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## CHOPPER NEWS

*Please, frequent your local hobby shop!*

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

Next Club Meeting, Tuesday, February 13th

Meeting at John's Pizzeria at 7:30pm

### Editorial

Last month's newsletter was going to be the last, absolutely the final newsletter for members who had not renewed their membership by the January meeting. But in January's newsletter I forgot to stress the absolute finality of not having our dues in by that date and not receiving your newsletter. So here it is once again the last, without a doubt, absolutely the final newsletter you will receive if you have not sent in your dues by our February meeting!!! I am going to repeat my November newsletter's sales pitch one more time. "Well, Buckaroos, it is getting to be that time of the year again when we renew our club membership. Just think! For a mere 20 dollars you get the use of a great flying field for 365 days, 12 informative meetings (with access to beer and pizza), lots of highly experienced field help, the latest technology at your finger tips, be able to take a chance on 12 club raffles, share crash stories with 51 great flying buddies, a free Christmas buffet dinner, and, last but not least, you get 12 issues of the CHOPPER NEWS. Can you believe it, all this and still only 20 smackeroos? What more could you ask for? 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!"

Happy New Year everyone or should I say Happy New Millennium. I celebrated the New Millennium last year and this year just to be safe with a few extra drinks for each. Some members were a little less than enthusiastic when asked if they would be at the field on January 1<sup>st</sup>. Mark Potts for example e-mailed, "*Sorry, but I don't go outside when it is no degrees. I really don't think people were meant to exist in this climate. As soon as I can afford it I'm moving to Hawaii. But have fun flying.*" Seemed like a fairly solid "NO" to me. I didn't really expect to see Mark at the field unless we had a major thaw in the upper 70's. A few other members told me that they couldn't make it because they had relatives coming in from Outer Mongolia, which I still believe to be true. So on a cold but sunny day, a small bunch of us, three brave souls to be exact did venture out and got together on the 1<sup>st</sup> day of the New Year. Our first club nut, who else but yours truly showed up to fly at 8 am, my trusty side-kick Neil, our second club nut, showed up at 8:45am, and Gary our third club nut, showed up at 10 am. I stayed until 11:30 and had a lot of great fun and also have adapted to flying with gloves on (note to self: next time one more pair of socks). Gary is always great to fly with because of all of his good Raptor information and Neil showed us his first - ever back flip. I tried to get him to do it lower to the ground but he wouldn't. Gary and Neil both would settle heli's skids into the new powder snow and then blast off in a cloud of snow. I was too chicken to try it with my mind saying 250-degree engine and 1 degree snow. We were taking off and landing in a 15' by 15' pit with two foot high snow walls which does take some getting used to, but it's the one and only spot out there. I think the key to next year's get together is to use an old trick and offer hot coffee and a couple boxes of Krispy Kreme donuts, which should help to bring out a few more members. The first crash of the year is still available to whoever wants to claim the dubious honor! Please keep me posted with time and date.

I noticed that not only did our Club Legend remove snow from our field last month, but he also took the time and effort to make a path to our club facility. Greg thinks of it all!

In my rush to get last month's newsletter to the presses in time for the 1<sup>st</sup> day of the New Year's Day flying I forgot to thank Steve, our new VP, for his excellent article.

I have not heard a peep from any members about the accuracy of our membership list in the November newsletter. I will now have to assume that the list is 100% accurate. I feel pretty good since in all of my 39 years this will be the first time I have ever done anything perfect in my entire life!

Winter flying is a lot more fun than most people think. I spend more time flying during the winter months than the summer ones. If you have not been out this winter you have to give it a try. The trick is to keep your head, hands, and feet warm and dry with layers of good quality clothing. Put on a one-piece snowmobile suit or equivalent, and there you have it. The one-piece suit is the hot setup not allowing that sneaky cool air in. We try to get out on the weekends by about 8am for me, while other members start showing up around 10am. At these times of the day the wind and sun are at their lowest. If the sun is out and there is a light wind I will fly down to about 10 degrees. The hardest part is to make yourself leave that warm cozy house, but once out at the field all is well. Come on out, the snow is great! It can be some of the best flying of the year. We hope to see some new chapped faces at the field this winter.

In this newsletter check out all the great **For Sale** values this month!!! Also for all you electric power people take a look at the Neat Web Site with info on an Electric LMH!! Hot stuff!

If you have any suggestions or problems with your newsletter please call me and let me know. Just a reminder that we here at the Chopper News are open 24 hrs. a day, seven days a week, for your convenience, and my staff and I are just a phone call away.

News Flash! A distant relative of mine knows a friend of a friend, who made an acquaintance at a bar last week, who said he remembers an old high school buddy of his, who is good friends with a local printer in the western suburbs who said that he would consider printing our newsletter for cost or less, maybe even for free. Let's keep our fingers crossed! More later as this story develops!

I don't want to be a pest so this will be my last reminder on getting your field permit. We will all be singing the blues if we lose this great field! Please, call 630-933-7200 for info on permits.

We have an unofficial winner of the first Crash and Smash award for 2001 but the unofficial winner wishes to remain anonymous. I may have had a hand in helping that person win the award!

Neil, quit smoking!

### President's Message

Soon we will all be in shorts and shirt sleeves again so hang in there. Warm weather is on its way. We have run into a scheduling conflict with our original fun fly date of September 8 & 9. The Heli Nationals are being held from the 6<sup>th</sup> of September to the 16<sup>th</sup> of September in Muncie, IN. We are going to set our fun

fly up for September 22<sup>nd</sup> & 23<sup>rd</sup>. I have our application for AMA sanction mailed out.

Terry

### VP Message

Hi, guys! Terry and I have several meeting-related ideas to present to you this month.

**BRING YOUR STUFF:** We'd like to encourage members and guests to bring in items to show or discuss. New, old, problems, whatever. We'd like to place them where space is available in the meeting room and, near the end of the meeting, ask the group to gather near each item. The owner would be asked to tell their story or give their demonstration or present their problem to the group. If you're bashful, do what you can and we'll help you out. Maybe you'll just have a picture or a stick model and you'll discuss an event or a maneuver. We would ask the meeting group to give each presenter their attention and would discourage excessive conversations on the side during this portion of the meeting. If the time goes long at a presentation, we'd have to limit the time and those interested would be able to return to that subject after the meeting.

**PRIZE PROPOSAL:** The members seem to enjoy the crash-and-smash story-telling format and the vote for the award. What do you guys think of a vote for the most popular "bring your stuff" presentation of the evening? Terry and I (as officers) might be ineligible for the award. Commercial submissions (such as last month's Raptor 60 which we appreciated from Cindy at AI's) would also be ineligible. One suggestion is for the award to be \$5 in raffle tickets or a printed award certificate similar to the crash-and-smash award.

### **"BRING YOUR STUFF" IDEAS FOR THIS MEETING:**

- 1) Regular or Winter Maintenance. Do you do any special maintenance during the winter? What routine maintenance do you do? Do you have a Heli that's just due for an "annual" or that has some good examples of worn linkages, slop, bearing problems, etc., that you can discuss or want advice about?
- 2) Are you a hardy WINTER FLIER that has some good advice or experience to share? How do you make winter flying more fun and safe? You could bring your special apparel, tools or techniques in and discuss unusual things to look out for when winter-flying. For example, I never found my Gyro mounting tape separating until I did winter flying. Is this a common problem?
- 3) Battery cycling, fast-charging, and winter battery care might be a timely subject. Would you like to show examples of this type of equipment?
- 4) I believe Terry put a list of possible Demo subjects in this newsletter. Look it over or come up with your own. There's a lot of things that Terry and I and the other club members would like to learn. We might not know enough to ask.

### **● NEWSLETTER SUBMISSIONS:**

I know that Marty really appreciates input to the newsletter. I believe that those who do submit would like to know how their article(s) come across and whether they were of interest to you members, 'cause that's why they're written. This proposal is for the newsletter to come up as a discussion item in the meeting and for the articles to be mentioned and comments solicited. The proposal is also for a vote for the most-appreciated article. "Letters" such as this one would not be eligible.

## **ARTICLE-OF-THE-MONTH AWARD:**

This proposal is for an award similar to the “Bring your stuff” award; a certificate or \$5 in raffle tickets to the best article might provide more incentive to submit your articles. At least you know they’ll be discussed. Every article submitter would be eligible, including Marty.

## **SEE YOU AT THE NEXT MEETING:**

These proposals could continue year-around and might encourage some special flying-meeting demo’s such as night-flight or maneuver instruction or an unusual heli. All of these suggestions are just that; join us at the meeting and be prepared to discuss their pro’s and con’s. If they’re voted in and you’ve submitted an article or brought a discussion item this month, you might be eligible for the first award.

## **PERSONAL TIDBITS:**

I’ve been flying the Realflight Generation 2 for a month now, and find that although the heli doesn’t fly any better (except that glitch when flying directly overhead is gone), it’s still worth the investment for the improved sky, background and scenery. You can keep orientation when the horizon falls out of sight much better now. The audio really slows my system down. Did before, too. Turned everything to “never” except for engine sounds, and it’s just fine.

I didn’t plan on doing winter flying, and don’t know the in’s and outs, but could wait no longer. Have had 15 Raptor flights over the last 2 weekends. Ended last year as a thumbs-only flyer, and after LOTS of Realflight time, started flying again as a thumb-and-forefinger flyer. Also, for the first time, with a neck strap. It feels really good and the Heli movements are much smoother with 2 fingers added.

Learned one thing about winter flying; the Heli’s brittle. Had a pebble hit the tail blade, shatter it, pebble or blade hit the tip of the K&S flybar paddle, shattered it, and the shrapnel shattered the Raptor blade covering. Flew the next day on the same local R/C airplane club gravel parking lot, but laid out a large sheet of cardboard to fly on. Only other problem was my gyro mounting tape splitting/ replaced/ split again.

## **Board Meeting Minutes from 1/9/01, by Neil**

The meeting was called to order by Terry at **7:45 PM**.

There were 17 members and 1 guest present.

The treasurer reported the **club balance** to be **\$246.00**

## Old Business:

Terry informed everyone that we collected **\$141.00 for the Al Fuchsen Hockey Scholarship Fund** at our last meeting.

He also asked if anyone else would like to make a contribution to the fund.

Terry reported that club **jackets can still be ordered** up until our next meeting on February 13, 2001. The cost for the **jackets is \$80 each** and they will be **delivered at the March meeting**.

**The fun-fly is set for September 8<sup>th</sup> and 9<sup>th</sup>, 2001.**

Terry will apply for the permit.

Terry informed us that all members are required to have a **DuPage Forest Preserve permit to fly at their fields**.

**Cindy's fun-fly will be held June 23<sup>rd</sup> and 24<sup>th</sup> at the Fermi Lab.**

The name is being changed to something in respect to Al's passing.

The winner of the Crash and Smash Award for October has not yet picked up his reward.

Mark Potts will be updating our **web-site** soon.

## New Business:

The **fuel sale at Al's is coming up in the near future.**

Terry informed the club that he has made **“Demo Suggestion Forms”** for the members to use to suggest demos they would like to see.

Some demo possibilities that were suggested included: winter tips, repair parts, greasers and greasing, battery replacement and maintenance, Gyro set-up, 3D set-up, paint schemes, clutch set-up, and bringing in company reps.

**Our agenda for tonight includes:**

Recovering and blade balancing.

A look at the new **Raptor 60, which was brought in by Al’s Hobby Shop. They believed the price is going to be \$699.00** for the ARF and around \$500.00 for the kit minus the engine and muffler.

Steve Jensen added a few **observations while looking the Raptor over. He said**

- that they were using a split gear tail now
- they were still using the one month fuel line in the tank
- a few bearings seemed dry
  - - a couple of ball links were splitting
  -

He also mentioned that he found Internet pricing to be **\$670.00 ARF form.**

Steve demonstrated his blade recovering techniques and Terry did some blade balancing while the rest of us ate the pizza.

The meeting **adjourned at 9:37 PM.**

## CLUB SPONSORSHIP info

Terry, Marty and I have been assembling a proposal that could result in some very interesting awards and raffles and could set the groundwork early for our fun-fly prizes. We have drafted a letter to send out to Heli product manufacturers. It details our NIRCHA club and asks for their assistance by sponsoring the club for one monthly meeting night this year. It suggests a minimum contribution (prizes for meeting awards) and mentions our raffles and our need for Fun-Fly contest prizes this Fall. It also invites them to join us, if they'd like, at our meeting for a manufacturer's demonstration. We'll get input from Cindy before the meeting, and will need yours on meeting night. We think it'd be neat to have a Futaba night, or an ACE/ThunderTiger night, or Airtronics or Miniature Aircraft or.....! (Do you factory flyer guys have some good contacts?) If it helps us create funds for a special purpose or charity while it advertises their products, we all win. Again, see you at the meeting!

Steve Jensen

## The Rolling Circle

I was asked to give a description of how to go about doing a rolling circle with the helicopter this month. I started doing rolling circles before heading hold gyros were available and will first explain how to do one in standard mode and then in heading hold mode.

In standard gyro mode a rolling circle can be accomplished by rolling the helicopter and intermittently working the fore and aft cyclic to steer the helicopter in a circle. I will describe how to do a circle rolling to the right and steering the helicopter in a right hand circle. I started this maneuver by doing a level flight pass from right to left and beginning a right roll. As the helicopter rolls you must use collective pitch to provide an antigravity effect as in a normal roll (positive collective when upright going through zero at about the time the blades go through vertical and adding negative collective when upside down and then back to zero when the blades are again vertical and back to positive when you are upright) and add a small amount of aft cyclic as the helicopter transitions from about the 1/8 point of the roll to just about vertical. The next elevator input will come when you have passed through inverted and are at the 5/8-point of the roll. This time add forward cyclic and release at about the point that the blades again become vertical. This series of inputs must be repeated over and over until the helicopter completes the circle. In standard mode the tail will weathervane behind the helicopter and no tail rotor input is needed. If there is not enough fore and aft cyclic input given the circle will be very large. If the fore and aft cyclic is given too early the nose of the helicopter will rise and you will lose your forward speed. Lastly, if the fore and aft cyclic is added too late the nose will pitch down and you will lose altitude.

Now on to the differences with heading hold gyros. You now will not have a tail rotor which will weather vane and follow the nose wherever you point it. It is now necessary to add tail rotor inputs to coordinate the turn. Again referring to the right hand roll rightward circle that I described above you now must add right tail rotor when upright and left tail rotor when inverted to keep the circle

coming around. So this means that three of the control axes of the helicopter must constantly be adjusted while the fourth (left right cyclic) is held steady.

These are the same concepts used to do both forward and backward as well as left and right hand circles. The difference comes in when to add fore/aft and right/left cyclic to perform the circles. After mastering the forward circle to the right as I have described the others will be easy to figure out the control inputs that are needed. The hard part is actually doing them once you have figured them out. So as usual I guess the real answer to how to do a rolling circle or any other maneuver is give yourself room for error and practice, practice, practice.

Ross

### The Vortex Revisited

I have somewhat different perspective of the vortex or funnel maneuver. I prefer to perform this maneuver with the tail toward the inside of the circle (down) and inverted. People will ask how does it stay in the air in that position. The answer is that it is no different from a physics standpoint than doing left hand or right hand circles. What is really happening in this maneuver is that the helicopter is flying sideways and inverted and is really just being flown in a circle. The control inputs are similar to a left or right hand turn, the trick is that the fore/aft cyclic is used as the right/left cyclic and vice versa. The tail rotor input and the collective inputs are the same as doing a left or right turn.

To be more specific on the control inputs I use the fore/aft cyclic to set the bank of the turn (in this case forward cyclic to raise the nose- remember we are inverted) next I use right aileron to start the helicopter turning ( this is analogous to pulling the stick back on a normal turn). And then right tail rotor is added to keep the tail in the center of the circle (still works just like a tail rotor but because you are flying sideways the tail should remain in the center of the circle). In this maneuver I adjust the collective to maintain my altitude just as in a normal turn.

At no point in this maneuver do the sticks ever hit the corners. At least with my helicopter this would at the very least bog the motor tremendously and would be unlikely to put the helicopter through the maneuver. Both sticks do however end up moving in the same direction from the center (down and right in this case) just not too much. Very little stick input is actually required for this maneuver.

Good Luck

Ross

I have heard of several instances of Futaba gyro mounting tape splitting during cold weather flying. I have talked to several people who have found it during routine inspections. One person noticed a wag in the tail that had not been there before. When he landed and started looking for the reason why, he found the mounting tape to be split. I am not saying the tape has a flaw; I'm just trying to make people aware that they SHOULD check this. I use Kyosho green mounting pad on my gyros and I do not fly very much in the winter, (warm weather flyer), but could be a problem that is preventable. Terry

### Neat Web Sites

This is for all of us Raptor nuts. An informative Raptor Newsletter sent out by Ace Hobby/Thunder Tiger with interesting Raptor updates, general information and with only a smidgen of company propaganda. To subscribe to this interesting newsletter send Email to [Tthelihotline@Yahoo.com](mailto:Tthelihotline@Yahoo.com) and put "Subscribe" in subject area of email and then in message area put: "Please add me to the Raptor newsletter list" and Walla, you'll get the latest raptor news each month!

Try this site <http://www.ezonemag.com/articles/2000/feb/lmh110/lmh110.htm> and yes, the repeat of "lmh110" needs to be put in web site address. Information on how to convert a glow LMH helicopter into an electric powered chopper. Looks like a fun project and Author states that it is relatively simple to accomplish. Web Site has pictures and all information needed. If anyone takes on this project it would be of interest to the club if you would put your trials and tribulations in this tabloid and maybe the date when you are going to fly it.

### For Sale

**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 packs and ready to fly with two sets of fiberglass blades, flown only 6 times, like new, only \$650. Also For Sale, LMH including engine, Piezo Gyro, and servos, all for only \$250, well over \$400 new. Call Frank Whitaker, (847)-468-7574.**

**For Sale: Two Xcell .60's w/ OS .61SX, Bergen upgrades: clutch, autobalancer, main shaft, clutch and tail drive bearing blocks, push-pull collective & elevator S9203 tail servos, 4721 control servos, piezo gyros, KSJ mufflers, Peget starters. Futaba 9ZHPS transmitter w/ memory module & case. LOTS of parts, flight box, chargers, servos, accessories. Too much to list, everything must go. \$600 for each chopper, \$400 for Xmitter, \$1500 takes all, make offer! For info call Martin Van Leeuwen, 630-224-4231(W), 630-554-8527(H), [vanl@megsinet.net](mailto:vanl@megsinet.net)  
Thanks, Martin VanLeeuwen, Oswego, IL**

*Editor: I am sure you have helicopters, parts, etc. that are just taking up space in your basement. There are other people in the club that could put them to good use. Advertise now!*

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.xoom.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

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#### Businesses Who Support Our Club

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*Membership Application/Renewal, Annual Dues \$20*

Name \_\_\_\_\_

Address \_\_\_\_\_

City \_\_\_\_\_ State \_\_\_\_\_ Zip \_\_\_\_\_

Phone \_\_\_\_\_ Email \_\_\_\_\_

○

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

○

○

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

○

○ *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!***

○

Club Questionnaire

In the interest of providing what members want to see, we have made up a list of misc. items that could be used as demo topics either at the meetings or later in the year at the field. This form can be checked and left with any of the officers of the club. We will try to schedule demos based on the most popular first. We do not claim to be the ultimate authority on all of these subjects, so we may seek out qualified members to give the demos. Thanks Terry

		How to clean a heli				
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		Flying tips for winter flying				
		Routine parts replacement: When do you replace something before it's failed?				
		Ball links, bearings, switches, servo gears....?				
		Transmitters: Set-up, holding, straps,				
		Who makes a good glow-plug extender?				
		Winter maintenance				
		Using a "Greaser", what lube to use.				
		Battery maintenance				
		Antenna Placement				
		Autorotation				
		Driven tail methods				
		Recovering blades				
		Choosing and putting a .46 upgrade kit on a Raptor				
		Gyros: Set-up. Adjusting pirouette rate.				
		3D set-up / tail feathers too.				
		Paint schemes.				
		Maneuvers: How to do a _____.				
		Simulator set-up, practice routines.				
		Assembling a Raptor clutch for appropriate gap using a spacer method.				
		Header Tank installations, fuel filling methods, in-tank tubing.				
		Dying clear plastic or KSJ paddles, etc.				

		Night flying equipment					
		Photography: Of the heli in the air (or) from the Heli in the air					
		Specialty tools					
		Electrical amp draws					
		New Products on Market IE:		KSJ has a 3 ounce round header tank			
		Different types and \$ of training gear					
		Breaking in motors					
			On Stand				
			In Heli				
			In Heli with head loaders?				

*Editor: Please take the time and complete the above form and bring to the next meeting.*