

The Seminole Flyer

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Academy of Model
Aeronautics
AMA Charter #216, 1969-2011



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

APRIL 2011

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Letter from the Editor- Fred Schmidt

As the weather approaches those hot, high 80s – oh wait, it's here – I thought it would be good to look around for some novice guidance. Actually having now been back in the hobby for over 3 years, I find that there are still many areas of flying that I'm still a bit shaky at. So the "sage fliers" may find this month's feature article a bit basic. Then again, if you've never studied the flight characteristics of a plane as the pilot prepares to land, it may be of some interest. Thanks to Chris B. for the idea here and the pointers needed to find the information. As Chris says, the principles of flying are essentially the same regardless of the size of plane. Pay particular attention to the use of the elevator vs. throttle during landing – very interesting.

REMINDER: April is the first meeting at the field – bring your planes early and FLY!!!!

Chief Pilot- Jim Ogorek

What a great past month for flying! Sure hope all of you got out and enjoyed the weather. Got a note from my former northern fliers with a lot of envious remarks about how nice it was in Tallahassee. Of course, I did fuel the fire by telling them we are flying all year round.

Just to reiterate, our "official" opening day and first night fly was a huge success. Thanks again to all the came out and enjoyed one of the most flier-friendly days we could have asked for. The night fliers put on a great show for those who either stayed or came back to see. Tristen and Chris B. did some amazing helicopter flying. Former (and I hope returning) member Dave Mills was with us for the day flying, and at night flew his Big A-- (Posterior) Foamy. (This is a family news letter.) Logan and Fred added lights to planes they flew during the day, and then flew at night, both for the first time. They did great! There were others as well and all are to be commended for their efforts. We hope they do it again. That being said, I will try to keep the meeting short this month so those who want to can do a show-and-tell night-flying demo. I have invited Dave Mills to come and bring his BAF and fly for us.

We have some events coming up in the very near future: “Killearn Lakes Fly-In and Air Fest,” and our own “Fly-in for the Cure.” I hope that many of you will join the few that have participated in the past to make a bigger showing. As Jeff reported at the last meeting, there is activity going on about the Apalachee park facility and its potential for better usage. If the plan comes to fruition, we will be impacted. SRCC being one of the oldest club activities in the Tallahassee area is not well known. We need to be more proactive in our outreach efforts, and when the opportunity arises, get involved. This requires the support of all our members and not just a few. We all have obligations outside of SRCC, but in order for us to survive, we need to be known and involved in community activities.

I have asked Fred to insert in the newsletter potential activities and dates for involvement that you might review and consider. If you have any other ideas, bring them to the meeting and we can talk about them.

Finally, thanks to Dave Settles for supplying an OS-60 for the club trainer.

Gear down and locked, clear to land.

Jim

Chief Copilot- Jeff Owens

By all accounts the Opening Day Fly-in was a success - lots of members, lots of planes, and lots of action. The night flying portion was fun to watch – I may have to get some lights for one of my electrics. Remember that we have a static display scheduled for May 14 at the Quincy Airport as part of the EAA Fly-in. We also have been invited to put on a night flying exhibition on Friday night. There will be a BBQ dinner starting at 6:00 for \$12 per plate with the night flying starting afterwards as soon as it gets dark enough. If you want to come for the dinner, please let me know, as the EAA Chapter needs a head count. Also, don't forget the “Flying for a Cure” the following weekend, May 21.

The Senior Pattern Association contest season started on March 25-26 with a contest in Prattville, Alabama. Things are changing in SPA and I am involved with a lot of the changes as I was elected Vice-President of SPA in January. The latest thing is that we are now allowing electrics in competition. The rules are listed on the SPA web site at www.seniorpattern.com. Electrics were not used back in the 60s and 70s, but the advances in e-power combined with the number of pilots who fly electrics makes it a move that should help SPA grow. Speaking of which, as I looked around at our club fly-in, I realized that I had the only glo-powered plane there! My, how times have changed!

The Prattville contest was a lot of fun even though there was a tornado watch at one point, as well as some rain. Local club member Chris Smith was there as was his Dad, Les, from Corinth, Mississippi. This was Chris's first pattern contest and he placed third in B-Novice (this is a class designed to encourage new participants). I had some continuing engine problems but still managed to win the Expert class. I have since rebuilt one OS FS-91 which needed new bearings and cleaned the pump regulator on the other. And after all that tinkering they both ran! The next SPA event I'll be able to make is the end of April in Cullman, Alabama.

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

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

April 16/17 – Sarasota R/C Squadron “Air Fair” – 8730 Bee Ridge Road, Sarasota, FL
30 – Killearn Lakes Homeowners Assoc. Spring Picnic – Float Fly – Lake Monkey Business (9am-til)

May 13 – EAA Night Fly exhibition and BBQ dinner – Quincy Airport
14 – EAA Piloted Fly-in – SRCC Static display

May 21 – SRCC Flying for the Cure at SRCC field
27-29 – Mid*South Soaring Championship 2011. Overnight camper parking available – no hookups

Chief Scribe- Chris Bailey

Introduction of new members: Kevin Putney and his two sons, Wyatt and Kade.

Jeff Owens provided the club members with an overview of the Leon County Parks and Recreations planning committee meeting he and Dr. Mike attended. The Committee received a presentation from a group looking to bring more economic development to Leon County. The presentation focused on a sports complex that could be built on or around the club's airfield if the County Commission approves it.

The club's officers are watching this development closely as it could have an impact to the location of the airfield. Jeff and Dr. Mike were assured by the director of Leon County Parks and Recreations that should our site be chosen for sports complex, the airfield would be moved to the top of the landfill as planned a few years ago. All airfield accommodations would be replicated at the new site courtesy of the County.

Members will be informed at monthly club meetings of the progress of this potential development.

Administrative duties:

Minutes from the Feb. 3, 2011 club meeting were approved.

Treasurer, Bill Ashbaker, provided the monthly treasurer's report.

First electric bill was presented.

Old Business

We Have Light! Courtesy of Bill Rogers, the airfield is now equipped with lights in the pavilion and on one side. Two additional electrical outlets were also installed.

Articles of Incorporation: Bill Ashbaker updated the Club's Articles of Incorporation. A vote will be taken at the April club meeting for their approval.

New Business

Experiment Aircraft Association: Jeff Owens asked if several members of the club would participate in a presentation of remote controlled aircraft at the March 8th EAA meeting. This is in preparation for the club's participation in the EAA event schedule in Quincy, FL. Club members will perform a night flying demonstration the night before the event and a static display the day of the event.

Thomasville Airfield: An old/new airfield is available in Thomasville. Contact information for the marshal of the airfield is available in the club newsletter.

Miscellaneous:

1. Jim proposed building a platform for electric planes to be located behind the pilot flight station. This would be in an effort to prevent injuries caused by accidentally hot starting electric aircraft.
2. Jim proposed a trial period to use the south end of the runway as another pilot station as it provides increased visibility of the overall runway.
3. Jim expressed interest in having a member volunteer as the club's event coordinator. Volunteers should speak directly with Jim.

With no further business on the agenda, the meeting was adjourned.

Chief Treasurer- Bill Ashbaker

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

WOW! Our first financial statement of the year with a positive cash flow! (It doesn't take much to excite a bookkeeper.)

We received dues payments from five new members: Ken Seymore, Nick Simoncini, Kevin Putney and his sons Wyatt and Kaed. Russ Spencer decided to get active again. Welcome back Russ. Please welcome all of our new members at your first opportunity. We now have over 100 members!

There is nothing remarkable about our expenses last month. The publication expense is the newsletter printing cost. Food and refreshments includes the costs for both the last meeting and our opening day event. We made a small amount of money on food this month. And, most of miscellaneous the cost is our tables at Perry.

Seminole RC Club

Financial Statement for February 26 through March 28, 2011

Accounts

Premier Bank Checking
Premier Bank Money Market Savings
PayPal
Talquin Electric

Cash on Hand

Total Available Funds at End of Month

Income

Dues/New Memberships
Activity Sales
Meeting: Food Reimbursement
Contributions/Donations
Interest: Savings
Merchandise Sale

Expenses

Mower: Maintenance
Field: Improvements
Field: Maintenance
Field: Lease
Publications
Donations
Fees: AMA
Fees: State of Florida
Meeting: Food & Refreshments
Insurance: Mower
Miscellaneous
Utilities: Electric

Total Income

Total Expenses

Net Cash Flow

Landing – A Normal Approach

As found on: https://www.faasafety.gov/gslac/alc/course_content.aspx?clD=34&slD=163&preview=true

I tried a few of the pointers such as “using the elevator to manage air speed in the last few feet” and my water landings with the Seawind are improving ☺. Fred

A perfect flying day! Clear skies, good sunlight, little or no wind, and it's directly down the runway. A perfect airport - a long runway on miles of flat land with no obstacles. Your airplane is in great shape with plenty of available power. Under these conditions, the principles of normal approach and landing can be practiced easily. But how often do you really encounter such a perfect mix of all these conditions? It's somewhat rare actually.

Elsewhere on the website above they go through the less-than perfect conditions and outcomes of approaches and landings. But your ability to handle these situations require you to first have a thorough knowledge and mastery of the skills for 'normal' approaches and landings. So let's start with a review (or an introduction if you are new student pilot) of what are considered 'normal' procedures for approach and landing.

Base Leg

The position of the base leg relative to the runway or landing area is one of the more important judgments made by the pilot in any landing approach. The pilot must accurately judge the altitude and distance from which a gradual descent will result in landing at the desired spot.

The distance from the runway or landing area will depend on the altitude of the base leg, the effect of wind, and the amount of wing flaps used. When there is a strong wind on final approach or the flaps will be used to produce a steep angle of descent, the base leg must be positioned closer to the approach end of the runway than would be required with a light wind or no flaps.



After turning onto the base leg, the pilot should start the descent with reduced power and airspeed of approximately 1.4 V_{so} . (V_{so} —the stalling speed with power off, landing gears and flaps down.) For example, if V_{so} is 60 knots, the speed should be 1.4 times 60, or 84 knots.

Landing flaps may be partially lowered, if desired, at this time. **Full flaps are not recommended until the final approach is established.**

Drift correction should be established and maintained to follow a ground track perpendicular to the extension of the centerline of the runway.

The base leg should be continued to the point where a medium to shallow-banked turn* will align the airplane's flight path with the centerline of the runway. This descending turn should be completed at a safe altitude to properly clear terrain and any obstructions. (*editor's note: Good luck at SRCC field 😊*)

The turn to the final approach should also be sufficiently above the airport elevation to permit a final approach long enough to accurately estimate the point of touchdown, while maintaining the proper approach airspeed. This will require careful planning as to the starting point and the radius of the turn.

Normally, it is recommended that the angle of bank not exceed a medium bank because the steeper the angle of bank, the higher the airspeed at which the airplane stalls.

Since the base-to-final turn is made at a relatively low altitude, **it is vital that a stall not occur at this point.** Countless aircraft accidents have occurred during this 'base-to-final' turn. Always remember that at this critical point in flight, you must not lose airspeed, over-bank the aircraft, or do anything else that could lead to a stall because you do not have sufficient altitude to recover from it!

If an extremely steep bank is needed to prevent overshooting the proper final approach path, it is advisable to discontinue the approach, go around, and plan to start the turn earlier on the next approach rather than risk a hazardous situation.

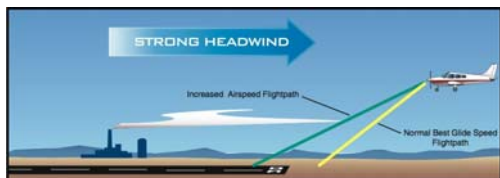
* A shallow-banked turn is one of less than 20 degrees bank angle and a medium-banked turn is from 20 to 45 degrees of bank angle.

Final Approach

After the base-to-final approach turn is completed, the airplane should be aligned with the centerline of the runway or landing surface, so that drift (if any) can be recognized immediately. On a normal approach, with no wind drift, the longitudinal axis should be kept aligned with the runway centerline throughout the approach and landing. After aligning with the runway, the final flap setting should be completed and the pitch attitude adjusted for the desired rate of descent. Slight adjustments in pitch and power may be necessary to maintain the descent attitude and the desired approach airspeed.

When the pitch attitude and airspeed (slightly slower than previously described) have been stabilized, the airplane should be re-trimmed to relieve the pressures being held on the controls.

The descent angle should be controlled throughout the approach so that the airplane will land in the center of the first third of the runway. A common mistake of inexperienced pilots is to plan a landing at the approach end of the runway, sometimes leading to a last-minute addition of power to get to the runway, resulting in a non-stabilized approach and other problems discussed later.



The descent angle is affected by all four fundamental forces that act on an airplane (lift, drag, thrust, and weight). If all the forces are constant, the descent angle will be constant in a no-wind condition. The pilot can control these forces by adjusting the airspeed, attitude, power, and drag (flaps or forward slip).

The wind also plays a prominent part in the gliding distance over the ground. You need to correct for its effect on the airplane's descent with pitch and power adjustments.

Considering the factors that affect the descent angle on the final approach, for all practical purposes at a given pitch attitude there is only one power setting for one airspeed, one flap setting, and one wind condition.

A change in any one of these variables will require an appropriate coordinated change in the other controllable variables. For example, if the pitch attitude is raised too high without an increase of power, the airplane will settle very rapidly and touch down short of the desired spot.

You should never try to stretch a glide by applying back elevator pressure alone to reach the desired landing spot. This will shorten the gliding distance if power is not added simultaneously.

The objective of a good final approach is to descend at an angle and airspeed to reach the desired touchdown point at an airspeed which will result in minimum floating just before touchdown; in essence, a semi-stalled condition. To accomplish this, both the descent angle and the airspeed must be accurately controlled.

On a normal approach, the power and pitch attitude should be adjusted simultaneously to control the airspeed and descent angle, or to attain the desired altitudes along the approach path. By lowering the nose and reducing power to keep approach airspeed constant, a descent at a higher rate can be made to correct for being too high in the approach.

This is one reason for performing approaches with partial power; if the approach is too high, merely lower the nose and reduce the power. When the approach is too low, add power and raise the nose.

Use of Flaps

The lift/drag factors may also be varied to adjust the descent through the use of landing flaps.

Flap extension during landings provides several advantages by:

- Producing greater lift and permitting lower landing speed.
- Producing greater drag, permitting a steep descent angle without airspeed increase.
- Reducing the length of the landing roll.

Flap extension has a definite effect on the airplane's pitch behavior. The increased camber from flap deflection produces lift primarily on the rear portion of the wing, producing a nose-down force. This pitch behavior varies on different airplane designs.

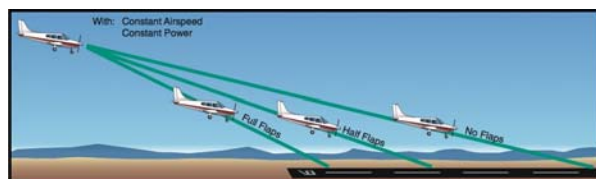
Flap deflection of up to 15° primarily produces lift with minimal drag. The airplane has a tendency to balloon up with initial flap deflection because of the lift increase. The nose down pitching moment, however, tends to offset the balloon.

Flap deflection beyond 15° produces a large increase in drag. In high-wing airplanes, a significant nose up pitching moment can occur because the resulting downwash increases the airflow over the horizontal tail.

When the flaps are lowered, the airspeed will decrease unless the power is increased or the pitch attitude lowered. On final approach, therefore, you must estimate where the airplane will land through discerning judgment of the descent angle.

If it appears that the airplane is going to overshoot the desired landing spot, more flaps may be used or the power reduced, and the pitch attitude lowered. This will result in a steeper approach.

If the desired landing spot is being undershot and a shallower approach is needed, both power and pitch attitude should be increased to readjust the descent angle.



Never retract the flaps to correct for undershooting since that will suddenly decrease the lift and cause the airplane to sink even more rapidly.

The airplane must be re-trimmed on the final approach to compensate for

the change in aerodynamic forces. With the reduced power and with a slower airspeed, the airflow produces less lift on the wings and less downward force on the horizontal stabilizer, resulting in a significant nose-down tendency.

The elevator must then be trimmed more nose-up. It will be found that the roundout, touchdown, and landing roll are much easier to accomplish when they are preceded by a proper final approach with precise control of airspeed, attitude, power, and drag resulting in a stabilized descent angle.

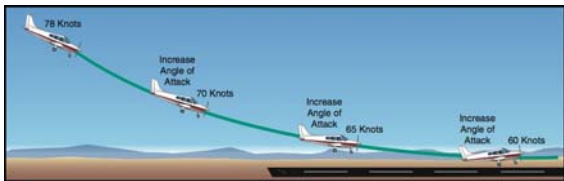
Roundout

The roundout is a slow, smooth transition from a normal approach attitude to a landing attitude, gradually rounding out the flight path to one that is parallel with, and within a very few inches above, the runway.

When the airplane, in a normal descent, approaches within what appears to be 10 to 20 feet (*editor's note: this is "full size" aircraft – reduce accordingly*) above the ground, the roundout or flare should be started and be a continuous process until the airplane touches down.

As the airplane reaches a height above the ground where a timely change can be made into the proper landing attitude, back-elevator pressure should be gradually applied to slowly increase the pitch attitude and angle of attack.

The angle of attack should be increased at a rate that will allow the airplane to continue settling slowly as forward speed decreases.



When the angle of attack is increased, the lift is momentarily increased, which decreases the rate of descent. During the roundout, the airspeed is being decreased to touchdown speed while the lift is being controlled so the airplane will settle gently onto the landing surface.

The roundout should be executed at a rate that the proper landing attitude and the proper touchdown airspeed are attained simultaneously just as the

wheels contact the landing surface.

The rate at which the roundout is executed depends on the airplane's height above the ground, the rate of descent, and the pitch attitude. A roundout started excessively high must be executed more slowly than one from a lower height to allow the airplane to descend to the ground while the proper landing attitude is being established. The rate of rounding out must also be proportionate to the rate of closure with the ground. When the airplane appears to be descending very slowly, the increase in pitch attitude must be made at a correspondingly slow rate.

Once the rounding out is started, the elevator control should not be pushed forward. If too much back-elevator pressure has been exerted, this pressure should be either slightly relaxed or held constant, depending on the degree of the error. It may be necessary to advance the throttle slightly to prevent an excessive rate of sink, or a stall.

Form the habit of keeping one hand on the throttle throughout the approach and landing, should a sudden and unexpected hazardous situation require an immediate application of power.

Editor's note – also consider Ground Effect and its effect on landing gently. The following from an RCUniverse blog...

Ground Effect.

When an airplane approaches the ground a new aerodynamic factor comes into play. This new factor is called ground effect, and its location is within a wingspan above the ground. When an airplane flies in ground effect, two aerodynamic changes occur. The first is an increase in total lift. The second is a decrease in drag. Together these characteristics allow the airplane to fly farther at a given airspeed along the ground, decreasing tremendously the stall speed. This effect allows your airplane to continue to fly at speeds that would normally cause it to stall at higher altitudes.

Following a gentle descent on final approach, your model airplane will enter ground effect after you've begun a gradual round out to about one or two feet. You'll need to apply only a little up-elevator to maintain this altitude, probably less than you needed to begin the round out. If you apply too much up-elevator, the increase in lift that follows can launch your airplane into an area of less lift above ground effect. This phenomenon, called ballooning, can cause your plane to stall very quickly.

Enter the ground effect zone cautiously and at a lower airspeed. Once in it, remember that to continue flying at a level altitude you will need less lift, which means less up-elevator. As your plane begins to slow down, gradually

increase the amount of up-elevator to provide just enough lift to maintain a level altitude. Your airplane will seem as if it can float forever, but don't forget to keep the wings level (More lift!). With the airplane slowing down even further, the effective airflow will decrease, making the controls feel "mushy." This is a signal that a stall is imminent, and you should prepare for the final descent of your airplane, which will occur shortly thereafter because of the anticipated stall, decreased elevator effectiveness, or both.

At this point, give immediate up-elevator to provide the final amount of lift needed to touch down softly on the runway. Since the controls are mushy, you may need a lot of up-elevator to obtain the proper angle of attack for a gentle flare. In some models, even full up-elevator doesn't provide enough control to soften the landing. In these cases, one or two notches of throttle above idle can provide for enough flow over the elevator to effectively raise the nose. Apply this throttle when the airplane begins its final and short descent. With practice, you can make smooth, mains-first landings. Once on the ground, hold up-elevator until the airplane slows down. The nosewheel will gradually come down and meet the runway. This really "wows" them at the airfield, and it will translate into more points at the pattern contests in your future.

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

SRCC Officers

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

Field Hours

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

Training Notes

To schedule a training time contact Mike Atkinson.

Flight Instructors

Primary/Advanced Flight Instructors

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

Primary/Advanced Helicopter Flight Instructor

| | |
|--------------|----------|
| John Hall | 893-6457 |
| Chris Bailey | 322-4047 |

Ground School/Airworthiness Inst. (Fixed Wing)

| | |
|------------|----------|
| Jeff Owens | 894-2504 |
|------------|----------|

Hobby Town Flight Demonstrator

| | |
|--------------|----------|
| Frank Bastos | 671-2030 |
|--------------|----------|

Club Meeting Location and Time

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

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

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

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

