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CHOPPER NEWS

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January 2006!!

Al's Hours

Mon 12 - 8
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Sat 9 – 5:30
Sun 12 - 5

Northern Illinois Radio Control Helicopter Assoc.

One of

The World's Largest R/C Helicopter Club

AMA CHARTER NO.2099

Next Club Meeting, 7:30 pm, Tuesday, January 10th, 2006

…From the Editor…

That's one more year marked down as experience. What a party! Enough food to feed a small army, but we did our best to finish it off. There was talk of flying withdrawals, upcoming projects and flying escapades. Jeff Anderson thrilled us with stories of peril with his flying MasterCard Max, uh, T-Rex. To everyone's disbelief, Chet was unable to auto a flameout that happened during a rolling tail slide. Not being caught on video, I'll just call it an urban legend. Personally, the only rolling tail slide I've ever done is falling on my backside on the ice after drinking too much.

Thanks go out to Rich and Terry for their hard work and efforts over the years. The new officers will continue to lead the club in a positive way.

Thanks also go out to Cindy for supporting the club and offering great deals every day. Can we get an Al's West? Say somewhere out around Rochelle.

Mike is now taking volunteers to help at various functions throughout the year. Chefs, CDs, Safety, Freq Ctrl need apply. Volunteering bits of time helps others enjoy bits of flying. This also helps Mike and makes his first year easier.

Here's to another successful year of flying!

Newsletter articles get sent to: lstevens@ksbhospital.com Thanks! ***Larry***

All Hail the new Prez, Mike!!!

Hello, my name is Mike Hollingsworth. I'm a heli addict. I have been flying helis for about 16 or so years.
I currently fly Hirobo, Thunder Tiger, Bergen, Kyosho. an old GMP and an E-Flight Blade. As for my presidential qualifications I pretty much don't have any, I was the last one to take a step back. I am
positive that those people that talked me into this, and the more than qualified club officers that have been doing a great job these past few years will give me all the help I need, which will be a lot, so please bear with my inexperience and lack knowledge as to what I'm doing.

On to something I do know a little bit about, I have been building and flying scale machines for several years, painting rc car bodies and heli fuses. I recently started painting bleach bottle canopies with some good results. I plan to talk a little about painting in the future. I'm also going to build a 30-size Airwolf for a friend (season 1 of the TV show Airwolf is available on DVD if your interested). One thing I also do is carve my stock tail fins into smaller and different shapes for less rotor deflection and weight. One is shaped like a dragon, the rest are
just freehand curves. I am going to bring them to the next meeting and show how I make them. It's not hard and it's something you can do on those long winter nights.
Well, I've taken up enough space for now so I will see you at the next meeting and I'll do the best I can.

Remember crashing sucks!

You may now be seated.

Mike Hollingsworth.

Minutes for December 13th Meeting

There was no meeting agenda, but we had a wonderful Christmas party. The food was great and I hope everyone had as good of a time as I did.

I would like to wish all of the members a Happy New Year and I will see you at the January meeting.

Ronald Kwilinski

Blade Hints and Tips

Cindy, I and the rest of the crew at Al's hope you had a wonderful Christmas. I know we did. The two of us were invited to just about every R/C club's holiday party, and I have to tell you. We simply had a blast. Ours, NIRCHA, of course was the best, but with that being said, my waistline and liver are both looking forward to a rest. Next to family, sharing so much fun with those who have a common interest is about the best way I can think of spending a holiday season.

At this point I think about all that can be said has been said about the Blade CP (now that the CX is available I have to make the distinction) Over the holiday season I did have the opportunity to do a complete rebuild. I'm not going to say which party, but I smashed the bageebeeze out of it just before Christmas when due to who knows what (I know, but I'm not admitting) I ran it into a wall. During the rebuild I found a couple things I really hadn't expected. One was the swash was a very stiff slide on the main shaft, and the second was that one of the swash ball links was nearly frozen in place. I have to admit, being the type of helicopter that it is, I hadn't done much in the way of preventative maintenance. About all I'd ever done was put a drop of oil on the bushings of both the main and tail rotor motors. During the rebuild, and subsequent test flights I used a drop of oil on all the ball links, and bearing surfaces, including the main shaft in order to allow the swash plate to slide with little to no resistance. The oil I used was a train department item, LaBelle. This oil seems to have the same consistency, and smell, as clock oil. If you use this product, make sure you get the bottle marked plastic compatible. Most oils are not, and will actually begin to dissolve plastic over time. Nearly all of use who own a blade have had some sort of trouble with glitching. I've suggested different approaches, there's been quite a bit of talk at Cindy's store regarding this problem, and how to solve it, but I may be on to something... Once properly lubricated, at least on mine, the glitching problem has been completely eliminated! The twitchy lil sucker flies as smooth as it ever has. I've kicked this around in my head, and I'm wondering if binding was causing some sort of overload that caused the 4 in 1 to interrupt needed voltage to the different components. I really don't know, I'm putting it out for thought, but if a servo was binding, and needed a little extra power to work through a bind, that power has to come from somewhere. I.E. robbing from Peter to pay Paul. The results being that dreaded glitch.

Regardless, Once again Cindy, and I hope you had a wonderful Christmas, and here's wishing you a prosperous new year...

Dennis McFarlane (MadMac)

Collective Management

Simon Lockington (submitted by Mark Clausen)

WHAT'S COLLECTIVE MANAGEMENT?

No matter how big the engine in your machine is, you can always load it up (ie bog it down). Even my 90-powered Vigor, which is a very powerful machine, will (and does) load up when I don't management my sticks correctly.

Why does it bog down? It's because I'm using too much collective pitch and too much cyclic pitch at the same time.

On a machine like the Vigor, it pulls just over 11 degrees of collective pitch each way, as well as 7 degrees of cyclic pitch. That means that there is potential there to have up to 18 degrees of pitch on a blade at any time. No helicopter is going to pull that. None. So the engine will load up. In most cases, the efficiency of the rotor disk has decreased markedly and it's going to go down hill from here unless you let up on the sticks and let the helicopter 'breath' for a moment to catch up!

HOW DOES IT AFFECT ME?

I'm sure most of you have downloaded videos off the net of all the top guns such as Curtis, Jason, Todd and Alan. You've probably seen their machines and thought to yourself, "damn, that thing has WAY more power than my heli!".

You're probably going to be surprised to hear their helicopters are often not a whole lot different from ours. Infact, if you gave them your helicopter, you'd probably see that they could do all the same maneuvers with it, and you'd think to yourself "damn, my machine is powerful!". I know, cause this is what I thought when Jason and Todd gave my Vigor a beating in Bali.

The difference is that these guys have developed two skills, Collective Management and Momentum Management.

They've learned just how much collective and cyclic pitch they can use at any time in order to complete the maneuver and not over pitch the machine which is why it doesn't load up and why it looks so powerful.

They've also learned how to keep the momentum of the helicopter alive so it flows from one maneuver to the next which is the reason why some of their maneuvers can look very fast, and ours, look pretty average.

Here's an example. If you're up to doing loops, try entering one at full pitch and just snatching back on the elevator. You'll notice the helicopter will 'crash' it's way around the loop, the engine will die back and all you'll get, is a very small, nasty looking loop. This is because, you've over pitched the machine by using too much cyclic when you were already at full collective pitch.

Now, try doing that same loop by flying straight and level at ¾ pitch, then ever so gently, slowly pull back on the elevator a little and slowly feed in full pitch. Now, as the helicopter gets past the inverted position to say the 11 o'clock position on a clock face, you slightly decrease pitch and slightly increase elevator. Once the helicopter gets to the 7 o'clock position, back off the elevator slightly and increase pitch.

You'll notice that this will have produced a MUCH bigger loop, and the helicopter's engine will have sounded much more consistent. You'll also notice that your speed won't have changed much through the maneuver.

The difference is that you're using the power of your rotor disk much more efficiently which is allowing the engine to produce enough power to keep the disk turning.

Another popular mistake people make is when they're first learning to do flips. They feed in maximum elevator with maximum positive pitch, then slam maximum negative pitch in when the helicopter is passing through the inverted position. Not surprisingly, the helicopter will bog down a huge amount and your flip will look terrible. You've also probably lost a fair bit of altitude. In order to rectify this, you have to lead with collective.

LEAD WITH COLLECTIVE

Leading with collective simply means that before you execute a maneuver, you start off with whatever collective input is appropriate. For a flip, this may mean giving a little blip on the pitch to make the heli jump. As you're doing this, put in your elevator input as you reduce pitch and the heli should flip in pretty much the same position you were hovering.

Ideally, you don't want to hear the engine change note during the flip, that's if you've got your throttle curve setup right and you're managing your collective properly.

TURNS IN A CIRCUIT

Another issue when you're first getting into circuits is managing the collective through the turn. A popular mistake is to keep full pitch on through the turn while you already have a fair bit of elevator and aileron on to make the turn. You'll hear the heli load up and you'll probably feel it go saggy. Plus, if you find yourself in an emergency situation, you just won't have as much power to help you pull out.

You have to think of your collective and cyclic as a trade off. For example, if you're going to be cruising round at full pitch, you're not going to be able to use a lot of cyclic pitch and vice versa.

So instead of going full pitch into those turns as well as full cyclic, try backing off the cyclic or the collective a little. What you'll probably notice is that the machine won't bog down as much and you won't lose too much in the way of forward flight penetration, this is because the rotor disk is being efficient. Much more so than what it was at full pitch with tonnes of cyclic, plus, the heli will still be making good power.

Also, you'll notice that if you back off the pitch, the helicopter won't suddenly rise in a turn and you'll come out of your turn at a similar altitude to when you entered it.

SUMMARISED POINTS

Here's some points just to summarise what I've tried to convey.

- Go easy on the sticks! **Slamming back on the sticks will NOT do your flight any good. Unless you're going for an effect of some sort, be very gentle and smooth on the sticks and your flying will a lot smoother.**
- Lead with collective. **Use collective to power your way through a maneuver, but remember that you can only use minimal cyclic pitch when using full collective!**
- Think of collective and cyclic as a trade off. **You can have full pitch, but you can't have full cyclic at the same time and vice versa. If you increase pitch, you may have to decrease cyclic.**
- Keep the rotor disk efficient. **A loaded rotor disk does not fly as efficiently, but will suck up more engine power.**

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1 set (New In Package) MS Carbon Fiber night blades 550/12/4 2 color lights new price $123.97

1 (New In Package) MS Charger for above blades new price $ 15.00

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8 ft HD glowire colors Lime/aqua new price $ 83.99

1 set (used) Raptor V-1 canopy (custom painted) with 1-F9 driver Aqua and
red HD glowire for tail used value$ 65.00

Total $287.96

Asking price for all above $125.00

1 set (New In Package) Quick UK Carbon Fiber tail pushrod kit for Sceadu 30-50
includes 1 CF rod with metal ends, 1 Aluminum Hor. fin mount with guide for pushrod
1 set of Aluminum tailboom servo mounts new price $63.99

Asking price $30.00

Contact Terry King 815-547-7016 or TVking@rockford.com

For Sale - NIB Raptor 50

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Heliproz price: $409.99 My price: $375.00

Contact Larry Stevens 815-631-1279 or lstevens@ksbhospital.com

Reminder:

When making a purchase at Al's, please state you are a member of NIRCHA and your purchase is to go into the ***CLUB REBATE PROGRAM*** Thank you

January 10th, Next NIRCHA meeting at John's Pizzeria

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: www.nircha.com and is maintained by Web Guys, Rich Erikson and Kevin Cashman.

Meetings are held the 2nd 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 Helicopter Forest Preserve Flying field is located on Grace St., in Addison (on the border with Lombard), and about one mile north of North Ave. Field permits can be obtained by calling 630-933-7200.

Club Officers

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