

# THE FLYER



Middlesex County  
R-C Fliers, Inc.

July 2006

## What's Cooking?

There are several answers to the question posed above:

### 1) *Burgers and Dogs...*

That's right, it's time for our annual July Meeting and Cookout! Join us at the field on Wednesday, July 12th for this annual event. There will be food and drink for the members, followed by a brief meeting with an excellent **raffle prize** (hint: it's got wings, and no, they're not covered in Buffalo sauce...) Food should be ready around 6:30 or so, but come on down whenever and fly a little, or show off your models.

### 2) *The Weather...*

## Inside This Issue

Okay, so I'm going to try again to adjust the type size for the Newsletter. I too had trouble reading it in the final printed format, so I've changed the template to use 12 point instead of 9 and 10 point text.

So who has been to

It went from all rain to all heat without skipping a beat.

### 3) *Your Batteries...*

...if you're not careful. Read Jim O's latest installment of Safety— Know Your ABC's

### 4) *Those Studio Lights...*

Billerica residents had the chance to learn a little something about MCRCF when Dave Varrell and I made an appearance under the bright lights on "Cosmo's Journal" - a half-hour interview show that was broadcast several times in the past week on Billerica Access TV. Many thanks to host Cosmo Cavicchio for his interest, and to Dave for

the field since the last newsletter? Did the rain ever stop so we could have a second fly-in event? Photo opportunities have been very limited, so don't expect too much.

I have continued the **Safety — Know Your**

## President's Message

seeking out this opportunity for us to "shine our light." Good publicity is always welcome!

I hope to show the program at an upcoming meeting for those who haven't seen it (which would be most of you, I'm thinking...)

OK - enough with the cooking thing. Soccer's over, and it seems to only be raining in normal amounts (I know, I shouldn't say anything). The field is in great shape, so get out there and fly already!

Be safe, and have fun...

*Jeff*

**ABCs** article started last month, with a section on batteries.

This month, the meeting is scheduled to be at the field, although the Lewis Building is available if the rain doesn't stop!

Jim Orsborn

## Inside this issue:

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## Special points of interest:

- Do you know the Three Deadly Sins of RC Flying?
- John's off on a fishing trip instead of flying?
- First propellers come with stick-on safety warnings and now batteries have them too!

## Flight Instruction — Searching for that First Trainer Aircraft

### INTRODUCTION:

The Sig Kadet LT-40 ARF is out of stock again at all of the local hobby stores and retail outlets on the Web as well. New students interested in learning are forced to consider alternatives. The following story relates the experience of one such new student. The information comes from an email thread.

Hello again. Well, I have been to hobbyshops throughout the Country (online) who sell the Kadet. Yet no one has them. Therefore, I will order the Superstar 40 ARF tonight. Along with that, I will order an O.S. .46 AX engine, and a Futaba 4YF FM Radio system (R127DF Rcvr & 4 S3004 servos on Ch 23). I think I will also order the Hobbico Ultra-Tote Field

**“I’m really excited because the deed is done; I’ve ordered everything and it should arrive in the mail sometime next week.”**

Box combo as well (unless you might suggest a better alternative). Beyond all this, not certain there's anything else I need to purchase at

this time. A bit nervous about assembling it all, but I realize there is plenty of help through the club if I need it. Plus tackling it myself would be a great learning experience.

Regarding training - rather than spend \$75 on the training program, it seems to make more sense to me to join the club. I am already a member of the AMA, and planned to join the club at some point this summer anyway. Perhaps I might see you or Ray at the field in the next day or two, and see if I can schedule a start training date. I suspect my new plane will not be in

for 1-2 weeks, and then lord knows how much assembly time it will require -- should be an enjoyable and educational experience though. I look forward to it!

By the way, I went with Tower over RC Buyers, as it was cheaper there. Plus they were offering a \$25 coupon off orders over \$198. And I thought standard shipping was reasonable for everything, at \$7.95. So, I assume it will come in sometime late next week. Although I suspect the holiday could mess up the shipment a day or two. Again, thanks for the assistance Jim, it is genuinely appreciated.

Seeing as the LT-40 is not available, I decided to take a trip to RC Buyers to look at the alternatives and try to make some recommendations for an alternative. Here's what I found.

### Hobbico, Superstar Select RTF

This is the flat bottom trainer in a complete package with the radio and engine already installed. What you get for about \$280 is the plane, an OS .40LA and a basic 4 Channel Futaba radio. The plane requires assembly, but this should take no more than a couple of hours with almost everything done.

### Hobbico, Superstar 40 ARF

This is the same plane, but you buy the engine and radio separately. If you go this route, the price tag will depend upon your choices for each.

*Engine:* The base .40LA is about \$70, but the recommended .46AX is up around \$120. This bigger engine will last longer, run better, and offers extra power for those difficult situations. I don't think there will be any issue with added weight.

*Radio:* The base is the 4 CH Futaba entry radio. Options would be a 6 Channel radio, either non programmable, or the EXA series that does offer basic programming. I have the 6EXA, like it, and it does include the programming features that may be useful later. Again, this will add about \$80 to \$100 to the price. Any of these radios will work with our Futaba buddy boxes.

### Hanger 9 Alpha Select

This is another complete package. The plane appears to go together quicker, because it uses screw together tail feathers. With a bolt on attachment, there is no glue to dry. There is the possibility of taking it apart; but I can't imagine that it is actually as strong as one that is glued. SO; I might elect to glue it, but would take a look at the plane first. For around \$290, you get a Revolution series engine. These engines are pre-run at the factory. They are also set to be easy to start and run by the novice. The issue is that they are not as easy to take apart, repair or override the settings if one of us would like to try and get more power or a little better performance. So it is sort of like putting a governor on a small engine.

The package comes with a JR radio. Ray has a buddy box and cable, but I do not. If you go this route, you may want to ask for a JR buddy box and cable that you would have with you all the time, instead of relying on one instructor.

The Alpha also comes as an ARF; e.g. without the pre-installed radio and engine. In this case, I'd recommend the same engine and radio options listed above. The advantage would be the plane that has bolt on rather than glued tail feathers and the quicker assembly.

## Aerobic Maneuvers — 2006 Basic IMAC

This description takes into consideration that long lines between figures is just a good place to earn deductions. Keep these lines as short as you can to avoid downgrades.

There is no center box for scoring purposes. But it is convenient to speak of left, center and right when describing position.

1. On a horizontal line, perform a full roll. Placements of the following figures indicate the roll should be centered in front of the pilot.

2. Humpty Bump. Because there is no center figure following, it is not necessary to drive the line out before pulling vertical. The pull top will bring you back towards the center, but keep the down line off center. Pull vertical, draw a line and pull over the top back to a vertical down line. Perform a half roll in the center of the down line. Pull to exit level. You should exit before you reach center.

3. Half Reverse Cuban 8. Note that the exit to this figure will be far to one side of the box and that the next figure is a center figure, so it is not necessary to start the half Cuban beyond center. Pull to 45 degrees at about center, perform the half roll on the 45 degree line. Pull a 5/8 inside loop

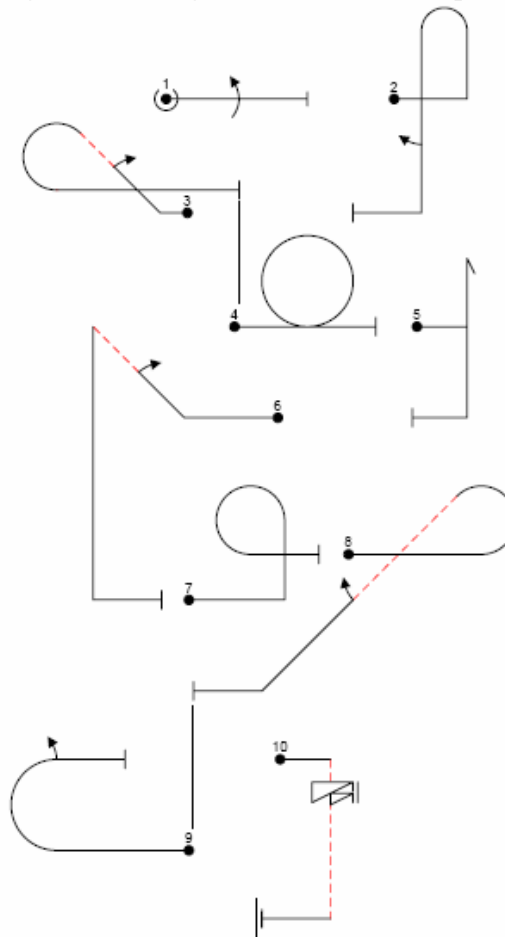
back to level. Exit positive.

4. Loop. Although loops are wide figures, by definition, they start and end at the same point.

Loops also score better when they are centered. This is why the half reverse Cuban should not be flown too far out - the line between the exit of the half reverse Cuban and the start of the loop is a good place to lose points, so keep it short. Pull to perform the loop, remembering to place the exit at the same point as the entrance.

5. Hammerhead. There is no center figure following the hammerhead, so it is not necessary to exit with lots of room. Pull vertical not too deep into the end of the box. Perform the pivot and drive back down on a vertical line. Pull to level and exit positive.

Fig. 1 Aristi Diagram, Basic IMAC Sequence



6. Shark's Tooth. If you fly this figure at center, the following figures will be thrown far out of place. However, the exit to the shark's tooth is at the far end of your maneuver. So pull the 45 degree line just past center. Draw the line with a half roll centered before pulling to the vertical down line. Pull to exit positive.

7. Figure 9. This figure should be drawn similarly to the loop. Drive past center, pull to vertical. When you have enough height, pull a 3/4 loop which should end

before you get to the point where you pulled to vertical. Once you reach level flight, the figure is done.

8. Halve Cuban 8. This figure has a long line at its start. There is also no center figure which follows. (You could fly the following figure at center, but it would throw the spin to the end of the box, where it is harder to perform and harder to judge.) For this reason, it is not necessary to draw a long line before pulling a 5/8 inside loop. Exit the loop in a negative 45 degree line. Perform a half loop at the center of the 45 degree line. Pull to exit level.

9. Immelman. The following figure is a spin that you might want to fly at center. The half roll at the top of the Immelman will help reduce your energy (slow you down) so you can hit the spin at center. Pull the half loop, perform the half roll at top. With practice, you will see how much energy you have left before starting the spin, and adjust the distance out that you perform the half loop to maximize the spin.

10. 1 1/2 Spin. This is a spin where you will exit after 1 1/2 rotations. Make sure you have a vertical down line before pulling level to exit.

## Coming Events

### July:

#### Wed, July 12th

The monthly club meeting will be at the field. Please join us for some flying and a BBQ cookout before the meeting. Activities will also include an airplane raffle!

#### Wed, Jul 12th

*(Flight Restrictions)*  
“Game Event” in the horse area starts at 6 PM.

#### Sun, Jul 16th

North Hampton, MA club Fly-In for the morning, and an RC Auction at noon.

#### Sat/Sun, Jul 29/30

NSRCA Pattern competition at the Hampshire County RC Field in Hadley, MA

### August:

#### Sun, Aug 6th

*(Flight Restrictions)*  
“Game Event” in the horse area starts at noon.

#### Sun, Aug 27th

Bushpilots Pattern Classic, Waterboro, ME

### Question:

Is anyone interested in going to the Pattern contest in Hadley, MA on July 29th? I'm planning on going, maybe even entering if I can get some practice time. But most likely I would just want to go and watch. If you are interested in going, give me a call of see me at the field.  
Jim Orsborn



**70 Year Flood on the Merrimack River limits access to the Southern NH Flying Eagles club field!**

We all know how much rain we've been having lately, but the picture shown above illustrates how relative things are. I was looking for some schedule information when I ran across this on the Southern NH Flying Eagles club website. They have obviously had to cancel a couple of recent events. For those that have not been there, the field is to the left and access is via an UNDER pass RR bridge. Estimates are that the field was under about 10' of water when this photo was taken!

## Also noticed recently...



**Hover, nose in.**



**Prototype mosquito spraying platform?**



**Beautiful flying day, and John's taking his boat to the beach?**

## Safety — Know Your ABCs (Part 2)

Don Lowe wrote an article in a recent issue of the AMA Insider suggesting an ABC Checklist. Last month we discussed **A (Assembly)** and offered several areas to check prior to each mission.

This month, the topic is **B (Batteries)**. They are required for RC flight, and checking them regularly is a good idea.

Most RC planes use one of three basic types of batteries. They are all rechargeable (don't think any serious RC pilot would use any non-rechargeable), but the care and safety features of each type are very different. These three main types are:

**Ni-Cad:** Nickel Cadmium are most popular and shipped with all new radios.

**Ni-MH:** Nickel Metal Hydride batteries are higher capacity, have a high discharge current capability and are used as an upgrade.

**Lithium:** Lithium Ion and Lithium Polymer

batteries offer even higher output currents and are often used in bigger electric planes.

### “Three Deadly Sins of RC”

- \* Wrong Model Number
- \* Improper CG Location
- \* **Low Battery Charge**

### Common Safety Items

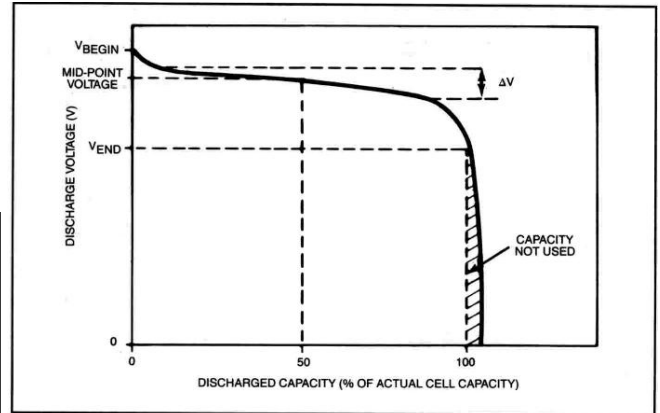
**Chargers:** Do not use a charger that was not designed for your battery.

**Shorts:** Do not allow the Pos (+) and Neg (-) leads to touch each other.

**Damage:** A battery that shows any visible signs of damage should never be put into service or connected to a charger.

**End of Life:** Radio Shack, Hobby Stores and Recycling Centers offer a used battery turn-in service that is better than discarding them in the trash.

**Flight Packs:** Use the charger that came with your radio, and recharge your airborne flight packs for about 2 hours for each flight;



e.g 3 flights at the field, charge the battery for about 6 hours to be ready for the next day.

### Safe Flying Voltages: (Ni-CAD batteries)

	Tx	Rx
Max	10.4	5.2
Safe	9.6	4.8
<b>RISKY</b>	<b>9.4</b>	<b>4.7</b>
No Fly	9.2	4.6

The discharge curve (shown above) illustrates how fast Ni-CAD batteries will fall into the useless range once then voltage starts to drop into the Risky or No Fly ranges.

### Safety TIPS:

- Check that your battery charger settings are correct, and matched to the one you are charging.
- Lithium batteries

should NEVER be left unattended to charge over night.

- Use Sand or a Dry Chemical fire extinguisher NOT water.
- Don't use a Fast Charger at anything above the 1C rating for your battery.

### After Market Items:

**Recycler:** A special charger that will discharge your battery first, rate it's usable capacity and then recharge it.

**Balancer:** A device that helps maintain an equal voltage on multi-cell Lithium batteries.

**On-Line Resources:** The RC Battery Clinic [www.rcbatteryclinic.com](http://www.rcbatteryclinic.com) has a lot of useful data on batteries.



Postage

28 Griffen Drive  
Wakefield, MA 01880  
Phone: 781-944-6056

We're on the Web!

<http://www.mcrcf.org>

## First Class Mail

Next Regular Meeting

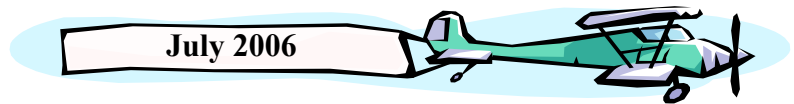
July 12, 2006

7:30 PM

Club Field (Cookout)

Treble Cove Road

Billerica, MA



### *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.

## Club Officers:

### President

Jeff Ward  
4 Eastview Avenue  
Billerica, MA 01821  
978-663-4493  
wardjeff@comcast.net

### Vice President

John Parisi  
27 Woodcliff Drive  
Billerica, MA 01821  
978-663-0232  
paris822@msn.com

### Registrar/Secretary

Raymond Capobianco  
28 Griffen Drive  
Wakefield, MA 01880  
781-944-6056

### Treasurer

John Caci  
288 Wellman Avenue  
N. Chelmsford, MA 01863  
978-251-8718  
johnjcaci@netscape.net

### Director

Charlie Bacon  
15 Tanglewood Drive  
Chelmsford, MA 01824  
978-376-7187  
chazbacon@Comcast.net

### Director

Jerry Crowley  
39 Cresthaven Drive  
Burlington, MA 01803  
781-272-7034  
crowleyjerome@cs.com

### Director

Dave Varrell  
24 Mathew Road  
Billerica, MA 01821  
978-667-7012  
varrell@netscape.com

### Newsletter Editor

Jim Orsborn  
43 Charme Road  
Billerica, MA 01821  
978-667-4510  
jto@mitre.org