The Seminole Flyer

www.seminolerc.com

SEMINOLE RADIO CONTROL CLUB TALLAHASSEE, FL

A chartered member of the Academy of Model Aeronautics
AMA Charter #216, 1969-2008

AMA SINCE 1936

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

JANUARY 2008

INDEX

Letter from the Editor- Stephen Warmath

I hope everyone had a great Holiday Season and received lots of goodies to play with. It's the start of another year with lots of building and flying to come. Welcome the newly elected **Officers for 2008**. Please support them and the Club this coming year in hopes it will be one of our best years yet. Shannon has sent in a **Product Review** on **FlyZone's** new "Diablo" fan jet. Looks like fun. Also this month, I thought with the waning interest in gliders among Club fliers, maybe there are a few out there that would like to give it a try but are not sure of a good way to get one in the air without having to set up a wench system, power system or find an aerotow. A **"High Start"** system you can make yourself is offered

2008 Officers (L-R) **Shannon Black**- Pres., **Chris Bailey**- V.Pres. **Steve Warmath**- Sec., **Sam Varn**- Treas.

this month. I flew gliders some years ago with a “High-Start” and they work great.
Announcement of the **2007 Club Member of the Year** will be made at the January meeting. Come out and show your support for all the work and contributions that were made by the winner. Also, appointments for **Field Marshall** and **Safety Officer** will be made. If interested in volunteering for either position, let Shannon or one of the other Officers know.

Happy Building and Flying- Steve

Chief Pilot- Shannon Black

With this being my first offering as new club president, I would like to take the time to thank everyone who has helped to make 2007 at the Seminole RC Club such a great success. We have been able to make several improvements to our flying areas, our pit stations, and to our shelter area. We have had some great turnouts at our events and the summertime meetings at the field have garnered good comments. I would like to continue to improve upon what we have, as a club, already begun. It seems as if we will be at our present location for several more years, so I encourage anyone with suggestions for improvements to bring them up at the meetings, or feel free to e-mail me with any suggestions. At a few of the recent monthly meetings, members have suggested that we attempt to establish some fun-fly events. I would also welcome any input from club members as to what you would like to see happening at our field. If you would like to see some type of event, let’s hear about it. This hobby is supposed to be fun, so if you have something that you would like to do, bring it up.

I hope that everyone has had a great Christmas and a great New Year. I’ll see you all at the meeting on Jan. 3.

Happy Flying- Shannon

Chief Copilot- Chris Bailey

The year 2007 was certainly a groundbreaking and historical year for our hobby as well as the Seminole Radio Control (SRCC), and I am excited to see what the New Year has to offer. Let’s quickly reflect on this past year. In 2007, we marveled at the future of radio control with the proliferation of spread spectrum technology; we saw many new models like the Align T-Rex 600 Nitro and 500 helicopters come out of testing and finally go into production (still no word on the Avant Aurora though); and, we got a glimpse of what we all hope are quantum leaps in battery technology with A123 cells and lithium-ion batteries using silicon nanowires. Also in 2007, SRCC airfield got a makeover and some much needed upgrades. Thanks to the leadership of our past president John Hall, the SRCC airfield received a safer and aesthetically appealing flight line and the pavilion was upgraded with SOLAR POWER!

The year 2008 appears to be bright for our hobby, and Shannon and I are looking forward to working with everyone to ensure that 2008 is another great year for SRCC!

Upcoming Club Events

January 3, 2008- Club Meeting at Grace Lutheran Church. 7:30 pm.

Upcoming AMA Regional Events

King Orange Internationsl

FL
1/18/08-1/20/08 - Starke, FL (AA) King Orange Internationals for 322, 323, 324, 325, 326(JSO). Site: Bradford Co Fairgrounds. Tommy Weedman CD, 441 Easy St Lot 5 St Augustine FL 32086 PH:904-669-2376. Flying all PAMPA classes plus Basic Stunt, Old Time Stunt, Classic Stunt and Profile Stunt. Sponsor: X47 FLYERS

Warbirds Over Paradise

FL
1/18/08-1/19/08 - Cape Coral, FL (C) Warbirds Over Paradise. Site: Sea Hawk Park. John Niezelski CD, 4334 NW 34th Terr Cape Coral FL 33993 PH:239-282-0635 email: jniezelski4334@embarqmail.com. $10 landing fee. RV park free, paved runway 60'x600' event limited to all warbirds in military paint schemes. Electric warbird time available, turbine warbirds welcome. Visit www.rseahawks.org. Sponsor: CAPE CORAL RC HAWKS

SE IMAC Season Opener

FL
1/19/08-1/20/08 - Port St Lucie, FL (AA) SE IMAC Season Opener for 411, 412, 413, 414, 415(JSO). Site: Club Field. Peter Jackson CD, 1908 Stillwind Court Orange Park FL 32003 PH:954-208-5011 email: ppajack@aol.com. Sponsor: SUNDANCERS RC CLUB

Chief Treasurer- Sam Varn

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

The only change would be to the checking account by a little less than a couple hundred dollars.

Here are our numbers:

Cash - **$0.00** Checking (CCBG) - **$0.00** Checking (Premier) - **$0.00**
CD - **$0.00** Savings - **$0.00**
Total Funds - **$0.00**

That's all folks!
Sam

Chief Scribe- Steve Warmath

The December Club meeting was called to order at approximately 7:35 pm.

Visitor/ New member Introductions- **John Saddler-** New Member
Stephen Hefti- New Member

The Treasurer's Report- Sam read off the current account amounts. Motion was made to accept the report, seconded and passed.

Old Business-

- John announced that the Killearn Lakes Community Event took place in November was pretty good. A few people showed up. There was limited flight space due to orientation of the area. There were about 6-7 sessions flown. There were a lot of kids and questions about the hobby. Overall it was a good family oriented event. It may be possible to do again next year with a better venue for flying.
- Frank Bastos noted that the Boy scouts had sent him a plaque and patches for the participants at the Float Fly / Jamboree at Lake Talquin.
- Mike Atkinson advised that the Club get dates and info together for applying for insurance for Airfest.

New Business-

- John said the lock on the gate was still a security problem and that a new type of lock was needed. The issue remains that the lock codes are not scrambled after opening the gate and the lock was showing signs of weather damage. There was a discussion about going back to a keyed lock system, a combination lock, a cipher lock and staying with the combination lock. Chris Farrell said

he could look at locks available at Home Depot. A motion was made for Chris to investigate a weather resistant push button lock. The motion was seconded and passed.

- Chris Bailey requested the Club consider a second solar power charging system. The current system was good for slow/ low amperage chargers but will not handle larger high amperage, quick charge systems. It was noted that a decision had been made by Club members to extend the current charger circuit to the end of the pavilion. Mike Atkinson suggested that a second system could be purchased for about $300.00 and put on the North end of the pavilion. It would require a heavier duty battery than what we currently have. After some discussion, Mike made a motion to duplicate the charging system we have and get a heavy-duty battery for big planes and install the charging panel circuit at the North end of the pavilion. Sam Varn cautioned we had about $-------- in available cash reserves and that we did not want to risk having to cash out CD due to a fund shortage in the future. The motion was seconded and passed. John said he would get the system and necessary components.
- Sam asked about the status of the mower repair. Frank said the new engine was in storage at the field and would be moved to someone's house, where power and tools are available, in February or March for installation.
- Jeff Owens reported on the Florida Chapter #6 Pattern Association event he attended in Apopka. There were 12 competitors including him. The event was modified to include "Senior Pattern" as well as "Ballistic" types as well. He said it was laid back and a lot of fun. Jason Shulman was there and flew some impressive routines. Club members asked if we would be interested in hosting an event and Jeff indicated yes. Basic logistics would include personnel for transmitter impound, concessions, runners, scoring, registration, etc. The Contest Director would set up judging rotations. It would normally be a two-day event. Four rounds on Saturday and two on Sunday. Pilot's meeting would be at 9:00 am and fly until about 4:30- 5:00 Saturday and end around 12:00 on Sunday. Jeff suggested we start looking at next years schedule and solicit volunteers. Frank would be the Contest Director.

Announcements- None

2008 Elections- Additional nominations for Officers were solicited. No new nominations were offered. With the slate of nominations filled with no position contested, a motion to accept the current slate of Officers was made, seconded and passed. The 2008 Club Officers are as follows:

President – **Shannon Black**
Vice President- **Chris Bailey**
Secretary - **Stephen Warmath**
Treasurer - **Sam Varn**

The new officers will assume their duties at the conclusion of the December meeting.

Member of the Year 2007- John called for nominations for Member of the Year. The members selected two members, one that withdrew in favor of the other. Vote called for and was unanimous. *(Sec. - No, I'm not telling. If you want to know, come to the next meeting when it will be announced.)*

Show and Tell- Geoff Lawrence brought in his new Hangar 9, B-25 ARF to show. Very nice. I think Frank put him up to it to wet everyone's appetite right before Christmas.

With no additional business, the meeting was adjourned at 8:40 pm.

Product Review- Flyzone Diablo Ducted Fan Jet

By- Shannon Black
President- Seminole R/C Club

http://www.flyzoneplanes.com/airplanes/hcaa28.html

Specifications:

• Wingspan: 40.25 in (1020 mm)
• Wing Area: 320 in²
• Length: 39 in (995 mm)
• Includes: Tactic 4-channel radio, receiver, servos, speed control, HyperFlow ducted fan system, ElectriFly 3S 11.1V 1500mAh LiPo battery pack, ElectriFly Balance Charger w/AC & DC adapters
• Requires: 8 “AA” alkaline batteries

PACKAGING

Upon receiving the package, I was instantly impressed with the attractive graphics and detailed descriptions of the airplane. Each of the airplane features was clearly depicted on the packaging box, so that the purchaser knows exactly what they are receiving. After examining the exterior packaging, I opened everything up. The airplane and all of its components were well packaged and well protected within the main box. Each individual part was separately bagged and taped down within the package. This prevented the wings and fuselage from sliding around within the box and receiving damage. The included transmitter was packaged in an individual box within the main package, as was the included Li-Po battery and charging equipment.
Once everything was removed from the packaging, I examined each item and was pleased to discover that the entire system was free of damage.

COMPLETENESS

As I was removing the airplane and the miscellaneous contents from the packaging, I saw that this was a very complete, Ready-To-Fly package, with the beginner RC pilot in mind. This kit included everything needed to fly the airplane, including a six channel receiver, ESC, brushed ducted fan motor and ducted fan assembly, a four channel transmitter, an 11.1v 1500 mAh Li-Polly battery, and an Electrifly balancing charger. Also included were three sets of instructions, with one each detailing the assembly steps, battery charging, and ducted fan assembly.

ASSEMBLY

To be honest, it took longer to unpack the contents of this kit than it did to assemble the airplane and make it ready to fly. Again, this is all done with the beginning pilot in mind. After removing the individual parts from their protective packaging, I followed the assembly instructions. I began by sliding the power pod onto the bottom of the fuselage. This power pod is held on by four brackets that slide into grooves within the bottom of the plane. This power pod is then locked into position with two retaining clips that are installed from the top of the fuselage. This locks the pod in place, but still allows it to be removed for service or replacement with a dual power pod. Next, I began installing the wings by inserting a carbon fiber wing tube into the fuselage. This tube is self-centering once the wings are installed, and the fit was perfect. I then slid both wings onto this tube and joined them to the fuselage sides with the included magnets (already installed). While installing the wings, I noticed that both wing tips seemed a little loose for my liking at the dihedral joint. A few drops of CA glue and these tips were bonded securely in place. As a note, this plane is entirely molded of EPP foam, which is incredibly durable, and does not need special foam-safe glues. Any standard CA glue should work. A molded EPP foam nose cone is attached to the front of the plane with a similar magnet system. This will make replacement of this nose cone very simple, should a bad landing damage it in any way. The only remaining assembly was to apply the included Velcro to the battery and to the inside of the fuselage for proper battery positioning. After everything was in place and the battery Velcro'd inside the fuselage, I checked the center of gravity (CG) and found that the plane balanced perfectly according to the instructions.

The electrical system and power plant for this airplane comes pre-assembled. Once the power pod is locked onto the fuselage, all that was needed was to plug the three color-coded bullet connectors from the motor to the ESC. I placed eight AA batteries into the transmitter, and I was ready to power everything up. As a precaution while testing the receiver and controls, I disconnected the motor wires from the ESC to prevent any accidental start-ups. I turned on the transmitter and then the receiver, by way of a slider switch on the ESC (another nice safety feature). The controls all centered, and I only needed to adjust the rudder pushrod length slightly. This is done by means of a simple thumbscrew that holds the pushrod to the

control horn. Simply turn the thumbscrew to loosen it, center the servo, center the control surface, and re-tighten the thumbscrew. Done, with no tools needed. This is a great idea for park-flyer type models. I then ensured that each surface moved in the proper direction and in accordance with inputs from the transmitter. Again, everything worked, as it should. I quickly topped off the battery, and it was time to fly.

FLIGHT

The maiden flight took place on a day with a slight wind, probably 5-10 MPH. A quick toss into the wind and the Diablo was airborne. The plane tracked very well, despite the wind. The wind did tend to bounce the plane around a bit, but didn't seem to change its direction. The plane was easy to control and showed no tendency to stall. The plane flew best at about 3/4 throttle, although it maintained flight speed at about 1/4 throttle. The glide path of the plane with throttle off was fairly shallow, and when stalled, the plane simply dropped the nose. Once power was added, the plane recovered quickly. I did find throughout the flight that the plane would not climb at a very steep angle. To gain altitude, it is best to climb at a shallow angle while circling. During the initial flight, the wind definitely affected the speed of the plane. Upwind, flight was fairly slow, while downwind the plane really sped up. I would not recommend flying this plane in much higher winds.

After about 10 minutes of flight time, it was time to land. Landing was a simple matter of reducing the throttle to about 1/4 throttle, and flying the model to the ground. Just prior to touchdown, I cut the throttle and pulled back on the elevator for a gentle flair. I found that the plane needed to touch down slightly nose high, to prevent the engine pod from digging into the ground.

On subsequent flights, I decided to test the aerobatic capabilities of this airplane. Without ailerons, rolls were not possible. I attempted to roll with the rudder following a dive, but was unable to get the plane to roll over. The plane rolls onto a wing and then begins to descend rapidly. Releasing the controls allows the plane to right itself and continue flying. The plane will loop following a short dive, but with the single motor pod, I was unable to achieve a loop following level flight. The plane will do very fun stall turns, just be sure to allow plenty of altitude for recovery. With the ducted fan unit, the plane needs a little more room to recover from the stall. I have also found that this plane is a blast to fly low and slow. Large, sweeping figure 8's just off the ground really look smooth, and I love trying to see how low I can fly them. On those inevitable occasions that I have gotten too low, the plane simply skids to a stop without damage. A quick toss, and it's back flying again.

OVERALL IMPRESSION

Overall, I would recommend this plane to anyone wanting something a little different in a Ready-To-Fly package. This plane looks great in the air, sounds really cool with the ducted fan and is simple and very easy to fly. The EPP foam construction makes the plane easy to repair, should the need arise, and doesn't require special foam glues. All of the items needed to fly are included in the package, including the radio

and charging system. This plane has been a great hit at the local field and has generated a lot of questions and response from fellow flyers. Once again, it seems that Electrifly has a hit.

Happy Flying- Shannon

Bungee Launching RC Sailplanes ("High Start")

What it does: A bungee setup allows you to fly an RC sailplane from a flat surface, such as a schoolyard or playfield. It is especially useful when learning to fly as you will get a lot of practice flying your aircraft in different orientations and in landing. As you develop skill, you can even bring your sailplane back to your hand, catching it just at the stall. A bungee will also enable you to fly from completely flat locations, for a launch will place your glider several hundred feet off of the ground. Under the right conditions you may then be able to catch a thermal (a rising torus of warm air) and climb to higher altitudes.

Aircraft requirements: You will need a tow hook on the bottom of your aircraft. It is on a line that angles forward, but mostly downward, from the center of gravity. (The inverted aircraft shown here balances on the wing spar.)

What it is: A bungee setup for launching your glider consists of a length of elastic material, about ten times that length in string, and a drag parachute, with a ring at the top of the parachute that fits in the tow hook on your glider. The elastic end is secured to a stake in the ground (or other stationary object).

How it works: The glider is attached to the drag parachute and walked back, stretching the elastic to about three and a half times its relaxed length. The model is released at a 45-degree upward angle, and considerable (but not full) up elevator is added. The pull on the tow hook is in effect, artificial gravity, which allows the aircraft to glide downward relative to the airstream while accelerating and climbing at a steep angle. Without the extra up elevator all you get is a very fast shallow climb with little gain in altitude. (Too much elevator can cause a premature release of the parachute, where you may have to quickly complete a loop to get the glider into stable flight.) As the elastic relaxes, you gradually relax the up elevator. The parachute then inflates and drags the tow ring off of the hook.

How to get it: You can purchase a kit from your hobby shop or mail order house or you can build one from scratch following the instructions below.

Building a bungee: A good elastic for our purposes is latex surgical tubing. 25 feet should be enough for most uses.

Sizing the elastic: The diameter of the tubing is determined by the model size:

For light models up to 20 ounces (560 gm), wingspans to 60 inches (1.5 meter), or light 6 foot (1.8 meter) wingspan models, use 1/4 inch outside diameter (O.D.) tubing. For 6 foot, 2 meter, and light 100 inch models 22-36 ounces, use 5/16 inch O.D. tubing. For heavy U.S. standard class (100 inch), use 1/2 inch tubing.

Care of elastic: This elastic will last longer if you store it in a cool place, keep it out of sunlight when possible, and dust it with talcum powder to keep it from sticking to itself.

You will also need a parachute. When there is tension in the line the parachute will be collapsed. As the tension decreases, the parachute inflates and performs two functions. First, it drags the ring off of the glider and second, it reduces the likelihood of the line ending up in a tangled pile.

Materials: A bungee set-up (in this case for a light two meter sailplane such as a Pussycat or Gentle Lady), consists of the following:

- **25 feet of 5/16" outside diameter latex surgical tubing.** This amber colored material can be obtained from a medical supply house. This is the stretchy rubber stuff - not the clear plastic and not the synthetic black rubber.
- **250 feet of polyester or nylon cordage.** Something a little stronger than kite string such as nylon cordage for tying boxes is suitable. Kite string is fine for light duty use (1/4" tubing).
- **Three one inch (25mm) rings.** Key rings are suitable for light duty use.
- **One eight-inch spike.** A second spike can be used as an axle for the reel instead of a dowel.
- **A large washer** with an inside diameter to fit the shank of the spike. This is to keep the ring from slipping off of the end of the spike.
- **A small, simple parachute.** You can sew one up out of polyester or nylon cloth. This should be about 12" (30 cm) diameter. If you divide up the sheet into eight triangles and use six of the triangles for gores that will be fine. A simple conical parachute is all that is needed. When you sew each seam you must include a shroud line, so the shroud lines are continuous from bottom ring to top ring.
- **A 3-inch (7.5cm) length of heavy cardboard tube.** This will form the hub of the reel. The kind of tube used as a core for a large roll of carpet is especially suitable. Do not use the lightweight kind used for wrapping paper. If you start from a square cut end, you can mark a guide line for a square cut by wrapping a piece of paper around the tube and marking it with a pencil. After cutting, finish the cut end against some coarse sandpaper on a flat surface.
- **A small round headed wood screw** (U.S. #10 or #12, 3/8" long). This will be used to hook the parachute ring when you reel up the bungee.
- **An eight-inch (200 cm) length of dowel at least 1/2 (12.5 mm) inch in diameter.** You will use this as an axle for the reel.
- **A one-inch (25mm) length of the same dowel.** You will use this to form a crank handle for the reel.
- **Two disks of plywood or hardboard** You can use regular or thin plywood(such as packing box wood) or wood hardboard composition material (such as Masonite). The size of the disk used will depend upon the size of the cardboard tube. The disks must be thick enough to support the crank handle. The diameter of the disks should be about 4" larger than the diameter of the tube.
- **Epoxy glue**
- **Three rubber bands.**

Building the reel: Using a protractor, mark the center of the disks, a guide circle so that you can accurately locate the hub, and the outer diameter of the disks. Cut out the disks.

Drill the center of each disk to form a bearing for the axle, which must rotate freely. Drill one of the disks near the edge (not too close) to form a tight fitting hole for the crank pin.

Trial fit the pieces before gluing, making sure that the disks are parallel and that you can see the guidelines for centering the hub. Epoxy the hub to each disk, being careful to align the hub. Do one disk at a time to ensure proper alignment. When you set the second disk, insert the axle and make sure that it is perpendicular to the face.

Glue in the crank pin using the epoxy. Make sure that the pin does not protrude into the inside of the reel. After the epoxy starts to set, but before it is hard, build a fillet on the outside. A little fiber material (of any kind) will allow a greater build up of material here.

Insert the screw in the middle of the hub. Leave enough protruding to accept the key ring. Soak the area around the screw with thin CA or remove the screw and put a little bit of epoxy in the hole and reinsert the screw.

Assembling the bungee: Attach each end of the elastic tubing to a key ring. The best way is to form a short loop in the elastic. Thread this loop through the ring and back over the top of the ring. Secure the free end of the tubing to the main part with a rubber band. Tie the string to one of the rings (a bowline is the best knot). Tie the other end of the string to the lower parachute ring. Put the axle in the reel, hook the parachute top ring over the screw on the reel hub and wind up all the material. This will leave the elastic end free, ready to be staked into the ground. You will also need a hammer to drive the spike

You can secure the washer to the spike with a rubber band wrapped around the spike. Use a backpack or other convenient bag to hold the loaded reel, spike, washer, axle dowel and hammer.

Deploying the bungee: The launch must be made into the wind. Your stake will be set at the upwind side of the launch area. Put the washer on the spike, the spike through the ring at the free end of the elastic tubing, and drive the spike at an angle (top away from where the glider will be). With everything laid out, pace off the relaxed length of the elastic.

Pre-launch check: Always check that you can operate your controls and that your transmitter antenna is up before you release the glider!

Stretching the elastic: After the slack is out of the system, pace off three and a half times the distance of the relaxed elastic length.

Launch: Perform your pre-launch check and release the glider at a steep angle. Pull additional up elevator to keep the speed down and the climb rate up. Ease off the up as the tension is released. You may be able to gain a little more altitude at the top if tension is still in the line by sharply pulling up to release the tow hook. This will give a little additional zoom off of the top but be prepared to push down to avoid a stall.

Seminole Radio Control Club
Tallahassee, FL

AMA Charter #216, 1969-2008

SRCC Officers
President – **Shannon Black**
Vice President – **Chris Bailey**
Secretary/ Newsletter Editor – **Stephen Warmath**
Treasurer - **Sam Varn**
Field Marshall – To be appointed at January Meeting
Field Safety Officer- To be appointed at January Meeting

Field Hours
12 Noon till Dark- These hours apply to **all** aircraft, gas **and** electric.

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
Jay Leudecke- Primary/ Advanced Helicopter Flight Instructor	508-7135
Jeff Owens- Ground School/ Airworthiness Instructor (Fixed Wing)	894-2504
Frank Bastos- Hobby Town Flight Demonstrator	671-2030

Club Meeting Location and Time

The regular club meetings are held on the first Thursday of each month at 7:30 PM at the Grace Lutheran Church on Miccosukee Rd. Head out Miccosukee Rd., cross Capital Circle NE, and the entrance will be the first one on your right. Once you park, follow the sidewalk around the left side of the building and go down the hill. We meet in a room on the first level.

Newsletter Submissions- Submissions are requested to be in M.S. Word format. 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 23rd of the month. Send your submissions to ssw@nettally.com or by phone, Steve Warmath at 509-0672.