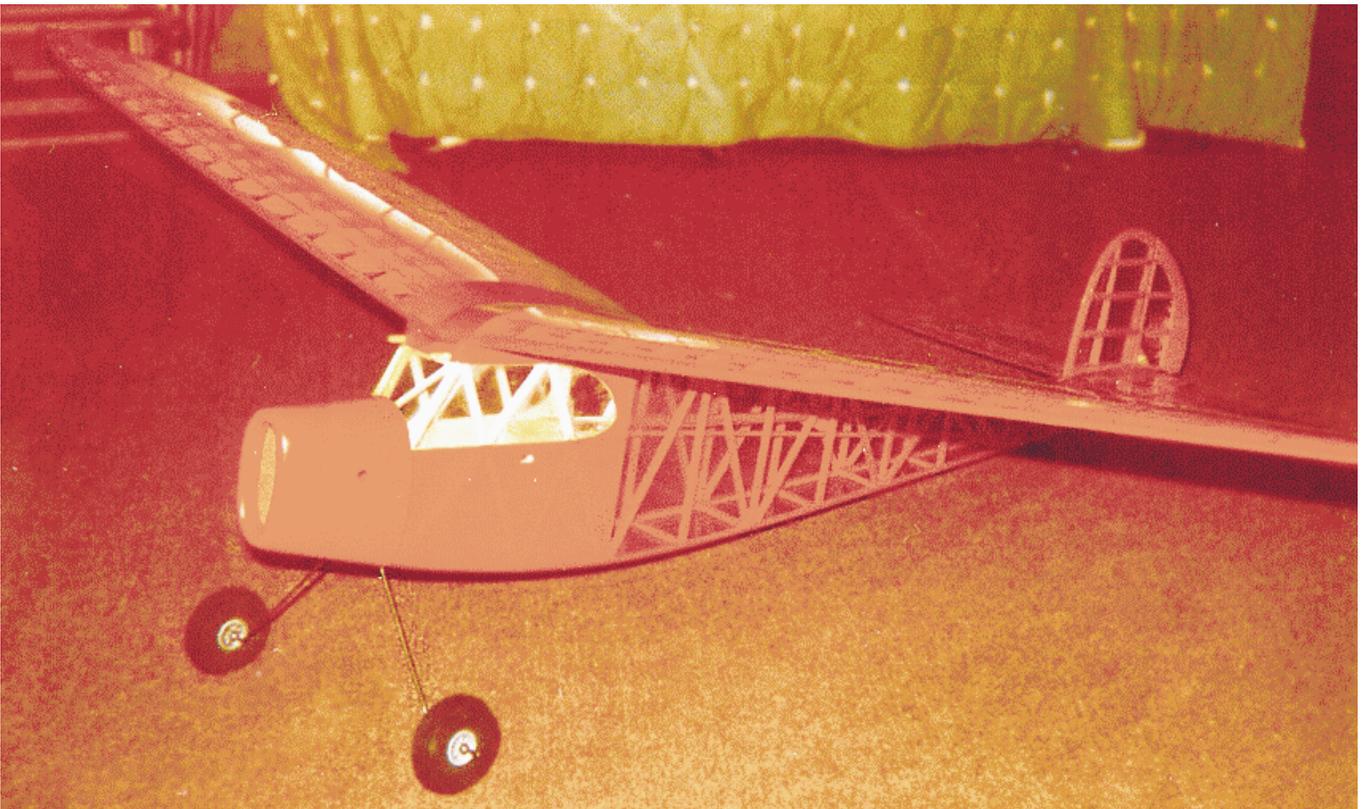


FlightLine

A Monthly Publication of Collins Model Aviators

April 1998



Reminders:

- Next CMA meeting is Thursday April 2nd
The April Meeting is also the Spring Beauty contest. Bring your new models and show them off!
- Field clean-up day is Tuesday April 7th

April's Featured Photo:

Above is a photo of the old-timer I bought at the Palo Swap meet. I am not sure what it is called. If anyone knows give me a yell. The cowl is beautifully formed out of thin wood. I would need to cut it up to use it with my engine so I think I'll save it and make a simple replacement for flying.

I hope to have it out to the field soon.

James H. Doty, FlightLine Editor →

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President's Column

by Crist Rigotti

Where does the time go? This has to be one of the "fastest" months ever recorded! After the March meeting, I laid back for a week, then went to the Twin Cities for Buddy's last basketball tourney for the season. Spent 4 days there enjoying the tournament, seeing my daughter Jackie, and visiting several hobby shops in the area. I did pick up a much-needed crystal for my airplane receiver. Did you know that Hi Tec crystals would work in a Futaba dual conversion FM receiver? Well, the guy at the hobby said it would, and it did!

Speaking of radios, I ordered a new battery pack for my transmitter and heli receiver, along with a new switch. The transmitter pack was a Futaba, which gave out after 3 years. I replace the heli receiver battery every 2 years and the switch every year. Vibration from the heli can be hard on switches, so I take the cautious way out and change them yearly. When was the last time you replaced your switch and or battery? Even in fixed winged aircraft, vibration will take its toll. A switch will cost about \$8 and a battery will cost about \$15. Cheap insurance when your consider the amount of effort and money that goes into an aircraft. For some good information regarding the care and feeding of ni-cad batteries see Red Scholefield's web page. Go to Tower Hobbies R/C Web Directory, then under the section OTHER RESOURCES click on "Other Sites", and then click on "Red's R/C Battery Clinic".

The Beauty Contest is upon us. It will be held during the April meeting. Not much time to finish that winter project. Let's all see what we have to enter and make this event well attended and with many entries. Wait till ya see what I'm bringing! There are three categories with three places that will win awards. Invite your friends and neighbors! Then soon after the Beauty Contest, we will be having our annual Field Day (Tuesday the 7th). You did mark your calendar, didn't you? The details for the Field Day can be found elsewhere in this newsletter. The winter sure has been long! Can't wait to get out and burn some fuel. The Zenith 60 is almost completely framed by now. Still has a lot of sanding to do, but then it will cover quickly, then out to the field!

We will have to go over the membership rules for everybody's benefit and understanding at the April meeting. We had a small snag in that area and I reported to Sandi that it was an isolated case and that we would make every effort to avoid any problems in the future. We may even have to change the by-laws to make the membership section easier to understand, not only for the time being, but also for future administrations.

I'm planning on handing out a questionnaire concerning helicopters at the April meeting. I would like to demonstrate the heli before the May meeting. Of course this will depend on the weather. I'll need to get in some practice before the demo also. I'll also have a mowing schedule for sign up at the meeting. I wonder if we can post it on the Web page, then have members sign up also? If it can be done I'm sure Steve will do it. Visit our Web page regularly to check out the calendar and any late breaking news!

Till next month.... **KEEP YOUR BATTERIES CHARGED, AND YOUR FINGERS OUT OF PROPS!**

Crist Rigotti, CMA President ➔

March 5, 1998 Minutes

by Doug Emerson

Crist Rigotti called the meeting to order.

Old Business:

The February minutes were approved as read.

Crist gave the treasurers report. Currently, there is a treasury balance of \$581. \$100 of the balance is company funds.

The helicopter group has not seen helicopters in flight. Would like Crist to demonstrate to members. Plan for April or later.

The CMA frequency list was sent to Plenny Bates and Terry Philpott. Terry has another field (north) that will be AMA. Terry will share frequency lists. May or June we will send an updated list out. Mark Woytassek has a database for pager frequencies.

Hobby shops were added to Flightline. R/C Adventures will be changing their name to Hobby Zone.

Beauty contest will be next meeting. It is planned to use \$20, \$15, \$10 gift certificates for all three categories. Need ballots and index cards for the contest. Dave Sneitzer will take care of ballots.

Current membership list was passed out to members for updating frequencies and correcting any errors.

New Business:

Crist asked for a mowing schedule. We need to mow the pits; usually Doc does the runway. It would be good to mow on Monday before Tuesday/Thursday flying, every week if possible. During the next meeting a list will be passed around for pairs of volunteers each week.

We need to get new cable spools as the ones at the field are in very poor shape. Rockwell or the Telephone Company are possible sources.

Crist indicated he would check with Employee Service to find out about posting information and PR stuff on the bulletin board in the 106 area.

Rich Dean will contact those who reserved frequencies that are banned at the CMA field. Are

they still using those frequencies? What are the current agreements?

April 7 is field day. Fencing needs to be put up for the spectator area. We will not be able to enlarge the pit area. Volunteers need to bring tools for cleanup, check the frequency box, and the first aid kit. We may need to add more fencing material to better protect pit area. It is planned to do engine de-bugs after clean up. It was suggested that we build some steps near the frequency box so that we can stand on it to locate down planes in the cornfield.

Mark needs a circuit to control servos from a RS232 bus. Anyone who has or knows about a circuit, contact Mark Woytassek.

There were 19 yes votes and 0 no votes on the change of wording when dues are due in the bylaws, paragraph 3.2

There was discussion on looking into working two Web sites, one on the Internet and the other on the Rockwell Web. Mark indicated he would check with the Woodworker's Club who is trying to get on the Internet.

Door prizes were awarded and the meeting adjourned.

Thanks to Floyd Van Auken for taking the notes for the minutes of the meeting in my absence.

Doug Emerson, CMA Secretary →

Come out to the Beauty Contest and Field Cleanup

by Jim Doty

April marks the start of the flying season. It's time to dust off the old trainer and polish up the new winter build project for a new year of flying. To get everyone ready for flying season the CMA has two important activities this month. On Thursday April 2nd we will have the annual CMA Beauty Contest. Anything that hasn't been in a beauty contest in the past is welcome. Even if you haven't been detailing a scale model all winter, you still need to come out and show what you've been working on. It's a great time to talk about our projects and get ideas on what you might want to build next.

Field Cleanup: Another annual April event is the Field cleanup and engine run-in. Come out and help us spruce up the field. We'll be rearranging the pit area and putting up the fence. Rich Dean will be on hand to help members tune up their engines.

I hope everyone can come out for these important events, and don't forget flight training starts in April too. See you in the air.

James Doty, FlightLine Editor →



gunners stations in the engine nacelles. It is obvious that the large wing and bulbous body of the XFM-1 created high drag. The wing was very large and carried all the aircraft's fuel. The wing was so thick that the crew could crawl through the wing to move between the fuselage and the wing gun stations.



Unfortunately the high drag meant that the XFM-1 was rather slow. Under powered and under gunned (with only two 50 caliber and two 7.62 mm machine guns) the XFM-1 would have been no match for the single engine fighters of its day.

An experimental series of 13 YFM-1 pre-production aircraft were commissioned, but they never saw service.

Bell XFM-1

By Jim Doty

Photos from US Air Force Museum web page, Wright-Patterson AFB, Dayton, Ohio

<http://www.wpafb.af.mil/museum/fta/fta.htm>

Specs and details from:

<http://www.smoky.org/~dlevin/bell.html>

The Bell XFM-1 (and prototype production YFM-1) was an interesting attempt at a long-range escort fighter. The XFM-1 made its first flight in August of 1937. It came along at a time when aircraft designers were attempting to find a twin-engine solution to the long-range fighter escort requirement. Both the Germans and the Allies tried different twin solutions. Some of these later became successful as night fighters, but only the P38 Lightning (first flight in 1939) was very successful as a daylight fighter.

The pusher props of the XFM-1 were intended to increase propeller efficiency and allowed an unobstructed forward field of fire for the two



The YFM-1 had the following specifications:

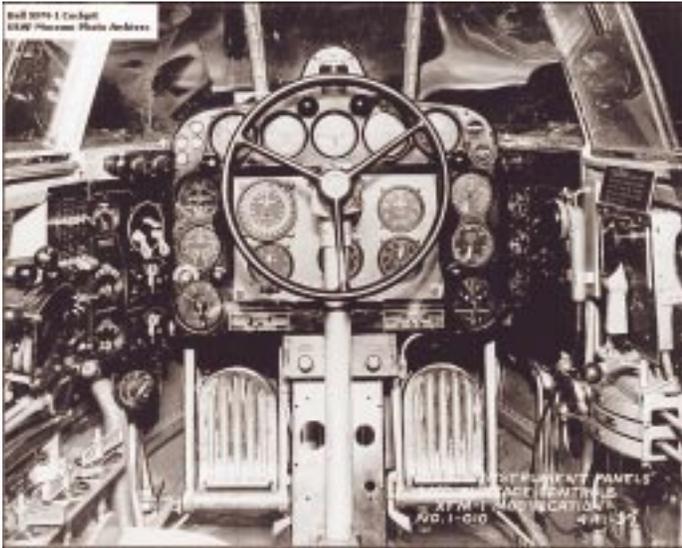
Name: Bell YFM-1 "Airacuda"

Type: Heavy escort fighter, 1937

Development: YFM-1 was developed as a heavy escort fighter. First prototype XFM-1 flew on September 1, 1937. The aircraft was equipped with Allison V-1710-13 1133 hp engines and achieved the top speed of 490 km/h.

Variants: YFM-1A - V-1710-23 engines

YFM-1B - V-1710-41 1073 hp engines



National Newsletter

*The following articles are reprinted from the
AMA's National Newsletter*

[http://www.modelaircraft.org/news/letters/
jannews98.htm](http://www.modelaircraft.org/news/letters/jannews98.htm)

Service: None.

Crew: 5

Wingspan: 21.3 m

Length: 14.0 m

Height: 3.9 m

Wing area: 55.8 sq. m

Empty weight: 6200 kg

Takeoff weight: 8190 kg

Max. takeoff weight: 8650 kg

Engines: 2xAllison Y-1710-23, 1072 hp each

Max. speed: 431 km/h

Cruise speed: 383 km/h

Landing speed: 123 km/h

Climb rate: 7.5 m/s

Ceiling: 9300 m

Cruise ceiling: 7000 m

Range: 2880 km

Range with maximum payload: 1510 km

Payload: 146 kg of bombs or rockets

Armament: 2x12.7 mm cannons, 2x7.62 mm
machine guns

<http://www.smoky.org/~dlevin/bell.html>

Although the YFM-1 was not successful as a war bird it would still make a good subject for a scale model. The large wing should make it a good flyer, and pusher twins would make it a great electric powered model.

James H. Doty, FlightLine Editor →

House Paint on Models

by John Boren

About two years ago SAC (the Suburban Aero Club of Chicago) had a guest speaker, now a club member, Jerry Worth. He talked about the different types of paints used in the painting industry and in particular the use of latex house paint on model airplanes.

Now back to the present day. I was in need of a paint to cover my quarter scale Hawker Typhoon airplane. More to the point, I wanted an inexpensive paint for the Typhoon. After spending tons of \$\$\$\$\$\$ on the model, I now wanted a way to spend less of it. I posed this question to the Model Net forum on CompuServe and got two good replies back. The first reply was to use Perfect Camouflage paint. They certainly had the colors I needed but they weren't cheap. At \$8.00 a ½ pint, the cost was going to be quite substantial, still it was cheaper than automotive lacquers.

The next suggestion was to go to my local Home Depot and try an exterior latex house paint called Behr. Remembering back when Jerry suggested a similar paint during his lecture, I decided to go for it. I proceeded to Home Depot with my three color chips in hand. I went up to the lady in the paint department and asked her for one quart of each of these three colors. A couple minutes later the color matching computer machine told her what type of base paint to use and the right pigments to add.

Fifteen minutes later I headed home to try out my new paint. Each quart was under \$8.00, so even if it didn't

work, it wouldn't be a great loss of money. After opening up the cans, I was amazed to find that none of the colors matched the color chips, but of course once the paint samples dried, all the colors were a perfect match.

It was now time to try out a few sample spray jobs on various materials to see if this paint would bond to the surfaces. I mixed up a batch of sky color (light green) and proceeded to spray a sheet of ABS plastic, sheet aluminum, and a primed surface of wood. The next day after the paint had time to dry, I proceeded to scrape the paint off with my

finger nail with very little effort. Well, this was no good. I made a quick phone call to Jerry Worth and his reply was to try using Behr latex primer first then shoot the color. Starting to get impatient, I shot a small test area with Behr primer on the tail of my Typhoon. Sure enough, it worked. Not only did it stick, but it wet sanded fantastic and dry sanded about as well as automotive primer. Now that I had the colors ready, it was time for the final surface preparation on the model.

The entire model was covered and sanded with many layers of automotive gray primer. I then marked off and taped all of the panel lines with 1/32" tape. The entire surface was then gone over with a Scotch Brite pad. I mixed up a batch of Behr primer with a ratio of about 60% primer and 40% distilled water. It sprayed out perfectly from my touch up gun.

Several minutes later I was in horror when primer began running all over the surface of my fuselage. At this point I felt like giving up, but instead I took out a damp sponge and wet towel and proceeded to wipe down the entire plane. Thirty minutes later I was back in business. This time I mixed up a thicker batch of paint, 85% paint and 15% water. It still sprayed on fairly well and this time it didn't run.

After two days of spraying primer, I now had the entire model covered in white primer. Out came the 2H pencil lead. I next drew a typical camouflage color scheme on the upper surface of the model. Next I masked off the entire top of the plane for the bottom would be one color, in this case Sky. I found a new masking type tape in the paint department. It

looks like a white colored wax paper with a tacky back surface. It is used for masking off around windows and such in your home. One of the great things about this stuff is that it can't be curved, so it's great for all the straight edges on the models.

Next came my first application of color on the model. I mixed up a thick batch of Sky color and proceeded to spray it on with my touch up gun with about 70 PSI of air. This is the tricky part of using latex house paint. The mixture of paint and water has to be just right. If it sprays out like paint should, you've got way too much water. If it sprays out in stringy type globs, you don't have enough water. If it spits out with thousands of little dots, you've got the mixture just right. The surface almost looks like you've used a paint roller to apply it, but it quickly smooths out. Of course you still follow the normal practice of a light mist coat followed by a heavier coat of paint. Wait at least a whole day before you handle the model.

Next came the top surface of the plane with its two colors of Dark Green and Dark Earth. After masking off the bottom of the plane, I proceeded to spray on the Dark Earth-colored paint, trying to somewhat follow my pencil lines and waited for it to dry. The next day I proceeded to mask over the Dark Earth areas with electrical tape and newspaper, leaving the areas where the Dark Green color should be. I sprayed the Dark Green the same as the other colors. The next day I peeled back the electrical tape and to my horror, much of the paint peeled off the model under the tape right down to the gray primer. I was upset to say the least. I did notice that wherever regular masking tape came into contact with the paint, it peeled up nicely. The next two days were spent patching up all the areas that were missing paint. After another day, I peeled up all the tape, newspaper and 1/32" panel line tape to reveal a rather nice finish that cost only \$8.00 per color. There was enough left over to do three more planes.

I used flat colors for my plane since this is typical for War Birds. The only problem with this flat paint surface is the surface is very susceptible to discoloration such as scuff marks and blemishes. Next came all the British Roundels. These were masked off and painted with Tamiya Acrylic model paints. At \$3.50 a color and six different colors needed, the trim

paint cost me as much as the latex house paint. Next comes the surface protection from the gasoline that I will be using in the engine. Again, Jerry Worth recommended a clear coat found in your local paint store. At \$14 a quart, it's relatively cheap. Maxtech Satin Clear is the name brand he suggested. It is an acrylic urethane coating. The stuff should not be shaken up before use and its color is milky white. It sprayed on without any thinning and dries in ten minutes. I was able to spray my entire model in about one hour. About an hour later I brought the parts back inside for an overnight cure just to be safe before further handling. Clean up is with soap and water. This new satin finish on the surface has made the paint resistant to any type of marking. This clear is truly great stuff to work with. One thing I do not know about this clear is if it can be sanded between multiple coats for that glass type look that you want on sport planes. Since my Typhoon is a WWII heavy metal bird, I felt one coat just to fuel proof it would be adequate.

I'll sum up what I've learned about painting with Latex House Paint:

- Use very little water to thin out the primer or colored paint, about 15% maximum.
- You want the color to spit out in tiny dots.
- Two coats will be needed if you want the surface to be completely covered.
- Make sure your Latex color paint will bond to your surface coat. Use the same name brand primer and paint if necessary.
- Never use electrical tape to mask off anything on your model.
- If you make a mistake, just wipe it off with a wet towel.
- Use between 40 and 70 PSI for spraying.
- You can spray the color inside the house as the paint mist is heavy and falls straight down instead of floating in the air.
- Handle the painted model gently for several days after painting. Even then the paint is very

susceptible to marking until a clear coat is applied.

from :

The S.A.C. Dope Can,
Arthur E. Lasater, Editor
1441 Burr Oak Road, Homewood, IL 60430 →

Tips and Techniques

Bubble, Bubble

by Don Lowe

We often wonder why our engines set so erratically, lean out in flight, and die. If there are visible bubbles in the fuel feed line, or you can see frothing in the tank, then that's your clue. Using rubber engine mounts is a great help, but the best way is to set the tank in a batch of soft foam rubber, as softly as possible. Properly set up, you should almost never have to re-adjust your needle valve between flights.

Backplate Shimmy

To tighten a metal spinner backplate that fits the shaft too loosely, use a center punch to make a few punch marks around the shaft hole. This usually pushes the metal inward enough to take up a few thousandths of an inch clearance.

Magic Material

Alert club member WH brings this new (?) material to your attention. It is called Celastic and is best obtained from Sig Manufacturing Co. It feels and looks like a sheet of cardboard, but goes limp like wet silk when dipped in butyrate thinner. You can form this adhesive coated material around any kind of curve and it dries stiff and hard in a short time, ready to sand or paint. There are many uses for it, but the most common are for air ducting scoops, fillets around wings and tails, or reinforcements for wings, landing gear, or other needy places. It even works for a handy field repair.

all from The Beacon, Joe Bachman, Editor, 1134 San Ricardo Ct., Solana Beach, CA

Another Cleaner

I didn't believe it when I first read it. Maybe I'm just too suspicious. What I read was just another modeler's brew for cleaning airplanes. What made me skeptical was the fact that it didn't match MINE! For years I've been using a mixture of Windex, non-sudsing ammonia

and just a touch of clear dishwashing detergent. This has always worked for me and really came in handy when my son stuck my daughter's shoes in the broiler. My poor unsuspecting wife turned on the stove and covered everything with greasy black soot that all her household cleaners wouldn't cut. But MY cleaner went right through it, so of course I was suspicious of this guy's stuff. He called out for mostly windshield washer fluid and a touch of granular automatic dishwasher detergent. I used too much detergent the first time and none of my squirt bottles would suck it up. It appears that about 1/4 teaspoon in a 20 ounce squirt bottle filled with regular automobile windshield washer fluid works well. I sprayed this stuff on my greasy, slimy airplane, then walked back to my car for a paper towel.

I was only gone a few moments but when I got back ALL of the grease and slime had broken up and easily wiped off. My old stuff isn't that good because you had to wipe really hard. I usually tried wiping off the thick goo before applying the cleaner. Not necessary with this stuff. Spray it on and wait a second.

Don't believe me? Well find me at the field next time and try some. You'll be making up your own in no time. Washer fluid is cheap, lots cheaper than Windex and you can steal a 1/4 teaspoon of Cascade from your wife. (Don't volunteer to start the dishes though, or she'll know something's up!)

from Northland Flyer, William Crane, Editor

6280 N.W. 49th, Parkville, MO 64151

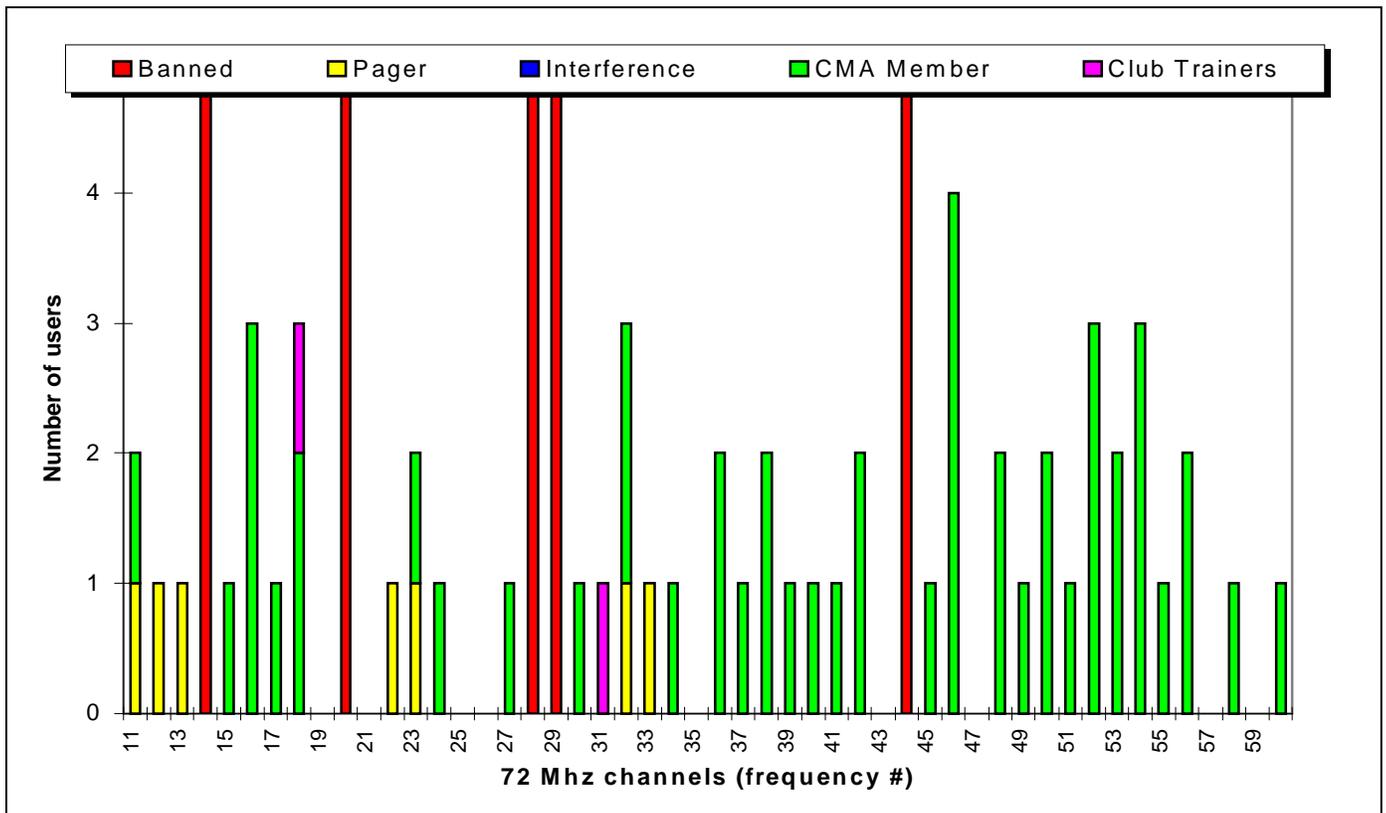
1001 Patterson Rd., Santa Maria, CA 93455

AMA's National Newsletter →

Local Pager Companies

Mark Woytassek sent me this list of Cedar Rapids pager companies.

| Frequency | Callsign | Company Name |
|-----------|----------|---------------------------|
| 72.0200 | KUS230 | ANSWER IOWA LICENSEE CORP |
| 72.2600 | KNKM466 | SKYTEL CORPORATION |
| 72.4600 | KNKG859 | SKYTEL CORPORATION |
| 75.7600 | KUS331 | WESTLINK PAGING |





Heads Up, CMA Activities

Thursday, April 2, 5:00 pm — Club Meeting
 Tuesday, April 7, 5:00 pm — Field cleanup day
 Thursday, April 9, 5:00 pm— Rain date for
 field cleanup
 Tuesday, April 14, 5:00 pm — Basic flight training
 session
 Thursday, April 16, 5:00 pm — Advanced flight
 training session
 Tuesday, April 21, 5:00 pm — Basic flight training
 session
 Thursday, April 23, 5:00 pm — Advanced flight
 training session
 Friday, April 24, 5:00 pm — FlightLine Deadline
 Tuesday, April 28, 5:00 pm — Basic flight training
 session
 Thursday, April 30, 5:00 pm — Advanced flight
 training session
Note: Meetings and build sessions will be held in the
 35th street N.E. Facility (main plant) Cafeteria
 building 140.



Send your input for the CMA Web Page to:

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

✈️ Flight Training ✈️

Flight Training will start April 14th and will be held Tuesday and Thursday (weather permitting) every week during the summer. On Tuesdays one of the club trainers is usually available for beginner training.

🌟 1997 CMA Staff

| | |
|----------------------|-----------------------------|
| President: | Crist Rigotti..... x5-0612 |
| Vice President: | Floyd Van Auken.. x5-4057 |
| Secretary/Treasurer: | Doug Emerson x5-2356 |
| FlightLine Editor: | Jim Doty x5-2931 |
| Web Page Editor: | Steve Plantenberg . x5-9625 |

Flight Instructors:

Rich Dean
 Tom DeWulf
 Dave Dillman
 Mark Woytassek

Flight Instructors in training:

Irv Anderson

Test Pilots for first flights of new airplanes:

Rich Dean
 Mark Woytassek

✍️ Send your input for FlightLine to:

James H. Doty
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Contact: Doug Emerson
 CMA Secretary/Treasurer
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 daemerso@collins.rockwell.com

For an AMA membership application:

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

AMA National Newsletter goes on-line:

<http://modelaircraft.org/News/Newsletters.htm>
 For selected articles from AMA club newsletters around the country

Beauty Contest

The annual CMA Beauty Contest will be held after the April meeting on Thursday April 2nd

Field Cleanup

Come out to the field Cleanup
 Tuesday April 7th

1997 CMA Membership

| <u>NAME</u> | <u>M/S</u> | <u>NAME</u> | <u>M/S</u> |
|---------------------------|------------|------------------------|------------|
| Irvin Anderson | 108-103 | John Michael..... | 108-166 |
| Geoffrey Barrance | 108-166 | Patrick Neu..... | 108-136 |
| Alan Bechtold | 124-224 | Marion Payne Jr. | 137-146 |
| Bob Buschette..... | 108-260 | Steve Platenberg | 137-152 |
| Brian Collins | 107-150 | Crist Rigotti..... | 164-100 |
| Dan Cooley..... | 124-111 | Duane Smith | 108-135 |
| Rich Dean | 124-115 | David Sneitzer | 124-115 |
| Jim Doty | 124-111 | Van Snyder | 108-104 |
| Mike Eastman | 106-183 | Steve Timm..... | 105-190 |
| Doug Emerson | 153-260 | Floyd Van Auken | 107-140 |
| Scott Emerson..... | 105-167 | Charles Ward | 139-142 |
| Frank Gutierrez III | 108-166 | Bryan Wesner..... | 153-260 |
| Richard Kelly | 124-115 | Mark Woytassek | 137-137 |

John Crilley
2540 2nd Ave.
Marion, IA 52302

Mike Crilley
3569 Timber Ridge Trail
Cedar Rapids, IA 52411

Jack Morgan
1209 Raney St.
Hiawatha, IA 52233

Basil Tilley
1028 Regent St. N.E.
Cedar Rapids, IA 52402

David Neu
3505 Vera Ct. N.W.
Cedar Rapids, IA 55292

Academy of Model Aeronautics
5151 E. Memorial Drive
Muncie, IN 47302

R/C Adventures
PO Box 284
Marion, IA 52302

Box-Kar Hobbies
109 3rd Ave. S.E.
Cedar Rapids, IA 52401

H & J Hobbies
Marion Heights Center
Suite 1185 Grand Ave.
Marion, IA 52302

Hobbytown
2737 16th Ave. S.W.
Cedar Rapids, IA 52404

**Know someone missing from this list?
Remind them to pay their 1998 dues?**