

# FlightLine

A Monthly Publication of Collins Model Aviators November 1999

## Reminders:

- Next CMA meeting is Thursday November 4<sup>th</sup> at the 35<sup>th</sup> Street Complex Cafeteria
- Nominations for Club Officers are due by the next meeting
- The first Build Session is Thursday November 11<sup>th</sup> at the 35<sup>th</sup> Street Complex Cafeteria



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Part of the FlightLine after the September CMA meeting (the last meeting held at the field this year)

CMA Web Page Addresses:

<http://bbs.cacd.rockwell.com/data/clubs/cma/>  
<http://members.xoom.com/cma3257/>



Collins Model Aviators  
Academy of Model Aeronautics  
Charter Club #3257



## President's Column

By Frank Gutierrez

### Renew your CMA 2000 membership before November 1, 1999.

In order to receive a subsidy from Employee Services, your membership application needs to be turned in before November 1<sup>st</sup>. The CMA club gets a fixed subsidy based on level of membership, which is determined by membership enrollment. I was told that the entire membership needs to enroll in October and after the November 1<sup>st</sup> cut off date, membership renewals are not counted for subsidy support. Support for recreational programs has been decreasing and financial support is becoming leaner, however, this will not affect the CMA for next year's support. For this reason, I would like to encourage all active members and potential members to renew your membership during the month of October for next years flying.

### Pick your CMA club officers for next year.

Nominations for next year's CMA close at the November 4<sup>th</sup> meeting after which a ballot will be sent out to the membership for vote. The ballots will be counted at the December 2<sup>nd</sup> meeting.

### Build Session.

The first Build session for this year is the 11<sup>th</sup> of November from 6 to 9 P.M. in the Main Plant Cafeteria. It has also been a tradition to order pizza at the build sessions so plan on coming out to enjoy the fun with fellow modelers.

As 1999 winds down it's getting time to think about your winter project and or winter flying. Since I didn't get the Slow Motion Semitar completed it looks like I will be putting skis on one of the planes for winter. I have been busy building the SIG Kavalier as I am not allowed to start another plane until this one is finished. Evan has been working at his paper route and is saving up for what he needs to put the P-51D together that he won at the Fun Fly this year. Drew is looking at scratch building an aircraft from an old set plans. I will be cutting out a foam wing for him soon. It should be a good performer and it won't look like the typical kit plane.

I have caught the bug again to design a carrier for the LT-40 to launch gliders from. I have been working out the design and plan on testing it soon. I will take plenty of photos and talk about the success or failure of the design in my next article.

Frank Gutierrez, CMA President →

## CMA Meeting Minutes

By Jim Doty

### 7 October 1999

Doug Emerson was not able to attend the meeting so minutes were taken by Jim Doty

Frank Gutierrez called the meeting to order at 5:04 p.m. in the Main Plant Cafeteria (35<sup>th</sup> street facility). Ten members were attending.

Frank reported that the October issue of FlightLine was sent out late (despite a reminder EMAIL by Jim Doty) due to an error by a new staff member in Employee services.

The September minutes were approved as read.

Frank Gutierrez made the Treasurer's Report. There are no funds to Report for October. We did overspend on the 99 budget at no fault to Doug. Employee services reported an incorrect amount remaining and covered most of the

overspending. Some receipts are still pending which will be reimbursed on the CMA 2000 budget.

Frank recommended that next year the secretary keep a separate record of the spending to catch any mistakes by Employee Services. [This would require that the secretary be notified of all expenses.]

### **Old Business:**

Frank reported on the last Family Fun Fly and Picnic. The Family Fun Fly picnic went well this year. Safety was observed and the events went smoothly. Starting earlier in the day also worked well and the events finished in time to have a fellowship fly after the events were complete.

Frank also reported that the requirements for the sign at the Martinson Sod Farm have changed slightly. Larry was given a limitation of 12 square feet, which reduces the original size significantly. Jamie Johnson is continuing to coordinate with Larry on the final layout before it is painted.

### **New Business:**

Frank announced the following:

- That nominations are now open for next years CMA officers. President, Vice President and Secretary. You can nominate yourself if you so choose. Try to get these nominations in by the next meeting.
- That he talked to Larry about winter flying and Larry doesn't have a problem with that.
- That we are now down to just one club trainer, Frank asked if the members thought that we should build another. The club has the costly parts (e.g., Engine and radio gear) but would need to purchase and build a new plane. There was some general discussion that we should have a second trainer. Mark Woytassek recommended we build an LT-40 and volunteered to cover the wing. The issue was tabled without motion until more volunteers can be identified to help with the construction of the trainer.

- That the FlightLine needs volunteers to write articles this winter.
- The first Build Session is scheduled for Thursday November 11<sup>th</sup>.
- The CMA could use more flight instructors. If you are interested in becoming an instructor in training please see one of the senior instructors to get signed up.
- Membership renewals should be turned in by the end of October so that we can get credit for the membership before the allocation of subsidies by Employee Services. There are no firm rules about required membership, but a high membership helps to justify the subsidy.

Mark Woytassek reported that he had researched the requirements for Helicopter Flight Instructor, and observed helicopter flight instruction and the Skyhawk's field. After observing Crist Rigotti performing flight instruction, and talking to other experienced helicopter pilots, he approved Crist as senior helicopter instructor for the CMA.

There was some discussion about Tower buying Futaba USA. The FlightLine Editor would appreciate any information about this transaction, or about other significant news about the RC industry, for use in future FlightLine Articles.

There was some discussion about bringing RC videos to the build sessions. Steve Plantenberg volunteered to bring some videos from his collection.

Basil Tilley requested an up-to-date copy of the CMA bylaws. Frank volunteered to send him one.

There was some discussion about minor provisional members being allowed to vote on bylaw changes and other issues in the CMA. The consensus was that the current rules are unclear and that they should be updated.

John Crilley moved and Basil Tilley seconded the following amendment to the bylaws:

In paragraph 3.1.1 of the bylaws add the following: Provisional members do not have voting rights.

The amendment was unanimously approved. Frank will send out a ballot to the membership for the final vote.

The meeting was adjourned.

James H. Doty, CMA FlightLine Editor →



## “Panty Lines” on an airplane? — NOT!

By Crist Rigotti

We’ve all done it. Admiring the latest creation at the field, our eyes slowly go over the entire airframe. “Wow, nice job of covering” we say to ourselves, then we see them! “Panty lines” clearly showing through the covering where the center section of the wing was reinforced! Bummer!

Let me explain what I do to eliminate that problem. This method works well on both built up and balsa covered foam wings.

After the wing has been joined and the center section sanded smooth, determine the width of the fiberglass cloth reinforcement. In this example we will use a width of 6 inches. It is always best to follow manufacturer’s recommendations for the

width and weight of the cloth. Find the center of the wing by measuring from wingtip to wingtip, both at the leading and trailing edges, and dividing by 2. You’ll be amazed that the centerline is not always the glue joint! Now measure out 3 inches on each side and draw a line on both top and bottom of the wing. We should have two lines, 6 inches apart, centered on the wing. Now put some masking tape along those lines about ¼ inch on the outside (wingtip side) of those lines.

Let’s prepare the fiberglass cloth now. I use two pieces of cloth, one for the top and one for the bottom. I find it easier to work with that way. Also if you mess up, it’s only one side! Unroll your supply of cloth carefully, and if wrinkled, take it to the ironing board and iron it smooth. Go easy and start with a low heat setting first, then increase the heat till you get the fiberglass cloth smooth. Lay it out on your bench, (you are working on a clean smooth bench aren’t you?), and determine the length that you’re going to need. I like at least 4 inches longer than the wing chord. Cut the cloth to size carefully. One of the keys to a good job is to cut the cloth along a row of the fibers. So before you cut, position the cloth as straight as possible. I use a ruler and my Exacto knife with a NEW #11 blade in it. You don’t want to snag the cloth because it will distort the row of fibers and it will be real difficult to straighten! Trust me on this one. After cutting both pieces to size, remove the last row or two of threads from the cloth, along the width. This is why we wanted to cut along the rows when cutting the cloth to size. This allows the edge of the cloth to splay out and flatten when we glue it to the wing. If the edge of the cloth is not along the rows, then carefully remove the rows and when it gets to be about ¼ inch from the edge, cut that row and start again. This will give a “staggered” edge, but will still work ok and flatten out just the same. Now spray one side lightly with a contact glue (3M 77 or equivalent).

Position the cloth on the wing, (glue side down!) between the lines. Then smooth out the glass with your fingers working from the center to the edges. This keeps you from lifting the splayed edges. Get some paper towels and rubbing alcohol ready before mixing the epoxy. Mix up some long setting epoxy. Be careful on how much you mix. I use those little plastic cups and mix only what I need for one side. If you mix too much in one of those cups, it will have a thermal effect and will set up very quick! Again, trust me! Starting at the high point of the wing, apply the epoxy and rub it into the cloth and spread it out towards the edges. Here is the safety part. Wear those latex gloves or something similar and use adequate ventilation. Take your time and don't use too much epoxy. Just fill the weave. If the epoxy is "shiny", it has "puddled", and you have used too much. After applying the epoxy, take a roll of toilet tissue, and roll it on the fiberglass cloth. This helps to remove the excess epoxy. When done, examine the cloth and go back and rub down those splayed edges again if you have to. Let dry and repeat for the other side of the wing, overlapping at the leading edge. Use the paper towels and rubbing alcohol to clean up. Remove the masking tape carefully from the wing and set aside to dry overnight.

Trim the fiberglass at the trailing edge, sand smooth and seal with CA. Carefully sand the splayed edges as smooth as you can without ruining the center section sheeting. Then sand the rest of the cloth lightly. Do NOT cut into the cloth or you will weaken it! If you did a good job applying the epoxy this will only take a minute or so. Just remove any "bumps" and stuff like that. So now you say "So, big deal. I've had that before and still get those lines!" Read on my fellow balsa butchers!

This next step will accomplish several things. It will make those lines disappear and your shrink covering will stick better to the center section reinforcement. For you "old-timers" this will be a snap. We will cover the center section with silkspan tissue. The light to medium grade will work. Again, iron it to make it smooth and cut it to 7 inches wide and 4

inches longer than the wing chord. Apply one coat of unthinned dope to the wing at least 8 inches wide. Let it dry. Because of its good adhesion properties, I use Nitrate dope from Sig. Sand lightly and remove all dust and debris from the wing. Mark two lines 7 inches wide centered on the wing. Lightly spray the tissue with water and position between the lines just drawn. Smooth out the wrinkles as best as you can. Brush on a coat of unthinned dope through the tissue. Again, smooth as best as you can. Don't worry if there are any minor wrinkles, they will shrink out when the tissue dries. If they don't, apply another coat of unthinned dope just to the wrinkle for now. When the dope is dry, "feather" the edges of the tissue and locally sand out any wrinkles. After sanding, apply one more coat of dope to the tissue. When dry, sand one more time very lightly. Of course do the same thing on the other side of the wing too! Now go ahead and iron on your shrink covering, you'll be amazed how well it sticks and gone are those nasty lines!

**Crist Rigotti** →

## **Tips and Tricks**

From the September National Newsletter

### **Sheeting Foam Cores**

by Thom Lamborn

A friend on mine, Hob Davis, suggested that instead of using epoxies, sorghum or other fluid-type adhesives to attach the sheeting to foam cores, try using rug and carpet tape.

This is a very thin tape that has adhesive on both sides. This made sheeting quick and easy as there is no drying time or need to weight down the surfaces.

You apply the tape to the foam core, peel off the backing then roll on the sheeting. As this tape is designed to hold down rugs, it does have a fairly strong tack, so be careful when aligning the sheeting with the foam core.

Hob used it to sheet the wing of his airplane with very good results. A year later there is no sign of delamination.

from RRCC News  
B. T. Lamborn, editor  
THOML@prodigy.net

## Flexible Palm Sander

by Jerry Wino

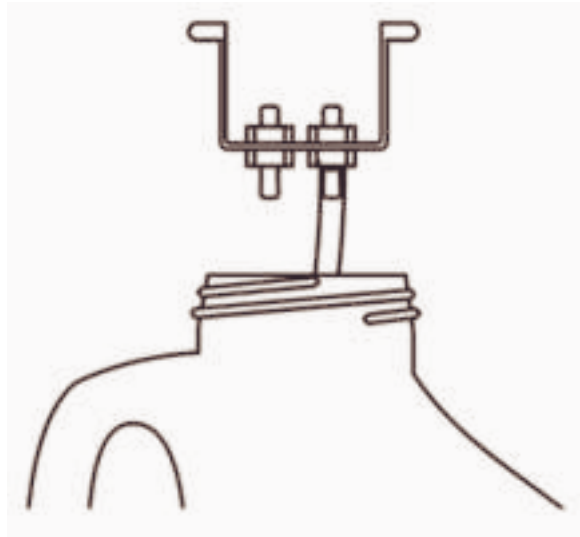
Cut an inexpensive, adhesive-backed, vinyl floor tile to a convenient size. You can make them custom sized to fit any application you may have. Now cover it's adhesive side with sandpaper of the grit of your choice. The vinyl is fairly flexible and will conform nicely to simple curves, such as wing camber. Consequently, it wont produce flat spots as regular sanding blocks do.

from The Signal Squeaker,  
Jerry Wino, Editor  
P.O. Box 614 Garden City MI 48135

## Servo Installation

Experienced R/C'ers know that the single most important factor in the successful operation of an R/C aircraft is the way that the brass eyelets are installed in the rubber grommets of the servos. It is imperative that the correct method of eyelet installation be followed. Failure to do so could lead todisastrous results.

from KCRC web site  
Knox County Radio Control, Inc.  
[http://user.icx.net/~thezs/\\_krc/KCRC.html](http://user.icx.net/~thezs/_krc/KCRC.html)



## Easy Fuel Jug

The plastic plug used to help seal a fuel container for shipping can be modified to make a convenient fuel jug. Simply drill two holes in the plastic cap and install fuel fittings. Now attach a piece of fuel line to the bottom side to serve as a pick up. A pickup filter can even be added to assure clean fuel going into your engine.

from Tiger Tales  
Keith Spaulding, editor  
P.O. Box 99, Derry NH 03038

## Masking Painted Areas

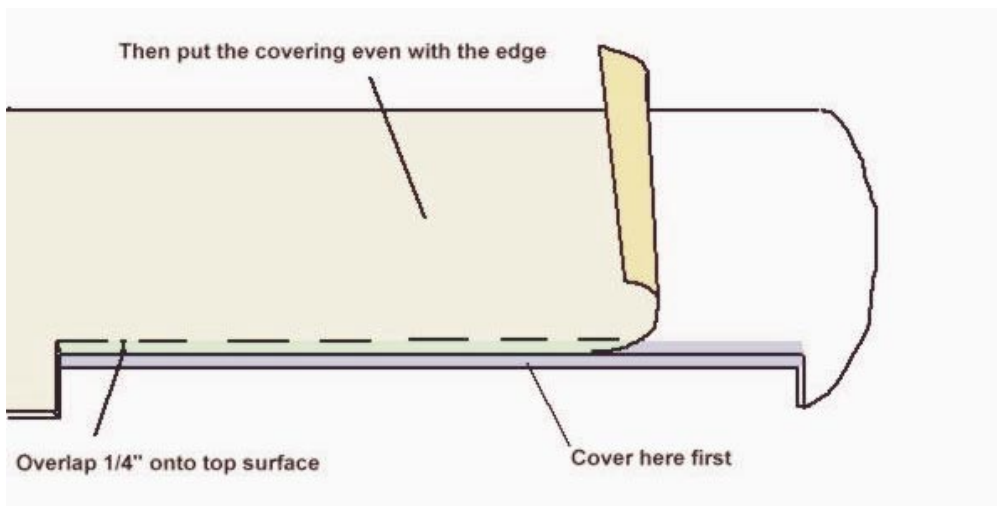
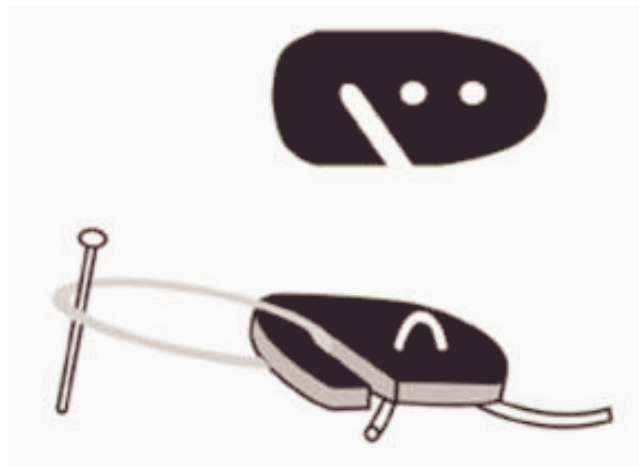
Ever had paint run under masking tape, giving your model a real jagged edge? Yeah, me too, until I discovered this method of masking off those lines. First, use good quality masking tape. Go to the paint department any home builders supply and look for a high grade painters masking tape. This is a plastic backed tape with excellent edges that produce a very sharp color demarcation line.

Next, clean the area to be painted with rubbing alcohol to remove any finger prints, fuel residue, banana pudding, or anything else that may be stuck on your model. Now, mask off the area to be painted. Make sure the edges of the tape are firmly stuck. Then, spray the area with the same color that you have hidden with the masking tape. The paint seals the edges to prevent paint

creeping under the edges. In the unlikely event paint does seep under the edge, it will be the same color as the area masked, and virtually invisible. Then, when that has dried, continue painting with the desired color of the stripe, or panel you have chosen.

When dry, remove the tape by pulling it back against itself to lessen the chance of damaging the finish. Clean any tape residue off with alcohol, and you're done.

from Whitehaven Radio Control Club  
<http://www.wrcc.net>



## Antenna Holder

by Fred Harvey

Modify a control horn arm as shown above to serve as an antenna holder.

from Vapor Tales Fred Harvey, editor 307 N Brook Forest Rd Derby KS 67037

## Trailing Edge Covering

I always seem to have to do some repairs on the covering on wings and tail-feathers. If I need to replace the covering on a whole panel I would get hung up where the control surfaces hinge into the trailing edge. It is impossible to remove and replace covering between them without replacing the hinge, or cutting into the sheeting when cutting the covering along the trailing edge. So, I cover all the trailing edges first with a piece of covering that overlaps the top and bottom about a quarter of an inch.

When you cover the top or bottom cut it even with the trailing edge. When you remove the top or bottom covering for repairs the trailing edge remains cleanly covered.

from St. Paul RC Club Online  
<http://www.geocities.com/Yosemite/Trails/7150/>

## Letters and Opinions

*Letters and Opinions is provided to provide members a forum for free expression of their ideas and opinions. The opinions expressed in the letters and editorial replies represent the beliefs of individual members and do not necessarily agree with the position of the CMA or its sponsors.*

### A Comment on the Fun Fly:

I was disappointed with the decision by some to ban members from the drawing at the Fun Fly. In past Fun Flys all members at the event could be in the drawing for kits. I know of four members at the event that didn't have an airworthy plane because of an earlier mishap. They were there supporting the event and could have used a kit as well.

I was also disappointed with the decision of some to disregard the restriction on flying helicopters. This has been a rocky year but until the Fun Fly I thought the CMA Club was still run by the "CLUB".

Duane Smith, CMA Member

### Editorial Reply:

I wasn't able to attend the Fun Fly in question, so I asked some people who did attend about what went on so that I could try to address some of Duane's concerns.

At each Fun Fly, the Coordinating Committee selects the events, and determines the rules for the contests and the drawings. There are no firm rules for special events. The committee attempts to provide an interesting and fun event, and tries to be as fair as possible.

Last year, drawings for prizes were made randomly from tickets collected from the members. Each member received one ticket for showing up, and one additional ticket for each event in which he or she participated. This of course resulted in most of the prizes going to the people who participated in the most events. Many members received several prizes, but some people did not receive anything.

This year the committee decided to make the drawing more equal for those that were unable to participate in the events. Each member, regardless

of whether he or she took part in the events received one ticket. This assured that everyone had an equal chance at the prizes and that everyone received a prize.

For the members who did risk their planes in the flying events, a second drawing was held for three short kits. Again, each participant only received one ticket, so less-experienced members would have the same chance as those members able to compete in all the events.

It should be noted that the short kits given out are basically just foam wings, plans, and a couple of plastic parts, and are not much more valuable than the other prizes given out.

So statistically non-participants had a better chance at winning more dollars in prizes than with last-years system.

As far as the Helicopter demonstration is concerned, we have had a tradition of providing demonstration flights to show members and their families aspects of the hobby such as pattern or helicopter flying, that they may not get to see on a typical flying day.

The club restriction on helicopters was put in place to prevent their operation from interfering with fix-wing operations at the field. Because a demonstration flight is, by definition, made without other aircraft in the sky, there is not any potential for interference, and therefore, no reason to prevent the demonstration.

It is hard enough to find pilots willing and able to

### The Adventures of Buddy Box

by Don & Joe Vetrone

Wright Flyers Model Airplane Club

donjan@mocty.com



provide an interesting RC flight demonstration for the Fun Fly, without adding arbitrary restrictions. Thanks to Crist for providing an interesting demonstration. Several members have stated that they had never seen a RC helicopter fly before, and that they enjoyed the show.

Thanks to this year's Fun Fly Coordinators for providing an interesting and enjoyable experience.

James H. Doty, FlightLine Editor➔

## Heads Up, CMA Activities

### November 1999

**4-Nov 5-6 PM Meeting at Main Plant Cafeteria**

\*Nominations closed

**11-Nov 6-9 PM Build session**

**19-Nov 5:00 PM FlightLine deadline**

### December 1999

**2-Dec 5-6 PM Meeting at Main Plant Cafeteria**

\*Election held

**9-Dec 6-9 PM Build session**

**17-Dec 5:00 PM FlightLine deadline**

### **Local events:**

**11/20/99** Wheaton, IL (E) DA Big One RC Expo. Site: DuPage County Fairgrounds, 2015 Manchester Rd. For info: John Asta, PMB 249 956 S Bartlett Rd Bartlett, IL 60103 PH:630-837-8437, fax 7239. Da Big One is back again! The Midwest=s largest selling RC expo! More manufacturers & distributors than ever before. 300 booths/tables. 30,000 sq ft. Monokote covering contest (Giant GP P-51 1st prize). Giant GP P-47 Warbird raffle, with US Gas Engine, Robarts, JR Radio, DuBro Hardware, Maxx Products batteries & Monokote! Free parking, engine demos. Call or fax for booths/tables, raffle tickets, advance ticket sales or free flyer.

MC/Visa/Disc/Amex.

**For up-to-date AMA events schedule see the AMA web page:**

<http://www.modelaircraft.org/Comp/Contest.htm>

**For an AMA membership application:**

<http://modelaircraft.org/Mem/Memapp.htm>

 **Send your input for the CMA Web Page to:**

Steve Plantenberg x5-9625  
scplante@cacd.rockwell.com

**CMA voice bulletin board**

**Call 295-8888**

**For flight and weather information**

### **1999 CMA Staff**

**President: Frank Gutierrez.... x5-0969**

**Vice President: Dan Cooley ..... x5-0401**

**Secretary/Treasurer: Doug Emerson ... 377-6971**

**Field Marshal**

**FlightLine Editor: Jim Doty ..... x5-2931**

**Web Page Editor: Steve Plantenberg . x5-9625**

**Senior Flight Instructors and Test Pilots**

**First flights of new airplanes:**

Frank Gutierrez

Mark Woytassek

**First flights of new helicopters:**

Crist Rigotti

**Flight Instructors in training:**

Irv Anderson

 **For membership information:**

Contact: President Frank Gutierrez III

MS 108-166

X5-0969

[fsgutier@collins.rockwell.com](mailto:fsgutier@collins.rockwell.com)

### **Build Sessions**

**Build Sessions are held every second Thursday of the winter months in the Main-Plant Cafeteria, to provide hints, tips, and help in building models.**

**Build Sessions are open to everyone who is interested in RC model building.**

 **Send your input for FlightLine to:**

James H. Doty

MS 108-205 x5-2931

[jhdoty@collins.rockwell.com](mailto:jhdoty@collins.rockwell.com)



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