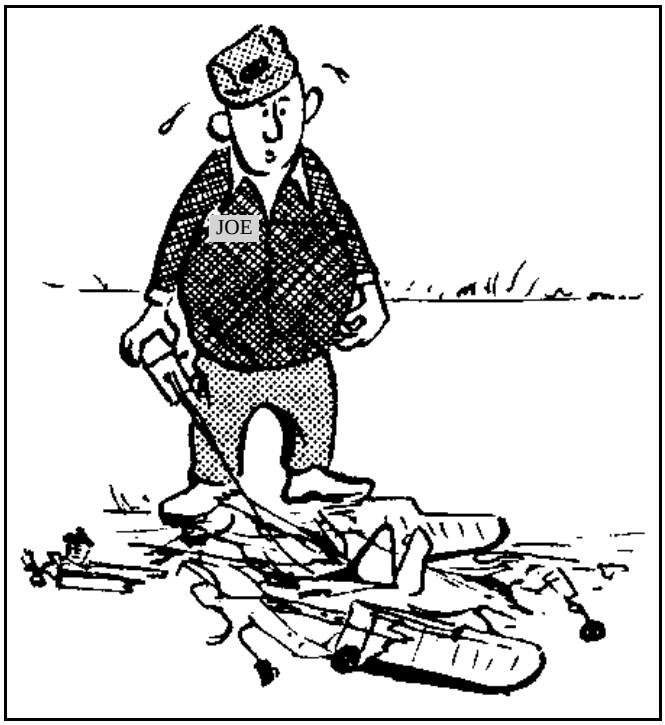
Enough windows and overhead lights are required for a good level of overall illumination. Additional lighting should be available over benches and stationary tools.

When supplemental heating is required for winter workshop operations, the heating unit should be located to provide an adequate, even distribution of heat; but should not cause a fire hazard.

Adequate systems are needed to vent smoke, fumes and exhaust gases. Open windows and doors may provide enough ventilation in the summer. Special systems may be needed to remove exhaust fumes and other gases during the cold-weather months.

SERVO CHATTER

902 - 88TH LANE NW
COON RAPIDS, MN 55433



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Deadline for the next newsletter is: May 1, 2012

CALENDAR OF UPCOMING EVENTS

Thursday – April 19
- ACRC Club Meeting

Saturday – April 21
- ACRC Fun Fly

Thursday – May 17
- ACRC Club Meeting

Saturday – May 19
- ACRC Spring Fly-In

Saturday – May 20
- ACRC Fun Fly