

THE FLYER



Middlesex County
R-C Fliers, Inc.

April 2008



33% Scale Stearman Biplane.

Photo by Joe Boston

Inside this issue:

Building and Improving ARF Models	2
Safety Reminders for the New Season	4
January Club Meeting Notes	5
Feb / Mar club Meeting Notes	6
More Cover Photo Details	7
Events Calendar	7
Club Officers	BC

Safety Officer's Message - Toe the line!

→ I have a specific point to make, but before I get to it, I want to highlight two important rules from the **AMA Safety Code**. (You know, the code we all sign up to follow as a condition of membership, in both AMA and MCRCF?)

→ First, let's jump to **Rule 4** under "Radio Control":

4. At all flying sites a line must be established, in front of which all flying takes place. Only personnel associated with flying the model aircraft are allowed at or in front of the line.

Note that this rule requiring what I'll call a "**flight line**" requires establishment of such a line "at all flying sites".

→ When we fly at our field in Vietnam Veterans Park, we use a flight line established by the club as part of our permanent flying site. If we fly someplace else (like the High School soccer field for Yankee Doodle Days) we establish a temporary

flying site, with its own flight line. Since there is no AMA requirement to fly only at "official" or club-operated sites, "all flying sites" means "wherever you happen to be flying."

→ All right, now let's look at **Rule 1** under Radio Control:

1. All model flying shall be conducted in a manner to avoid over flight of unprotected people.

Please note that this rule does not specify that we must only avoid over-flight of *non-flier* people!

No, it just says "people". That means *all* people, including other fliers.

→ Okay, **to my point**. Because we do have an established flying site and flight line in the park that is designed to minimize the potential for over flight of people and vehicles, it is *always the preferred flying site* and it should be used if possible. However, I know that during the winter when snow covers

the field, some hardy snow fliers choose to take off and land from the road or just inside the road, and fly over an area that would ordinarily be behind our permanent flight line. I've certainly done it.

→ However, when we choose to do this, we are *establishing an alternate flying site*, and consequently we must establish a new **flight line** as outlined in Rule 4, but *this only works if everyone present agrees* to observe the new line.

→ Because there may be difference of opinion on where flight operations should take place on a given day, *use of the permanent flight line must always trump any temporary flight line*. Those fliers who prefer to operate from the permanent flight line have the right to expect that no one will be flying behind or **over** them (Rule 1!), regardless of the conditions in the park.

Jeff

Building and Improving ARF Models by Jim Orsborn

If you have access to the Internet, the **AMA Insider** is a monthly newsletter that is a great place to look for ideas and suggestions on a variety of topics. Someone recently suggested a newsletter article about finishing an ARF, so I'm starting this article with some information from the November 2007 issue of the **AMA Insider**.

Jim Soque from the Long Island Aero Radio Society wrote the article and he focused on the suggestions that I've quoted in the box to the right.

I thought all of the **AMA Insider** suggestions were pretty good, but would like to add a few of my own. Reading the manual and taking an inventory of the parts are good suggestions. I sometimes even download manuals

- Read your instruction manual from cover to cover, then read it again.
- Take inventory of all the parts listed in the instruction manual.
- Measure the engine mounts; change them if you think they are too short.
- Mount the engine to the engine mount with socket-head screws, washers, lock washers, and lock nuts.
- Use a ball-link for the carburetor pushrod link on the engine.
- Change the tank to one you are familiar with.
- If a third tube is used for fuel-filling purposes, use additional hose and a clunk.
- Trim the cowl with a router/sander tool, and use a vacuum cleaner with hose to vent the fiberglass dust away from you.

Tech. Editor's Note: *Best if this is not done in an enclosed space. No one, not you or anyone in your family or your neighbors, need to breath this dust.*

- When drilling the holes in the cowl, enlarge them using a drill bit wrapped with some 220-grit sandpaper; enlarge gradually.
- Attach a flexible pushrod material to pull the fuel hoses forward through the firewall.

- Cut the ventral vent hole three times the size of the air intake hole. This allows for maximum cooling of your engine.

- Measure the stabilizer tips to a center point over the cabin using an aluminum ruler and take note in centimeters, not inches. Measure twice and always use epoxy.

Tech. Editor's Note: *Do not use any string, line, cloth measuring tapes, or anything flexible to measure with. If the measuring device sags or bends, support it so it is straight over its length.*

- Level any imperfect surfaces with your eyes, then put a level on it. Take away any balsa gradually with a hobby knife.
- Use a 90° angle device for your vertical fin, or try a laser leveling device.
- If your kit comes with 2mm or 3mm hardware, switch it to 2-56 or 4-40 hardware instead.
- Change the supplied wheels to wheels with tread. Don't use cheap wheel collars.
- Use a hinge-slotting tool (I prefer electric) to widen the precut hinges on control surfaces. Use slow cyanoacrylate glue on the hinge surfaces

edge, then insert the hinge.

- Z-bend the links for the control rods at the servo arm end.
- Mount your cowl with beefier screws and washers.

Tech. Editor's Note: *Reinforce the part of the cowl where screws or bolts go through. Use a small piece of cloth soaked in epoxy and placed on the inside of the cowl or any other part that needs reinforcing. Fiberglass cloth is a good choice but any woven cloth will do.*

- Mount your switch harness and charging jack opposite from the exhaust side of the aircraft.
- Use a glow-extension device for any inverted engines.
- Use scrap fuel line pieces to secure your clevises.
- Tape any servo extensions to the servos main wire for insurance.
- Run the antenna wire inside the fuselage and out the back whenever possible.
- After you finish, test run your engine, high and low end, before coming out to the field.
- Fully charge everything before packing it up and heading to the field.

from the manufacturer's website so I can check them out before I buy a plane. It pays to know what you will be dealing with, in terms of difficulty, before you purchase the model.

Engine Mounts; I'm not sure I've seen an ARF with an engine mount that was too short, but then I have seen mounts that I didn't like. For instance, I don't like the strap on mounts, and would probably substitute another mount if supplied with one. And I do prefer to drill and tap screw holes rather than drill oversize holes with lock washers on the bottom.

Linkages; Using a ball link on the carburetor is a great idea as it allows you to mount the engine before installing the servos. Removing and replacing an engine is much easier when you can insert

the pushrod in the ball link and not mess with a Z-bend. Use copper wire too make the installation even easier, because the braided wires will tend to fray and can be difficult to feed into the ball link.

Fuel Tanks; When you set up the fuel tank, use some different colored fuel tubing for the intake and vent lines. I use blue for the cool fuel line to the carburetor and orange for the hot line from the muffler to the vent. With different colors it is almost impossible to mix up the two lines when attaching them to the engine.

Alignment; When you assemble the wing and attach the tail surfaces to the fuselage, it is very important to have everything square and perpendicular. Metal rulers and straight edges are good suggestions. I have also used a long 1/4" strip of wood I could mark and check

both measurements until they were the same.

Thread lock; you do use it on all bolts, especially on the engine mount bolts.

Upgraded pushrods. Definitely upgrade any flexible plastic pushrods to a metal version, and make sure that the guides are supported in the middle.

Visibility. Do you add any extra trim or decals that help tell the difference between the top and bottom of the plane? I like orange roundels on the bottom of the wing, just make sure they are large enough to see from a distance.

Prop Nut versus Spinner. I like to use a prop nut instead of a spinner, especially if the spinner is one of the cheap plastic ones. They break easily, and are a pain to replace. A prop nut may also be an attractive option if you

are going to need to add any weight up front. A 1 oz prop nut will not balance a tail mounted servo, but if you need a few ounces up front, an ounce out in front of the prop is equal to two ounces placed inside the engine compartment. Anytime you need to add weight to balance a plane, put the weight as far as possible away from the wing.

Have you got another suggestion, send your ideas to me and I'll share them with others in a future article in the newsletter.



Need a mobile stand for your new ARF? See the March issue of AMA Insider for the plans for this \$8 airplane stand made from PVC.

Safety Reminders for the New Season by AMA Staff

Ed Note: *The following article is reprinted from the March 2008 issue of the AMA Insider.*

AMA would like everyone to have a safe flying year with no accidents. Here are some items that might help in that regard.

The first is the use of Li-Poly batteries in our models. If you are flying electric airplanes with Li-Poly batteries, it is highly recommended that a fire extinguisher be kept in your car. Fire caused by Li-Poly batteries can happen through a shortage, improper charging, or crash damage. Standard household extinguishers (Class A, B, C or a combination of these) will not put out a lithium fire. Rather, it can increase the blaze. Class D extinguishers (metal/sand) are the only type capable of putting out flammable metal.

Ed Note: *Class D fire extinguishers are not easy to find. If someone locates a good source, please let us know where. More later on where to keep it and other alternatives.*

If a class D fire extinguisher cannot be ob-

tained for your vehicle or flying site, at the least, keep buckets of sand ready and available should a fire start. (The sand must be dry because water reacts with lithium fires to make them worse.)

Second, remember to cycle the batteries in transmitters and airplanes to ensure they are up to par. Airplanes can go down because either the transmitter or the flight pack batteries have failed. If you should by chance get your airplane to respond long enough to land, do not taxi back toward the pits. Get it down and kill the engine. A running airplane with dying batteries is little more than a loaded gun waiting to go off and injure someone.

Most folks have a winter project that is now ready for a test flight. New airplanes mean new additions to the transmitter. Remember to always check to ensure it is the correct one for the airplane. Always look to see that the control surfaces are moving in the correct direction when you are ready to taxi

out. Also, as a new project, make sure it has been finished with your name and address or AMA number.

Lightning produced by electrical storms can travel amazing distances. If you are flying and should see lightning in the distance, just think of that radio antenna as a lightning rod. Lightning has been known to come 10-20 miles across the sky and strike a person just standing there—and that is without a 3-foot lightning rod in his or her hand.

Engine failure on takeoff is a common occurrence. Every time, when you taxi out, always think, “What am I going to do if the engine quits?” Remember that the best way to land is into the wind and with the wings level. If that means a walk out in the weeds a couple of hundred yards to get your airplane in one piece, that’s much better than taking a broom or shovel out to the middle of the runway to scoop up the pieces.

Lastly, it is strongly recommended that members do not fly

alone. In a hobby where things can go out of control with the slightest of error, potential dangers are not far behind. It’s helpful to have an extra set of eyes to watch for any interferences or problems the pilot may not be able to see while following his or her model. Better to be overly prepared than under prepared. At the very least, you have a buddy to talk to and show off for!

Epilog:

All of the preceding info is directly from the AMA. Our club too has some important safety guidelines. Please take the time to read them. Everyone gets a copy each year with their frequency pin renewal.

Many of our safety points follow in line with the AMA, but our flight restrictions and site specific rules are equally important. Note that failure to follow both AMA and Club safety rules can be grounds for voiding you AMA insurance coverage.

Be Safe.



January Club Meeting by Jim Orsborn

As most of you know, January is an important club meeting. After all this is the meeting where we elect new officers, make any by-law changes and generally get started on the new year. President Jeff Ward called the meeting to order at 7:30 PM.

Ray Capobianco told Jeff that 43 of the 81 members from last year have submitted their dues to renew their membership. So with 20 members present, we had more than sufficient representation to meet our quorum requirements.

Outgoing Treasurer, John Caci, told us that we had starting balances, dues collections, club expenses, etc. and said that he had a reconciled balance in the treasury of \$5,042.33. But explained that this is before any income or expenses for the Christmas Party.

John has been our Treasurer for over 10 years now, and requested that we find a replacement so that he can step down. Everyone offered a round of applause in appreciation for John's service.

A discussion of the Christmas Party came up under old business. There were some minor issues with the reservation, but after a bumpy start, all went well. Check elsewhere for a more detailed write-up, but suffice it to say everyone had a good meal, all members and most of the guests went home with a raffle prize, and yes, John Parisi, won the grand prize raffle.

The club auction is Jan 27; but this will arrive after that date, so we hope that you made it.

Dues for 2008 Yes, with the changes in the By-Laws that were approved in December, we needed to have a discussion of Dues for 2008. Junior and Senior dues used to be linked to the rate set for regular members, but the revised By-Laws allow the Board to recommend separate rates for each category. The Board had held a meeting in December and decided on a recommendation, but several members voiced some concerns. After some more discussion, John Parisi made a motion that was seconded and passed by unanimous vote. As a result; the following dues

and initiation rates will apply to new members in 2008.

	Dues	Fees
Regular	\$50	\$25
Senior	\$50	\$25
2nd Mem*	\$30	\$ 0
Junior	\$ 5	\$ 0

(*additional in same household)

So current members can renew their dues at the current prices up until March 1st. But after that, the new rates will apply to all renewals and new applications.

New Officers and Directors for 2008

The final business of the meeting was conduct an election of new Officers and Directors for 2008. The 2008 nominating committee submitted their report in December that covered all positions with the exception of the Vice President. Jim Orsborn reported having a discussion with Jerry Crowley who agreed to serve as the VP, so his name was added to the slate. The floor was opened to other, additional nominations. There were no other nominations, so the motion was made to accept the complete slate as submitted. This motion was unanimously approved, so the slate of Officers and Di-

rectors for 2008 is as follows:

President	Jeff Ward
V. Pres.	Jerry Crowley
Treasurer	Vic Vogel
Secretary	Ray Capobianco
Director	Charlie Bacon
Director	Dan Fisher
Director	Dave Varrell

Congratulation to all.

Calendar of Events It is time to start making plans for our 2008 calendar of events. Following the elections, there was a brief discussion of some of the possibilities. Jeff indicated that we should plan on a Field Day in April and the Yankee Doodle event in Sept. Other possibilities were a Construction Derby in June, a Fun Fly, a Swap Meet, a Pattern Event, a Family Day, and a competition event.

If you have a idea, please speak to an Officer or Director.

Show N Tell

Ernie Hollis and Bill Copp had show and tell items. Bill's was a 1/5 scale T6 trainer that came from Yellow Aircraft in Woburn and featured a G62 power plant with retracts. Let's just say that Ernie's plane had "character". 🌟

Feb / Mar Club Meetings by Jim Orsborn

Okay, so here's hoping that you didn't miss either the Feb or Mar club meeting, because if you did, you missed some one of a kind Show n Tell planes. But let's cover the business meeting first.

11 Attendees in Feb.

16 Attendees in Mar.

As of March 12th.

The Auction netted \$478.54 to the club.

We currently have 64 members.



Sun. Jun 8th:
Construction Derby

Sun. Jun 15th: NE Air
Museum Trip

Sun. Jul 20th:
Fun Fly Cookout

Top Right: Bill Copp brought the B-25 ARF that his wife bought him for Xmas. Two OS-70 engines, retracts. It's been on a high speed taxi run but is waiting first flight.

Top Left: John Parisi showed us his clipped wing Monocoupe ARF. Says that it FLYS GREAT. John's advice, always make sure that the engine is reliable before takeoff.

Left: Scott Stewart showed us his Giant Scale kit project before taking it to the WRAM show. Fiberglass pods, balsa skin, exquisite craftsmanship. Check the Fowler flaps in the

small insert photo.

Ed. Note: *Fowler flaps give maximum added lift by sliding backwards then dropping down behind the wing's trailing edge. Scott used only one servo to get this dual action movement!*

Bottom: Scott came back to the Mar meeting with his Top Flight P-47 ARF. Removable wing, air retracts and hope you can see the cockpit details. Scott suggests that the pilot keep power on during the landing approach. Flaps also help control the approach speed. Scott's radio has a mix to control elevator trim when the flaps are deployed.



Field maintenance approaches \$1,100 per year, but plans are to continue with the same grass cutting contract.

Check the calendar, but plan on the following events this year:

Sat. Apr 19th:
Cleanup Day

Sun. May 4th:
Pattern Primer



More Cover Photo Details

I recently received an email from Joe Boston who is enjoying the good weather in Florida while we were trying to make it through the second heaviest December snow fall on record. What was even more impressive was the photo of the Stearman that he sent along with the well wishes. I asked Joe for permission to use the photo on our cover and to give me some background details; here's what he sent.

Prior to WWII and up to the early years of WWII 10,360 of the Stearmans were manufactured in Wichita, KS. All Navy pilots and 75% of Army pilots were trained on the Stearman. The other 25% of Army pilots were trained on the PT-19.

The model is a Balsa USA kit. It is a 33% scale version of the famous WW-II bi-plane. At this scale, the plane has a 116" wingspan and weighs in at 19 lb ready to fly. The total wing area is 3617 sq in.

Joe told me that the model was built by a gentleman named Marlin Husted. He and Joe are both members of a scale

RC club in Naples, FL. Joe has previously told me that this is a limited membership club that is dedicated to large scale models. You can see several other large scale models, including Joe's Extra 260 in the background.

Marlin built this model from a Balsa USA kit, working on it off and on for about 9 months to complete. Joe says the plane is very impressive in the air, and flies very close to a scale manner at low throttle. (Ed note. I've got to ask Joe sometime if he know this from practical experience or if it is just his opinion?)

Forward thrust and lift are provided by a 150 cc gas engine from 3W with a 32 x 12 Fuchs carbon fiber prop. Joe claims that this combination provides enough power at high throttle to go unlimited vertical!

It's hard to tell in the photo, but the plane is covered in 21st Century fabric & uses matching paint on the cowl. The colors represent a scale military color scheme used by the Army in late 30s & early 40s. Purists know that Navy colors were different.

April 2008

SUN	MON	TUE	WED	THU	FRI	SAT
		1	2	3	4	5
6	7	8	9 ●	10	11	12
13	14	15	16	17	18	19 ●
20	21	22	23	24	25	26
27	28	29	30	20 Apr: Passover		

Wed. Apr 9: MCRCF Monthly Meeting, at the Lewis Building on Boston Road

Sat. Apr 19th: MCRCF Spring Cleanup Day, at the Club field on Treble Cove Road

May 2008

SUN	MON	TUE	WED	THU	FRI	SAT
11 May: Mother's Day				1	2	3
4 ●	5	6	7	8	9	10
11	12	13	14 ●	15	16	17
18	19	20	21	22	23	24
25	26	27	28	29	30	31

Sun. May 4: Pattern Primer, at the Club field on Treble Cove Road. More to follow next month.

Wed. May 14: MCRCF Monthly Meeting, at the Lewis Building on Boston Road

Sun. Jun 8th: MCRCF Construction Derby.

Check the MCRCF Website for more details as these dates get closer...

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
jeff@mcracf.org

Vice President

Jerry Crowley
39 Cresthaven Dr.
Burlington, MA 01803
781-272-7034
crowleyjerome@verizon.net

Registrar/Secretary

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

Treasurer

Vic Vogel
200 Market St., Apt. 416
Lowell, MA 01852
978-452-7978
conductorvic@comcast.net

Director

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

Director

Daniel Fisher
9 Village View Road
Chelmsford, MA 01824
978-256-3085
danjfj@aol.com

Director

Dave Varrell
24 Mathew Road
Billerica, MA 01821
978-667-7012
d.varrell@comcast.net

Newsletter Editor

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



28 Griffen Drive
Wakefield, MA 01880
Phone: 781-944-6056
E-mail: info@mcracf.org

Postage

We're on the Web!
<http://www.mcracf.org>

First Class Mail

April 9th, 2008

7:30 PM

Lewis Building

248 Boston Road (Rt. 3A)

Billerica, MA