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## CHOPPER NEWS

*Please, frequent your local hobby shop!*

**AMA CHARTER NO.2099 January, 2001**

Next Club Meeting, Tuesday, January 9th

Meeting at John's Pizzeria at 7:30pm

### Editorial

I hope everyone had a safe and happy Holiday Season. Some of us are going to try and fly on the first day of the New Year. I will be trying to get this newsletter out in time to let everyone know, but it will be hard this time of year with all of the days with no mail. My goal for the New Year is to see if I can't get more members to contribute a little something to their newsletter, be it something For Sale, Better ways, Event Calendar, Neat Web Pages, Product review, or an article. In my never ending quest for news I will do this by whatever means necessary to get the news out to our fellow members. I may even have to resort to a touch of arm-twisting! Also I thought I might try and get some of our heli manufacturers to contribute some information on their products which should be of interest to us. It would be nice to try and round up a few more advertisers, too. Any ideas? I can always use NEWS. You got any NEWS?

Please take the time to check your name, address, phone number etc. in the club roster of the November newsletter and get back to me with any corrections. The accuracy of this list is in your hands. I have had more than one member call me and tell me that because of inaccurate information in our membership list they were not able to contact someone. At the very least make sure that your phone number is correct so that your friends can reach you. Email address would be great for members also. This data goes through many hands, also sometimes many years, and it is very easy for mistakes to be made. I can guarantee only one thing: MURPHY'S LAW is a big part of life. The club officers and I try to provide accurate information to help our fellow members keep in touch with one another.

Are there any members out there who would be willing to help me set up a Great Planes RealFlight Simulator or just give me a few tips in this area? One or two more tries at getting this thing to work and I will be about ready to take a hammer to their CD. I have had this thing well over a year or is it two? I can fly the helicopter now but not the simulator. I risk destroying the helicopter every day I fly so I can keep the Simulator CD safe from any simulated crashes. I think I am doing this backwards.

The Park District seems to be counting noses this year. Please, as Ross stated in December newsletter, ".....it is exceedingly important to buy a permit as the Forest Preserve is asking that we let them know which fields we use and what percentage of our time we spend at each field." This is very, very important! We don't want to lose this great flying field that we have. Today single use flying fields are very hard to come by! As a club if we lose this field where would we go? Sometimes one or two helicopters can fly at an airplane field, but a whole club would be like doing hand-to-hand combat trying to fight for a position in the air on a weekend. We can legally fly at any airplane field but historically it has never been a good mix. A lot of the permit money comes back to us through field maintenance, etc. It costs a ton of money just to keep the grass cut. Just having the field maintenance alone makes the permit fee a good value. If DuPage County's records (number of permits sold) don't show enough people using the field it

could be shut down. On the permit form if you can show 100% use at our field it would be a big help. Also, as we all know too well today, liability insurance is a big part of our life, and it may be that if a permit is required and you do not have one you may not be covered. Is it worth taking a chance? Field permits can be obtained by calling 630-933-7200, or we may have some copies to give out at the meetings.

For the second year in a row a special thanks goes out to fellow member Greg Reed, who through his Herculean effort removed snow from our flying field. On the morning of December 24<sup>th</sup> in the wee early morning hours he braved temperatures of -8 and wind chills too low to count, hauling his snow blower all the way from his home in Northlake. Last year I helped by pointing to the areas that needed to be done, but this year I wasn't there to point so Greg had to do it all alone. I firmly believe we have a club legend in the making!

I was unable to attend our Christmas dinner party but I have a reliable report that a *Mini-Marty* made an appearance in my stead. My unnamed source also reports the food was fantastic and all had a great time. I wish I could have been there. You can bet I'll be there next year, come hell or high water!

### President's Message

I would like to thank Ross for taking on the President's duties for the last 2 years and doing a fantastic job at it. I can only hope that I live up to the standards he set.

I hope that everyone's holidays were safe and enjoyable. I do hope each and everyone got the toys that they wanted for Christmas. If I wish real hard maybe the shirt I got for Christmas will change into a Futaba 502 gyro, well I would settle for a 401?? I am keeping it under the tree and check it often to see if the change is going to happen.

I have applied for and received my Contest Director's license from the AMA. I plan on submitting the forms for our Fun Fly right after the holidays. I am open to suggestions for topics at the meetings and/or demonstrations that people would like to see. This is our club and I think the members should have some input on what direction things take. It's time to start a new year.

Terry

### Taking the Mystery out of the Vortex by Steve

The Vortex is an impressive-looking maneuver where the Heli generally is pretty much stationary in the sky. It works like crazy to spin around with its nose in the air, tail down, rotating in a cone-shaped outline with the tail nearly stationary. The vortex is a maneuver that I've only seen advanced flyers do; it's not intuitive to figure out how it's done and I've never seen it explained anywhere. After a number of trials and errors on the simulator, here is a cookbook way to get into and out of the vortex. When Spring comes, we'll try it for real. For now, I feel like that guy in the commercial that slept at a Holiday Inn Express last night.

The vortex can be done upright or inverted and tail-at-center or nose-at-center. They're all equally easy to do. The following instructions are generic to all of these options. The movements can be done quickly unless indicated otherwise.

- 1) Get into a (nearly) stationary hover (upright or inverted).
- 2) Move the rudder to full and hold (direction of your choice). You're pirouetting quickly.
- 3) Give it more throttle (Full is easy at first). You're climbing while pirouetting.
- 4) Give it full aileron, direction of your choice. Upright opposite rudder and ail = tail-centered. Inverted same rudder and ail = tail-centered. Don't add any elevator. You haven't released any of the other controls yet.
- 5) Smoothly release the rudder toward neutral. Near neutral, be very smooth and use finesse, or the heli will develop a vortex that leans to one side. Control your altitude with the rudder. Releasing the rudder will let the heli drop. Just a little rudder is necessary to keep altitude, a little more and you'll climb. You're there.
- 6) To get out, smoothly move the rudder back to full.
- 7) Release the aileron and release the rudder. Reduce throttle a bit. You're out.
- Advanced variants:
- A) You'll find that the cone may lean to one side and you want it to return to vertical. Just a couple of light, really quick blips of the elevator will do the trick. Blip the elevator when the heli is nearest to vertical or when it's nearest to horizontal. This is where "up = nose toward blades, down = nose away from blades" comes in handy.
- B) Using less than full throttle will make the rudder less sensitive and will open up the cone. It will slow things down a bit and you will find that you can now use the throttle to control altitude rather than the rudder. You'll need more rudder when you use less throttle. Your practice with the basic full-throttle entry and exit will have given you an intuitive feel for how to balance rudder and throttle in the reduced-throttle mode.
- C) You can go from tail-centered to nose-centered easily. Once stable with one, move back to full rudder. Take the aileron from one side to the other, then reduce rudder again. You're now able to go back and forth at will without exiting the maneuver.
- D) Most pilots seem to enter this maneuver in a sideways sliding fashion, slipping toward the proper stick positions. You'll find that you can even enter the maneuver instantly by going to the proper stick positions from a stationary hover. The purpose of this practice was to help you find those positions that work for you.
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### Blade Balancing Demo at Next Meeting

Most of us wouldn't put a set of main blades on a Heli without balancing them first. There must be a lot of ideas out there on this subject; Terry and I are planning a Demo at the next meeting on this subject. In "The Basics of Radio Controlled Helicopters" by Paul Tradelius, there's an interesting input about the three basic balancing procedures:

- 1) Matching spanwise (and possibly chordwise) CG.
- 2) Matching overall weight of the blades.
- 3) Balancing the two blades into overall balance against each other.
- He says, "Actually, balancing a set of rotor blades requires only any two of the above requirements, for if you have any two, the third is automatically guaranteed".

Terry and I will be bringing materials to the next meeting for a demo/discussion. Bring your tools, materials, experience and questions too, as you'd like. We'll show the basics including the blade-root CA modification for Raptor blades. If time allows, we may touch on blade recovering.

A personal experience: If you're flying some day and your heli starts to sound like it's got a scary buzz or flapping sound, it may be your balancing or tracking tape. If you've had the blades quite a

while, the sticky tape may have been affected by fuel and may be lifting at its ends. The cure is to rip the gooey tape off and rebalance them or to balance them in the first place with a non-sticky seal covering such as Monokote or Ultracote (not Monokote trim material or Ultracote Plus). See you at the meeting. Steve

### Futaba GV-1 Governor by Marty

I held out for as long as I could before giving in and buying a governor last summer. They are really the hot setup and make life a lot easier. For those of you who have not yet succumbed to this new fangled device, I thought I might try to entice you with some information on these wondrous little gadgets. Usually these new pieces of technology tend to make life a little more complicated but not in this case. The constant rpm is something to die for. No more playing with servo differentials and being left with our engines straining one second and then over revving the next. Governors are simple to install with maybe only two small exceptions, setting the magnet and pickup sensor. On Raptors the location for sensor is almost preset, and the magnet hole is furnished for you with the hole molded in the fan right from the factory. Make sure that you lightly sand the plastic before you glue in the magnet. You don't want to lose that baby at high rpms. With other helicopters it is a relatively simple matter to locate and drill the hole in the cooling fan.

Using the governor is a piece of cake. The manual is concise and easily understood even by someone like Neil and myself. The rpm can be set for three speeds all of which are controlled from your transmitter and easily changed. It also comes with other options, low battery alarm, battery fail-safe, and maximum rpm display. It even comes with a mixture servo operation mode for those that think it necessary. It sounds like Greek to me so I will leave this mode to other people.

I am now the proud owner of two of these little gems. For those who are interested I found these at the store of one of our best newsletter advertisers, Al's Hobby Shop, and at a great price. Available right there for your convenience, to look at, fondle, and buy. Toys, toys, toys, don't you love it!

### Better Ways and Shortcuts

- Muffler extensions are great to keep the slop off our choppers but they can also spell trouble. Too long of an extension can rob horsepower if you are not careful. Try to keep the inside diameter as large as possible and the length of the extension as short as you can.
- Our on/off switch has notoriously been a weak link in our airborne system. I know some people who religiously replace their switch every year. I don't get that carried away, but I do keep a close eye on it and try to replace the switch about every two or three years. Continuous vibration and oily goop can be a bad combination for switches.
- I have to keep reminding myself how important it is to check our main rotor blades for damage on a regular basis. With their large diameter and high rpm they deserve a great deal of respect.
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### Neat Web Pages

There's a fellow out in my area that flies a bunch (conservative flying style) that's been to the Huber

school twice. He's just assembled a web page, says if we want to forward it, no problem. FYI, it's <http://communities.msn.com/JTsHoverSite>. Steve Jensen

There is a lot of interesting info on this web page and might be worth a look. <http://www.geocities.com/CapeCanaveral/Lab/5569/>

This web site is for all of us Raptor nuts and you know who you are. Great stuff with lots of Raptor answers: <http://www2.1starnet.com/mprewitt>

#### For Sale or Wanted

**For Sale:** X-Cell 30 with carbon frame set, high performance clutch, flybar stiffeners, O.S. max 32, frame supports, glass canopy with 5 servos and JR receiver, CSM heading hold gyro \$875 contact Joe Ragusa, (630)-655-8816.

**For Sale:** Raptor ARF 49 bearings, OS motor & Century Muffler installed, TT 36 & TT muffler included, Xcell 60 landing gear, Telebee Heading Hold Gyro, JR 652 with 517 throttle & collective, 3-4721, tail boom mount servo. Gem 2000 monitor. 2oz Hayes header tank. Some spare parts and all manuals included. Also CSM 10 simulator included. \$800.00

Contact Larry Conro (815)-547-3112

**For Sale:** I have X-Cell parts for sale, will bring to next meeting and will make great deals. Ross

**For Sale:** Kyosho Nexus 30, combo, piezo gyro with 9205 servo, Futaba Super 7 radio, with 2 receivers PCM and PPM, including all servos, battery pack and ready to fly with two sets of fiberglass blades, flown only 6 times \$650. Also For Sale, LMH including engine, Piezo Gyro, and servos for \$250. Call Frank Whitaker, (847)-468-7574.

#### NORTHERN ILLINOIS RC HELICOPTER ASSOC.

AMA CHARTER NO. 2099

We are actively looking for new members to join our Radio Control Helicopter Club. All that is

required is an interest in R/C helicopters, field permit, and a \$20 membership fee. Please feel free to join us at one of our meetings to become a member or just for a visit. We hope to see you at the next meeting. Our Club web page is: <http://members.nbc.com/nirha>. and is maintained by Web Slave, Mark Potts.

*Meetings are held the 2<sup>nd</sup> Tuesday of every month, at 7:30pm, at John's Pizzeria, 100 E. Lake St., Addison, IL (1/2 block East of the intersection of Addison Rd and Lake St.). During the summer, the monthly meetings are held at the flying field, June, July, and August.*

Our Forest Preserve Flying field is located on Grace St., Addison, and one mile north of North Ave. Field permits can be obtained by calling 630-933-7200.

Club Officers

President Terry King

Vice President Steve Jensen

Secretary Neil Nesheim

Treasurer

Robb Rinn

Newsletter

Editor/publisher Marty Davis

#1 Proofreader Linda Davis

[MLD999@worldnet.att.net](mailto:MLD999@worldnet.att.net)

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Membership Application/Renewal, Annual Dues \$20

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AMA No. \_\_\_\_\_ Frequencies

Used \_\_\_\_\_

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Field Permit No. \_\_\_\_\_ For permit information call 630-933-  
7200

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○ *Membership can be renewed at any meeting or sent directly to our club treasurer, Robb Rinn,  
433 Lake Lawn,*

○ *Aurora, IL 60506. Check should be made out to Northern Illinois R/C Helicopter Assoc. You  
are the club and the club needs your support! Please renew your membership **NOW!***

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