



ACADEMY OF MODEL AERONAUTICS CHARTERED CLUB #1255

SERVO CHATTER

A PUBLICATION OF:

ANOKA COUNTY RADIO CONTROL CLUB, INC.

JULY 2010

THE MEETING WILL BE THURSDAY, JULY 15, AT THE FIELD!!

PRESIDENT'S CHATTER

Our events so far this year have been a success, with many spectators and pilots showing up. Along with that the potluck lunches have been awesome. The variety of food and the skills of the cooks is outstanding. As a reminder, we do have a grill and all the utensils needed to bring out some hamburgers, hotdogs or whatever you want to grill. Bring some family members and friends to the field and make an afternoon of it. With the heat lately the shelter does provide a great way to cool off and the picnic tables inside are a great place to enjoy your food. Open up the windows and let the breeze through.

For our upcoming events we are hoping some members will bring some bottled water with as our supplies are dwindling. Also insulated water coolers with lemonade or ice water have been greatly appreciated. Take advantage of your membership and come out often to enjoy the company of friends and good food and all the amenities that come with it. We do have a great field and a lot of people have worked hard to maintain it for everyone.

See you at the field

Erik Castrodale



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

COMBAT UPDATE

We had combat on the 4th of July. The turn out was OK, despite the holiday weekend. We had some issues with getting started and keeping people in the air. So for the spectators who are faithful (thank you very much) you did not miss much. The points leader is the original Lawn Dart him self, Andy Noll. Good job, Noll. There was only one mid air, between the mid-air king himself, Jim Wright and me. The next Combat is August 8; trim flights at 9:00 AM and the first round starts at 10:00 AM. Hope to see some more spectators next month. So boys, there are no excuses not to have your planes ready.

Andy Thunstrom

FLIGHT TRAINING

This has been a busy season. We have a couple of new solo artists in the club now; Roger Jeffrey and Keith Ferenc. Congratulations on the big accomplishment. Isn't it rewarding to be done? Way to go. We still have a few people still on the buddy box. They are working hard to get to that solo point. If someone can help out when the trainees are at the field just for a little bit with the buddy box that helps the trainer and the trainee. Trust me the help is greatly appreciated.

Meeting Minutes

The June meeting, scheduled to be held at the field, was cancelled due to inclement weather.

Steve Ulrich

FLIGHT SAFETY

THE FORGOTTEN RUDDER

By Marvin Hinton, Central Arizona Modelers Inc.

Seems like a strange title, right? Well, it's not so strange when you consider the fact that the only time most of us use the rudder is when we are on the ground. The rudder is there for us, offering its services from the moment we start our takeoff roll to the final taxi back to the pits, yet most of us totally ignore it while in the air.

Our former safety officer once stated, "On takeoff, the rudder is the first control surface to gain control on acceleration and the last to lose control on landing." Well, most of us have learned that the hard way, during takeoff, landing, and taxiing, but the rudder is capable of a lot more than just keeping our airplanes going in the right direction on the ground, which brings me to the personal side of this article.

I crashed a beautiful biplane recently. I had just brought it out of retirement and it was ready for its initial flight. Knowing that it had a history of bad ground handling, I was very careful on takeoff to apply sufficient rudder to keep it going down the white line of the runway. The takeoff was accomplished without incident despite low power output from the four-stroke engine. Then, much to my surprise, once airborne, the airplane took a sharp turn to the left, struggling unsuccessfully to gain altitude. Despite full right aileron input, the airplane didn't have enough airspeed to get proper aileron and elevator response and it continued its wayward journey to an ignoble crash. What was my rudder doing during this short flight? Nothing! As usual, I had allowed the rudder to return to neutral immediately after takeoff. Had I applied some

right rudder when the airplane veered to the left, I probably could have brought the airplane back to a safer heading and avoided a serious crash. Why do most of us ignore the rudder once our airplanes are in the air? It is one of the most important and least used of our three control surfaces. I have learned a good lesson and have my name on the crash trophy to prove it.

We were once encouraged to learn how to make "coordinated turns." This requires the slight application of rudder plus some compensating aileron adjustment and can result in a much smoother and more professional looking turn. Try it out. In other words, stop ignoring that forgotten rudder and let it help you expand your flying skills.

Contributed by Joe Coleman

MEMBERSHIP NEWS

The July meeting is at the field starting at 7:00 PM. If you get there early you can get in some flying before the meeting. The board also tries to make the meetings short so that you can fly afterwards. 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. If you need a new membership card let me know. I can send you a new card – no charge.

FLOAT FLY

The ACRC float fly will be held again this year at Long Lake in New Brighton on July 21. See the map in the newsletter for directions. If you have questions call Bud Durant at (763) 574-1397 or Stan Zdon at (952) 454-7978.

ELECTRIC FLY

The ACRC Electric Fly will be September 4 this year. Flying starts at 8:00 AM.

THE NEXT MEETING WILL BE AT THE FIELD ON JULY 15 AT 7:00 PM.

There will be a Fun-Fly on Saturday July 17. Come on out and see if you can beat the Senior Citizen who flies the Fun-51.

Stan Zdon

ACRC 2010 WARBIIRD FLY-IN



Directions to Float Fly

Take 694 east to Long Lake Road. Go north on Long Lake Road, turn right on 16th St. NW and then left on 14th Avenue NW.

1639 - 14th Avenue NW



ACRC EVENTS

Wow, another month of our short summer has gone by already. Summer is in full swing and so is the humidity as of late. I hope everyone is still getting out and flying but keeping hydrated. While I'm on the subject of water it would be a great time to mention that our float fly is this month as well. As usual it will be on a Wednesday, July 21. Look for coming emails from Stan Zdon for locations and times. In addition to the float fly we also have a Fun Scale Contest this Saturday July 10 and our fun-fly on Saturday July 17 so mark your calendars and we will see you there.

This past month has been very busy month with regards to events. We started off the month with our annual pattern meet. This had great attendance given that we were only able to get in two out of three rounds. Some of us did better than others but we all had fun. We even had a guest from Iowa and a guest appearance of long time club member Brian Dorff.

I'm going to skip over our fun-fly for now and cover the Warbird event first. Unlike many of our events in June the weather was great. We had lots of flyers and even more spectators. In addition to some nice planes and a lot of flying we also had a great lunch as well. Thank you to everyone that helped with the event and with the cooking. This was a great event that raised a lot interest in our club. To have a successful event requires a lot of hard work from our club members, a special thanks to Andy Thunstrom for bringing his mower out and grooming our field for the event, it looked great Andy!

I know everyone is interested in the fun-fly events and the current points standing for the season. Now that we are half way through the season the points race is starting to get interesting. There has been a definite breakaway group but you'll have to read on to see who they are.

This month's events were:

1st event - Take followed by three sets of a loop, roll with touch and go, fastest time wins. Times were very close but Dan Thiede finished in 1st with a time of 1.06.7. I might add that he had to pass both ends of the runway too!

2nd event - most touch and goes in 2 minutes. Phil Vaughn won this event with 9 touch and goes. Everyone that has been at the field when Phil is practicing for touch and goes shouldn't be surprised at this. Phil can fly that Twist fast, low and tight so it was a good bet that he would do well in this event.

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JUNE FUN FLY RESULTS

Name	Place 1st Event	Place 2nd Event	Place 3rd Event	Place Final Results
Stan Zdon	3	3	5	3
Ray Jelinek	11	7	14	13
Kevin Carlson	4	5	3	4
Phil Vaughn	11	1	4	6
Dave Dentz	11	5	5	9
Dan Thiede	1	3	2	1
Andy Noll	8	4	1	5
Andy Thunstrom	6	5	12	10
Doug Jelinek	10	6	7	10
Paul Rono	2	2	6	2
Steve Ulrich	11	8	10	12
Marc Davis	5	4	11	8
Dale Anderson	9	6	13	11
Jeff Flander	3	5	10	7
Paul Castrodale	7	5	9	9



The 3rd event turned out to be a big surprise for everyone. The group decided to do last month's event that was rained out. This event was flying the longest time without touching the sticks. The flyer took off, trimmed his plane, and when he was ready he told the judges to start the clock. The time did not stop until the flyer touched the sticks or the plane crashed. No one thought that the latter would be taken seriously but in this event two people came close when the planes got so far away you couldn't see them anymore.

Sadly one unlucky club member lost his plane in the woods. It would not be proper etiquette to mention the pilots name here but he did win 1st place at the cost of his plane. I am happy to report that Darren Bitzer found the plane on the following day and while the airframe was a total loss the radio and engine were recovered. Andy Noll placed first in the event with a time of 106 seconds. Ouch, I hope that it was worth it Andy!

Marc Davis

ACRC FUN FLY RESULTS

Name	April Points	May Points	June Points	Total Points	Current Standing
Andy Noll	12	24	21	57	7
Andy Thunstrom	13	22	16	51	8
Dale Anderson	17	19	15	51	8
Dan Thiede	22	21	25	68	2
Dave Boll	21	25	0	46	10
Dave Dentz	15	0	17	32	14
Doug Jelinek	14	21	16	51	8
Eric Malkerson	23	18	0	41	12
Jason Proffit	14	0	0	14	18
Jeff Flander	18	25	19	62	4
Kevin Carlson	22	25	22	69	1
Marc Davis	24	17	18	59	5
Mike Dorff	11	0	0	11	19
Paul Castrodale	20	21	17	58	6
Phil Vaughn	25	23	20	68	2
Ray Jelinek	16	20	13	49	9
Stan Zdon	19	22	23	64	3
Bob Nagle	0	17	0	17	16
Darren Bitzer	0	16	0	16	17
Steve Ulrich	0	19	14	33	13
Paul Rono	0	19	24	43	11

ON THE SAFE SIDE

*From the AMA National News Letter and
From NOTAM, Lewis Jordan, Editor*

CRASHLESS FLYING

Fly RC long enough and you will experience a crash. However, some pilots seem to crash often-too often. Let's explore some of the causes of crashes and perhaps minimize crash opportunities.

Split Second Delay Crashes: High speed creates high loads on the plane's control surfaces and servos, causing a possible split second delay of control after a stick input. A split second delay is all that is needed when your plane is in some maneuver heading toward that ground at 100 mph (147 feet per second). If you point the transmitter antenna at the airplane you can create a cone of silence at your receiver, which can cause a control response delay.

Pilot Orientation Crashes: Another cause of crashes is a non-mechanical one: pilot orientation. If you are low and fast and lose orientation, expect a crash. Have your airplane flying level or in an up attitude while flying close to the ground.

Distraction Crashes: Another non-mechanical cause: distraction. If you allow yourself to be distracted, even for just a couple of seconds, you're likely to crash. If you were stung by a bee, step on what you think could be a snake, or have another critter eating your pant leg, put your plane in a series of tight loops with full up elevator, then take care of your business and your airplane will still be there when you can tend to it again, not two miles down the range. This may be overly simplistic, but you get the general idea. All pilots get distracted sooner or later. Think out in advance what you will do so your fingers will react when you do get distracted.

Aerobatic Crashes: Among the many maneuvers pilots enjoy, snap rolls are at the top of the list. Just be prepared for that fatal snap of a control surface during this maneuver. Pilots usually enter a snap full bore with full deflection on all control

surfaces. This can load your airplane up to as much as 30 Gs, plus air drag loads. Inspect your airplane carefully after doing this violent maneuver.

Elevator Crashes: Let's spend some time with the elevator. This is the most important crash prevention control on your airplane. First, the elevator itself must be built from good material. Too hard and brittle is not good; too soft is not good either. In today's world, the high-quality ARFs take care of this. Use your best servo in the elevator. I don't like the standard servos on any function except the throttle.

Buy some good servos for your primary control surfaces. Next, use only strong, stiff rod linkages from servo to the control horn. Fiberglass rod systems are great for long runs. Strong, stiff wire works well for short runs. It's very important to keep the bends in the wire to a minimum. Lots of pilots use them, but I don't like the flexible Nyrod-type systems. Any movement of flex here could allow surface flutter, and also cause a split-second delay crash. The plastic clevises and control horns supplied in many kits leave a lot to be desired. Get these items from Du-Bro or Hangar 9.

Dirt and grit will weaken the plastic clevis pin very quickly, and generally they are too soft and flexible. Consider using metal or the super strong carbon fiber clevises and control horns. Metal-to-metal contact is taboo, but most metal systems have an insulator to prevent any metal-to-metal contact. Always install a rubber or nylon safety "keeper" on all of your clevises. Routinely check and tighten motor and engine mounting screws. Carefully inspect and test all flying surfaces. Pull on them to make sure the hinges are secure.

Servo Damage Crashes: Servos can be unknowingly damaged by a hard landing or by bumping a control surface while loading the airplane into a car. What happens is the servo's gears get cracked but it continues to operate until subjected to flying loads, then the gears break.

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After a hard landing or a bump, and from time to time, check your servos by applying slight hand pressure to the control surfaces while operating the servo. If it takes hand pressure, it will usually stand up to flying loads.

Take-off Stalls: The airplane will very likely turn to the left during take-off. One method to prevent this type of crash is a high-speed takeoff run and a shallow climb after liftoff until maximum climbing speed is reached. Use rudder to maintain direction with very careful use of ailerons to stay level. If the engine quits on takeoff, don't try to turn back to the runway. Keep the airplane heading into the wind and make your landing.

Landing Turn Stalls: A very common pilot error occurs while setting up a landing approach and performing too steep a turn from downwind to final. Airplanes stall at a much higher speed in a bank. Keeping turns shallow on your approach will help prevent this type of stall, and using rudder to turn will also help keep the turns shallow and reduce the additional drag of the ailerons. This becomes especially critical if landing dead stick.

Crashes are extremely frustrating and expensive. With a better understanding of what causes crashes, we can more easily prevent them.

Submitted by Stan Zdon

BATTLE AXE REPAIR

I've had a Battle Axe sitting in the box for over a year and decided this was the year to build it and join in the fun. The kit goes together easily and about the only thing you need to be careful about is to not use too much poly glue (Elmer's Ultimate) on the wing. The glue expands quite a bit and you will have some sanding to do if too much was applied. I covered the wing with Econocoat instead of using the colored tape.

Everything looking good and balancing at the designated spot I headed off for my first combat session. Andy Noll & Andy Thunstrom helped me

get things trimmed out and I was good to go – at least until I turned it into a lawn dart!! The two aluminum rails were badly bent in the unscheduled landing.

Back at the shop I bent the rails into shape and reinforced them with some ¼" plywood in the area that bent the worst. Again good to go I headed out to the next contest. The first two heats went surprisingly well, but on the third the ground jumped up several feet and captured my plane, holding it fast in the lawn dart position. Inspection revealed that the aluminum rails were bent again. This time in the area that was not reinforced with the plywood.

Menards sells a suitable aluminum channel in 8' lengths. Note, however, that the gauge is lighter. So after cutting the aluminum to length and drilling the holes I reinforced the entire length with ¼" plywood. I used Elmer's Ultimate Glue to secure the plywood to the rails. I suppose you could use Spruce or some other hardwood, but I had the plywood at hand. Adding the plywood reinforcement added 3 oz to the rails, but if it helps with the inevitable it will be worth it.

See you at the field.

Steve Ulrich

FROM THE VEEP

July is here and that means the year is half over already. Our Warbird fly-in was a great time with a lot of pilots and spectators showing up. I would like to thank everyone who helped out. Our next event is the Fun Scale Contest on July 10. Get your scale planes ready and practice flying some scale maneuvers.

Dale Case and the members from MARCEE expressed their thanks and appreciation for allowing them to hold their meeting at the field last month by donating \$100.00 to ACRC. I would also like to thank them for their generous donation.

That is all I have this month. See you at the field

Dan Thiede



ACRC FLOAT FLY

The 2010 ACRC Float Fly is scheduled for Wednesday, July 21, at Long Lake in New Brighton with a rain date of July 22. Flying time is 12:00 Noon to 6:00 PM.

An email notice will be sent to the membership if there is a change of date.

If you do not have email call Stan Zdon for information about the date.

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ACRC SPONSORS

Abraham Technical
Aerospace welding
Cambridge State Bank
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*Deadline for the next newsletter is:
August 1, 2010*

CALENDAR OF UPCOMING EVENTS

Saturday – July 10

- ACRC Fun Scale Contest

Thursday – July 15

- ACRC Club Meeting

Saturday – July 17

- ACRC Fun Fly

Wednesday – July 21

- ACRC Float Fly

