

# THE FLYER



Middlesex County  
R-C Fliers, Inc.

June 2009



**John Parisi's Edge 540.** John says this is the only gasoline powered OS 4-Stroke on the East Coast. Photo by Jim Orsborn

## President's Message -

Thank you all who helped with Field Clean up day. The gazebo and benches look spectacular now that they are freshly painted.

Don't forget June 14th is the Construction Derby, we will need some help with setup/cleanup and a few other things... but those are good top-

ics for the upcoming meeting.

I have never participated in a Construction Derby at the club, but from the stories I have heard it looks to be an exciting day.

Our next Club meeting is June 10th—7:30 pm at the Lewis Building. Feel free to bring anything new/interesting for show and tell. We

will be discussing the fences and trying to figure out a plan to deal with traffic/access. I look forward to any ideas you may have.

The MCRCF online forum is up. Testing should be complete in upcoming days. I hope to have it ready for club usage when get to meeting night.

The field has

been rather busy over the last few weeks. It is good to see the trainees moving along, as well as seasoned "pros" coming out to fly and participate in the general camaraderie that is RC flying.

That's all for now. Hope to see you all at the field sometime.

—Don

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## Okay, I just Solo'd; So What's Next by Jim Orsborn

### Flight School

#### Review

Our MCRCF Flight Training program is designed to take an Intro pilot only so far. We teach the basics, and try to instill a sense of safety, but there are still many skills that a student needs to learn to become a good pilot.

#### Do I need A New Plane?

Actually the Sig Kadet that you learned on (you did learn on a Kadet didn't you?) is quite capable of teaching you several new skills. Try some of these if you want a challenge:

#### Touch and Go

Landings: Are a good way to practice landing skills. Make a good approach and start to roll out on the ground. Then slowly advance the throttle to takeoff speed. Bounced landings don't count. And make

sure you have flying speed before making the pull to lift off again. Try doing three or four of these in a row without stopping.

#### Coordinated,

Rudder Turns: Did we even cover how to use the rudder in Flight School? I don't think so; because the focus was on ease of learning and safety during low altitude flight.

Well take your Kadet up to altitude and experiment with the rudder control.

At first, try to turn the plane with just rudder (and elevator of course). Yes, rudder will bank the plane and it still takes elevator to make the plane turn. Just like you did with ailerons, make left rudder turns and then try right turns. Once you can do turns in both directions, try using both rudder and aileron together in a turn.

Both controls moving in the same direction is a coordinated turn. Look carefully and you will see that the plane's nose tracks through the turn instead of going around slightly nose high. You should also notice that it takes about half as much aileron and elevator movement to make the same turn.

#### Crosswind Landings:

are a challenge for most pilots. Sure, the easy solution is to land crosswise on the runway instead of in line with the centerline.

Well if you have mastered coordinated turns, the solution to crosswind landings is to learn how to "crab" into the wind. This is basically a cross coupled control sequence.

Suppose we're landing from the right, and the wind is crossing from behind out towards the trees.

Well the solution to this situation is to

make your normal, coordinated right turn as you make the approach to the runway. Then level the wings and prepare to land. If you simply level the wings and glide, the cross wind will push you out into the tall grass. So try to use the ailerons to roll left (into the wind), and then use right rudder to keep the plane's ground track down the centerline. The wing's lift helps counter the crosswind, and you're using the rudder to steer down the runway. At the last minute. You'll need to release the controls at touchdown.

The crossed controls will cause the plane to fly slower, so expect to use some power all the way to the landing, e.g. don't expect to use idle all the way from the down wind turn to the final landing.



Slow Rolls: I was absolutely in awe the first time I saw a real pilot perform a slow roll with my first Kadet! If you have tried to make your Kadet roll 360 back to level flight, your approach has probably been to make it happen as quickly as possible so that you are in control again. Well a good slow roll needs to take two or three seconds to complete, so how is that possible? Well the trick is to know how to use both rudder and elevator; not together, but in sequence with good timing.

As you start a left aileron roll, the first input will be right rudder as the wings reach vertical. The right rudder helps maintain altitude. Then as the plane reaches wings level, inverted, you need to all some down elevator to again help maintain altitude. I did mention that the

rudder has returned to neutral at this point. Now comes the hard one. As the wings go vertical for the second time, you need to add “top rudder” again to help maintain altitude. Well for a left aileron roll, top rudder will be left rudder. Be careful and not apply right rudder a second time, or your Kadet will end up in a tree!

#### **Aerobatic Maneuvers**

Okay, those were pretty easy and certainly well within the flight profile of a basic Kadet. But what about some more advanced aerobatic maneuvers?

Inverted Flight: Ray does it all the time. The key is a well balanced plane and a bit of down elevator push to maintain altitude.

Loops: Try to make them round, not teardrops. And try to put two or three on top of each other. Throttle management is the key to round loops.

Stall Turn: This is a vertical climb fol-

lowed by a wing over turn using the rudder. If you have a full load of dihedral in you Kadet wing, ask someone to help set a radio mix that will add reverse aileron with rudder. You’ll need the aileron input to keep the plane from rolling with the rudder input.

#### **My Next Plane**

Okay, so you’re tired of the Kadet and want to try a second plane. What’s options are there for a second plane?

Technically, the flight instruction program says that you need to stick with a “high wing, trainer” style plane until you’ve passed a second test. So a couple of options come to mind. The Avistar is a semi-symmetrical, high wing plane. It’s smaller size and weight suggest that it needs to fly faster than a Kadet. You will see that landings and basic flight maneuvers are all a bit

more challenging with the extra speed. The Easy Sport is a neat shoulder wing plane that has excellent flight characteristics. It’s basic flight profile is small step up from your trainer. Many of the maneuvers discussed already will be much easier to perform. For instance, the stall turn will no longer require a radio mix. Knife edge flight is even easier. And with good elevator throw, you can do a snap roll.

#### **Things to Avoid**

I hate to say it, but none of the “gimmick” things like flaps, retracts, or 4-stroke engines will help you learn to fly better. Learning to fly better takes practice on using all four channels that came with your Kadet.

Frank, Thank you for suggesting this topic. Comments or suggested topics are welcome.

*Jim*

## News From the Flight Line by Jim Orsborn

### Flight School Update

Nicolai, our current student pilot in training is just about ready to solo. So most likely we will have another pilot to introduce at the next meeting. Nicolai has had quite the ride with his Horizon Arrow trainer. This plane comes almost fully assembled and was ready to fly in a less than two hours after showing up at the field.

With an Evolution engine, bolt on tail feathers, pre-installed servos, there was not much more to do than join the wings together. Did I mention that did not require epoxy either. Some of the finer points about this setup:

- Spectrum Tx comes with regular AA batteries.
- Weak tail feather joint.
- Weak nose gear attachment and strut



<http://www.batterybunker.com>

- Evolution is 8 oz heavier than an OS-40
- Flies faster than a Kadet

### • The FIRE!

Okay, so now I have your attention. I recently saw an article on LiPo battery fires that I thought I would share with everyone. Here is the bottom line recommendation: If you have LiPo batteries, check out [batterybunker.com](http://batterybunker.com) and be safe.

According to the article, the author made three mistakes:

- 1) He was in a hurry.
- 2) He didn't use a balancer. And
- 3) He use the wrong battery profile.

I would actually add a 4th mistake, because he left the battery unattended while charging.

According to the story, the 2200 mah battery was consumed and reduced to ashes in the 2,000 degree fire; and without the battery bunker he would have lost the house, an only daughter, and the family pet.

### Parisi's Edge 540

John's Edge is now several months old, and still doing well. As mentioned on the cover, John thinks that this is the only gas power OS engine on the East Coast. Apparently the blogs are full of reports of difficulties with this new OS engine. There is a second Edge on the flight line. Powered by an OS-120, Jim Xxxxx really loves his unit and is on the second or third kit.

Jim says that he upgrades his ARF kits before they go up for their first flight. In Jim's case he does all of the following:

- Replace all hardware with std SAE items.
- Install fiberglass landing gear on reinforced mounting base.
- Heavy duty control horns and push rods.
- Reinforced side walls at wing TE.



## Frequency Pin Etiquette

It would seem that a refresher course in Frequency Pin Etiquette is in order, considering some of the recent activities around the pole.

### 3 Pins Max

Yes, we have a rule about no more than three active planes at the same time on the runway. Well how can you tell which planes are active if there are 5 pins posted to the top rail?

### Flight Rotations

Each pilot is supposed to have an EQUAL opportunity to fly. So how can we tell who is next if pins are on the ground and there are extra pins on the flight bar? Once a pilot has completed a full flight, their primary pen should go to the bottom of the flight ready (red) pole so that it can progress to the top as each pilot takes their turn. Pilots with two radios

don't get extra flight turns, and SS pins need to follow the progression just like regular number pins.

### Basic Suggestions

We all still need to pay attention to details on the flight line. Even when using a SS pin, the pin should be monitored both before and after each trip to the runway.

When accessing the runway, make sure that other pilots know your intentions.

### Cleanup Day 2009



Don and Angie were on hand to welcome everyone that showed up to help with Field Cleanup Day which was held on May 9th this year. As you can



see from the photos, we took this opportunity to repaint all of the field structures.

Don, Harry and Vic were working on the pit side of the gazebo while Frank was covering the railings on the other side. We

think that's Dan offering his paint can and roller to anyone that might show up to help. Good work guys, everything

looks great for the coming season. The grass is cut, so let's get on with some flying fun.

### Upcoming Calendar of Events

Speaking of flying fun, this year's Construction Derby is scheduled for **Sun. June 14th** at the club field.

Changes are coming this year, so even if you have done this before, you'll want to try it again this year.

**Official Publication of the Middlesex County R-C Fliers, Inc.**

**The FLYER** is the official publication of the Middlesex County R-C Fliers, Inc., a non-profit organization chartered for the promotion of radio controlled model aircraft building and flying. The club operates a flying field located on Treble Cove Road, Billerica, MA. The club offers free flight instruction to any member provided they have a current membership with the Academy of Model Aeronautics. Contact any club member for details. Meetings are held on the second Wednesday of every month between September and June in the Billerica Recreation Dept building at 248 Boston Road in Billerica, starting at 7:30 PM.

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**June 10<sup>th</sup>, 2009**  
7:30 PM  
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