The Seminole Flyer

www.seminolerc.com

SEMINOLE RADIO CONTROL CLUB TALLAHASSEE, FL

A chartered member of the Academy of Model Aeronautics
AMA Charter #216, 1969-2010

AMA SINCE 1936

"The Seminole Flyer" is a publication of the Seminole Radio Control Club of Tallahassee, Florida

AUGUST 2010

Geoff & Mike Demo at FSU Engineering Camp.

< Seawind at Lake Monkey Business Float Fly.

INDEX

Letter from the Editor- Stephen Warmath

It seems like I say it again and again this time of year, but dang it, it's **hot!** Fans in the garage just blow more hot air on me and it just doesn't help. It's hard to enjoy the Zen of a new bird build when it's so uncomfortable in the man cave. Don't forget to stay cool at the field with water hydration and maybe a wet towel on the neck.

Ever screw up a Dean's connector trying solder on the wires or hook one up with the polarity reversed? **"Deans Connectors"** provides some tips to make life a bit simpler for using these connectors. **"Aviation Wisdom"** provides a bit of humor about flying the full scale birds. **"Covering Techniques"** is included this month as a quickie refresher on plastic heat-shrink applications. There are flyers, builders, and builder-flyers. I'm a 60-40 builder-flyer. Building is good therapy for me and I've always loved building scale models. If you are a builder at heart and do nothing but ARFs, your hangar is going to fill up quickly. Although I enjoy ARF's for a quick fix now and then, it is the long, work-it-out, thought provoking builds that really give me the most pleasure and therapy. To that end, next month I will include Part I of a two part series on building Alien Aircraft's Cessna 310B (Left)

It is a beautiful little twin electric that really caught my eye and is currently "on the bench". **Part I** will be basic construction; **Part II** will be finishing and motor/ electronics installation. If you want to get a head start on the details of the build, go to their web site www.alienaircraft.com and download the instruction manual to see how the excellent laser cut kit goes together and see how Part I was completed with some tips on minor changes/ enhancements I made along the way.

Safe and Happy Flying- Steve

Chief Pilot- Mike Atkinson

Greetings to all! Let me start by offering a huge "THANK YOU!!!" to all those who have helped with coordination of the pending electricity at the field, especially Jim Ogorek (communication with Talquin), as well as Bill Rogers and Joe Satterwhite (electrical engineering expertise). As of this report, we have a quote from Talquin and a quote from the electrical contractor. We are waiting on a second quote for a little different layout from Talquin to give us an alternative, and possibly less expensive, option. We are looking at installing 12 different sets of outlets at various points around the flying site, with a lockable master cutoff next to the storage container. Jim and I will be meeting with Pat Plocek (director of Parks and Recreation) and Ken Graves (Talquin Electric) on Tuesday for final logistical review. The club officers will put together a finalized proposal for review, discussion, and approval at the next meeting.

I received a very interesting offer from the distributors of Loft-N-Lok. Here's the proposal: Member discount price of $54.99 ea. w/free shipping anywhere in the US, when the members use our club's promo code. This is a total savings of more than $24.00 off the MSRP. As a non-profit, they are also offering the club a contribution of $5.00 per unit sold. Sales will be tracked by the clubs specific promo code. I purchased one at that price for my dad's birthday and was very pleased. In addition, they also donated one to the club for raffle prize at our next meeting. Tickets will be $5 each at the meeting. We should have a great turn-out, so ticket sales should be good. Here's a link to their website. http://www.pdysystems.com The club's promo code is **gen580w**. The discounted price will expire on August 20th. Afterward, Frank will be carrying the product at Hobbytown USA.

On July 13th, the club hosted the FSU Engineering School Summer High School Campers for an afternoon of aerodynamic education and experience. After a brief, but enlightening, ground school by Jeff Owens, they were treated to a series of flight demonstrations, followed by a chance to fly the club trainers via the buddy box. Despite the initial rain, followed by the heat and humidity, everyone had a great time! Here's a link to some pictures of the event: http://fileserver.fmrl.fsu.edu/SRCC/

On another note, keys to the storage container will be distributed to several additional members who are frequently at the field. These are "do not duplicate" keys, so that we can keep a master list of everyone who has a key. If anything ever shows up missing from the storage container, both our insurance company and the Leon County Sheriff's Office will want a list of all key holders.

Finally, we are scheduled to host our last summer camp for the Tallahassee Museum August 11th. We'll have a brief ground school starting at 11:00. We'll have open flying and special demonstrations while the kids eat lunch. Buddy box flights will begin around 1:00. There will be around 10-15 campers, so there should be plenty of time for open flying.

Happy Flying! See you at the meeting,
Michael Atkinson

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".

August

- 5- Monthly Meeting at the Field 7:00
- 11- Aviation Camp 11:00- 2:30

September

- 2- Monthly Meeting at the Field 7:00
- 25- Club Fly-In

October

- 7- Monthly Meeting at the Field 7:00
- 9- Field Closed for Runners
- 16- Float Fly

November

- 4- Monthly Meeting at HobbyTown 7:00
- 20- Toys for Tots

December

- 2- Monthly Meeting at HobbyTown 7:00
- 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.

Seminole RC Club
Treasurer's Report

Period Ending	July 31, 2010
Checking Accounts	
Capital City Bank	
Premier Bank	
Savings Accounts	
Capital City Savings	
Premier Bank CD	
PayPal Account	
Funds for Deposit	
Petty Cash	
Total	
Checks Outstanding	

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

Chief Scribe- Geoff Lawrence

The July meeting was called to order at 7:04 pm on Thursday, July 1, 2010 by President Mike Atkinson. Welcome new member Tim Horchler from Thomasville, Georgia.

Theo Titus read the treasurers report. Theo reminded the Club that dues are up for renewal today, July 1. Motion to accept the treasurer's report was made, seconded and passed.

Geoff Lawrence stated the minutes of the June, 2010 meeting were posted in the current newsletter. With no questions or corrections a motion to accept the minutes was made, seconded and passed.

Old Business:

- Theo stated because PayPal has classified the Club as a business and requires an unacceptable number of business documents. They have locked the Club account and he is unable to accept dues via PayPal this year. Theo has created a new form for dues renewal so he may update all required member data. Dues may be paid by check, in person, or by mail to himself, Frank Bastos at HobbyTown, or any Club officer at the field. Theo has also created a new form for Club expense reimbursement that will make the Treasurer's job easier and more accurate. Club members are encouraged to download the form and attach receipts to it.
- Mike Atkinson reported the work order has been issued for the County to repair our fence where the wooden shed burned.
- The need for a replacement shed was discussed to house an inflatable boat and boots for aircraft retrieval. Wood versus metal sheds were discussed but the issue was tabled until the next meeting to preserve our budget for the possible electrical power installation.

New Business:

- Phil Kreth, graduate student with FSU School of Engineering, presented a request for the Club to perform a flying demonstration and fly the Aerospace Engineering Camp high school students on the Club trainers. These are twenty of the top high school science and math students in the state of Florida and the Club responded positively to the request. To be held Tuesday, July 13, 4:30pm.

- Bob Burke suggested the Club acquire three new outdoor chairs to replace those burned in the fire. Mike A. will handle.
- Jim Ogorek reminded the Club to be aware of vehicle security at the field when the Club holds public events.
- Mike A. spoke of the need for electrical power at the field, either 1) a solar system, 2) a generator, or 3) Talquin Electric AC power. Jim Ogorek is working with Talquin and has determined the sequence of events needed. We must first get our neighbors permission to attach to their power pole, obtain options and prices from Talquin Electric, then seek approval from the County. Jim Ogorek will work with the neighbors and Talquin and Mike A. states the County has informally pre-approved our request. By the next meeting we should have more details and price estimates.
- Gordy Meade discussed a solar installation at the Nashville, Tennessee field that met their electrical needs completely. Gordy suggested we pursue a solar solution in parallel to our AC power efforts.
- Jeff Owens expressed concern about security of any power installation we implement. He suggested at minimum a combination lock on the electrical breaker box.
- David Humpreys expressed interest in selling the large stainless steel commercial hot dog cooker he has kept at the field and he wanted the Club to have first dibs. It cost over $1000 new. A motion was made to purchase the cooker for $270, seconded, and passed.

Announcements:

Mike A. mentioned we are half through the current year and asked to Club to be thinking in advance of nominations for a slate of officers for next year. Nominations will be taken at the October meeting.

With no more announcements and no more business, the motion was made, seconded and passed to adjourn at 7:50 pm.

Deans Connectors *by Phil Laperriere*

As I continue to discover more and more about the mysteries of electric flight, I'm never surprised when something that I initially think is a big problem turns out to have a simple solution once I understand the nuts and bolts about it. I'd like to share one of my latest learning's that supports this truth.

I've always been very mechanical and understood mechanical things. I also have always had a great deal of confidence about using tools and getting the feel for them very quickly in order to make them work for me. That being said, I found myself getting a little rattled just using a soldering gun as I was putting together the "system" on my first electric-power project. After purchasing the motor, speed controller, and battery, I eagerly started to string things together.

I started by soldering the bullet connectors to the three wires coming off the motor. I spoke with Matt at the Prop Shop and he instructed me to fill the pocket of the bullet connector with molten solder, then plunge the wire in, holding it until the solder cooled. The first obstacle I had here was that I simply didn't have enough hands to hold the clamp while trying to melt solder into the bullet connector. I overcame this by wrapping a rubber band around the handle of a pair of needle nose pliers. I was then able to position the bullet connector with no problem for assembly to the wire. I also quickly realized I had to slide the shrink tubing as far up the wire as possible before putting the bullet connector on. There is enough heat transmitted an inch or so up the wire to shrink the shrink tube.

Now it was time to solder the Deans-style connector onto the battery leads and the speed controller. One month ago I didn't have the foggiest idea what a Deans Connector was. Now, here I am buying them at the Prop Shop and trying to tie them into my power system.

I read the instructions on the back of the pouch that the connector set came in, and the instructions told me to tin (pre-apply solder) to the wires and connectors then touch the two together, add a little heat and you should have a good bond, ready for shrink tubing right? Wrong! By the time I was able to melt the solder on the connector, the tab had melted the outside of the connector, allowing the tab to move out of position.

Also, it seemed like an extended period of time before the solder would cool enough for handling due to heat being retained in the connector body. I also found that the bond between the wire and the tab was not very strong and was easily pulled free.

After a long frustrating struggle, I was successful at getting one set of connectors soldered in place. However, when I tried to plug the two connectors together, the tabs were so far out of alignment due to the melting of the outside shell, they simply would not go together. After ruining three or four pairs of connectors, I finally stumbled upon a solution.

I found if I first plugged a set of connectors together and afterward started the tinning/soldering process. I had much better success at a well aligned connector. I also noted that the solder joint seemed to cool quickly along with the tab alignment remaining intact and showing great bond to the wire. Having the connector plugged together also gave me enough material to hold in a vise for soldering. A couple of other observations I want to point out that seem to make sense to me after going through the process of assembly are as follows:

• Lightly sand the tab where you intend to solder, giving the material an opportunity for “tooth.”

• Always assemble the female portion of the connector to the battery side. By doing this, you won’t be as likely to inadvertently short out your battery because the terminals are not exposed.

• Maintain a standard for your connectors for positive versus negative. Doing this, you’ll finally have flexibility for switching between batteries and speed controllers. Typically, Deans Connectors recommend the wide end be utilized as the positive side.

• Have an extra set of connectors available that are used only for the assembly process. This way you won’t power up the speed controller when doing assembly. Also, if you do utilize a set only for assembly, be sure to put the shrink tube over the exposed terminals to minimize the risk of a short.

• Use shrink tube over your solder joints. Shrink tubes serve two purposes. First and foremost, it acts as an insulator, minimizing the potential for a short. Second, it adds strength to the wire just behind the solder joint reducing the opportunity for wire fatigue.

Good luck and don’t let the electrics scare you. I’ve been finding that when I first started getting involved with electrics, the amount of confusing information was intimidating. Learning and understanding a piece at a time starts to add up quickly, making the process manageable. Hopefully I’ve been successful giving you a tip that will help you in your own building.

Aviation Wisdom

1. Truly superior pilots are those who use their superior judgment to avoid those situations where they might have to use their superior skills.
2. Rule One: No matter what else happens, fly the airplane.
3. Forget all that stuff about thrust and drag, lift and gravity; an airplane flies because of money.
4. The propeller is just a big fan in the front of the airplane to keep the pilot cool. Want proof? Make it stop; then watch the pilot break out into a sweat.
5. If you’re ever faced with a forced landing at night, turn on the landing lights to see the landing area. If you don’t like what you see, turn ’em back off.
6. A check ride should be like a skirt, short enough to be interesting but still long enough to cover everything.
7. Speed is life; altitude is life insurance.
8. Never let an airplane take you somewhere your brain didn’t get to five minutes earlier.
9. Don’t drop the aircraft in order to fly the microphone.

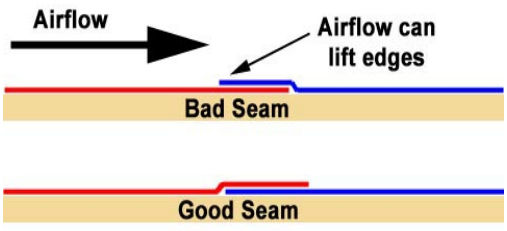
10. If you push the stick forward, the houses get bigger. If you pull the stick back, they get smaller.
11. Hovering is for pilots who love to fly but have no place to go.
12. The only time you have too much fuel is when you're on fire.
13. Flying is the second greatest thrill known to man; landing is the first!
14. You know you've landed with the wheels up when it takes full power to taxi.
15. Those who hoot with the owls by night should not fly with the eagles by day.
16. Young man, was that a landing or were we shot down?
17. Learn from the mistakes of others. You won't live long enough to make all of them yourself.
18. Fighter pilots believe in clean living. They never drink whiskey from a dirty glass.
19. Things which do you no good in aviation: Altitude above you. Runway behind you. Fuel in the fuel truck. The airspeed you don't have.
20. If God meant man to fly, He'd have given him more money.
21. Flying is not dangerous; crashing is dangerous.
22. Flying is the perfect vocation for a man who wants to feel like a boy, but not for one who still is. ✈

Covering Techniques

In this how to article we're going to talk about covering. This seems to be one of those things the sends chills up the spines of people who either have never attempted it, or have attempted it with poor results. I'm not saying that it's easy, in fact it's one of my least favorite building tasks. But while I'm not crazy about doing the covering, I love having a good looking airplane. As you read through this article feel free to click on each of the pictures to enlarge them for better viewing.

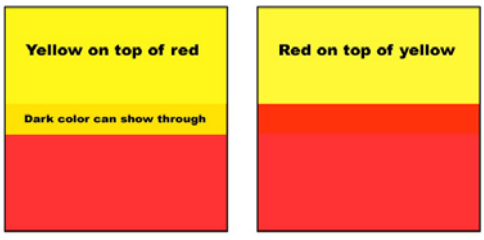
Let's start with the basics: Tools. Of course, you COULD do a covering job with a pair of scissors and a clothes iron, but here's yet another chance for your loved ones not to have to worry about what to get you for your birthday (Christmas/Chanukah/anniversary, etc.). So what do you need? I would say a straight edge, a razor blade, a covering iron, and a heat gun are all that is needed for most covering jobs. For some of the trickier jobs, you may want to invest in a trim iron as well. It's also a good idea to have a good supply of razor blades. These things get dull quickly. Sure, they're still sharp enough to slice your fingers up pretty good, but to cut a nice clean edge on a piece of covering, it needs to be SHARP!

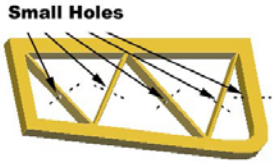
RULE #1: Whenever possible, start at the back of the plane and work your way forward. Why? Because by applying pieces starting at the back, any piece of covering that is in front of another piece will be on top of it thereby keeping the exposed edges out of the airstream where the wind can lift them.



RULE #2: Whenever possible, use darker colors on top of lighter colors.

*Note: There are times when one or both of these rules cannot be followed. Don't worry about it; just apply them when you can.



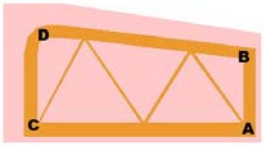


I usually start with the easiest things first; the elevators, rudder and ailerons. These are easiest because they are not attached to anything yet. (You didn't hinge them in place before they were covered did you? If you did, don't worry, they can still be covered, it will just be a little more hassle than if they were separate.)

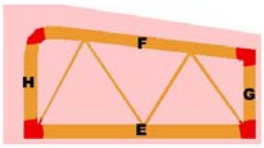
Next, prep the surface. Sand everything smooth, and wipe it all down with a tack cloth (spray adhesive on a rag works well too).

There's one more thing I like to do before I start, and that is to put a small hole in each of the cross braces, and one in the outside frame (in an inconspicuous spot). You can do this with a pin, but it's better to use a small drill bit that you can just twist through by hand. The reason for this, is that when you cover the second side, air will get trapped into each of the little pockets, and as you go over it with the iron, this air heats up and expands which inflates your covering like a balloon until it cools. This inflation can also cause the covering to lift from the structure. By putting in the holes, it gives the heated air a way out (and back in when it cools).

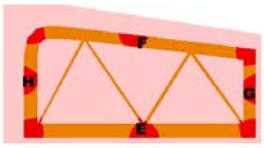
COVERING



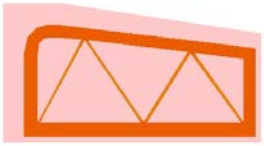
The first thing you want to do is to cut a piece of covering slightly larger than the piece to be covered. How much bigger? If you look at the Rudder in the picture to the left, you will see that the covering is just hanging over two of the edges with a few extra inches on the other two sides. The reason for this is that you will need extra covering near the curved corner which will be explained later.



Set your iron temperature to the manufacturer's specs, and tack down corner "A". Keep the iron flat against the surface, and don't wrap the edges down yet. Next, pull the covering snug at corner "B" and tack it down the same way. Next, go to corner "C". Pull it tight, but don't overdo it, You just want to pull it tight enough to smooth out most of the wrinkles. Remember, any and all wrinkles will come out later when it is shrunk. Then do the same at corner "D". You may notice that the color darkens when heated. This is normal. It will return to it's original color when it cools.

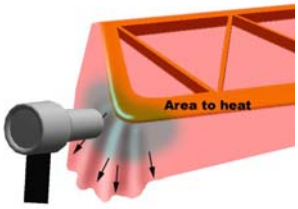


Ok, now tack the covering down at "E" and "F", keeping it taught. Then do "G" and "H". Now you can tack down the entire edge, working your iron outward from center. At this point, you could go ahead and run your iron across the structure to tack down the cross braces too, but it's really not necessary.



Outside frame completely ironed down.

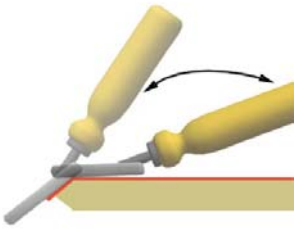
Since the round corner is in the back, we'll start there. After this one, the rest will be easy! Lay the piece flat against the corner of a table and either weight it down, or have someone hold it. Have your heat gun in one hand, and wear a glove on the other. Now, while heating the corner, pull and stretch the covering around the curve (this is where the extra material comes in handy, you need something to hold on to!) The best way to describe this is to imagine that the covering is a thin sheet of rubber that you are going to stretch over the curve.



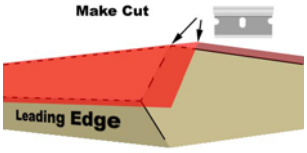
The heat will allow you to stretch the covering as well as shrink it. You only need to go just past the halfway point, as

the covering on the other side will overlap it. This is definitely a tricky operation. You must pull with enough force to stretch the covering without pulling so hard that you tear it (or getting the heat so close that you melt it).

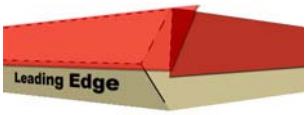
Now take a fresh razor blade, and trim the excess covering. Next, let's do the first corner. Tack down the leading edge starting in the middle and working your way to either end. Use a rolling motion moving from the center outward.



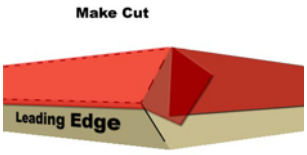
Slit the overhanging covering with a razor blade where the bend is between the surface and the LE bevel.



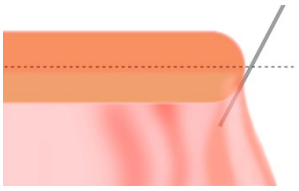
Next, iron down the side piece first, then iron down the front



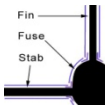
Now the front seam covers the rear seam... See Rule #1. Repeat this on the other end of the bevel.



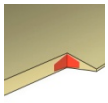
Finally, using a sharp blade, trim all excess covering just past the halfway point And finish all edges with your iron. Then go over the entire surface with your heat gun to give the covering a final shrink.



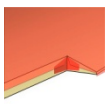
Trim covering just past halfway so the other side will overlap. Now repeat the process on the other side!



Covering the tail feathers can be made much easier simply by applying 3/8 inch strips of covering to all corners before covering.

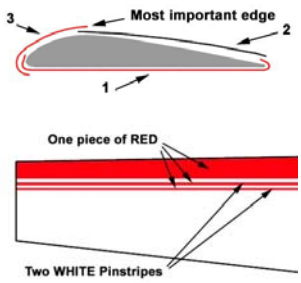


Another tricky area is an inside corner, like the aileron cutout in a wing. After the surface of the wing is covered, you must slit the covering at the corner, but now, instead of the two pieces overlapping, they will leave a gap of unprotected wood. Here I usually first apply a small piece to the corner before covering.



Now, when the edges are folded over, they will overlap the piece I applied first.

COVERING EXAMPLE



Here we have a wing with a typical Trainer color scheme.
To do this color scheme, I would first do the tips, followed by covering the bottom with red. Then I would cover the top (from the TE to the spar) with white. And finally, wrap another piece of red around the top and LE paying careful attention to keeping the seam at the top straight.

Now instead of adding a red pinstripe and trying to keep it perfectly aligned with the red edge, I would use a white pinstripe (let's say 1/8 inch) and keep it 1/8 inch from the edge.

HobbyTown USA® Toys for All Ages!

HobbyTown Corner by Jim Ogorek

Tired of flying the T-28, want something different and more exciting? Then come in and see the new Extra 300 from Parkzone. Knife-edge flight, snap rolls, aileron rolls – the Extra 300 in either PNP or BNF, can do them all with virtually no roll or pitch coupling and with the same smooth, stable slow speed performance you've come to expect from a ParkZone park flyer.

Specs

Wingspan:	40.6 in (1030mm)
Overall Length:	36.8 in (935mm)
Flying Weight:	34.5 oz (980 g)
Motor Size:	15-size 950Kv brushless outrunner
Servos:	4 installed
Trim Scheme Colors:	White with orange and purple
CG (center of gravity):	Approximately 3 in (76mm) from leading edge of wing at wing root
Prop Size:	10.5 x 9
Speed Control :	30A Pro SB Brushless ESC
Recommended Battery:	11.1V 2200mAh 25C (recommended)
Landing Gear:	Fixed main with steerable tail wheel

Still need to feel the war bird spirit then look at the new F4F Wildcat from Parkzone. This classic war bird, which found fame in the Pacific during WWII, has been created by Parkzone to help us relive the thrill of dog fighting. Scale touches include a realistic paint scheme, simulated engine cylinders and cowl flaps, molded wheels tucked into the fuselage and more. Its flight performance is equally impressive thanks to the full 4-channel control and ample power provided by its 480 brushless motor and the included 3S 1300mAh

Li-Po battery. Available in both PNP and BNF. Stop in, strap on the helmet and launch yourself in to the air flying the legendary F4F Wildcat.

Specs

Wingspan:	38.4 in (975 mm)
Overall Length:	28.7 in (730 mm)
Flying Weight:	25.4 oz (720g)
Motor Size:	480-sized 960Kv brushless outrunner (installed)
Radio:	SPM 2.4Ghz DSM2 AR500 5 channel full-range Receiver (installed) BNF only
Servos:	PKZ SV 80 sport servos (4 installed)
Trim Scheme Colors:	Light gray, navy blue, white and red
CG (center of gravity):	1-7/8 in (47mm) back from LE of wing at root, +/- 1/8 in (3mm)
Prop Size:	9 x 6 inches
Speed Control :	PKZ 18A BL ESC (installed)
Recommended Battery:	3S 11.1V 1300mAh LiPo (included)
Aileron:	Proportional
Elevator:	Proportional
Rudder:	Proportional
Throttle:	Proportional
Control Throw (Ailerons):	8mm (low rate), 11mm (high rate)
Control Throw (Elevator):	9mm (low rate), 13mm (high rate)
Control Throw (Rudder):	11mm (low rate), 14mm (high rate)
Approx. Flying Duration:	7-10 minutes
Charger:	12V DC powered 1A balancing LiPo charger (included)
Landing Gear:	No
Experience Level:	Intermediate
Recommended Environment:	Outdoor
Assembly Time:	Less than 1 Hour

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

Hard Copy Printing of the SRCC Newsletter provided by Apogee Signs & Graphics. 850-224-7446

apogee SIGNS GRAPHICS
ap·o·gee (n) - The farthest or highest point; the apex.
apogee SIGNS & GRAPICS is a division of 1 Hour Signs, Inc. ES12000314