



ACADEMY OF MODEL AERONAUTICS CHARTERED CLUB #1255

SERVO CHATTER

A PUBLICATION OF:

ANOKA COUNTY RADIO CONTROL CLUB, INC.

AUGUST 2012

THE MEETING WILL BE THURSDAY, AUGUST 16, AT THE FIELD!!

PRESIDENT'S CHATTER

Summer is almost done. As everybody knows it has been plenty hot, REAL HOT. Unless you're part of the "it's Saturday every day group," you probably have not been to the field at all. I don't blame you. We have two major events left, the Scale Fly-In and the Fall Fly-Out, and the summer is done. Hopefully Mother Nature will be little bit nicer this fall; do your nice weather dance. As a whole, attendance is down for our events. I'm guessing it's the heat but I hope it is no other reason. I'm hoping that is going to change with fall right around the corner. Other than that not a whole lot to report.

Andy Thunstrom

ACRC COMBAT

We have September and October left, and then combat is done. On August 5 we had 4 or 5 people. For the next dates refer to the web site.

Andy Thunstrom

ACRC SAFETY

It's been pretty quiet the last month, I have not heard of any issues. If that is true, keep doing what you guys are doing. Nothing else to report this month

Joe Tombstone Parent

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

ACRC EVENTS

Hi Everyone! I was unable to attend the July Fun Fly but I'd like to extend a *Thank You* to Marc Davis for running the event for the club. Marc has submitted the results and they will be posted in another section of the newsletter.

The event season is winding down. We only have August, September and October's Fun Flies left and only two other "larger" events. The Scale Fly in is August 25 and then our Fall Fly out on October 6. As I write this article the forecast for this week is looking beautiful so I hope you all get a chance to get out and do some flying. I'll be headed down to the War bird Fly-in down in Owatonna this weekend and I'm sure I'll see a lot of you there!

Happy Flying!

John Sager



Junkers Ju-88

JUNE FUN FLY RESULTS

Name	1st Evnt	2nd Evnt	3rd Evnt	Ttl Pnts	Place	Points
Dave Boll	1	4	1	6	1	25
Bob Moser	3	2	3	8	2	24
Marc Davis	5	1	3	9	3	23
Andy Thunstrom	4	5	2	11	4	22
Andy Noll	2	7	3	12	5	21
Mark Tellevik	9	3	3	15	6	20
Stan Zdon	7	9	2	18	7	19
Phil Vaughn	6	8	4	18	7	19
Don Olson	8	6	5	19	8	18

Scores Compiled by Marc Davis



The results of Phil's Fun Fly practice session.

Fun Fly Standings

Name	April	June	July	Total	Current Standing
Andy Thunstrom	21	21	22	64	1
Phil Vaughn	19	22	19	60	2
Stan Zdon	18	23	19	60	2
Marc Davis	16	17	23	56	3
Mark Tellevik	14	18	20	52	4
Dave Boll	0	25	25	50	5
Dan Thiede	23	24	0	47	6
Jeff Flander	21	24	0	45	7
Scott Oleson	25	19	0	44	8
John Sager	21	20	0	41	9
Chris Cone	22	16	0	38	10
Chris Elliot	20	17	0	37	11
Bob Moser	0	0	24	24	12
Paul Rono	24	0	0	24	12
Christian Cone	22	0	0	22	13
Andy Noll	0	0	21	21	14
Don Olson	0	0	18	18	15
Dale Anderson	0	17	0	17	16
Kris Westerbur	17	0	0	17	16
Joe Parent	15	0	0	15	17

Instructor List

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)	

JULY FUN FLY

We had a July fun fly! It was really scary at 8:00AM with the rain that we were getting. We made a call to postpone the event until 11AM and had some great weather. Attendance was down some but we still had 9 members present and this month we did some new events.

The first event was a 20 second climb and glide - deadstick. After 20 seconds the flyers had to kill their engines and use their skills to stay in the air as long as they could. There was a 5 second bonus for landing on the runway and a 5 second penalty for landing outside the ditches that surround the field. Dave Boll put in a time of 3 minutes and 8 seconds for a first place win.

The second event was a timed event where fliers had to takeoff and fly around for 1 minute 37 seconds. During this time they had to perform a vertical maneuver at least every 10 seconds or they would be disqualified. Flyer landing closest to the time wins. This turned out to be a very tight event with the first 4 places within 2.7 seconds. Marc Davis won with 1:36.5 seconds.

The last event was a new twist on an old event. Fliers had to takeoff, perform a loop and roll, then a touch and go as many times as they could in 2 minutes. The kicker was this was an upwind/downwind event. The downwind touch and go made it interesting! Dave Boll finished 1st with 6 sets in two minutes.

That's all from the substitute fun fly coordinator, your regularly scheduled event coordinate will return next month!

Marc Davis



Lavochkin LaGG-5

MEMBERSHIP NEWS

HOSPITAL REMINDER - The closest hospital is Fairview in Wyoming, just north of Forest Lake. Go east on Hwy 22 to Hwy 61, which is just a ways beyond Hwy 35, and south on Hwy 61 to the hospital. The hospital is on the right side of 61 as you are going south. **FLY SAFELY!!!!!!!**

If you have to call 911 the GPS coordinates of the field are

Hwy 65 and 197th 45.326927 -93.236293

ACRC shelter 45.328692 -93.230971

FIELD CLEAN UP REMINDER - ACRC does not have a garbage service that comes to the field. The barrels at the field are used mainly for events. If you have pop cans or water bottles or other trash please take it home with you. This also goes for crashed airplanes. During the past couple of months crashed planes and their parts have been left in the shelter. Please take these home too.

So far ACRC has 16 new members for 2012. Their names are listed below. Some of them are first year fliers. Please give them all the assistance that you can when you see them at the field.

Mark Bilyk	Don Olson
Kent Buell	Kenny Olson
Nicolas Garcia	Neil Olson
Matthew Hallerman	Carl Nephew
Sean Haugen	Werner Remmen
Dillon Tucker	Eric Sherman
Marcus Martinez	Dick Stark
Virgil Okeson	JR Venegas

The 2012 ACRC Fun Scale and the ACRC Float Fly are now history. The only events still to occur this year, other than Fun-Flies, are the ACRC Scale Fly-In on August 25, ACRC Electric Fly on September 8 and the Fall Fly-Out on October 6.

The next meeting will be at the field on August 16 at 7:00PM. This is the last meeting at the field for 2012. **THE SEPTEMBER MEETING WILL BE AT RIVERWIND.** There will be a fun-fly on Saturday August 18.

Stan Zdon

ACRC INSTRUCTION

What a hot summer! And the training schedule has been hot too. With better than eight new pilots currently in training and more folks waiting to get scheduled, we need additional trainers and club members who are willing to donate a little of their time and expertise. If you can help tune glow motors, showing students how they work...? We are short on Spektrum buddy boxes, so if you have one you would be willing to lend...? Call me or simply show up at the ACRC field on Thursday evenings. Come meet our newest members.

Dale Anderson
Instruction Coordinator
612-481-6405

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

EVENTS CALENDAR

Aug 11	SPRC Wiener Wringout - 10:00AM
Aug 10-12	Northern Alliances Fly-In
Aug 23-26	Rushford Jet Fly @ Rushford Airport
Aug 16	ACRC Meeting
Aug 18	ACRC Funfly - 10:00AM start
Aug 25	ACRC Scale Fly-In
Aug 24-26	MRCHA Rotary Ring Out Heli-fly
Aug 25	TCRC Model Aviation Day
Sept 1	Grassfield Barbeque
Sept 8	Sodbusters John Baligrodzki Super Fly
Sept 8	ACRC E-fly
Sept 15	SPRC Septemberfest 10:00AM
Sept 15	Grassfield Big Bird Fly-In
Sept 15	TCRC Fall Float Fly-Bush Lake
Sept 20	ACRC Meeting
Sept 22	ACRC Funfly - 10:00 AM start
Sept 22	TCRC Scale Fly-In and Campout
Oct 6	ACRC Fall Fly Out - 10:00 AM start
Oct 13	SPRC Chili Fly 10:00AM - 5:00PM
Oct 18	ACRC Meeting
Oct 20	ACRC Funfly - 10:00 AM start
Nov 23	SPRC Turkey Fly 10:00AM - 5:00PM
Jan 1	SPRC Freeze Fly-10:00AM
Jan 1	ACRC Freeze Fly-10:00AM
Jan 1	MRCSS & MARCEE Freeze Fly 10:00

Misplaced Center of Gravity

From The Greater Detroit Soaring and Hiking Society

A misplaced center of gravity (CG) is a perennial killer of newbies and old pros alike. Since it's almost building season, this is a good time to go over the basics. A new airplane with the wrong CG location is almost a guaranteed crash. (I can write authoritatively about this since I've screwed it up so often myself.) If you're an experienced builder/pilot please bear with me, I'll try to pass information to the newer guys without talking down to you.

The basic deal: any and all airfoils in any fluid - air, water, peanut oil, whatever - share this perverse characteristic: when they move through a fluid at a slight angle (the angle of attack), they experience lift forces that act "as if" they are ahead of the CG. This effect makes the foil want to tumble. We've all seen this since we were kids. When you toss a simple strip of wood or a wing-shaped piece of paper and expect it to fly, it won't! It starts tumbling right away.

To stabilize the main wing, most airplanes (and birds) use the same approach. The CG is placed a small distance forward of the center-of-lift of the wing. The slightly forward CG overcomes any natural pitching-up moment of the main airfoil and makes the "plane" want to pitch forward and down. This overall pitch-down tendency can then easily be controlled by a force (normally down) from a stabilizer/elevator mounted rearward of the main airfoil.

You might ask why the initial step of adjusting the CG ahead of the foil wasn't good enough to control the foil. Why do we need the additional step of adding a rear stabilizer? The answer is that the CG needs to be only a very small distance ahead of the center-of-lift and, if the wing has no other form of stabilization, its location is sensitive and difficult to maintain. On the other hand, a small stabilizer mounted some distance behind (or ahead of the wing as in the case of a canard) makes the job relatively easy. The farther away from the CG the stabilizer is located, the smaller it



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needs to be. At the extremes, planes with long fuselages like a Blaster hand launch or a super-ship can use what appears to be a relatively small stabilizer. Aircraft with very short distances from CG to stabilizer need relatively large stabilizer-elevators. Flying wings recurve the entire airfoil or use full-span elevons to act as stabilizers.

Let's go through some of the implications of CG location. The farther forward of the airfoil center of lift you put the CG, the more stabilizer down force you need. Generating lift, even in the down direction, generates drag. The more lift, the more drag. So, a plane with CG too far forward will need a stab set to a high-lift, high-drag condition in the down direction. Think of the center of lift of the main wing as kind of a fulcrum or pivot point. The farther forward the CG is from that point, the longer its effective moment arm becomes and the harder it is for the elevator at the other end of the "Teeter-Totter" to swing it around. This makes the model less responsive to elevator control and the airplane can feel sluggish. This is only a partial reason for control insensitivity but I won't turn this article into a book. Even though forward CG makes an airplane less sensitive and increases overall drag slightly, the slower response time can be a good thing for beginners if it isn't overdone.

Going the other way, as CG is moved rearward and closer to the center-of-lift, the required stabilizer down force will decrease and the airplane will become more sensitive to elevator, but eventually the model will get twitchy and hard to control. If the CG gets on top of the center of lift, the plane will become neutrally stable and won't automatically tend to pull out of a dive. It's for this reason that we use a "dive test" to help fine-tune the CG location. It's not a perfect test, but it is helpful. If you're not familiar with how to do it, ask one of the old dogs.

Okay, but you've have to get the plane set up initially before you can even go out and do a dive test, so how do you get close "on the bench?" Mother Nature helps us here, because the center of lift of almost all airfoils tends to act as if it's at a point about 25% from the leading edge of the wing. To become more accurate, it's 25% of the "effective chord length" from the leading edge of

the "effective chord.") A simple general rule is that the CG should initially be set at 23-25% of the average chord of the wing. For a flying wing this should be 16-20% of the effective chord. Most modern kits and plans show an initial CG location, but a surprising number of older kits don't. And, more troubling, even with modern kits, some of the locations shown are just plain wrong! If you don't know how to determine the effective chord for a given wing, I can quickly show you how.

I don't mean to belabor the moment-arm thing, but the longer the relative moment arm of an airplane (the longer the wing-stab distance of the "longer legged" plane is), the more tolerant it will be of CG location. A long-bodied glider with CG at 33% might fly beautifully while a short-bodied fun-fly plane or scale model with CG at 33% could be uncontrollable.

Be smart: make darn sure that the CG is at or slightly forward of the 25% point for your initial flight with a new plane! Don't bring it home in a garbage bag! After you know how the thing flies, you can adjust the CG rearward to suit your own nervous system.

Last year I was talked into buying one of the Great Planes balancing stands. If I recall it was about 19 bucks but it's been the best plane saver I've had for some time. When I started using it I was embarrassed to find that the CG locations of some of my planes weren't where I thought they were. I'd been careful balancing them with wing supports, string hangers and so on, but they were off enough to make the planes seem like poor flying machines. They weren't. They were just improperly balanced.

PILOT TALK

Taxiing down the tarmac, a DC-10 abruptly stopped, turned around and returned to the gate. After an hour-long wait, it finally took off. A concerned passenger asked the flight attendant, "What, exactly, was the problem?"

"The pilot was bothered by a noise he heard in the engine," explained the flight attendant. "It took us a while to find a new pilot."

ON THE SAFE SIDE

Crocheting Doilies

by Jim Tiller, *On the Safe Side* Author

I heard a cute story the other day.

It seems when this couple got married, the lovely young bride told her husband she had a secret. She showed him a shoe box and asked him never to look in inside. The equally young groom, smitten with his new love, agreed.

Many, many years later the couple was celebrating 50 years of marriage and the old man finally asked his wife what was in the shoebox that had been on the closet shelf all those years. She told him he could look. He fetched the box, opened it and found two crocheted doilies and \$82,500 in cash.

More than puzzled, he asked her to explain. She said, "Before we were married, my mother told me the secret to a happy marriage. She said that if I ever got angry or upset with you, instead of starting an argument, I should crochet a doily."

The man thought a moment. "I guess that's okay", he said, noting that only two doilies were in the box. "But where did all the money come from?"

"Doily sales" she quietly replied.

I received an email last month from a modeler frustrated with the loss of his large, 3-D airplane in a collision with a small, electric ARF. By his account, the collision may even have been intentional. The events that led up to the incident and resulting "safety" discussions that came up at the club meetings were, to say the least, unfortunate, and only led to further arguments among the members. It seems there was ongoing, unresolved animosity between the small model fliers and the large 3-D fliers about sharing the airspace over the center of the runway. This collision could have been avoided and it is obvious that there are safety concerns in this club.

There are many points in this story where someone could have chosen to "crochet a doily" rather than take the argument to the next level.

I hear these stories often. Some of these stories

would rival the Hatfields and the McCoys. Clubs split. Pilots refuse to go to events if another person attends. Malicious "mischief" occurs between the feuding parties. I have heard it all. These become safety issues. Irresponsible or childish behavior of a few definitely affects us all and can often create an unsafe flying environment for everyone.

We all feel offended at times. And there are times it should not be ignored. I do not always turn the other cheek. But, more often than not, provoking or prolonging an argument only leads to further problems. Very often, what we perceive as an offense is simply an accident, or even more commonly, a misunderstanding between two people. Try to give the benefit of the doubt - or at least hold you anger until further evidence is uncovered.

The solution is so simple, but so often almost impossible for some people to do. Let it go.

Further Thoughts Along the Same Line

With summer comes all the events that we all love to attend. Events often take you into an unfamiliar group of pilots outside of your trusted friends. This unfamiliarity can also lead to these same kinds of problems. Be especially mindful of your fellow fliers in these event environments. Approach everyone with courtesy and respect. Try to contribute to the event's success, but don't compromise on safety. Speak up if you think there are safety issues. I am not a very experienced CD, but I have been part of enough sanctioned events to know a good one from a bad one. The one speech I still use as my example is a CD that said: "We enforce the AMA safety rules. If you don't know what they are, we have copies. Beyond that, the only other rule is the Golden Rule." I have found no better advice.

If your summer events are competitive, the competitive juices can get out of hand. I am as competitive as the next guy, but at the end of the day, I am sure my world will not end if I come in third, instead of first. In his autobiography, Lou Holtz, a great coach at Notre Dame, talks about a national title game that his team lost in the last

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few seconds. When he crossed the field after the final whistle, his words to the winning coach were: "Great game, I am glad I got a chance to be a part of it." There can be as much dignity in losing as there is in winning.

Also, there is no room in our hobby for the phrase I often hear now - even from parents at my 10-year-old granddaughter's ball games: "Don't get mad, get even." There are places where retribution might be okay, but certainly not at the flying field.

"The God Complex" Followup

I received some great emails in response to my last column on the "God Complex." Evidently some of you have this person at your own field. Although I too have seen these people in action, the article was not aimed at an individual person, but at the attitude. An attitude that, unfortunately, we all have at some times. Be careful about being labeled an expert in anything. The enemy is thinking you are in control of a certain situation because you are an expert. As I grow older, one thing I have learned is how little I can control.

Ballard Street by Jerry Von Amerongen



Ray wonders if the community center is right for him.

2012 FLOAT FLY

Pictures by Brett Ohnstad



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

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*Deadline for the
next newsletter is:
September 1, 2012*

CALENDAR OF UPCOMING EVENTS

Thursday – August 16

- ACRC Meeting

Saturday – August 18

- ACRC Fun Fly

Saturday – August 25

- ACRC Scale Fly-In

Saturday – September 8

- ACRC Electric Fly

Saturday – October 6

- ACRC Fly-Out

