

FlightLine

A Monthly Publication of Collins Model Aviators

May 1998



Reminders:

- Next CMA meeting is Thursday May 7th
- Flight training sessions are held every Tuesday and Thursday weather permitting

May's Featured Photo:

This month's featured plane is Doug Emerson's SNJ-3 Texan. Doug's Texan won the scale model category of the CMA Beauty Contest held in April.

Doug put a lot of work into this model. A display of its construction steps was featured on the CMA bulletin board display. I hope you got a chance to see it.

For more photos from the Beauty Contest see *CMA Beauty Contest* on page 3.

James H. Doty, FlightLine Editor ➔

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President's Column

by Crist Rigotti

Cheers! Well, I finally did it. Went flying the other day. Wow, talk about being rusty. I was a bit surprised how rusty I got over the winter. Should have spent some time on the simulator. Now I'll have to "cram". All-in all it was great to burn some fuel. The helicopter started right away and needed only a few clicks on the high-speed needle. Passed up on some nice flying days to work on the Zenith 60. As I write this, I'm in the middle of covering it. I spent about a week trying to decide on a color scheme. I used my PC and the Windows Paintbrush program to develop it. I wrote an article on how I did it. It will be bright and colorful. Easy to see, and distinctive on the top and bottom. It's been a lot of work but the airplane should fly very well. I'll let everybody know what the final weight and figures are in next month's column.

Unless I get in a fair amount of flying in on the helicopter, the demo will take place sometime in May. I read your comments on the questionnaires and appreciate your thoughts. A May demo will give me some time to shake off the "rust" and get comfortable again with the helicopter. I'm sure the fixed winged fliers experience the same thing after a long winter. This gives me the opportunity to mention a few things concerning the new flying season. Before we rush off to the field, take some time to go over your airplane and radio. There are columns written about the numerous items to check. Save some possible heartaches and go over your model. Check out your flight box too! I have been

charging my starting battery all winter too! Let me relate a story, which just happened to me this past weekend.... I was going to mow the lawn for the first time, so I got the mower out and added fresh fuel, then proceeded to pull on the starter handle. Boy it is hard... must have "gummed" up over the winter...pull...pull...pull...Whew! I'll pull the plug and clean it out and with the plug removed, it'll turn over easier so I can "de-gum" the engine. Plug back in and still hard to turn over...hmmm. Oh yeah, I gotta hold the safety lever when running the mower! Next pull I had it running. I forgot a simple thing of how to start the mower over the winter! The moral of the story... THINK when starting the New Year at the field. Maybe a few "dry" runs will help. Be patient and go with somebody else for the first time to help out.

We had rain on both scheduled Field Days. Due to the initiative of several members, the field was cleaned up on a decent day. Thanks fellas. Don't forget the mowing schedule. We are trying to put it on the web. I'll try to send out reminders along the way. By the way, there are still some blank spaces that need filled. If you could sign up for a week that no one else has rather than "buddy" up with another member. This way we will have at least one member for every week.

By now the bulletin board should be up in the 106 building. Look for it and mention it to your co-workers. A Big thanks to Frank Gutierrez for heading up the project. Let's all work on promoting the hobby. Looking forward to a reduction of "business" matters for the club as we go deeper into the flying season. If anybody has anything that needs to be addressed, ALWAYS feel welcomed to bring it up at ANY meeting. I'd like to spend our time flying when we can.

Look for me at the field soon. I may even put in some stick time on one of the trainers to get the feel for fixed winged aircraft again before I fly the Zenith 60. Just might be the wise thing to do. Remember...If a lot of power is good and more power is better, then too much power is just about right!

Crist Rigotti, CMA President✈



John Crilley's Ultimate Biplane took second in the scale category



Rich Dean's Tiger 2 took second place in the sport category. It has a lot of coving details that make it stand out.

CMA Beauty Contest

by Jim Doty

On April 2nd we had our annual Model Beauty Contest. The planes were judged in three categories: Scale, Sport, and Trainer. There was an excellent turnout for the event and it was obvious that a lot of members had been working hard on their models this winter.



Dan Cooley's Tiger 60 won first in the Sport category. Dark blue and yellow covering give nice contrast and blue pin striping adds nice detail.

Dan Cooley had finished the Tiger 60 that he has been bringing to the build sessions. It looked great and he won first place in the sport category.



Bright yellow covering with black checkerboard accents gave Van Snyder's LT 40 first place in the trainer category



Basil Tilley's Giant Lazy Bee claimed third in the trainer category. This is one big bee.



Rich Dean and Duane Smith received third in the scale category for their islander twin loosely based on an LT-40 kit.

Van Snyder's bright yellow LT-40 took first place in the trainer category. The black details really show up on the yellow background.



Dale Brech won second place in the trainer category with the new Eagle II club trainer. The jagged edges on the red covering give it a distinctive sporty look for a trainer.

Doug Emerson won first in the scale category with his SNJ-3 Texan featured on this month's cover.

It was nice to see so many models at the Beauty contest. It shows that there is still a lot of life left in the club. I can't wait to see all these beauties flying over our field.

James H. Doty, FlightLine Editor →



Geoff Barrance's Super Marine racer adapted form a Four Star 40 kit. He really did a nice job of converting the sport plane into a scale model.

April 2, 1998 Minutes

by Doug Emerson

Crist Rigotti called the meeting to order.

Old Business:

The previous month's minutes were approved as read.

A helicopter questionnaire was passed out by Crist for members to fill out and was collected at the end of the meeting. He said he planned to demonstrate helicopter flying later this month.

New Business:

Doug Emerson reported that we have received our renewal AMA charter and insurance for 1998. He also passed out Membership cards to paid up members that were present.

Field day is planned for April 7.

A petition to the city of Cedar Rapids and Linn County that requested development of an R/C part was passed around for signatures. This petition was started by members of the Skyhawks club.

There was no news/progress on getting an external CMA web page.

Crist explained that we had a recent problem with interpreting the membership rules for CMA. Adult sons and daughters are not eligible for membership. However, they can fly as a guest, providing they have AMA memberships.

Following the business meeting, the Beauty Contest was held. There was a very good turnout of entries this year. When the votes were counted, the following people were winners:

Scale:

- 1st — Doug Emerson -- SNJ-3 Texan
- 2nd — John Crilley -- Ultimate Biplane
- 3rd — Rich Dean/Duane Smith -- Islander

Sport:

- 1st — Dan Cooley -- Tiger 60
- 2nd — Rich Dean -- Tiger 2
- 3rd — Geoff Barrance -- Wonder

Trainer:

- 1st — Van Snyder -- LT-40
- 2nd — Dale Brech -- Eagle II
- 3rd — Basil Tilley -- Giant Lazy Bee

Doug Emerson, CMA Secretary →

Color Schemes

by Crist Rigotti

Ever face the dilemma of a “new and original” color scheme for your latest project? Here’s an idea that may help. You’re gonna’ need your trusty PC and your Windows Paint program. This works with Windows 3.1 or Win95. There are two methods that I’ll describe that will work. Let’s look at the first and most “elegant” method.

- 1) Make an outline drawing of your model. Top and side views at least. If you want, you can make a bottom view too. The top and bottom views need only be from the centerline of the fuselage to the wingtip. Several ways to do this:
 - A) If Building from a kit, sometimes the manufacturer will include top and side views in their building manual. Sig included an outline drawing on the back of their manual for the Four Star 60 I built- very handy. Trace or photocopy these to a standard size piece of paper (8 ½ X 11).

- B) If building from a set of plans from a magazine article, you can enlarge the magazine plans to fit a piece of paper (8 ½ X 11). Be sure to leave some space between the wingtips and the edge of the paper. Then trace the outline in black.
- C) From a full size set of plans, draw an outline to scale, to fit on an 8 ½ X 11 piece of paper. This can be time consuming though.

The idea here is to get an outline drawing of your model. Include the canopy, and control surface outlines and spinner too. Don’t forget to trace the airfoil of the wing on the side view. Remember top and bottom views need only be from the fuselage centerline to the wingtips.

- 2) Try to scan your outline drawings into Windows Bitmap files (.BMP). Find a friend who has a scanner or you can go to one of the copy centers in town. I priced this service, and they want \$7.50 a scan- a bit pricey for me. A friend scanned mine in. He scanned the outline to 125DPI and saved it to a 3-½ floppy disk in a .PCX format. I then converted them to Windows .BMP files. Once scanned, load these files onto your hard disk under your preferred subdirectory.
- 3) Now the fun begins. Open your Paint program and load one of your outlines. Let’s say top view. Now begin drawing your color scheme onto your outline. I use a fine dark gray line to separate colors for right now. Experiment with different schemes. Be sure to save your new file with a different name than your scanned outlines. This way you can easily make several versions of your color scheme. Once you decide on your scheme, “paint” your model using the “fill” mode. Try different color combinations. This is where your Paint program works really well. Now, using the “select” tool, encompass the ½ top view and using the “copy and “paste” method, make another half. Click on “Image” or “Pick”; click on “Flip/Rotate” then flip the copied half “horizontally”. Then position the two halves

together to form a complete top view. This method gives a fully symmetrical color scheme for both halves. I print the different color combinations, using an inkjet color printer in the "econofast" setting, then tape them to a wall. I then step back and view them from a distance. This simulates how the model will look in actual flight.

Now for the "less elegant" method. After you have your outline drawing made, make an overhead transparency of the outline. This usually costs \$1 each copy. Open your Paint program, and then draw a line across the screen. Using the line just drawn as a reference, tape the transparency to the monitor's screen. Then using the drawing tools, "trace" the outline of your model. This doesn't have to be super accurate, just a good general outline. Save this drawing as your "scanned" outline. Then proceed as above to create your color scheme! A low-tech way to get around the problem of not having access to a scanner.

I "surfed" the net to get different ideas as a starting point. A great place to go is the Precision Aero Composites home page at <http://ourworld.compuserve.com/homepages/cblair1>. I then clicked on each of their kits and printed out those color schemes. I also visited some of the "pattern" home pages for more ideas. From there I designed my "new and original" color scheme!

Crist Rigotti, CMA President →

For Sale:

1. Quarter Scale Fly Baby with Super Tigre 2000 and Futaba Radio.

Willing to sell all or A/C, Engine or Radio separately. Make offer.

2. Variety of kits, models and accessories available, call for list or to stop over.

Elio Picchetti

378-8041, 295-9440 or e-mail



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

<http://www.modelaircraft.org/news/letters/jannews98.htm>

Tips and Techniques

Lube Job

by Clarence Lee

Many of the model fuel manufacturers have been reducing the oil content of the fuels from standard previous practice and the result is engine problems and, in many cases, burned up engines. The pilots often aggravate the situation by over-leaning the engine to try and get the last bit of power. The content of lubricant in a gallon of fuel has dropped from a prior 22-25% down to about 18%, and even to a low of 12%. There is a school of thought that certain synthetic oils with their superior qualities will still properly lube an engine. This is usually not true. If you are on the rich side of the power curve, a little less oil may not be a problem, but if you give it a few clicks leaner, you will be looking at serious damage.

The best advice for sport or pattern flying is to find fuel that has not less than 20-22% lubricant, and preferably with a blend of synthetic and castor oil. Although ABC type engines are somewhat more tolerant than ringed or lapped engines, don't forget that it is the oil in the fuel that carries away a lot of the heat.

Heat, Dead Batteries or Polarization?

My stopwatch was laying face up in the hot sun and I noticed the display had turned completely black and unreadable. Later, out of direct sun, it seemed to recover from the heat. We never had

this problem with a mechanical watch! Then a couple of months later my tachometer was impossible to read unless I twisted it just so. Someone suggested new batteries and I cringed, having replaced a set recently at a cost of almost half the tach itself. It finally dawned on me that I was wearing polarized sunglasses and the tach lens must be polarized. By rotating the tach about 45 degrees vertical, I could make the display turn black and unreadable. Same with my stopwatch. Two polarized lenses will do that. Odd thing is that the sunglasses and the instrument lenses seem to be polarized at a 45 degree angle rather than horizontally/vertically as I've noticed in the past.

from The Society of Antique Modelers, SAM 26
Bob Angel, Editor

Another Way

A tip was published in a previous AMA Newsletter suggesting a product called "Aurora" plastic windshield cleaner and polisher for removing scratches from canopies. Howard Pascoe, editor of the Endless Mountains R/C Flying Club newsletter, South Montrose, PA, suggests the following:

Here's a trick I learned in my motorcycle days. When I needed to take the scratches out of my helmet, I'd just go to the grocery store and purchase a bottle of Pledge. It does a wonderful job and will last for a long time. Apparently the silicone imbeds in the scratches and makes it look almost like new.

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Builder's Hint

by Martin R. Timm

Lately I've been noticing more and more planes sporting "Sky Sheen," a strip of reflective metalized tape that is placed on the leading edges of the wing. On sunny days, a plane equipped with this tape becomes highly visible, because the tape catches the sun's rays and flashes brilliantly. You can get this tape through Northeast Sailplane Products at \$2.50 for a 4 foot roll (enough for one plane). A better bargain, however, would be to go to your local auto parts store (I went to Parts America) and

get the same thing in a 25 foot roll (enough for 3-5 planes) for \$4.50.

from Clarence Silent Flyair, Erik A Rash, Editor
336 West Avenue, Lockport, NY 14094

AMA's National Newsletter →

High Wings Versus Low Wings

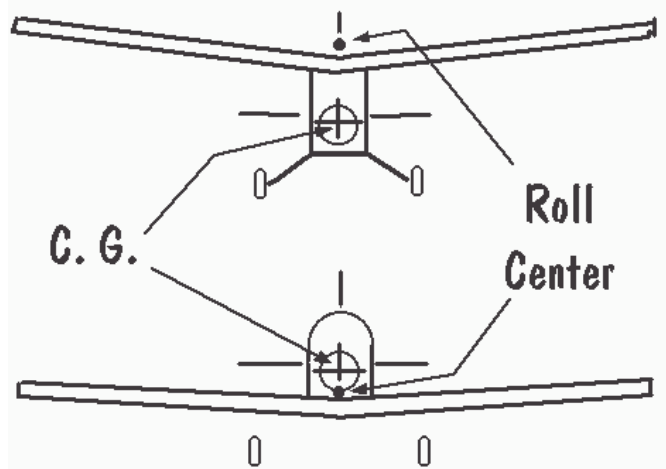
by Clay Ramskill

We finally master our high wing trainer—or trash it, whichever comes first. Maybe then we build a shoulderwing plane.

Only after we are somewhat competent at flying do we try flying a low wing plane, and then with white knuckles and shaky knees. WHY? Just what is it about low wingers that make them “tougher” to fly? Are they faster? No! All other things being equal, there's virtually no difference in drag, or therefore top speed. The illusion comes from designers' choice—they tend to put faster airfoil sections and lower aspect ratios on low wing planes, making them speedier.

Low wing planes do have several characteristics, compared to high wingers that make them more suitable for higher performance aircraft.

Figure 1

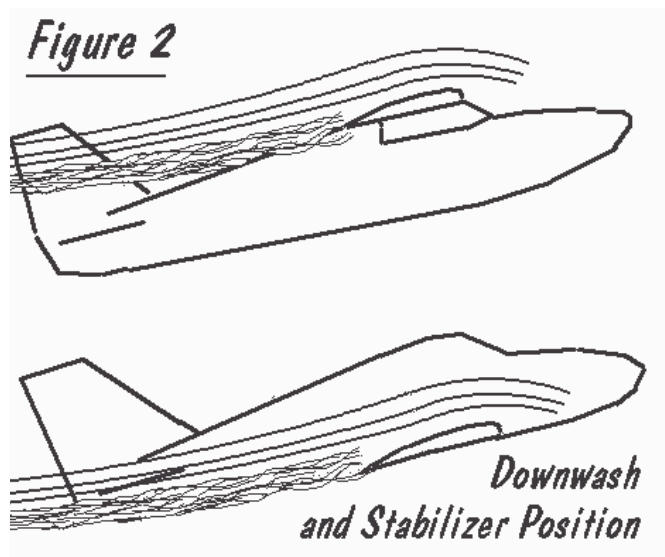


1. “Nicer” (and quicker) roll response. This comes from the relative placement of the Center of Gravity, being closer to the natural roll center of the wing. The CG will be at or only slightly above the roll center of a low wing, but well below that

of a high wing. Assuming at least a little dihedral, the roll center of the wing will be slightly above the center of the wing.

In a roll, the wing (providing the “power”) wants to roll about its own roll center. The rest of the plane (the “resistance”) wants to roll about the CG. The wider the distance between roll center and CG, the funnier-looking is the roll (i.e., “non-axial”).

2. The low wing lends itself to a less stable stabilizer position, leading to more pitch maneuverability. With a high wing, it's simple, and natural, to have the stabilizer well below the wing. When the nose is pulled up, the stab drops down well below the wing's downwash, and becomes increasingly resistant to further AOA increases. This is great for stability, and makes stalls less likely.



The opposite is true for the low winger—or a pull-up, the higher stab drops into the wing's downwash, making further AOA increases easier, and the plane more maneuverable.

3. The low wing reacts more neutrally to power changes. Our old high wing trainer, with the thrust line very low, will respond by pitching nose up when power is added, nose down if power is reduced. This contributes to stability, with the nose going the way we want it to on a trainer. On the other hand, the low winger will be more neutrally stable, without

much pitch reaction to power changes. The low winger will also be more wind “resistant” on the ground, a function of wing height above the wheels. The high winger will naturally be more “tipsy,” reacting to wind while taxiing and during takeoff and landing.

We must all understand that we're only talking of tendencies here. There are many other variables that have an impact on the characteristics involved—the designer can juggle these around to get the desired handling. But wing placement is definitely one of the biggies when it comes to establishing how a plane is going to handle.

from Clay's Newsletter Editor Helper
courtesy of Clay Ramskill, Arlington, TX
Seven Towers RC Club
<http://www.startext.net/homes/cramskill/inkclay.htm> →

Local Events in May and June:

MAY 3--Polk City, IA (A) Mid Iowa Combat and Racing for 330(JSO). Site: Big Creek State Park. Malcolm Fawley CD, 237 51st St. Des Moines, IA 50312-2105. Contact Cd for specific 80 mph rules and racing rules. These ARE local rule events!
Sponsor: MID IOWA CONTROL-LINERS

MAY 16--Solon, IA (A) Misty Meadows Soaring Classic for 442, 444(JSO). Site: 4125 180th St. NE. Terry Edmonds CD, 4125 180th St. NE Solon, IA 52333 PH: 319-644-2822. Sponsor: EASTERN IOWA SOARING SOCIETY

MAY 30-31--Muscotone, IA (A) MMAA Glider Meet for 442, 444(JSO). Site: Club Field. Jim Rummery CD, 2729 Brookview Rd. Muscotone, IA 52761. PH: 319-263-8402. Sponsor: MUSCOTINE MINIATURE AIRCRAFT

JUN 7--New Hampton, IA (C) Spring Fly In. Site: Airport. Dole Adams CD, 114 N. 9th St. Osago, IA 50461. PH: 515-732-5940. Dawn to dusk flying. Must show AMA license to fly. Sponsor: NEW HAMPTON CROSSED SIGNALS

JUN 13-14--Ottumwa, IA (C) Class C Fun Fly. Restricted to IMAA members. Site: Ottumwa Industrial Airport. Ronald Beasley CD, 1906 N Court St Ottumwa, IA 52501 PH:515-684-4375. Sponsor: OTTUMWA RC FLYERS

JUN 20-21--Montezuma, IA (C) SIG's 24th Annual Fly-In. Site: SIG Field. Al Grier CD, 13003 Castlebar Dr Sun City West, AZ 85375 PH:602-546-2205. Still one of the largest fun fly events in the US. Events for every skill level, bring your kadets, cub, hogs, 4 starts, etc & 1/4 scales. No entry fee. SIG models only, except 1/4 scale. Everyone that flies wins a prize. Contact SIG Mfg for events and rules 401-7 Front St Montezuma, IA 50171. Sponsor: SIG MFG/DES MOINES MODELAIRES

JUN 27--Keokuk, IA (AA) 2nd Annual Sailplane Meet for 442 and 444(JSO). Site: Double D Ranch. Robert Thompson CD, 326 N 5th Keokuk, IA 52632 PH:319-524-8084. Sponsor: EAGLE SQUADRON

JUN 27-28--Montezuma, IA (AAA) SIG CL Championships for 319-321, 323-326(JSO), 328-329(JS)(O). Site: SIG Field. Mike Gretz CD, PO Box 162 Montezuma, IA 50171 PH:515-623-5772. Skyray 35 carrier (JS)(O), Skyray 35 sport race (novice) (open), old time stunt and classic stunt (JSO). Sponsor: SIG MANUFACTURING CO

JUN 28--Grimes, IA (C) SAM Old Timer Meet. Site: Club Field. Al Grier CD, 13003 Castlebar Dr Sun City West, AZ 85375 PH:602-546-2205. SAM rules apply to all old timer models. (RC assist) 3 flights, 10 min max, 30 min total. 25 sec eng run for glow, 45 sec for elec, also a climb & glide event for any type model, same rules. Sponsor: DES MOINES MODELAIRES



Heads Up, CMA Activities

Thursday, May 7, 5:00 pm — Club Meeting

Friday, May 22, 5:00 pm — FlightLine Deadline

Thursday, June 4, 5:00 pm — Club Meeting

Friday, June 19, 5:00 pm — FlightLine Deadline

Note: Meetings are 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
splane@cacd.rockwell.com

For an AMA membership application:

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

Flight Training

Flight Training has started and is 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
Mark Woytassek

Flight Instructors in training:

Irv Anderson

Test Pilots for first flights of new airplanes:

Rich Dean
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Send your input for FlightLine to:

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For membership information:

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AMA National Newsletter goes on-line:

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

1997 CMA Membership

<u>NAME</u>	<u>M/S</u>	<u>NAME</u>	<u>M/S</u>
Irvin Anderson	108-103	Patrick Neu.....	108-136
Geoffrey Barrance	108-166	Marion Payne Jr.	137-146
Alan Bechtold	124-224	Steve Platenberg	137-152
Bob Buschette.....	108-260	Crist Rigotti.....	164-100
Brian Collins	107-150	Duane Smith	108-135
Dan Cooley	124-111	David Sneitzer	124-115
Rich Dean	124-115	Van Snyder	108-104
Jim Doty	124-111	Steve Timm.....	105-190
Mike Eastman	106-183	Floyd Van Auken	107-140
Doug Emerson	153-260	Charles Ward	139-142
Scott Emerson.....	105-167	Tom Wachtel.....	106-186
Frank Gutierrez III	108-166	Bryan Wesner.....	153-260
Richard Kelly	124-115	Mark Woytassek	137-137
John Michael.....	108-166		

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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

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Marion, IA 52302

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