The Seminole Flyer

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SEMINOLE RADIO CONTROL CLUB TALLAHASSEE, FL

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

APRIL 2010

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Letter from the Editor- Stephen Warmath

I hate loosing that weekend hour as we "Spring" forward, rather than "Fall" back. I'm not a morning guy. This doesn't help. Monday morning comes awfully early. :0(The good news is that we will have later light in the evening and will be moving the Club meetings back to the field. Starting this month, **APRIL**, Club meetings will be at the usual 7:00 pm with food at 6:30 at the **Field**. Now we can **fly, eat and meet.** Come early and get in some flight time. **Geoff Lawrence** sent is some excellent aerial pictures of SouthWoodstock that he took with his flying camera on Saturday March 20.

Feel that **"Need for Speed"**? The way to get there is **RC Jets**. Included is a quick view of some particulars on electric/ nitro jet models that will wet the appetite.

If we could accurately determine our aircraft's performance based on looks, we would all have great flying aircraft. The reality is that your new "Beauty" could end up being a "Beast". How to tell? Look at the numbers. Included is a short summary that talks to the "wing loading" of that little jewel included in **Why One RC Model flies better than another**. Don't go by the labels, check the numbers yourself, especially final weight. Do the math.

Jeff Owens sent in his article about taking your early flying success to the next level in **" What's Next?"** This is to be a multi-part primer from Jeff on aerobatic flying.

Finally, Jim Ogorek @ **HobbyTown** checks in with a safety tip and the latest reviews on some hot new products.

Safe and Happy Flying- Steve.

Chief Pilot- Mike Atkinson

As we look at our nation's capitol and view the unwillingness to compromise between the two main political parties, I'm very happy to report that sentiment is NOT alive and well within our club. I want to take the first few lines of this report to thank all those involved in our recent discussions regarding safety updates at the field. We had some difficult decisions to make. Everyone was very civil in our discussions, each making his point, while still willing to listen with an open mind to the other. In the end, I do think we've come up with a safer field code which will serve us very well. After the county puts in additional planned fencing, we may also be able to tweak the system a little more to make everyone a little more comfortable. As of now, I give thanks to everyone for your spirit of cooperation.

Geoff Lawrence tells me the flight demonstrations at South Woodstock went very well. We had a good turn-out from the club with no safety incidents. Geoff used his camera plane to get some really great pictures of the event. I'm sorry I was out of town, but I hear the club was well represented. I'm sure we'll be invited back next year.

Mike Kinsey coordinated an informal "aerobatic" fly-in at the field March 27th. I arrived about 2:30 and the parking lot was nearly full. We had a large variation of aircraft ranging from park flyer electrics to 40% gasoline models. The wind was a little strong, but all had a great time. Thanks, also, to David Humphries for the use of his generator and hot dog cooker. David has allowed us to his cooker on several occasions, making it easier for the cook to also participate in the events.

The school air show season begins Friday, April 2nd, at Crawfordville Elementary. We'll perform 2 separate 45-minute shows for the kids. This will be their send-off into Spring Break, so we should be well received by the crowd. As of now, we have Geoff Lawrence, John Hall, Bill Atkinson, Frank Bastos, and myself included in the show. If you are able to fly safely in a football field setting, and would like to be included in the events, let me know. Even if you choose not to fly in the events, you could still help out with flight line control at the events.

Finally, Fred Schmidt has arranged for another float fly-in at Lake Monkey Business. The event will be April 24th, in conjunction with the annual youth fishing tournament on the lake. We will fly electrics from the bank of the lake until noon. After that, we will be able to fly larger planes and move to our previous location on the dock at the "point" of the peninsula. That's a great location from which to fly both the electrics and glow powered planes. Sailboats will also be welcome, but we'll try and coordinate activity locations a little better than last time.

Have a great month!

Michael Atkinson- President, Seminole RC Club

Chief Copilot- Mike Kinsey

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".

April

- 1- Monthly Meeting- 7:00 at the Field
- 2- Crawfordville Elementary 12:30 and 1:30- Flight Demo

- 10- HobbyTown Fun Fly & Swap Meet
- 20- Shadeville Elementary 1:00, 2:00- Flight Demo
- 24- Float Fly- Lake Monkey Business
- 30- Medart Elementary 1:00, 2:00- Flight Demo

May

- 6- Monthly Meeting- 7:00 Field
- 11- Riversink Elementary 12:45, 1:45- Flight Demo
- 15- Airfest- Quincy Airport http://eaa445.org/flyin/
- 22- Flying for a Cure Fly-In

June

- 12- Warbird Fly-In
- 16- Aviation Camp 12:00- 2:30

July

-

August

- 11- Aviation Camp 12:00- 2:30

September

- 25- Club Fly-In

October

- 9- Field Closed for Runners
- 16- Float Fly

November

- 20- Toys for Tots

December

- 4- Field Closed for Runners

Chief Treasurer- Theo Titus

Editor's Note: The Treasurer's report is published for Members only. The public version of the Newsletter does not include account balances.

Since there was no report for the March newsletter, the information in this month's report includes some transactions during late February. The bottom line is that we have adequate money to make it to dues time this year if we don't have any sudden, unexpected expenses.

We have received the payment from Frank for the old lawn tractor. We have renewed our AMA charter and also our corporate charter with the State of Florida. Payment was made for insurance for the new mower and for some outstanding expenses incurred for the old mower before selling it. Our only ongoing expense is the porta-potty at $66 per month. I anticipate some field maintenance costs will crop up during the early spring period here so we will have to deal with them.

I want to welcome our new members this month. Please introduce yourself if you see them at the field or at a meeting.

New members are; Wences Troncoso, Jim Slack, Thomas Dusek, Craig Zody, Ernie Duarte, Joda Lynn, and Richard and Nathan Benfield.

Seminole RC Club
Treasurer's Report

Period Ending	28-Mar-2010
Checking Accounts	
Capital City Bank	0.00
Premier Bank	0.00
Savings Accounts	
Capital City Savings	0.00
Premier Bank CD	0.00
PayPal Account	0.00
Funds for Deposit	0.00
Petty Cash	0.00
Total	0.00
Checks Outstanding	0.00
Net Funds Available	0.00

Income		**Expenses**	
Dues / New Memberships	0.00	Plaques and Awards	0.00
Activities / Fly-ins	0.00	Field Maintenance	
Sales (Hats-shirts-etc)	0.00	Repairs and Supplies	0.00
Contributions and Donations	0.00	Miscellaneous Expenses	0.00
Interest on Savings		(Charter-Mower Insurance)	
Interest on Checking		Bank Charges	0.00
Miscellaneous	0.00		
Total Income for Period	0.00	**Total Expenses for Period**	0.00

See you all at the meeting this Thursday.

Chief Scribe- Geoff Lawrence

I would like to thank those members that participated in the SouthWoodstock Air Show:
Rick Sunderlin, Mike Levine, Jeff Owens, John Hall, Chris Smith, and Loran Legacy. A great time was had by all. Thanks guys!

Meeting Minutes- March

The March meeting was called to order at 7:07 pm on Thursday, March 4, 2010. Welcome new members Nathan and Richard Benfield.

Geoff Lawrence stated the minutes of the February, 2010 meeting were posted in the current newsletter. A motion was made to accept the minutes, seconded and passed.

Theo Titus read the treasurers report. Theo reported he found the old Club account to be out of date and converted it from a Personal Savings account to a Business Checking account with free checking and updated the Club contacts. Motion to accept the treasurer's report was made, seconded and passed.

Old Business:

- Mike Atkinson reported no update on the status of the field fencing. The County is waiting for the fence contractor to get started.
- Mike A. reported the County informed him NCAA/FSU will not be putting in power to the Cross Country Track. We will revisit the solar panel installation after the July dues renewal.
- After discussion, the Warbird Fly-In was rescheduled to June 12.
- Mike A. reported the new John Deere riding lawn mower is in the container and mows very well.
- Frank Bastos reported we are awaiting an April date from MaClay School to schedule an indoor Fly In.
- Mike A. stated he sent out a series of emails in regards to the proposed Safety Rule changes. The following points were discussed:
  1.Changing field rule to allow five aircraft (in addition to the helipad) in the flight pattern during Club events whenever a registered contest director (CD) deems it appropriate. A motion was made to accept this change, seconded, and passed.
  2. A motion was made to accept the revised rules as sent out by Mike A., seconded, and passed.
  3. A motion was made to strike "and rotary" aircraft from the requirement all fixed wing and rotary aircraft engines, both wet fuel and electric, be started at the flight line. After much input from the floor on the pros and cons of starting helicopters in the shed, the motion was seconded and passed to allow helicopter starting in the shed.
- Mike A. suggested we keep in mind two overriding rules: 1) be courteous, 2) don't do anything stupid.
- The new Park Flyer membership category was discussed. We need a volunteer to coordinate Park Flyer flying at the field. Frank Bastos will download Park Flyer information and have it available at HobbyTown Tallahassee.
- Jeff Owens presented the Seminole RC AMA Gold Status Leader Club letter from the AMA. We also received a plaque to be displayed in the field shed and another plaque recognizing our Club's commitment to the hobby and outreach to the community to be displayed at HobbyTown Tallahassee. Each club member will also receive an AMA Leader Club pin.
- Geoff Lawrence reminded members of the invitation to fly at the upcoming SouthWoodstock Music and Arts Festival on March 20.

New Business:

- Mike A. reported on plans with Kim Stansell of the Tallahassee Museum Aviation Camp to host the camp at our field on June 16 and August 11. On both dates, at 11am we will hold a ground school, at 12pm perform an air show, and from 1 to 2:30pm we will fly the kids on the club trainers with buddy-boxes.
- Fred Schmidt stated he is working on setting up a Float Fly In again at Lake Monkey Business and will try for two events over the summer.
- Gordy Meade stated AMA Television had an excellent interview with famed aviation pioneer and modeler Burt Rutan.

Raffle drawings were held, three hats and two coffee mugs were handed out.
The AMA Leader Club pins were distributed.

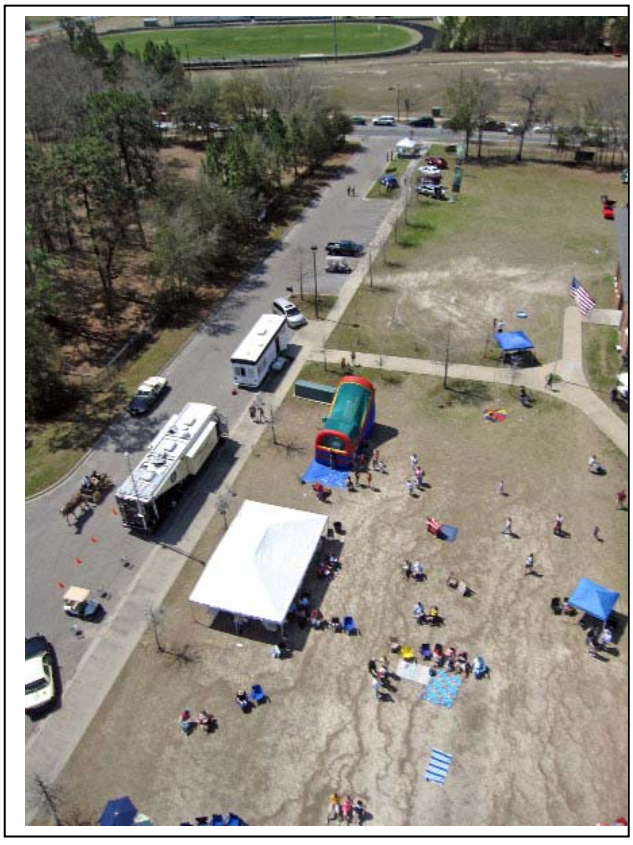
Reminder: The April meeting to be held at the field.

With no more announcements and no more business, the motion was made, seconded and passed to adjourn at 8:03pm.

SPECIAL THANKS TO FRANK BASTOS AND HOBBYTOWN FOR USE OF THE FACILITIES AND TO MIKE KINSEY FOR COOKING.

SouthWoodstock March 20, 2010

Photos by Geoff Lawrence



RC Jets - The Ultimate radio control Rush

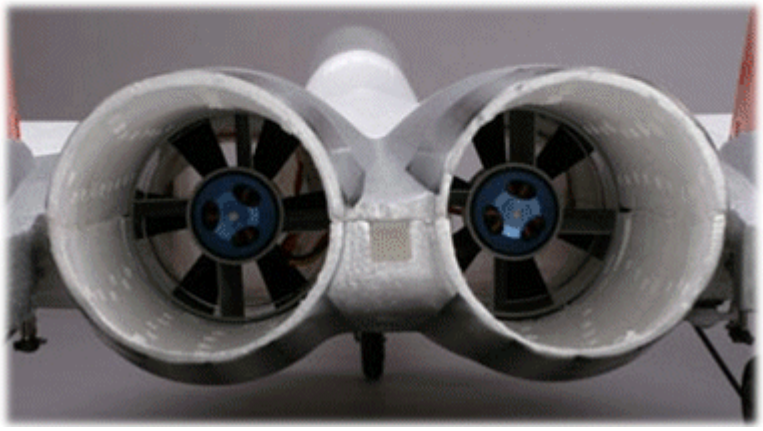
RC **jets**, whether gas (IC) or electric powered, are the ultimate radio control flying experience if you're looking to fill that ***need for speed*!**

However, larger scale gas turbine jets are, unsurprisingly, *not* for the beginner! They are very serious model aircraft that you have to work up to after gaining much rc flying experience, and an equally large amount of cash.

But if you do like the idea of flying a radio control jet, then you have options available; the basic “entry level” models. These jets are still fast because of their inherent design, but they've been designed to fly slower and be more stable than their larger cousins.

Electric Ducted Fan jets

The best introduction to flying true rc jets are the **electric ducted fan** (EDF) models. A ducted fan is a small but powerful unit (*shown right*) that houses a multi-bladed propeller, called an **impeller**, spinning at *very* high RPM (revs/minute). Because the impeller spins so fast, and all the air taken in by the impeller is forced through the small funnel-shaped unit, ducted fans generate a *lot* of thrust for their size, hence the faster flying speed of the model.



There aren't too many Ready To Fly quality EDFs on the market at the current time but a nice example of one due for release December 2009 (although not quite RTF) is the **ParkZone Habu EDF**, shown below:

Offered in PNP and BNF (*Plug-N-Play* and *Bind-N-Fly* respectively) versions, the Habu certainly fills a gap in the current EDF market. while for an ARF (Almost Ready To Fly) example of an EDF, there is the **E-flite F-15 Eagle**, pictured below...
The F-15 Eagle is a very popular scale subject for rc jet fans, and this example is a nice introduction.

Of course, jets like these aren't suitable as first-time radio control aircraft, but if you've already had some experience flying faster rc airplanes such as the ParkZone F27C Stryker, for example, then you'll already have gained good reaction times and flying an rc jet like an F-15 shouldn't pose too much of a problem.

Gas turbine jets

These represent the pinnacle of radio control flying but, as mentioned earlier, an rc jet that is powered by a true model gas turbine, such as the F14 Tomcat in the following video, is **definitely** best left alone until you have:

1] lots of confidence...
2] endless hours of rc flying experience and...
3] more importantly, **lots** of money!!

Even a smaller size model turbine unit can cost over a thousand dollars, and that's *before* you've purchased the jet and radio gear! So a twin engine model, like the Tomcat in the video, is going to cost you a good few month's salary!

RC gas turbine jets are, however, the ultimate in radio control flying. Large scale jets look and sound amazingly realistic in the air, and a properly built scale model is very impressive to watch in action.
If you ever get a chance to see some of these on display, then do. RC club events that feature such aircraft are becoming more and more common, and it's worth trying to locate one if you can.

RC jets on a simulator


BAe Hawk Red Arrow

There is, of course, a cheaper option if you want to try your hand at flying proper gas turbine powered rc jets...

The very realistic **Phoenix** RC flight simulator offers a few turbine models for your flying pleasure!
The options that come with the standard package are a turbine powered *Hawk* and an *F-16*. The realism of the Phoenix sim is incredible and on a modern, fast computer the experience of flying these scale gas turbine jets is quite exhilarating!

One advantage rc jets have - whether virtual or real - is that they are not adversely affected by wind like many rc airplanes are, due to the higher airspeeds and smoother aerodynamics. This is a big plus when you're flying, although obviously every model has its own limitations and flight characteristics.
A downside is that because of this speed, they need **extra airspace**; a faster flying model requires much more space for turns and aerobatic maneuvers than a slower flying propeller airplane, and you need to remember this when flying one. This consequently brings in the problem of your jet being flown at a distance where it's not always easy to see exactly what it's doing, and that in turn brings the serious risk of disorientation - a proven killer of rc aircraft!

But flying any type of rc jet is always an adrenalin-filled experience, and with radio control and electronic technology forever improving and reducing in cost, more and more rc jets will become available for the lesser-experienced amongst us!

Propeller-powered RC jets

There is an alternative if flying an EDF or gas turbine jet is out of reach. Model jets with a normal 2 stroke glow plug engine or an electric brushless motor are an option, and many of these are flown by novice and intermediate pilots.
Admittedly, the look and sound aren't truly realistic, but the all-important flight characteristics often resemble a jet more than an airplane.

One 'entry-level' example, actually marketed as a gas trainer, is the *Hanger 9 F-22 Raptor* PTS Trainer, shown below...

This package deal actually comes with the FS One rc flight simulator, and the F-22 is RTF, supplied with the trusted *Evolution* engine and *JR* radio system.

So, you can see that there are varies options available to you for flying rc jets. The Hanger 9 Raptor clearly isn't the classic, high wing slow flying trainer but obviously it's been designed and built to be as flyer-friendly as possible. A model like this makes an excellent stop-gap between normal rc airplanes and jets, if you prefer to work your way up to jets without jumping in at the deep end!

Why does one RC Airplane Flies Better than Another?

…….By looking at **two good indicators of the flying characteristics** of a model rc airplane: the **"wing loading"** and the **"power loading"**. Each of these is easy to determine using just a pocket calculator and by reading the rc airplane's specifications listed in the ad or on the side of box. Once you get the "hang" of it, you'll be able to estimate it in your head. I promise!

Wing loading
is the weight of the electric powered rc airplanes in **ounces per square foot of wing area**. So using the wing area listed on the box, say it's 314 square inches, divide that by 144 (1 square foot = 144 square inches) to get **2.18 square feet**. Then, take the weight number from the box or ad, let's say it's 19 ounces (including battery, radio, motor - everything) divide 19 ounces by the 2.18 square feet and you would get **8.7 ounces per square foot of wing area**.
As a guide, for model rc airplanes, if the wing loading is **under 10 ounces per square foot**, they will be suitable for the slow flying, gentle handling that you need in arf electric rc airplanes used as basic trainers. From **10 to 20 ounces per square foot will include intermediate trainers**, flying a little faster, having more power and being a little more demanding in terms of needing a bit more speed for landing and taking off. **Above 25 ounces/sq. foot you begin to find the warbirds, military scale-type models**, many of which fly wonderfully, but at the same time are not forgiving of letting the speed get too low while close to the ground. You need to be careful **"lest the ground rise up and smite thee"**! Learn to Fly a Model RC Airplane

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Power loading
for rc electric models is **watts of power output per pound of total airplane weight**. Just take the battery and motor description - let's say the box says it is a **7-cell, 600Ma battery with a carbon brushed motor**. The battery can deliver (for a short time) **7 cells @1.2 volts x 600 milliamps (600 milliamps =0.6 amps)**. So we **just multiply 7 x 1.2 = 8.4 volts x 0.6 amps = 5 watts**. Since a brushed motor is at best only **50% or less efficient**, that's **2.5 watts of power at the propeller**! If the complete model rc airplane weighs 16 ounces (I pound) then the power loading would be **2.5 watts per pound**.
A rule of thumb is that a sport-type, **advanced aerobatic trainer needs about 50 watts per pound** and that **10-20 watts per pound is about right for intermediate** arf electric rc airplanes. You can see that the performance of our sample airplane above is going to be **very** sedate! Just **exactly what you want** when you're first learning! So as you probably guessed, with rc electric aircraft better performance comes with more battery capacity, less weight, and more efficient motors.

Example
So let's take a look at **a typical recently tested basic trainer-type** rc electric airplane. **Wing area = 367**

square inches, weight = 24 ounces (as tested) , **brushed 400-size motor**, and **battery 7 x 1000 NiMH**. Ok, doing the numbers: **367/144= 2.54 square feet**, divided into 24 ounces = **9.4 ounces/ square foot**; wing loading right on target! Power; 7 x 1.2 x 1000 (that's 1 amp, right?) = 8.4 watts divided by 1.5 pounds (24 ounces = 1.5 pounds) will give us a **power loading of 5.6 watts per pound**, times the **50% efficiency** of the motor, or **2.8 watts per pound**.

As we expected from our number crunching, the tester **found this arf electric rc airplane to fly quite well**: very gentle handling and with **nice slow landings and takeoffs**. A nice model rc airplane to have!

TIP: How about when you **don't** have the specs, and are just looking at the model rc airplane at a **swap meet or auction**? Just remember to **"lose weight and add lightness"**. For any model rc airplane, but particularly for electric powered rc airplanes, **lighter is better**! If it feels like a **"lead sled", it will undoubtedly fly like one**!

What's Next? Jeff Owens

Congratulations! You've soloed your first plane and have advanced to the point that your takeoffs and landings are no longer knee-knocking brushes with disaster and you are beginning to think that you might start to actually enjoy them some day. So, in the momentary calm between flights you start to ponder what comes next. You know that you want to improve your flying skills, but you just aren't sure what to do. Relax. We've all been there. A good goal for your next level of progress is to learn to reliably control the model in all aspects of flight. And a time-tested way to do this is to learn to fly aerobatic maneuvers. Now, such maneuvers come in a variety of flavors – pattern, scale aerobatics (IMAC), and 3D maneuvers to name a few. But they all have elements in common. And all of them will teach you the skills needed to have better control of your aircraft.

After I had flown my full scale Cessna 182 for a few years I had the opportunity to take a course in "upset training" at an aerobatic school. The basic idea was to learn how to control an airplane in various configurations so that you would better recognize an approaching stall, could recover from a spin, could return to upright level flight after a wake turbulence encounter, etc. I learned to fly a CAP-10B through loops, inverted flight, spins, rolls, hammerhead stalls, and more. That training gave me more confidence in my flying skills – and it was fun, too! The same principle applies to model aircraft. The more you know about recovering from unusual attitudes, the more likely you will be to have the model survive an upset from an unexpected wind gust, for example.

My plan is to outline some tips for flying various basic maneuvers in a series of articles. For this month we'll look at what makes up aerobatic maneuvers and then I'll cover some techniques for learning how to do a loop.

Aerobatic maneuvers can be broken down into segments consisting of loops or parts of loops, rolls or parts of rolls, and straight lines. Add to this that one or more surfaces of the aircraft can be stalled and you can turn a roll into a snap roll, or into a spin if it is done in the vertical direction. Even 3D maneuvers can be treated this way. Count Jose Louis Aresti, a Spanish aerobatic pilot, developed a concise notation for aerobatic maneuvers based on this concept. Each maneuver was broken into its component looping, rolling, and straight-line segments and special symbols were developed for each part. This made it easy to devise new maneuvers and to sketch whole routines in a compact way that could be taped on the instrument panel for easy reference. So, basically, your task is to practice these elements in various combinations. It's not so hard when you look at it that way!

Rule number one for success is that the pilot should always be ahead of the airplane. You need to be in control of the aircraft, not reacting to what it just did. That means that it is a good idea to have a plan for each flight. This doesn't have to be a detailed maneuver-by-maneuver description, but it sure helps if you think about what you are about to do before you start. There are lots of piles of balsa and monokote that could have been saved by some simple preflight planning. This goes for both full scale and model flying!

So let's start with the loop. First, let's define our terms. We want the loop to be a maneuver where the aircraft follows a circular path that is oriented vertically with respect to the ground. The path should be perfectly symmetric and the aircraft should emerge headed in the same direction as it entered the maneuver and at the same altitude. We wan to be precise here, because that is how you improve your ability to control the aircraft. It helps to think of the loop as consisting of four one-quarter loops, each of which should be

identical in curvature. It also helps to picture a clock superimposed on the loop with 12 o'clock at the top and 6 o'clock at the bottom.

OK – enter the loop at your predetermined starting point by smoothly applying some up elevator. Your throttle should be at or near full power depending on your particular aircraft. As the plane comes up through the 9 o'clock position the nose should be vertical. As the aircraft passes the 10'oclock position you should start to relax some of the up elevator. This is necessary in order to keep the loop from tightening up as gravity starts to pull the nose over. If you don't relax the elevator, the loop will be pinched at the top and the maneuver will become taller than it is wide. Ideally, as the aircraft passes the 12 o'clock position it should be parallel to the ground and inverted. As the plane continues through the 2 o'clock position it is time to ease back on the throttle and to start increasing the amount of up elevator again. If done correctly, the plane will be vertical as it passes the 3 o'clock position. Finally, round out the last quarter of the loop using the appropriate amount of up elevator to bring the plane out level at the starting altitude. During this entire maneuver the wings should not have rolled at all. If some roll input is given you will find that the plane will not track properly and the loop will wander out or in depending on the amount of roll input. Later, you will learn how to do this and also how to add rudder input when flying in a cross wind. But for now, don't put in any roll input.

It is interesting to compare this description with what happens in a full scale Cap-10 or a Decathlon (both have 200 hp Lycoming engines). You enter the loop at around 120 kts and pull enough up elevator to give an immediate 3 to 3.5 g's. As you go past the 10 o'clock position you relax some up elevator but not too much. If you go over the top too slowly you can enter an inverted spin. The Decathlon's fabric wings help here. As you go inverted the fabric on the bottom will start to vibrate if you are approaching a stall – pull some more up elevator as you are inverted and you need to tighten up the loop to keep your speed up. Over the top you feel essentially zero g and then you start to pull more up elevator as you pass the 2 o'clock position. Pull back on the power to avoid over revving the engine and pull another 3 to 3.5 g's on the exit. Altogether it is very similar to what I described for the model aircraft except that you are inside and you get to feel the g's. It's cool!

That's it for this month. Next time I'll discuss some rolling maneuvers. Jeff

HobbyTown Corner by Jim Ogorek (SRCC Safety Officer)

Safety Note: I have been in contact with JR and Spectrum, regarding the use of LIPO batteries in the Transmitter. Both have stated that using LIPO batteries will void their warranty.

Spring has finally arrived and we can get out and fly. This month I would like to show all of you two new items now carried at HobbyTown -- things we all should have in our flight box.

Most of us are good at tuning our wet engines by ear, and of course, the electric guys really don't need to tune. But a tachometer is still recommended as the best way to "tune" your engine, wet or electric. Now, the "E" fliers are thinking, "What is he talking about?" In the past few weeks I have had customers ask about using different props and battery combinations and how they affect performance. The answer: tach it and see what RPM you are now turning along with how long the charge lasts and how much heat is generated. For the wet guys, if you peak out and are running lean, you are "cooking" your engine and are doomed to low life expectancy. You need to tach your engine, peak RPM and then back off a couple of clicks.

G.T. Power Rc has come out with their "Profession Tachometer." It's capable of measuring two to nine bladed props, memorizing peak RPM data and reading RPM values up to 99,999 per minute. This compact unit has a sharp backlit LED screen and auto shutoff after one minute of no signal. A removable 220mah lithium battery powers the unit, which is included.

The other item we all should have is a good voltage meter. Can't tell the power left in the pack without one. Again, GT Power has brought out their handheld Li-Polymer and Li-Fe battery balancer. Designed with the electric flier in mind, this unit can measure, balance and discharge your battery packs to safe storage levels. The balance function can be done before, after and even during battery charging. This unit can read up to six-cell batteries and has built-in balance ports for three to seven pin plug configurations.

For additional information and to see both of these units, stop in and have a look. We at Hobbytown are always willing to assist you with your RC needs.

Seminole Radio Control Club
Tallahassee, FL

AMA Charter #216, 1969-2010

SRCC Officers
President – **Mike Atkinson**
Vice President – **Mike Kinsey**
Secretary – **Geoff Lawrence**
Newsletter Editor – **Stephen Warmath**
Treasurer – **Theo Titus**
Field Safety Officer- **Jim Ogorek**

Field Hours
Electrics/ Sailplanes- 9:00 am till dusk.
Gassers and Nitro- 12 Noon till dusk.

Training Notes
To schedule a training time contact Mike Atkinson.

Flight Instructors

Mike Atkinson- Primary/ Advanced Fight Instructor (Coordinator)	926-4692
Geoff Lawrence- Primary/ Advanced Fight Instructor	942-9807
John Hall- Primary/ Advanced Helicopter Flight Instructor	893-6457
Jeff Owens- Ground School/ Airworthiness Instructor (Fixed Wing)	894-2504
Frank Bastos- Hobby Town Flight Demonstrator	671-2030
Jim Ogorek- Primary/ Advanced Fight Instructor	766-2477

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. Vector art accepted in Corel, Illustrator and AUTOCAD format. We will, however, accept anything to make it easier for those who wish to contribute. Submissions are due no later than the 28 th of the month. Send your submissions to Stephen Warmath sswarmath@comcast.net