The Seminole Flyer

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A chartered member of the Academy of Model Aeronautics
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"The Seminole Flyer" is a publication of the Seminole Radio Control Club of Tallahassee, Florida

JUNE 2011

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Letter from the Editor- Fred Schmidt

This month we prepare for the onslaught of summer – nice to have the extra evening hours, but boy that extra hour of sunlight is making it HOT! (Tongue in cheek).

Not being a helicopter pilot, I decided to do a hunt for a "beginner's guide" to taking on that challenging craft. I hope the established heli-pilots will grant me some slack if the attached article is not as they might recommend – if so, please enlighten me and I'll adjust next month. As Jim pointed out in email, be cautious when approaching our new pilot above at the field!

Chief Pilot - Jim Ogorek

Where has May gone? Hard to believe how fast the month went. Summer is upon us and the heat is already pumping, and we have electric to power those fans. NO more generator noise in the background.

I want to mention just a couple of things for this month. First, thank you to all who spruced up the field for the "Cure" fly-in. You all did a great job in making the field look first rate: new fencing, table tops painted, old benches removed. A lot of work by a few made a large difference. I saw the large family of "Beavers" that moved in and made short work of the approach underbrush. It makes for a clear path to the threshold, no more snagged landing gears. The flag pole is a great addition to the field, and as I had previously mentioned, I would like to ask for donations to pay for it. Many of you had offered in the past, and now that it is up, I ask you to make your donation to Bill. Now, a challenge to all you engineer types, devise an LED light system that we can tap into our solar system and illuminate the flag at night.

I want to thank all of you who came out for the Fly for the Cure event this month. While our donation is down from last year -- Bill will update us -- we still are helping to find a cure for cancer. Very special thanks to Frank and

Susie for their time in running the event and cooking. They are special people who take the time from their business to support SRCC.

Some of us have been talking about the lack of rain and how can we keep the grass from heat stress and the potential of not recovering. We have a pond of water we can use and no way of getting it on the field. The next challenge, how can we do that economically? Cart with pump and hose? PVC pipe along the runway edge with sprinkler heads? These are just thoughts at this time without a real action plan. We just want your ideas and solutions. Anybody have a pump?

Safe flying and stay cool. Jim

Chief Copilot- Jeff Owens

May looked to be a busy month, but the weather dealt us a mixed bag, to be sure. On Friday May 13 things got off to a great start at the Quincy Airport. A BBQ dinner started at 6, a band was playing, and at dusk Fred Schmidt, Chris Bailey, and Ed Budzyna did a great job putting on a lighted aerobatic show that was much appreciated by all the spectators! The following day was to be the EAA Fly-in, but a front moved through, complete with hail, lightning, and rain. The Fly-in was cancelled. I will be at an EAA Board meeting on May 31 and will report at the Club meeting what the plans are concerning a rescheduling of the event.

The Flying For A Cure event on May 21, 2011 was blessed with great weather and an excellent club turnout. Many types of planes were flown, prizes awarded, food eaten, and a good time had by all. I used the event as an opportunity to re-maiden my repaired Escape pattern plane. I built it in 1989 for the FAI Team Selection contest in Pensacola and I flew it in various pattern contests until June 1990, when I took first in FAI flying off the beach in Daytona Beach. The contest tee-shirt had a pattern plane with the caption “I flew over the Atlantic.” I flew the Escape off and on until 2003 when it crashed at our field due to a dead cell in the transmitter. The fuselage was ripped wide open, but the wings and tail survived intact. Eventually I did repair/rebuild the fuselage and re-Monokote it. Now, how do you get new Monokote to stick to old fuel-soaked balsa? It is a two step process: 1. Heat the balsa with a heat gun and blot as much of the residue that bubbles up as you can and then repeat using a paper towel and a Monokote iron 2) Apply acetone and wipe thoroughly several times. The acetone will remove the remainder of the residue. You can then seal the wood with Balsarite and recover.

Recently, I finished the repairs by cleaning up the engine (a YS 60FR) and test running it, re-plumbing the air retracts, putting in a new air valve, re-plumbing the tank, and putting in a new 2.4 Rx and battery. Everything looked good except for the aileron servos. When released from full throw they would overshoot the center and oscillate a few times around neutral. So, I found two newer servos, checked them to be ok, modified the wing mounts (they were slightly larger) and put everything back together. The aileron servos behaved just like the others – only worse! At one point one of the servos spontaneously started moving from one extreme to the other – back and forth, back and forth – with no input from me! Well, the only things I hadn’t changed were the aileron extension cables running through the wing. So, I replaced those and the problem was solved! My theory is that corrosion on the signal pin (white wire on a Futaba servo) prevented the servo from getting a good signal from the Rx, so the servo would “hunt” until it found neutral. With new extensions, the signal was good and the servos behaved normally. The moral of this story is that if you are restoring or reviving an old airframe – CHECK EVERYTHING!

As it turned out, the Escape flew well and I'm practicing for a June contest that is designed for the older planes with retracts and tuned pipes. I went back and reviewed my logbooks from the 1989-1990 seasons to see what trimming notes I had made. I noted some of the same problems Saturday that I was trying to adjust out back then. I have a few new ideas to try in an attempt to correct a few problems I noted. By the way, I have detailed logbooks of all my flying going back to 1974. I have used them a few times when I brought planes out of retirement or built newer versions of ones I had flown previously. Logbooks can be very useful.

Don't forget to keep current with club activities by checking the event listings in the Newsletter and on the web site.

Club Calendar- The schedule reflects current Club events planned for the year to date. Check monthly for additions and deletions at the meetings and in the newsletter. For regional, sanctioned AMA events, see your AMA magazine or visit the AMA website section "Calendars".

Chief Scribe- Chris Bailey

Call to Order at 7:02pm
Administrative duties:
Minutes from the April 7, 2011 club meeting were approved.
Introduction of Guest: Matthew Hendrix (new member)
Jeff – Announced the upcoming EAA event in Quincy, FL - Requested members attend and bring their models for the static display.
Treasures report: Presented and approved
Old Business
By-Laws
The club's by-laws were amended (April 20th) and presented to the club. Due to the late filed amendments and because a quorum was not achieved at the meeting, it was decided that members could vote electronically over the next 30 days by emailing their vote to Chris Bailey.
Club President, Jim, provided an update on the Appalachee Park economic development initiative being presented to the Leon County Commission. Due to the lack of funds available, the county commission decided not to pursue the initiative.

New Business
Flight Line Fence - There was a motion to allocate funds for the purposes of repairing the flight line fence. The motion was seconded and approved.
Civil Air Patrol – Club member Dan offered to serve as the Club's liaison to the local Civil Air Patrol.

With no further business on the agenda, the meeting was adjourned at 8:51p.m.

Chief Treasurer- Bill Ashbaker

We received dues payments from four new members: Jim Jacobsen, Mr. and Mrs. Ronnie Carter and Matt Hendrix. Also, we are happy to have one of our original members, John Cutrer, return. Please welcome them at your first opportunity.

We spent $844.70 on field maintenance and improvements prior to the *Flying for a Cure* event. You will notice a new flag pole, new fencing along the flight line, freshly painted table tops, new covers for the aircraft hold-downs on the starting tables, new buckets with sand and salt water for LiPo accidents and several other improvements. A special thanks to Charles Samaha and Tristan Seeley for constructing and donating a new table in the pavilion for everyone to use. Tristan, Charles, Dave Humphreys and Gordie Meade did much of the fix-up work.

In addition, we purchased a new 120 quart cooler and an outdoor ashtray for our meetings (itemized under miscellaneous expenses above). The outdoor ashtray is one of the kind that looks like a post with a can on the bottom. Smokers, please use it. When butts get tossed on the ground, they get shredded in the mower and make the pavilion area look unsightly.

Finally, the Flying for a Cure event brought in $452.00 in cash and $240.00 in pledges for a total of $692.00 for the American Cancer Society. We owe a special thanks to John Hall, Chris Bailey, Mike Levine, Ernie Duarte, Fred Schmidt, Frank Bastos and several others for their generosity.

Editor's note: Bill reminded me that the Club will be adjusting this year's dues assessment in order to move our renewal date to coincide with the calendar year. This means that our dues assessment in June (due by the end of June) will be half of the annual amount, or $30.00 for general members, $37.50 for families, and $10.00 for junior members. The Treasurer's report is published for Members only. The public version of the Newsletter does not include account balances.

Seminole RC Club
Financial Statement for April 29 through May 27, 2011

Accounts
Premier Bank Checking
Premier Bank Money Market Savings
PayPal
Talquin Electric

Cash on Hand

Total Available Funds at End of Month

Income	**Expenses**
Dues/New Memberships	Mower: Maintenance
Activity Sales	Field: Improvements
Meeting: Food Reimbursement	Field: Maintenance
Contributions/Donations	Field: Lease
Interest: Savings	Publications
Merchandise Sale	Donations
	Fees: AMA
	Fees: State of Florida
	Meeting: Food & Refreshments
	Insurance: Mower
	Miscellaneous
	Utilities: Electric
Total Income	**Total Expenses**

Net Cash Flow

Feature Article

One of these days, I wouldn't mind finding a few dollars to toss at a radio-controlled collective pitch helicopter. Should that day arrive, I assume I would need some ideas on how to learn to keep it in the air. After all, there's not a lot of balsa and monocote on one of those things! What follows is a basic set of ideas on how to begin the learning process. The web site hosts a ton of information beyond what is printed here and I recommend you give it a visit on your next web browsing session.

Regards, Fred

How To Hover An RC Helicopter

Article content as found at http://www.rchelisite.com/how_to_hover_an_rc_helicopter.php, printed with permission of the author.

The main goal of hovering an RC helicopter is to keep it in one spot with as little moving or drifting as possible. Ultimately, you'd like it to remain absolutely motionless, but in a non perfect world, that's nearly impossible as there are too many factors that will cause drift or motion.

For the beginner pilot hovering an RC helicopter can prove to be excessively difficult and many people give up on the hobby because they can't master hovering.

While it is possible and people do fly RC helicopters without being able to hover properly, it's not recommended. It's like learning to run before you can walk and you'll eventually run into a problem.

Being able to hover teaches control and fine motor skills that you'll want to have to become a better overall pilot. Even top performers practice hovering to hone their skills.

There are 4 main hovering positions, or 8 if you count inverted hovering, but I'm not going to get into that as it's a lot more complicated than learning basic, right side up hovering that we'll discuss in this 'how to' article.

The 4 main hovering positions are:

Tail In Hovering

Right Side In Hovering

Left Side In Hovering

Nose In Hovering

As you can see from the pictures above, tail in hovering is where the tail is pointing towards you and the nose of your heli is away from you. Nose in is the opposite – where the nose of your heli is pointing towards you and the tail is pointing away from you.

Right side in is where the nose is pointing to the right, the tail is pointing to the left and you're facing the right side of the heli. Left side is the opposite, where the nose is pointing to the left, the tail to the left and you're facing the left side of the heli.

Preflight Setup & Checklist

Before you can learn to hover your RC helicopter, you need to make sure your heli and radio is properly setup. If unsure, consult an experienced pilot or your local hobby store.

Put your training gear on. If you don't have some, buy it. It costs $20 – $50 and if you're just starting out will save you hundreds in crash damages. The training gear also makes a good visual aid that help you see the pitching and rolling of your RC helicopter before you notice them in your heli.

If you're flying a nitro heli, have lots of fuel available. If you're going electric, make sure your batteries are charged and have more than one available if possible. The more you can fly continually, the faster you'll improve your skills.

Make sure your gyro is set to heading hold mode. While some people recommend flying with a gyro in rate mode because you'll get a better feel for the helicopter, I don't recommend it for the simple reason that unless you plan on building scale ships, you'll probably never use rate mode, so there's no sense learning to fly with it.

Also, make sure your radio and heli is set up for hovering and that it's not too sensitive. If it's too sensitive or quick to respond, you can try adding some expo to the cyclic to soften the sticks around their centers, or decrease the endpoints to decrease the amount of cyclic pitch and responsiveness of the heli.

And finally, go through your preflight check. If you don't have a checklist you use, there's a great printable one available at this link… http://www.rchelisite.com/rc_helicopter_pre_flight_checklist.php.

Getting A Feel For Your Heli

Before you learn to however, you need to understand how your helicopter works. When you move the sticks, how does your heli move? If you input right cyclic, how quickly does your heli react? The goal is to learn how your heli moves and corresponds with the inputs you give.

Once your RC heli and radio are setup, you'll need a practice area. You're going to want the surface you're practicing on to be as smooth as possible so you can slide around a bit. A gym floor, a large and smooth cement basement, a ice rink or a smooth asphalt make the best practice surfaces – the smoother the better.

If you're trying to learn on a rough or uneven surface like grass or gravel, your RC helicopter can get caught on it an tip over. The training gear will help you slide around without fear or tippage.

Make sure you have at least a 10ft x 10ft (20ft x 20ft or larger recommended) area that is clear of any and all obstructions. The larger your heli is, the more space you'll need.

If there's no marketing to use as a reference point, use a marker or masking tape to create one.

Put your heli into the middle of the space pointing into the wind (if outdoors) and stand 10 – 15ft behind it. Start to throttle up very slowly – you don't want it to lift off the ground, just get it light on the training gear so you can slide it around.

If your main blades rotate clockwise and your heli's been built properly, there's a good chance that it will want to drift slightly to the left to counteract the tail rotor thrust pushing to the right. If your rotors spin counter clockwise, your heli should drift slightly to the right. Use the trims to compensate for the drifting until your RC helicopter stays fairly stationery.

Once you've got the trims set, give a little right cyclic input and watch as the heli moves to the right. Then give left cyclic input to move it back to the reference point. Then do the same thing moving your heli forwards and backwards.

The main goal here is to get a feel for how the heli responds to your stick inputs and how much input is necessary to get it to move. You'll find small stick inputs are all that is necessary.

Once you're comfortable with side to side and forwards / backwards movement, bring the heli back to your reference point and move it diagonally in all 4 directions. This will be a lot harder then left/right forwards/backwards movement because you'll inputting multiple cyclic commands simultaneously as well as controlling the tail.

You'll want to practice this until you can make very precise movements and are comfortable moving your heli around.

Remember to always fly your heli by watching its nose, never by looking at the tail boom.

Learning to Hover

All right… on to the good stuff.

Once you've got a feel for how your heli moves and how to control it using your radio, it's time to get it off the ground.

For this, you'll want to move from your smooth surface to something softer, preferable short grass. This will help to absorb any impact from hard landings and prevent damage. If you have a really small or mini RC helicopter, you can do this on the same hard surface you used earlier as there's not much weight to cause damage.

Pick or mark a reference spot and place your heli there going through all the preflight checks mentioned earlier.

Input collective until your heli is just a few inches off the ground and try to hold it there. Remember that very small inputs make a big difference, so be gentle on the controls.

Pay attention to your heli and the balls on the training gear and try to anticipate any movement and try to compensate for it in advance. To become a masterful hoverer you need to be able to tell what's going to happen in terms of movement and react to it in advance to prevent it from happening.

As you become more comfortable, start to bring it a little higher and higher until you get it up to 2 – 3ft and can hold it in one spot.

Congratulations!!! You can now hover an RC helicopter… everything else is downhill from here.

Though you'll probably want to go trough at least 3 – 5 batteries or tanks of fuel practicing stationary hovering before you start to move your heli around to make sure you'll be able to react in time in case of a mishap.

As s side note, when practicing hovering, you'll usually want to hover above 2 – 3ft to avoid ground effect.

Ground effect is when your RC helicopter is hovered close to the ground (under one rotor diameter) and the downwash of the rotor blades creates a high pressure bubble of air. This bubble of air applies an uneven upwards force which causes the heli to wobble or move sideways making stable flight difficult. It's a little like balancing a basketball on your finger (when it's not spinning).

For those reasons, when practicing hovering, I prefer to hover at about 3 – 5ft. It's high enough to avoid the ground effect and low enough that I'm looking slightly down at the heli and can use the ground as a reference.

The higher you get, the harder it is to perceive depth and keep the helicopter in one place – there's also no easily perceivable frame of reference against the sky as there is on the ground.

However, with that being said, if you're just starting out you might want to hover a little higher in case you make a mistake so you have time to recover. Many people use the saying "practice 2 mistakes high" meaning that you have time to recover from at least two mistakes before your heli becomes acquainted with the ground, the hard way.

Tip: Use a simulator for practicing and once you're comfortable on your computer try it on your RC helicopter.

Once you're able to easily hover your RC helicopter tail in, it's time to start moving it around a little.

Repeat the same left/right forwards/backwards and diagonal movements that you did in the previous section, but this time your heli will be 2-3ft in the air and when you get to your new position, hold it there for 15-20 seconds before moving on. Transitioning from flight to hovering will help to improve your skills and take you to the next step.

Stationary side in and nose in hovering is significantly more difficult than the tail in hovering exercises mentioned in this article because cyclic commands are 90 or 180 degrees off depending on the position.

For example, when nose in hovering, if you input a right cyclic command, your heli will move to the left and vice versa, so I'll save them for another time.

Don't forget to check out the RC helicopter hovering tips page.

Seminole Radio Control Club
Tallahassee, FL
AMA Charter #216, 1969-2010

SRCC Officers

President	Jim Ogorek
Vice President	Jeff Owens
Secretary	Chris Bailey
Newsletter Editor	Fred Schmidt
Treasurer	Bill Ashbaker
Field Safety Officer	Dave Settles

Field Hours

Electrics/ Sailplanes	9:00 am till 9:00 pm.
Gassers and Nitro	12 Noon till Dusk.
Electric Service	8:30 am- 9:15 p,m

Training Notes

To schedule a training time contact Mike Atkinson.

Flight Instructors

Primary/Advanced Flight Instructors

Mike Atkinson	926-4692
Geoff Lawrence	942-9807
Jim Ogorek	766-2477
Chris Bailey	322-4047

Primary/Advanced Helicopter Flight Instructor

John Hall	893-6457
Chris Bailey	322-4047

Ground School/Airworthiness Inst. (Fixed Wing)

Jeff Owens	894-2504

Hobby Town Flight Demonstrator

Frank Bastos	671-2030

Club Meeting Location and Time

November- March: The regular club meetings are held on the first Thursday of each month at **7:00 PM** at **HobbyTown** on Thomasville Road. The Club offers food and drinks for a small charge at 6:30.
April- October: The regular club meetings are held on the first Thursday of each month at **7:00 PM** at the Flying Field. The Club offers food and drinks for a small charge at 6:30.

Newsletter Submissions- Submissions are requested to be in M.S. Word format or via e-mail text. Photos should be in .jpg or .tif format. We will, however, accept anything to make it easier for those who wish to contribute. Submissions are due no later than the 28th of the month. Send your submissions to Fred Schmidt. schmidtfjs@gmail.com

SRCC thanks Graybar Electric in Tallahassee for its assistance in helping to upgrade our flying facility.

GraybaR
works to your advantage