

March 2000



The Monthly Newsletter of The New Hampshire Flying Tigers Radio Control Club. Send all correspondence to: The NH Flying Tigers RC Club, P.O. Box 99, Derry, NH, 03038-0099

President: Rich Bono Vice President: Glen Bolser Treasurer: Dan Wilder Secretary: Kellie Annicelli Field Marshall: Dave Annicelli Safety Officer: John Lavery Newsletter Editor: Paul Pazolt Training Coordinator: Jerry Lavoie

(((What's Happening)))

This Month's meeting will be held on

Wednesday, March 29th , 7pm

At The

Derry West Side Community Center

Presentation

Harry Newman, AMA District 1 VP will present **electric flying concepts**, starting at 7pm. Harry will also answer AMA related questions.

Mark Your Calendars

Field clean up day is scheduled for Saturday, April 15th, starting at 9am. Details are available in Dave's spring work party article. The rain date is scheduled for April 29th. Weather permitting, the training program will begin on April 18th.

The February meeting was called to order at 7:15pm with 13 members and guests present.

Steve Goldberg gave a video presentation about a FIRST Competition. The object is to build a radio controlled robot that can accomplish specific tasks and compete against other high school teams. Thank you Steve for your exciting presentation.

Old Business

The Treasurer's report and secretary minutes from the January meeting were read and accepted.

There were no updates at the meeting regarding the Derry Landfill. A Flying Site Committee update is included in this newsletter.

Members present at the meeting expressed interest in an inter-club fun fly, with no volunteers to organize it. Please contact an officer if you're able to help out. Officers are also willing to help.

Proposed changes to the club handbook were discussed and included in this newsletter. Changes will be voted on at the March meeting.

\$18.00 was collected at the February meeting for the 50/50 raffle. The big winner of \$9.00 was Don Cox .

New Business

Mario Natola volunteered to join the Compliance Committee, and Kellie Annicelli volunteered to coordinate the annual club picnic. A special thanks to both !

Training Coordinator Jerry Lavoie suggested ideas to recognize students completing the training program, with either a pin or certificate of achievement.

Safety Officer John Lavery reminded everyone that safety is the entire membership's responsibility. If you see an unsafe situation and are uncomfortable speaking to the individual , please contact John so he can help resolve any issues.

Proposed Handbook Updates

We will vote on these items individually. Items that are constitutional changes will require a 2/3rds majority vote to pass. Other items will only require a simple majority vote to pass. After voting on the following changes, if there are no additional changes required, we will take a vote to ratify this edition of the club constitution. This will require a 2/3rd vote to pass. Doing so will allow us to print updated membership handbooks.

#1 USE OF THE FIELD (simple majority)

Clearing up the text describing the lock, as it could be either a combination or key lock

From: All members are provided the combination to the gate however, ...

To: All members can purchase a key or will be provided the combination to the lock on the gate however, ...

#2 DESIGNATED PILOT STATION (simple majority)

Clearing up the description of the pilot stations

From: There are five half round designated concrete pad pilot stations...

To: There are five designated pilot stations...

#3 PROFICIENCY EXAM (simple majority)

Insert the following text after the fixed wing proficiency exam information. This is from the helicopter certification exams we have been using since August of 1994. Somehow we never added this text to our handbook.

Helicopter Proficiency Exam

1. At the examiner's request, the pilot must explain proper frequency control practice including transmitter impounding and the designated pilot stations.
2. At the examiner's request, the pilot must inspect the model helicopter to be used for the examination explaining each area of inspection and perform a radio range check.
3. At the examiner's request, the pilot must start the model helicopter's engine(s) and perform any necessary engine adjustments.
4. At the examiner's request, the pilot must demonstrate a smooth and controlled fixed position hover.
5. At the examiner's request, the pilot must demonstrate slow hover control in all four directions, away, towards, left and right, then back to center.
6. At the examiner's request, the pilot must demonstrate transition from hover to forward flight demonstrating smooth and controlled departure avoiding any flying boundaries (intentions must be called out loud before taxiing and taking-off).
7. At the examiner's request, the pilot must demonstrate 360 degree turns to the left and to the right while maintaining altitude. Horizontal figure eights may be performed rather than separate left and right 360 degree turns.
8. At the examiner's request, the pilot must transition from forward flight back to a hover over the runway.
9. At the examiner's request, the pilot must demonstrate a simulated auto-rotation approach (intentions must be called out loud).

If the previous 9 steps are performed safely and demonstrate good pilot control at all times, you will be

awarded the rating of helicopter proficient and the right to fly helicopters un-assisted at the club field. The club secretary must be notified of the date of examination and the name of the club instructor so that club records can be updated.

Helicopter Instructor Proficiency Exam

1. At the examiner's request, the pilot must explain each of the areas of understanding required of an instructor including; properly constructed model helicopters, proper pre-flight inspections and radio range checks, frequency control and transmitter impounding and the designated pilot stations. Also a brief explanation of basic aerodynamics.
2. At the examiner's request, the pilot must start the model helicopter's engine(s) and perform any necessary engine adjustments and then position the model for taxi and take-off.
3. At the examiner's request, the pilot must demonstrate a smooth and controlled fixed position hover including nose in.
4. At the examiner's request, the pilot must demonstrate slow hover control in all four directions, away, towards, left and right, then back to center.
5. At the examiner's request, the pilot must demonstrate transition from hover to forward flight demonstrating smooth and controlled departure avoiding any flying boundaries (intentions must be called out loud before taxiing and taking-off).
6. At the examiner's request, the pilot must demonstrate 360 degree turns to the left and to the right while maintaining altitude. Horizontal figure eights may be performed rather than separate left and right 360 degree turns.
7. At the examiner's request, the pilot must transition from forward flight back to a hover over the runway.
8. At the examiner's request, the pilot must demonstrate a nose in approach to the runway.
9. At the examiner's request, the pilot must demonstrate a simulated auto-rotation approach (intentions must be called out loud).

If the previous 9 steps are performed safely and demonstrating complete control at all times and in all attitudes and your knowledge in each area meets instructor requirements, you will be awarded the rating of "Club Certified Helicopter Instructor". Your name will be listed as such on club rosters and in the newsletter. The club secretary must be notified of the date of examination and the name of the club instructor so that club records can be updated.

#4 DIRECTIONS TO CLUB FIELD (simple majority)

The town has added some traffic lights, so we're correcting the directions

From: Take a left at the traffic lights onto Crystal Avenue (Rt. 28) and follow North through two sets of traffic lights...

To: Take a left at the traffic lights onto Crystal Avenue (Rt. 28) and follow North through three sets of

traffic lights...

#5 DIRECTIONS TO MEETINGS (simple majority)

The name of the building has changed.

From: West Side Community Center

To: Marion Gerrish Community Center

#6 SECTION V UNDER MEMBERSHIP (2/3rd majority)

This is to clean up some english language errors

From: Any perspective members...

To: Any prospective members...

Each use of the word "sponsoree" in this section should be changed as follows

From: If the sponsoree exhibits...

To: If the sponsored member exhibits...

Note: Item #7 is missing in the March hardcopy newsletter. Your editor apologizes for the oversight. Here is the missing information, as discussed at the February meeting:

#7 ARTICLE VII; SECTION II – ELECTION OF OFFICERS (2/3rd majority)

This is to clear up the confusing wording.

From: Elections shall be by a majority of members present of by written ballots that will be counted at the regular November meeting.

To: Elections shall be by a majority of members present at the regular November meeting.

President's Corner: Rich Bono

It's so nice to see that spring is around the corner, don't you think? I can't wait to be outside with the sun shining on me! I tried to rush it one day this month, I had gotten a call from someone who wanted to get their new helicopter flying. We were to meet at the field. So I rushed home, picked up my helicopter, field box, transmitter, fuel, fire extinguisher, etc. When I got to the field, I was there first, so I started to get my equipment ready. I wanted to top off my batteries, so I took out my field charger, and connected it up to my car battery. I started charging the receiver battery, then went to get my transmitter. I took my transmitter out of it's case, and went to charge it's battery. Dang! I left the transmitter battery at home on the bench from when I was cycling it! LESSON ONE: Go through all YOUR equipment, including your

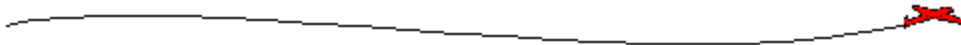
field box, transmitter, aircraft and be sure that everything is in order! You can learn from my stupid mistakes! I reminded you last month to cycle your batteries (you did that, right?), I guess I forgot to remind you to put the batteries back when you are done!

I have to thank everyone! I am very impressed by the number of people who are 'stepping up to the plate' to take on new tasks. We have a great team in place, and everyone is working hard to make the Tiger's a great flying club! Thanks to YOU, we have a lot going on this year. Another new team member is Lee Carvalho! Lee volunteered to take over the 'events' portion of our web site. If you have any comments or suggestions, feel free to talk to Lee about it. He's learning web page development as he goes, so I'm sure he'll have some fun! Lee, thanks for taking this task on, it will help to improve our internet web pages.

Don't forget, this months business meeting will start AFTER the guest speaker. Harry Newman is coming down to talk to us about flying electric aircraft. So we'll put Harry on first.

The April meeting will be our annual "new project" night. Bring down any new aircraft project that you have been working on. We'll have some prizes for four categories "Best Overall", "Best Finish", "Best Beginner" and "Best in Process". So even if your project isn't finished bring it! We're doing a beginner class too, so don't be shy if this is your first project. The only 'rule', is that the aircraft can not have flown before Jan 1, 2000. Let's see what you have, finished or not!

See you at the meeting! *Rich*



From The VP: Glen Bolser

Wow, it's been a month already! Well, you know what that means, its almost flying season. And on that note, I've mentioned earlier this year about buying Omega Fuel (10%) at a reduced rate provided we order a 3 case min. or { 12 gals. } If anyone is interested or has questions about this please feel free to give me a call or send an E-mail to DGIP4@JUNO.COM , and depending on interest in this I will order the fuel a.s.a.p. I plan to be at the meeting this month and would like to have cash up-front in order to do this, please let me know if you are interested. Next on my agenda, it was brought to my attention that sometimes some of the newer members to this hobby find themselves in a situation where they are not sure what to do to correct a problem or just a general question they might need an answer to, but oh new members have no fear, that's why we are here, and who are we you ask, oh humbled hobbyist, we are the answer guys { aka most members of the club } who are more than willing to share information with people whom are new to the hobby or whom are tackling a certain project for the first time. I brought this subject up at the last officers meeting and we agreed that for some reason you were not sure who to contact, you may contact anyone of us and we will do our best to steer in the proper direction, or refer you to someone who can help. Or you may go to the Delphi forum if you have internet access and your questions answered there at <http://www.delphi.com/radiocontrol/messages/> Don't be afraid to ask, it's much easier to do it right the firsttime. Now on the personal side of things, my wife recently went to have an ultrasound and we will be having a girl in late July if the technician is right, so we are looking forward to that. I along with Dave Annicelli attended the WRAM show last month. Having never been to this event we were not sure what to expect. We arrived in White Plains, N.Y. 3-1/2 hrs after our departure from Daves house in Salem to an almost empty parking lot. "IT PAYS TO BE EARLY". After paying our \$9 admission and waiting for the floor to open at 10 a.m. we walked the floor looking at the different booths, trying to see who was represented, not even knowing that there were more vendors

downstairs until an hour later. After going downstairs we found more vendors, although I will admit it was nothing spectacular, it was none the less interesting but not what we expected. In my opinion it is a great place to pick up a specific item you may be looking for, or if you are prepared to spend you can get some good deals on a lot of different things. All in all Dave and I enjoyed ourselves and plan to go again next year, but we swore never to eat there again due to the less than appealing cheeseburgers we both ordered, which appeared to be put on the grill long enough to turn the outside of the burger brown and neglecting to cook the rest of the meat., not a pretty picture. I have taken up enough space with my words, hope to see you at the meeting or the work party in April, we will need all the help we can get!

Glen

Spring Work Party: Dave Annicelli

Well its March and spring is just around the corner. Its time to start thinking about getting the field ready for the new flying season. The annual work party is scheduled for April 15 with a rain date of April 29. The projects this year will include the following.* Rolling the field.* Painting the exposed metal on the shelter.* Clearing the brush at the end of the runway. *Filling in the ruts by the gate.* Clearing the trench behind the pit area.* Re establishing a helicopter pad. As you can see there is a lot of work to be done and we need your help. I have a chain saw and weed wacker. But The following items are also needed:* Steel rakes.* Wire brushes.* Shovels* Step ladders (2) * Wheel Barrel. Please feel free to contact me at home to let me know what you can bring or to let me know if you will be attending. As always the club will provide lunch. By attending the work party and helping out, this will fulfill your field maintenance requirement. *Thanks, Dave*

Training Update: Jerry Lavoie

Days are getting longer. We've picked up over an hour of sunlight in the afternoon and Daylight savings time will start on April 2. Spring will soon be here so we have to seriously start thinking about training our new members and the few pilots who were close to solo when training ended last year. With information provided by VP Glen Bolser I have prepared a package of training manuals which should be a good foundation upon which to build our pilot training program. A meeting has been scheduled to discuss and plan our training program for the year 2000. All club instructors, pilots interested in becoming instructors, and all club members interested in the training program are invited to attend. We need the support of one another to help make this important club activity a success and worthy of the name "New Hampshire Flying Tigers Training Program" In order to make it more convenient for all, Rich has agreed to hold the meeting at his home in Derry. Meeting date: Sunday, April 9 Time: 7:00PM. Please mark your calendar. Email or call me if you plan to attend, I have directions to Rich's home if you need them. Email me at radiocontrol@worldnet.att.net.

See you soon, *Jerry*

Safety: John Lavery

Hi all, just want to say I will do my best to be a good safety officer. I don't believe it will be a difficult job and I'm looking forward to it. So everyone be on your toes and don't screw up or you'll have to deal with the wrath of John. Just kidding. This month I would like to discuss who is responsible for our current safety record, which I must say, is excellent.

You as club members are responsible for the past safety record. I think we all deserve a pat on the back for a job well done. I have been a member of this club for about twelve years and I think I could count on one hand the number of serious accidents we've had. In order to maintain that record we all have to work together. Safety is everyone's responsibility. If you see someone at the field, club member or guest, doing something you consider to be unsafe you have a couple of options. You can ignore the situation and hope that no one gets hurt. You can act on the situation or you can pass what you saw along to another member.

Let's look at option one, ignore the situation. Say your at the field, on a perfect day, having a wonderful time when you look at your neighbor, let's call him Klem Calamity. Klem is about to start his airplane and you notice that the throttle stick on his transmitter is at full throttle, but you say to yourself I think I'll just ignore this and maybe it will be ok. So Klem starts his engine, at full throttle, and the next thing you know you hear a scream coming from Klem's direction you look over and Klem's airplane is now chewing on his leg. Did I mention you and Klem are the only two there? Well there goes your perfect afternoon now you have to take Klem to the emergency room.

Option number two in my opinion is the best choice. Same situation but instead of ignoring the situation you wander over and get Klem's attention. "Didn't mean to bother you Klem but did you know your throttle stick is at full?" Wow Klem exclaims thanks a lot boy I could have been hurt. How can I ever repay you how about if I buy you a brand new OS 46 for that new plane your building? You have a wonderful day and best of all no one is hurt.

Option three is half way between the two. Telling another club member about what you saw in the hopes that something will be said to Klem is better than ignoring the situation. There is unfortunately the distinct possibility that Klem will still be hurt but if he isn't at least you have made an attempt to let Klem know that he was doing something unsafe.

I consider safety the responsibility of each and every one of us so if you see an unsafe situation please say something. If you just can't bring yourself to say something for fear of hurting someone's feelings then by all means say something to me or one of the other officers. **PLEASE DO NOT IGNORE THE SITUATION.**

I am planning to write a monthly safety column if time allows and I would be grateful for any ideas or subjects you would like to see covered. Thanks for listening and remember there are old pilots and there are bold pilots, but there are no old bold pilots. *John L.*

Committee Updates: Paul Pazolt

Flying Site Committee: Dave Annicelli, Glen Bolser, Rich Bono, Ken Boucher, Paul Pazolt, Darrell Wagner.

The Flying Site Committee gathered for a second meeting on March 19th to discuss alternate flying

locations. Our current location in the Derry Industrial Park is still available for our purposes. In the meantime, the committee is continuing efforts to identify and secure a new home. I had a site tour of the Derry Landfill on March 7th with the Director of Public Works. The landfill is a viable location for model flying, and a letter from the DPW suggests the committee begin formalizing a request to use this property. Although encouraging news, this may become a lengthy process of discussion and approvals, both from the Derry Town Council and State Dept. of Environmental Services. The committee is working with the proper contacts to obtain requirements needed for a formal proposal, with hopes of getting on the council's agenda in the near future. Roger Gagnon suggested a site on RT28 Bypass, owned by the Maine Drilling and Blasting Company. Unfortunately this site is restricted to authorized workers only, but a good example of club members coming forward with ideas. We'll never know what possibilities exist for our club without information. Please keep your eyes and ears open for contact names and patches of land just waiting for us to fly on. *Paul*



Balancing Your Plane

Did you ever wonder how the airlines balance a large plane? They definitely don't use the two-fingers under the wing method. Balancing your small plane can be done this way, but as the plane gets bigger and heavier this method gets harder and harder to use. Besides it takes two people. There are balancing stands, but these can only hold so much weight and then they begin to break down. One of my favorite balancing methods is to build an eye hook into the bottom of my plane at the CG point I want. Then I suspend the plane inverted in my shop and balance for the correct CG and take care of the lateral balance at the same time. I've done this with planes up to 18 pounds. But there is another way. Use an accurate scale and a ruler.

First step is to block the plane up so that the fuselage is level (as in flight). Build a jig so that the main gear appears to be one point (a piece of lumber with one end under each wheel works fine). Now weigh the plane at the main gear and the tail/nose wheel. Remember to subtract out any lumber used to block up the plane. Now measure the distance along the floor from the main gear (centered under the fuse) to the tail/nose gear. The CG will be located at $((\text{tail weight}) \times (\text{wheel base})) / (\text{total weight})$ inches behind the main gear (for a tail dragger). For example, let's use a 25 lb. plane with a wheel base of 50 inches. The weight on the main gear is measured at 20 lbs. and the weight at the tail gear is measured at 5 lbs. Do a quick check and find that 20 lbs. + 5 lbs. = 25 lbs. Now plugging the numbers into the equation above we get:

$$L = ((5 \text{ lbs.}) \times (50 \text{ inches})) / (25 \text{ lbs.}).$$

Solving for L, we get $L = 10$ inches. Note the units follow the equation. Now we know that the CG is located 10 inches aft of the main gear. Using this method you could also compute how much weight you would need to add to change the CG location by a specific distance. Following our example above we know that the CG is at 10 inches aft of the main gear, but say the plans called for 9 inches aft of the main gear. How much lead do you have to add to the nose? We need another equation first: EQ #2: $(\text{Weight Added}) \times (\text{Length Nose to Main Gear}) = (\text{Change in Tail Weight}) \times (\text{Wheel Base})$. Using these equations we can solve for (Weight Added) and come up with 1.78 lbs. would have to be added to the nose at the firewall. For the math impaired just trust me that EQ #3 is the end result of the above exercise:

$W_{\text{tail}} = \text{Original measured weight on the tail/nose gear}$

$W_{\text{main}} = \text{Original measured weight on the main gear}$

W_{total} = Total weight of aircraft = W_{main} + W_{tail}

W_{add} = Additional weight to move CG

L_{wb} = Length of wheel base between main gear and tail/nose gear

L_{nm} = Length from nose to main gear

L_{mcg} = Length from main gear to CG

EQ #1: Distance from main wheels to CG = L_{mcg} =

$(W_{tail}) \times (L_{wb})$

(W_{total})

EQ #2: Change in Tail Weight = $(W_{add}) \times (L_{nm})$

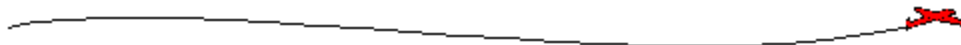
(L_{wb})

EQ #3: Amount of weight to add to achieve desired CG = $W_{add} = (W_{tail}) \times$

$(L_{wb}) - (W_{total}) \times (L_{mcg})$

$(L_{mcg}) + (L_{nm})$

John Marien



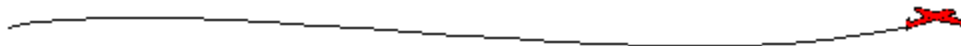
Upcoming Events

New Hampshire Flying Tigers Project Night: April 26th. Club Members: Bring your latest projects to the meeting! Prizes will be awarded for finished and unfinished models. Read the President's Corner for more details.

Annual Fun Fly - Granby Quebec, Canada July 22nd and 23rd. All NHFT Members are invited. No admission charges or registration fees. Must have a valid AMA membership card. Bring your families, there is a famous zoo in Granby with a giant wave pool, lots of fun for everyone. Plus your American dollar will go a long way in Canada. Please visit our web site:

<http://www.endirect.qc.ca/camg/> for more information and directions to our field. Best Regards, Allan Averill Email: al.litohydro@qc.aira.com

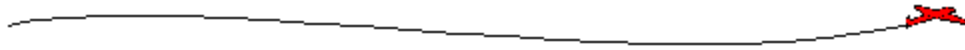
New Hampshire Flying Tigers Annual Picnic: The picnic is scheduled for Sunday August 27th, 2000 and is open to club members and their families. The club will provide food and soft drinks. We need volunteers to help again this year. Contact Kellie Annicelli if your are interested in volunteering.



Correspondence

The following clubs have submitted correspondence during the month of March:

- Concord Skyhawks R/C Club, Bow, NH
- Pioneer Valley R/C Club, Southwick, MA
- Concord Aero Guidance Society, Hooksett, NH
- Aloha State Radio Control, Hawaii



Reminder To Club Members

Please make sure you have submitted a proficiency form indicating your current ratings. Contact the club secretary or any officer if you need a form.

-