



ACADEMY OF MODEL AERONAUTICS CHARTERED CLUB #1255

# SERVO CHATTER

A PUBLICATION OF:

ANOKA COUNTY RADIO CONTROL CLUB, INC.

**FEBRUARY 2010**

***THE MEETING WILL BE THURSDAY, FEBRUARY 18, AT RIVERWIND!!***

## PRESIDENT'S CHATTER

As we come closer to warmer weather I wonder how everyone's winter projects are coming along. In the next few days the new ACRC Forums should be up and running smoothly. We will send out an email with the new link. You will need to register again, a fairly easy process. Then if you wish, the build section is open for you to post pictures of your project.

In the next few days you should receive an email with information about the upcoming ACRC get together at the Old Country Buffet at the Riverdale location. It will be on Saturday February 27 at 6 PM. We are just waiting for a confirmation. It will be an informal gathering for ACRC members to get together and have a good dinner.

See you at the field!

Erik Castrodale

## EVENTS

There is not a lot to report this month with events so I hope that you are all busy getting your planes ready for the spring flying season.

Andy Noll told me that the indoor flying is going very well; in fact they have had the best attended Saturdays the last two Saturdays in a row. If you haven't been there yet I would encourage you to at least get out and watch the event. It's a sight to see with so many planes in the air at once.

The TCRC auction was a success this year and was well attended by ACRC members. After the walk through in the morning I thought my money was safe, but I ended up finding three planes that I just couldn't pass up. If you didn't make it this year, put it on your calendar for next February, you won't want to miss it next year.

Marc Davis

## CHECK OUT THESE WEBSITES

The ONLY flying Spitfire Mk. 11. The sound alone makes it worth pulling it up.

<http://www.flyingmachinestv.co.uk/SpitPL965.wmv>

P-51 Mustang and its WW II pilot.

<http://www.asb.tv/videos/view.php?v=1bf99434&br=500>

## FOR SALE

2 - Hitec Supreme SuperSlim 8 channel FM receivers for JR/Airtronics.

New in the box.

\$20.00 for one RX or \$30.00 for both.

Dale Anderson

If interested email me at:

[drajr61@netzero.net](mailto:drajr61@netzero.net)



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

# Meeting Minutes

January 21, 2010

Meeting called to order at 7 P.M.

26 members present.

## Board Reports:

**Vice President:** Dan Thiede reviewed the evening's raffle prizes that included a Hanger 9 Tribute 36 and various building materials.

**Safety:** Joe Coleman reports no safety issues so far. It was noted that a plane did fly into the shelter in the somewhat recent past.

**Membership:** Stan Zdon reports that 60 individuals have renewed their membership so far.

**Events:** Marc Davis reported on the indoor flying at the National Sports Center. This has been well supported so far and everyone reports having a good time. Mark also reviewed the upcoming winter events including the MARCEE swap meet.

**Treasurer:** Jake Groetsch reports that the club finances are in good shape.

## Old Business:

Tim Karash reported that the B-Dale swap meet was well attended. There were about 70 there.

## New business:

There was discussion about the club forum. Several reported problems logging on. It was decided that it would be moved over to the club web site. Club members will get an email with the particulars for logging on as soon as this is done.

Eric Castrodale suggested a club get together at the Riverdale Country Buffet. All agreed that this would be an enjoyable event. Date & time to follow.

Tim Karash discussed the possibility of reciprocity between clubs. For example: offer members of other Twin City clubs a discounted membership which would give them flying privileges at our field. This seemed like a good

idea to the members in as much as some of the neighboring clubs are losing their flying fields. The board will discuss.

Dale Anderson discussed the possibility of adding solar power to the flying field. This would be a nice addition for all the electric fliers. There have been recent articles of clubs doing this with good results. The board will discuss.

## Show and Tell:

Dave Boll brought in two items. One was a Diamond Flipper, which is an electric sailplane. The plane has removable wing tips and tail feathers for easy transport and storage. A brushed motor with an 1800 NiMH battery powers it. The plane is nicely trimmed in red and white. The other model was a Sukhoi SU-26M peanut scale that weighs in at 1.1 oz. Guidance is via a Spektrum DX6.



## Raffle:

1st	Mike Harter	Hanger 9 Tribute 36
2nd	Tim Karash	Dremel tool
3rd	Steve Ulrich	CA glue
4th	Joe Coleman	Cutting mat
5th	Dale Anderson	Hitec receiver
6th	Darrin Bitzer	ElectriFly Yak 54
7th	Mike Harter	Fox engine
8th	Steve Ulrich	CA glue
9th	Mike Harter	Canopy glue
10th	Larry Dingmann	Chicken stick

Steve Ulrich

## TRAINING UPDATE

Today is February 2, 2010 and it looks as though we are going to be in winter for another six weeks. I hope not, because I have an itch to start flying in nice weather. Next month I will start getting in touch with instructors and talking to Stan about new members. Wednesday will be training day as in the past. If there is somebody available at the field on weekends that can help run a buddy box they may be able help. If you are ready to fly call an instructor to set up a day other than Wednesday. Until then I will keep you posted.

Andy Thunstrom

## MEMBERSHIP NEWS

**IT'S GETTING CLOSER TO SUMMER.  
LET'S GET THOSE NEW PLANES  
BUILT !!!!!!!!!!!!!**

About 60% of last year's members have rejoined for 2010. This is the same as last year at this time when it was also about 60%. If any of your friends have not rejoined, please encourage them to do so ASAP. The 2010 budget is based on a projected membership of 100 fully paid members. If we drop much below that number we will have to cut services somewhere.

If you have any pictures that could be used in the newsletter send them to me. If they are digital, email them to [szdon@yahoo.com](mailto:szdon@yahoo.com). If they are prints mail them to me and I will scan them and return them to you. If you come across any articles on the Internet that could be use in the newsletter send me the link and I will download them and use them.

If you are interested in aerodynamics there are some interesting articles on the Embry-Riddle Aviation website. The link is

<http://www.erau.edu/er/newsmedia/featurearticles.html>

The next meeting will be at Riverwind on February 18 at 7:00 PM.

Stan Zdon

## MEN'S TOOLS EXPLAINED

### DRILL PRESS:

A tall upright machine useful for suddenly snatching flat metal bar stock out of your hands so that it smacks you in the chest and flings your beer across the room, denting the freshly-painted project which you had carefully set in the corner where nothing could get to it.

### WIRE WHEEL:

Cleans paint off bolts and then throws them somewhere under the workbench with the speed of light. Also removes fingerprints and hard-earned calluses from fingers in about the time it takes you to say, "Oh, sh\*t!"

### CIRCULAR SAW:

A portable cutting tool used to make studs too short.

### PLIERS:

Used to round off bolt heads. Sometimes used in the creation of blood-blisters.

### BELT SANDER:

An electric sanding tool commonly used to convert minor touch-up jobs into major refinishing jobs.

### HACKSAW:

One of a family of cutting tools built on the Ouija board principle. It transforms human energy into a crooked, unpredictable motion, and the more you attempt to influence its course, the more dismal your future becomes.

### WISE GRIPS:

Generally used after pliers to completely round off bolt heads. If nothing else is available, they can also be used to transfer intense welding heat to the palm of your hand.

### OXYACETYLENE TORCH:

Used almost entirely for lighting various flammable objects in your shop on fire. Also handy for igniting the grease inside the wheel hub out of which you want to remove a bearing race.

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## ON THE SAFE SIDE

From the National News Letter

Don Nix, Insider Safety Column Editor

I recall some incidents where distraction at the flying field had caused crashes. Here are two in which I was personally involved. As I have mentioned in past columns, when I lived in Southern California most of my flying was done at Mile Square Park in Orange County. Mile Square was the busiest RC park I ever saw, and quite possibly the busiest in the US. I say “was,” because it was closed to model flying some years ago. The runway was an abandoned WW II military airfield, the RC part 2,000-feet long. There were 12 pilot stations, and on good weather weekends it was not unusual to have 50 or 60 fliers at the field and all 12 stations “hot” at the same time. One particular distraction incident remains clear in my memory although it took place more than 20 years ago. A good friend of mine did a lot of teaching. When newbies came to fly for the first time, they were usually directed to George to get them on the buddy box and start learning. One Saturday, George called me over just before starting a beginner’s engine. “Don, before I get this fellow on the buddy box, you take his transmitter. After takeoff, I’ll trim mine, then turn it over to you to get his box trimmed out so he won’t have to struggle with it.” I agreed, and after George made a couple of circuits said, “Okay, Don, you take it and trim his box.” I had control of the model for perhaps a hundred yards when we heard someone scream, “HEADS UP!” followed by the unmistakable sound of a model under full power and, even without seeing it, could hear it was coming toward us. Naturally, we ducked and a split second later the airplane crashed hard on the pavement three or four yards from our feet. As soon as we realized we had not been hit, our attention turned back to the model we were test flying. This happened to be at a moment when almost all the other stations had models in the air at the same time. The sky looked and sounded more like a swarm of large bees than a model flying field. Scanning the air for our model, George yelled, “I’ve got it!”

quickly followed by, “No, that wasn’t it; I think it’s that one!” The sun was at the point where most of the airplanes in the air appeared to be almost silhouetted against the sky and were hard to distinguish from each another in the flock on the far side of the circuit. George repeated the phrase two or three times over the next 15 seconds, until it was obvious that none of the models were ours and that it was apparently gone into “Never-Never Land” out of sight somewhere beyond the trees in the distance.

There was nothing to do but hand the owner’s transmitter back to him, tell him we had no idea where his model had gone, followed with a heartfelt apology. Understandably, the fellow was somewhat bewildered and heartbroken, having no idea such a bizarre thing could happen. However, this story does have a happy ending. About a half-hour later, while the owner was packing up his gear to leave, a van bearing the logo of a gas station/auto repair shop came driving up. The driver got out, picked “our” model, totally unblemished, out of the back and asked, “Does this belong to someone here?” After we got control of our astonishment, he explained: He and another mechanic were working on a car when one of them looked up in time to see the model, propeller stopped, rolling up quietly into an empty service bay. One exclaimed, “Where the (bleep) did that come from?” By then, several had gathered around, and one commented that a lot of such models were flown at Mile Square Park, a couple miles distant, so they decided to give it a try. Obviously, the plane, perfectly trimmed by George, had flown the distance, run out of fuel and glided to a stop, just yards from a busy street. I realize the above sounds totally unbelievable, but I was there. There is also a good lesson hidden in that incident. The last time I looked, a couple of lines in the AMA rule book clearly state that each model should have the owner’s name, address, and phone number somewhere on or in it. This is a rule that is rarely taken seriously.

The second incident of distraction disaster took place back in the 1990s after I had moved back to Texas and was living in a small town near Austin. A friend from out of state was visiting,

expressed curiosity about RC flying, and I, anxious to show off, said, “Hey, I have permission to fly models at our little local airport. C’mon, I’ll show you how these things work!” I took my favorite, a big 1.20-powered aerobatic model. As I was putting the wings on, getting fueled up and ready to go, I was being a smart guy, explaining how everything worked. My friend stroked my ego with admiring comments. I started the engine, taxied to the takeoff spot, shoved the throttle full forward, broke ground and started a great climbout. What happened next wasn’t pretty. Almost immediately, the model became uncontrollable, trying to roll from side to side. Within another two or three seconds it rolled on its back, diving straight into the pavement. I was stunned. We went over, picked up the wreckage and took it back to my van. I took the wings off, commenting lamely that the only thing I could think of was radio interference, which I had never experienced at that field. I unbolted the wing, lifted it off and reached to disconnect the aileron servo leads from the receiver and found I didn’t have to. In my eagerness to impress my friend and basking in the glow of his comments, I had never connected them. Having been a full-scale pilot for decades and thousands of flying hours in addition to years of flying RC, I truly believe this was the single, solitary time in either that I never checked for full movement of all the controls before takeoff. We should never, ever be complacent about safety, no matter what the level of our experience—novice or expert.

Flyerdon1@yahoo.com

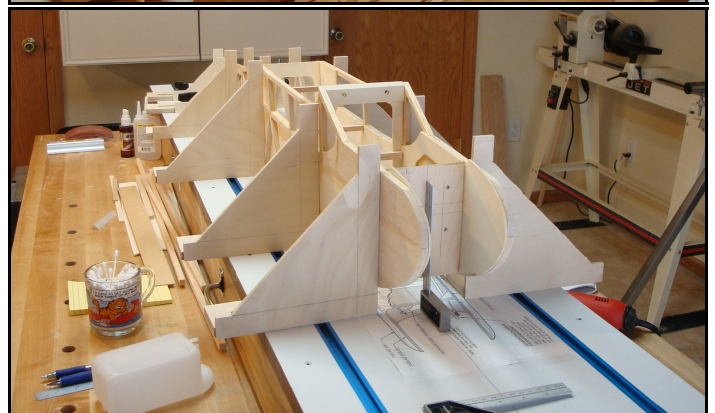
## FUSELAGE JIG

I love to build kits and someday aspire to creating something from scratch. There is only one problem: I’m not a very skilled builder yet. I have a particular problem with building the fuselage. Specifically, they don’t always come out straight no matter how careful I am. The other issue is that I’d like to dry fit the pieces prior to gluing, but I need something to hold the whole business together.

When it came time to assemble the fuselage of a Bruce Tharpe Engineering “Flying King” I decided to build a dedicated jig. The jig measures 6 feet long by 15 inches wide. (The 6-foot dimension was chosen because I can’t fit a fuselage over 60 inches in my station wagon.) The carcass is built as a torsion box using  $\frac{3}{4}$ ” plywood and the top and bottom is covered in  $\frac{1}{2}$  inch MDF. The reason for the torsion box is to resist twisting/warping. The MDF was chosen because of its stability under varying humidity and temperature (my basement). By the way MDF creates huge amounts of dust when you cut it and for that reason I rarely use it. The topside has a T track running the length of either side and providing a working distance between them of 9 inches. Since the T track is  $\frac{1}{2}$  inch high I simply added another layer of MDF and that provided a flush surface. The top MDF is painted with Rustoleum and the balance is sealed using an oil based polyurethane. The uprights that are held fast in the T track are made out of Menard’s quality  $\frac{1}{2}$ ” and  $\frac{1}{4}$ ” plywood. They are not sealed.

Below are a couple of pictures of the Flying King fuselage in the jig. So far so good!

Steve Ulrich



*Continued From Page 3*

**TABLE SAW:**

A large stationary power tool commonly used to launch wood projectiles for testing wall integrity.

**HYDRAULIC FLOOR JACK:**

Used for lowering an automobile to the ground after you have installed your new brake shoes, trapping the jack handle firmly under the bumper.

**BAND SAW:**

A large stationary power saw primarily used by most shops to cut good aluminum sheet into smaller pieces that more easily fit into the trash can after you cut on the inside of the line instead of the outside edge.

**TWO-TON ENGINE HOIST:**

A tool for testing the maximum tensile strength of everything you forgot to disconnect.

**PHILLIPS SCREWDRIVER:**

Normally used to stab the vacuum seals under lids or for opening old-style paper-and-tin oil cans and splashing oil on your shirt; but can also be used, as the name implies, to strip out Phillips screw heads.

**FLAT-TIP SCREWDRIVER:**

A tool for opening paint cans. Sometimes used to convert common slotted screws into non-removable screws and butchering your palms.

**PRY BAR:**

A tool used to crumple the metal surrounding that clip or bracket you needed to remove in order to replace a 50 cent part.

**HOSE CUTTER:**

A tool used to make hoses too short.

**HAMMER:**

Originally employed as a weapon of war, the hammer nowadays is used as a kind of divining rod to locate the most expensive parts adjacent to the object you are trying to hit.

**UTILITY KNIFE:**

Used to open and slice through the contents of cardboard cartons delivered to your front door;

works particularly well on contents such as seats, vinyl records, liquids in plastic bottles, collector magazines, refund checks, and rubber or plastic parts. Especially useful for slicing work clothes, but only while in use.

**S.O.B. TOOL:**

Any handy tool that you grab and throw across the garage while yelling, "S.O.B." at the top of your lungs. It is also, most often, the next tool that you will need.

## R/C HINTS

### Secure All Nuts and Bolts

If you are new to large aircraft and motors, you are soon to learn that vibration is one of your worst enemies. Things that you think can't possibly come loose, oftentimes do. Check all nuts and bolts frequently! You will do yourself a big favor if you make sure that all screws, nuts, and bolts are securely fastened--not securely tightened--but fastened. This is especially true when a metal screw or bolt is threaded into a metal nut or fixture. Fastening involves using compounds or adhesives (LOCTITE, RPV, PFM, CA, etc.) on screw and bolt threads or using special locking nuts, such as those with nylon inserts. In extreme environments, or when resonance is just right, safety wire may be required. High-temp RTV (silicone rubber) works well in high temperature areas.

## FAMOUS QUOTES

"It has been said that politics is the second oldest profession. I have learned that it bears a striking resemblance to the first."- Ronald Reagan

"Government's view of the economy could be summed up in a few short phrases: If it moves, tax it. If it keeps moving, regulate it. And if it stops moving, subsidize it" - Ronald Reagan

"Politics is not a bad profession. If you succeed, there are many rewards; if you disgrace yourself, you can always write a book."- Ronald Reagan

## AIRPLANES FOR FLYING IN WINDY WEATHER

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 design features to see which ones give us the best flying characteristics to handle winds and the resulting turbulence:

**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.

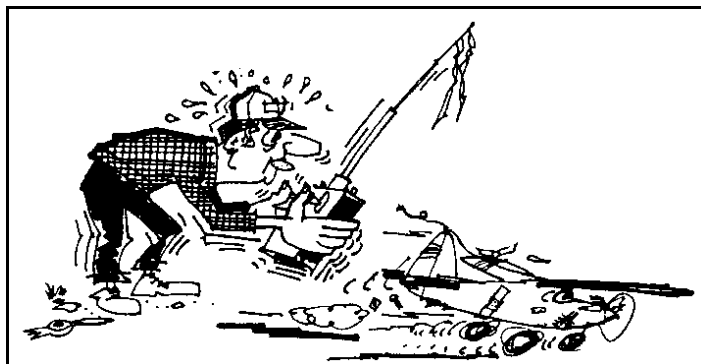
**Maneuverability:** This one is a bit harder to quantify. You want a model with stability, yet you do need good maneuverability to cope with gusts. Therefore, you want a model that is stable, yet responsive.

**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 SIG Seniorita with the SIG 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!"

*From the Middle Point RC Flyers, Murfreesboro, Tennessee*



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T & G Hardwood

*Deadline for the  
next newsletter is:  
March 1, 2010*

## CALENDAR OF UPCOMING EVENTS

Thursday – February 18

- ACRC Club Meeting

Thursday – March 18

- ACRC Club Meeting

Thursday – April 15

- ACRC Club Meeting

Saturday – April 17

- ACRC Fun Fly

