

FlightLine

A Monthly Publication of Collins Model Aviators

August 1998



Reminders:

- Next CMA meeting is Thursday August 6th
- CMA Fun Fly is September 12th at 3 pm.

Featured Photo:

This month's featured plane is the North American X-15. The X-15 pioneered space flight with its high-speed, high-altitude flights. The X-15's first manned flight was in 1959, well ahead of the first manned Mercury rocket flights in 1960.

The X-15's advanced control systems transitioned from aerodynamic to thruster control at high altitudes, like the systems later used on the space shuttle.

For more information on the x-15 see page 4.

James H. Doty, FlightLine Editor →



In This Issue:

Featured Photo	1
President's Column	2
CMA Minutes	3
From the Field.....	3
NORTH AMERICAN X-15A-2.....	4
Old-timer makes first solo hand launch.....	6
AMA News.....	7
Working with Music Wire	7
Servo Stall	8
The Bread Always Lands Jelly Side Down! ..	9
R/C Definitions	10
Local Events	10
Heads up and CMA Officers	11



President's Column

by Crist Rigotti

Welcome back. Hope everyone is enjoying the vacation season and the great flying weather we've been having. Earlier this month the weather was great but the bugs were terrible. As a matter of fact I went home several days in a row because they were so bad. I went out and bought a fogger. It works fairly well. It doesn't eliminate all the bugs, but it does make it much more enjoyable to fly. It's one of those things that I'll have for years. It goes in the car along with my flight box now.

I crashed my Ergo46 July 13th. The roll pin, which holds the tail rotor pulley to the tail rotor drive shaft, sheared. I called JR to see if anybody else reported this kind of failure. They said that was the first time they heard of that happening. Mucho bucks later I had the Ergo46 flying again. I basically "zero timed" the helicopter. It is flying very well now and that small annoying vibration is gone! Must have been the main bearings, which I replaced.

By the time you get this I'll be on vacation and Floyd will be conducting the August meeting. We will also have some recommendations on field rules for helicopters to present to the club for discussion and approval. I know that some preparation has already begun for our annual Fun Fly Picnic scheduled on September 12th at 3PM. Please mark your calendars and join us for some great flying fun and good food (both are great attractions - flying

and food)! I haven't been to the field for several weeks. May get out there before I leave. Fly the heli around and put some time on the Zenith 60 too!

I have gotten some feedback on the subject of safety, which I mentioned last month. Some pilots were taught that way and never gave it much thought. We're talking about holding onto the plane and starting it with the other, then leaning over to disconnect the glow plug etc. I'm glad that the column has us thinking about our everyday routine. We should have a routine, which is our "checklist" at the field. Sometimes it needs reviewed and revised. Now is a good time to go over your model. It has been flying for some time and things can work loose. Look closely at your muffler to engine joint to check for a good tight fit. If it's loose, you'll see some "dark" streaks from that area, a sign of a slightly loose muffler. Also check engine head and backplate screws, along with the screws that hold the engine to the mount. Go over that prop while you're there and clean off the grass stains too! Wheel collars, control horns, servo screws, nose wheel steering arms and the like need to be checked too. It should only take about 30 minutes to check your model out. Time well spent to avoid some damage later or even a crash. Get your sealing iron out and touch up that loose corner and tighten that sagged area you've been meaning to do. Keep your model clean after every flying session and the covering will look better and last longer too!

When at the flying field, don't forget to help a beginner. Then continue to push yourself into being a better pilot. Fly with a purpose. Oh sure, we all like to just goof around some times, but try to learn something new or try to do something better each session. Don't shy away from your weak side! Mine is a right to left approach and landing. I don't like landing from that direction. It won't get any better if I don't work on improving that direction. Get busy on getting better! Hey, we've got three green on the panel....Landing!

Crist Rigotti, CMA President →

July 2, 1998 Minutes

By Doug Emerson

Crist Rigotti called the meeting to order. There were 15 people in attendance.

Old Business:

Treasury report was \$488 in the Rockwell account. Prizes for this year's Fun Fly were discussed. It was decided that we should continue to purchase restaurant certificates for the spouse drawings and to have model airplane kits and supplies for member prizes.

Crist commented on the fact that the mowing volunteers have been doing a very good job. The field has been in very good shape.

The helicopter committee hasn't met yet. There are many reasons the committee hasn't met yet. One of the key members of the committee (name withheld) reported that he has been having too much fun flying to organize a meeting. It is expected that the committee will meet in the near future.

Crist reported that his review of AMA rules shows that AMA allows introductory flights for non-members on a one-time basis. The flight must be a supervised flight in accordance with AMA rules.

However, our club charter requires all people who fly at our site to have AMA membership. It was decided to table this issue for a possible bylaws change this winter along with any other changes that may be appropriate.

It was reported that Frank Gutierrez has replaced the missing frequency clip at the flight field.

New Business:

It was decided to organize a committee to search for a new flying field for next year. The following people volunteered: Rich Dean, Dwane Smith, and Crist Rigotti.

The votes for the bylaw change that reduced the provisional member fee to be the same as the AMA fee for junior members was passed.

The meeting was adjourned and most of us went out to the flying field and had a great evening of flying. I am also happy to report that my AT-6 survived its initial flight with no mishaps (whew!). Rich Dean

did a great job at the controls. It surely is nice to have a couple of good test pilots available to protect all of that hard work on the first flight.

Doug Emerson, CMA Secretary 

From the Field

By Rich Dean

Congratulations to Mark Moeller for becoming a solo pilot. Mark is a co-op who started flying with us last summer and is progressing well in his flying. He commented that the engine on his plane doesn't seem as powerful as it used to be, I think he is just used to his plane/engine combo and might need more power.

Also Brian Nowak is signed off as a three channel flier. His .20 sized Headmaster from out of the past has many flights on it and his new Sig Seniorita is flying great. Brian has plans to get a four-channel Bushwacker in the air soon. He is having a busy Summer! John Michael has gone solo also. He had nothing but bad luck initially, but stuck it out and is doing fine. It is great to see the progress these guys are making.

Contract employee Richard Kelly has left us and gone back to the Seattle area. We enjoyed watching his HUGE biplanes at the field. Richard had gone through heart surgery last year and was using his time here taking it easy and getting in a lot of flying. Before he left he said that his cholesterol was lower than it had been for years and he felt better than he had in a long time. There you have it--R/C flying is good for your health. Contact the AMA(American Medical Association)! Someone needs to figure out how to get R/C building and flying as rehab treatment!

Guys, be nice to the ladies in your life, they can help us out with our airplane projects from time to time. Like when checking for a bent crankshaft after a crash, one of the guys in the club(Van?) put two different shades of fingernail polish on the tips of a prop and ran it looking to see if the prop blades tracked OK. Those black props are hard to see. I have been known to raid my wife's emery board stash. They have a coarse grit sandpaper on one side and a finer grit on the other and no

sandpaper on the edges. They work great to sand those hard to get at parts. Also those of you who have wives or girlfriends that sew, they may have color coordinated elastic thread that works great for simulating flying wires. Be careful when borrowing her clothes iron to put covering on that latest

project. The adhesive on the back of the covering is really hard to get out of clothes if it gets ironed in.

The prices on some of the fun fly and hot sport ships are quite low. One of the reasons is that they include minimal or no hardware at all. You may have to supply everything from wheel collars to motor mounts. Lanier has done this for quite a while saying that builders have a personal preference for using their favorite hardware when building a plane so why supply the kit with things that won't be used anyway. That is OK, just let me know ahead of time so I can compare the price of kits apples to apples. I picked up a Great Planes Dazzler to give away at the upcoming fun fly and it had a list of "items needed to complete the kit" and it was a long list. In the advertising that is common with most companies that information is not in large type so keep an eye open when purchasing that next kit. Planes like the Sig LT-40 that include everything except glue, covering , engine, and radio will spoil you.

I have had another bad experience with those film type "easy" hinges. This time the cost was a totaled airplane. Two of the four elevator hinges broke. If you are going to use these hinges check them before every flight. A couple of guys have had to rehinge their control surfaces after having problems with the easy hinges. They were lucky enough to find the problem before it cost them a plane. Hinging a plane twice, doesn't sound like fun to me and at this point I can not recommend using them. Frank says there is a difference between manufacturers and he has one manufacturer he trusts due to them making their hinges thicker. So check with him if you like using this type of hinge for more detailed information.

See you at the field.

Rich Dean, CMA Flight Instructor →



NORTH AMERICAN X-15A-2

From the US Air Force Museum web page:

The X-15, designed to provide data on material and human factors of high-speed, high-altitude flight, made the first manned probes into the lower edges of space. It was built for speeds of up to 4,000 mph and altitudes of 50 miles, but these goals were exceeded on numerous occasions. Several X-15 pilots earned "astronaut" rating by attaining altitudes above 50 miles. The X-15 flight program contributed significantly to the Mercury, Gemini, and Apollo projects.

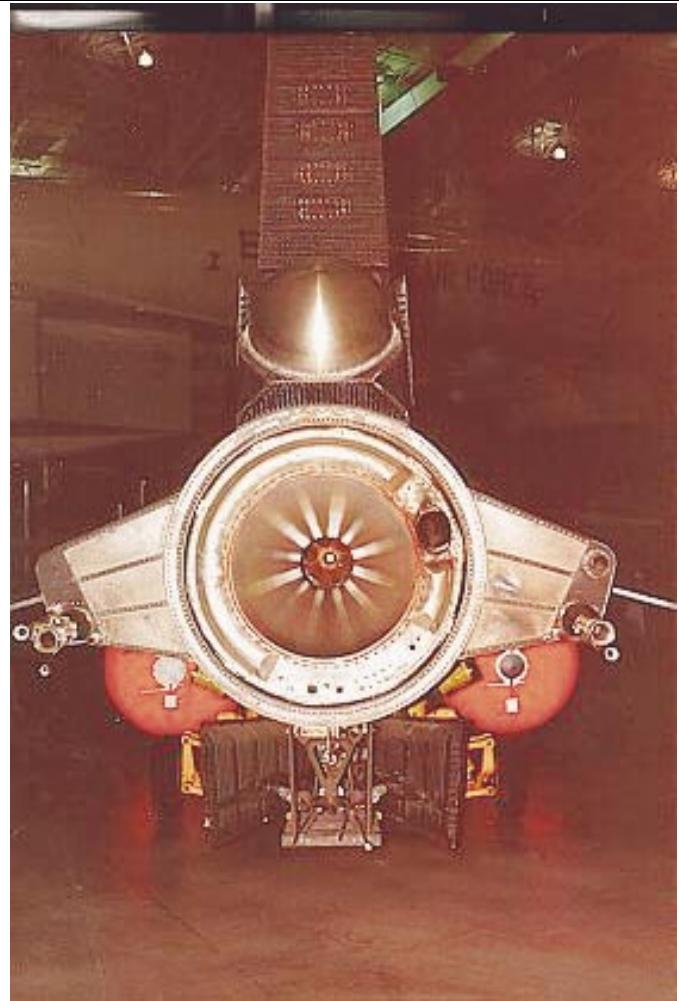


The X-15 was carried aloft by a B-52 and was released at about 45,000 feet and 500 mph. Its rocket engine then fired for the first 80 to 120 seconds of flight. The remainder of the 10 to 11 minute flight was powerless and ended with a 200 mph glide landing on a dry lake bed.

The first powered X-15 flight was made on Sept. 17, 1959, and 199 flights were made between 1959 and 1968 by the three X-15s which were built.



X-15 nose gear had to handle very high (200 mph) landing speeds



The huge rocket exhaust at the rear of the X-15 provided over 50,000 lbs. of thrust.

The No. 1 X-15 is at the National Air and Space Museum and the No. 3 X-15 was destroyed in a crash. The No. 2 aircraft was retired to the U.S. Air Force Museum in October 1969.

SPECIFICATIONS

Span: 22 ft. 5 in.

Length: 52 ft. 5 in.

Height: 14 ft.

Weight: 56,132 lbs. (at launch with ram jet test engine)

Armament: None

Engine: Reaction Motors YLR-99 rocket engine of over 50,000 lbs. thrust

Serial Number: 56-6671

C/N: 240-2

PERFORMANCE

Maximum speed: 4,520 mph. (unofficial record)

Range: Over 250 miles (flight path distance)

Service ceiling: 354,200 ft. (unofficial record by X-15 No. 3).

X-15A-2

The No. 2 X-15, damaged in Nov. 1962, was redesignated the X-15A-2 and modified for testing hypersonic ram-jet engines.

Modifications included adding external fuel tanks to increase engine burn time by about 70% and a 29-inch increase in fuselage length.



Two flights were made with a white ablative coating to keep aircraft skin temperatures within structural limits of 1,200 degrees Fahrenheit.

http://www.wpafb.af.mil/museum/modern_flight/mf57.htm



Old-timer makes first solo hand launch

By Jim Doty

I've been having a lot of fun flying my old-timer recently, but I've always had someone available to help me hand launch it. However, Sunday July 26th I went out to the field and no one else was there. It was about one o'clock and bright sunlight was streaming nearly straight down out of a bright blue sky. The puffy cumulous clouds scattered in the sky looked like little white cotton balls. I just couldn't miss out on a chance to see my old-timer with its transparent-red covering flying against such a perfect sky.

I decided to try and hand launch the plane myself. After all, I'd made more than 25 flights without incident and it doesn't take much to throw the light, slow-flying, old-timer. However, I was still quite nervous because I had never tried a solo hand launch before.

Fortunately I had discussed self-launching techniques with Mark Woytassek a few weeks earlier, and I remembered most of what he had said. He said that I should hold the transmitter in my left hand and throw with my right. That way I would get the best throw and would also be able to control the throttle with my left thumb. He also told me to practice the throwing motion and getting my hand quickly back to the stick.

I must have looked pretty silly standing in the middle of the runway throwing an invisible airplane then frantically grabbing for the stick, but it only took a few tries, and my hand fell naturally right to the stick.

At first I was a little uneasy with my hand off of the elevator and rudder, but as usual, Mark was right. I had good control over the plane in my right hand and could use my left thumb to throttle up the engine once I was in place.

With the engine peaked at full power I gave a gentle heave and off it went. The plane started to sink after release, but my silly-looking practice paid off. My fingers quickly jumped to the stick and pulled it out for a near perfect launch.

My next two launches were even better. I added a little up trim for takeoff and the plane just flew straight off of my hand.

After three fifteen to eighteen minute flights my batteries were getting just a little low. I didn't want to take any chance that the plane might fly off on its own (without anyone there to help spot it) so I packed up and went home.



You're always taking a risk when you fly alone. Some people recommend you never fly alone under any condition. However, if you do decide to go it alone, you must take special care and adhere to all safety procedures. When you're by your self, it is the last time to forget to check your batteries. Remember, starting safety is most important when there is no one around to offer first aid.

I tried to be very deliberate in my flight preparation and safety checks. My slow, well-behaved, old-timer helped out with its predictable performance. I had a very enjoyable experience. There is just nothing like the quiet beauty of an old-timer drifting quietly overhead, with its transparent red silhouette against a bright blue sky.

James H. Doty, FlightLine Editor →



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

<http://www.modelaircraft.org/news/letters/julynews98.htm>

Academy of Model Aeronautics Acquires International Modelers Show

The Academy of Model Aeronautics announces the purchase of the International Modelers Show from owners and founders Bill and Anita Northrop.

IMS, held annually in Pasadena CA, has been the premier modeling show on the West Coast for the past 21 years and represents the beginning of each new modeling season for modelers and manufacturers.

This new endeavor is part of an ongoing AMA effort to generate revenues to enhance the programs offered to AMA's members while reducing the burden of increased membership costs. The programs expected to benefit most from the proceeds generated from this business opportunity are the acquisition and maintenance of flying sites and the AMA Education Program. By breaking from the traditional member-funded approach to operation, AMA is truly striving to enhance the services offered to all its' members, while minimizing the cost of those services.

For more information, contact Jay Mealy (mailto:jaym@modelaircraft.org), Programs Director for the Academy of Model Aeronautics, (765) 287-1256 ext. 270.

Working with Music Wire

by Leon H. Raesly

Building from scratch frequently requires bending music wire for landing gear or cabane struts supporting the wing over the fuselage. Because it can be hard to figure out where to bend the wire or to produce two identical bends, buy extra wire to allow for inevitable errors. The problem seems to be knowing where to clamp the wire to the vise.

One approach that works is to make the bends working away from the center by measuring in from the ends. This avoids having to measure over a bend to figure where the next bend goes. If you start with two pieces of identical length, your chances of producing two struts that are the same

basic shape are good. If at first you don't succeed, cut another piece of wire.

The music wire we use is spring tempered high carbon steel. Once bent, the "die is cast." Don't try to straighten the wire and make another bend if you find you made a mistake. Start over with a new piece. You can twist the wire to improve alignment or bend slightly to increase or decrease the angle of the bend, if necessary.

By the way, those commercial wire benders which use a lever to bend the wire around pins work great. Mark the wire where you want to bend it with a felt tipped pen and center this mark on the pin. The wire will bend around when you pull on the lever. As you go, you can put the already bent wire of the one you're bending to check angles. If they made the pins longer when they manufacture these tools, we could bend two wires at once.

The best way to cut hard wire is with a cut-off wheel in a dremel. Hold the tool to direct the bits of hot metal away from your face and wear eye protection. The thin cut-off wheels tend to shatter easily. On the other hand, the reinforced wheels take forever and produce a great deal of heat when used on heavy wire.

Frequently it is necessary to solder two pieces of music wire together. Since most of us don't have torches to braze or even silver solder, we will probably use a lead/tin mix to soft solder the joint.

Don't try to just solder the two pieces of wire together if the joint must carry a load.

Mechanically, clean the steel where the joint will be with steel wool or fine wet/dry paper used dry. Then chemically clean the joint with flux. Now wrap the two pieces of music wire together with uninsulated copper wire. Use a gauge strong enough to provide the strength you need. Add more flux to clean the copper wire. Now you are ready to solder.

If the finished piece will require several joints, wrap them all at once and solder them while the part is held in a simple jig. To actually solder this joint, heat the metal assembly with a propane torch, large soldering iron, or soldering gun.

Test the temperature by touching the wire solder to the metal. When it flows like water and fills the joint, remove the heat and don't move the joint until the solder has cooled. If you use a propane torch be careful not to draw (soften permanently) the temper of the wire by overheating. Just get the wire hot enough to flow the solder and remove the flame.

Finally, check the assembly for alignment then clean it with soap, water and steel wool. Grease free music wire can be painted.

From BARCS News
1808 Pine St., San Pablo, CA 94806

Servo Stall

by Ron Lockhart

Stall. A word that almost always has a bad meaning for a full-scale or model pilot. Whether it's airplane aerodynamic stall or engine stall, it's usually bad news.

Well, here comes another "stall" to avoid. A servo can be "stalled" when it tries to move to a position and there is more resistance than the servo can overcome. That often happens with throttle linkage. If the linkage is not set up correctly, the carburetor may reach full throttle before the servo gets to the end of its travel. The servo continues trying to move the rest of the way to full open throttle, as the transmitter is telling it to. You may be able to see the linkage bending, or the throttle servo moving in its mounts. The extra wear results in the linkage getting sloppy. You may hear a buzzing sound from the servo. It is using a lot of current from your airborne battery while this goes on. Your flight time from that battery pack may be reduced by 50% or more.

Let's check this out. Slowly move the throttle stick toward open while watching the carburetor open. If the carburetor gets to full open before the stick gets to full open, there is a problem. Look for bending linkage at the carburetor and servo end, and listen for the servo buzzing with the stick at full open. Check the idle end in the same manner.

How do you fix it? Try moving the linkage on the servo one hole further from the center of the servo.

If that makes too much difference (carburetor does not get to full open, or all the way to idle) then try different combinations of carburetor arm position and servo arm position. It can be a tedious trial and error thing to find the right combination.

The fix is much easier if you have a computer radio. Call up the end point adjustments for throttle, and dial in the correct servo travel for each direction.

from By-Lines & Fly-Lines
B.T. Lamborn, Editor
P.O. Box 1232
Lakehurst, NJ 089733-0732

The Bread Always Lands Jelly Side Down!

What does this have to do with airplanes? Well, it has to do with your transmitter.

If you stand your transmitter on end (and we all do this, it's a natural thing to do!), and it decides to fall over, 99% of the time it will fall on its front. That's the side with the sticks on it. When it falls on its front, it always pushes the throttle wide open!

So follow this scenario: You start your engine, peak it up and head for the flight line carrying your plane and transmitter. When you reach the flight line, you place the plane on the ground. Its nice slow idle gives it no tendency to roll, and because it is a little nippy, you decide to put on your flying gloves. You put the transmitter on the ground with the antenna up so that it's nice and unstable and proceed to put on your gloves. Nothing can go wrong. You are standing right there (hopefully you didn't go back to your flight box for gloves!). A slight breeze, a .01 earthquake or a flying insect tips your transmitter and suddenly your engine is at full throttle and you are in the middle of a dandy fire drill!

Sound familiar? How many times have you seen or done something similar? I hope you have only done it once—and survived unscathed.

Another case of Murphy's law occurred on a bright and balmy day when one of our members went to the field to

continue his self-training on his helicopter. After starting his engine and carrying the helicopter out to the runway, he discovered that his transmitter was still set up for one of his other models and, as such, a couple of the servos were reversed for the helicopter. No matter, the transmitter has servo reversing switches in the back under that little panel. So, with the engine idling and the help of another flier who just happened to be standing by watching, an attempt was made to correct the polarity of the offending servos.

Guess what? During the process of reversing the switches, the servo controlling the throttle was reversed and the engine went from a docile idle to a wide open whirling dervish! So, here you have a helicopter with some controls reversed and an engine at full throttle!

Guess what, Virginia, there was no Santa Claus that day. Minute pieces of that helicopter can still be found resting among the sagebrush north of the field. Fortunately the only casualty was the helicopter.

First Aid

If you ever do get caught by a prop because you did something stupid, perhaps my experience will help you.

I was teaching a young student to fly RC and in the process I was peaking the engine on his trainer. Both the student and his dad were behind the table. One of them was holding the airplane and the engine was running full throttle. I was in front of the table and rather than walk around the table to get behind the airplane, I decided to reach in from the side to adjust the needle valve. When you adjust the valve from that angle, it is easier to rotate your wrist to turn the needle rather than turning it with just your thumb and index finger.

One problem existed. Rotating your wrist rotates the muscle of your thumb into the back of the prop. Well, in an instant the prop scooped out a chunk of meat about the size of a half dollar. Now I am really bleeding!

Pressure on the wound! That will slow the bleeding. I always carry a roll of plastic electrician's tape in my flight box. It has various uses, such as sealing the cracks where wing sections join, etc. I made a thick pad by folding up several paper towels, applied that under pressure directly to the wound and then wrapped it tightly around my hand with the tape. It wasn't very sanitary but it stopped the bleeding and allowed me to drive myself to the hospital.

With the stuff from my flight box I did a pretty good job of first aid. Remember, think! Don't panic!

From Sierra Signals
Frank E. Chase, Editor
1520 Goldfield
Carson City, NV 89701



"Jack, if you're ever gonna' solo, you've got to loosen up a little!"

from Prop Wash, Steve & Leah Salisbury, Editors
P.O. Box 334, Badger, IA 50516

R/C Definitions

Glide Time: The time between the engine falling out and the airplane hitting the ground.

Aeromodeling: The art of turning precision cut and glued balsa wood and foam into toothpicks and confetti.

Crash: Method of seeing inside a model airplane.

Receiver: Part of the radio that picks up interference.

Tank: Temporary storage place for chemicals before they saturate the plane.

from the Tri-Valley R/C News
Grainger, IN

AMA's National Newsletter ➔

Local Events:

AUG 23 — LeMars, IA (C) WINGS Fun Fly. Site: Club Field. Bernard DeBoer CD, 414 So. Lynn Dr. LeMars, IA 51031. PH: 712-546-4609. Sponsor: WINGS R/C

AUG 30 — Iowa City, IA (C-restricted) Aerohawk Big Bird Fly-In. Site: Iowa City Airport. John Navara CD, 807 5th St. Coralville, IA 52241. PH: 319-354-5705. 600' X 150' paved runway, long distance and best of show awards, concessions on site benefitting local sertoma (service to Mankino) club, free breakfast to flyer and helper. Sponsor: IOWA CITY AEROHAWKS

SEPT 5-6 --Storm Lake, IA (C) Labor Day Fun Fly. Site: Storm Lake Municipal Airport. Steve Swanson CD, 606 S Main St. Alta, IA 51002. PH: 712-749-5302. Fun fly in conjunction with Balloon Days. Time 9:00am to 4:00pm. \$3.00 landing fee, concrete or grass runways. Food available. Any size R/C airplanes welcome. Full size airshow and balloon launch in the afternoon. Sponsor: NW IOWA RC CLUB

SEPT 6-7--Vinton, IA (C) Benton Co. Propbuster Fun Fly. Site: Vinton Airport. David Wilson CD, 6419 16th Ave. Garrison, IA 52229. PH: 319-477-6241. Two days of open flying, starting at 8:30 am. Grass or asphalt runway. Lunch will be available. Sponsor: BENTON COUNTY RADIO CONTROLLED PROPBUSTERS

SEPT 12--Clear Lake, IA (C) Radio Control Float Fly. Site: McIntosh State Park. John Matteson CD, 904 So 15th St. Clear Lake, IA 50428. PH: 515-357-6387. Sponsor: RIVER CITY RADIO CONTROL

SEPT 12-13--Council Bluffs, IA (C) Loess Hills Giant Model Air Show. Restricted to IMAA members. Site: The Field. D.K. Hutcheson CD, 268 Kenmore Ave Council Bluffs, IA 51503 PH:712-322-0038. Field - I29 to Nebr Ave exit 52 go S 1/2 mi to field. Camping, no hook ups. Sponsor: LOESS HILLS EAGLES

SEPT 19--Blakesburg, IA (A) EISS Fall Soar In for 441, 442, 517(JSO). Site: Antique Air Field. Mike Fox CD, 115 N Thornwood Ave. Davenport, IA 52802. PH: 319-322-1244. 2M Res (no experts) HLG - launch by High start and

Landing points. Sponsor: EASTERN IOWA SOARING SOCIETY

SEPT 20--Blakesburg, IA (A) EISS Fall Soar In for 444(JSO). Site: Antique Airfield. Rusty Shaw CD, 5312 175th Ave. Otumwa, IA 52501. Unlimited RES (no experts). Sponsor: EASTERN IOWA SOARING SOCIETY

OCT 4--Vinton, IA (C) Benton Co. Propbuster Fall Harvest Celebration. Site: Vinton Airport. David Wilson CD, 6419 16th Ave. Garrison, IA 52229. PH: 319-477-6241. Flying starts at 8:30 am. Fun fly events to be announced on Sunday. \$5 landing fee enters you in fun fly. Open flying will be allowed between fun fly events. Lunch will be available. Sponsor: BENTON COUNTY RADIO CONTROLLED PROPBUSTERS



Heads Up, CMA Activities

Thursday, Aug 6, 5:00 pm — Club Meeting
Friday, Aug 21, 5:00 pm — FlightLine Deadline
Thursday, Sep 3, 5:00 pm — Club Meeting
Saturday, Sep 12, 3:00 pm — CMA Fun Fly
Friday, Sep 18, 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
scplante@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.

>New Solos

Congratulations to the following member who soloed in July

John Michael

Mark Moeller

Brian Nowak

1997 CMA Staff

President:	Crist Rigotti.....x5-0612
Vice President:	Floyd Van Aukenx5-4057
Secretary/Treasurer:	Doug Emersonx5-2356
FlightLine Editor:	Jim Dotyx5-2931
Web Page Editor:	Steve Plantenberg ...x5-9625

Flight Instructors:

Rich Dean
Frank Gutierrez
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
MS 124-111
x5-2931
jhdoty@collins.rockwell.com

For membership information:

Contact: Doug Emerson
CMA Secretary/Treasurer
MS 153-260
x 5-2356
daemerso@collins.rockwell.com

1998 CMA Membership

<u>NAME</u>	<u>M/S</u>
Irvin Anderson	108-103
Geoffrey Barrance	108-166
Alan Bechtold	124-224
Bob Buschette.....	108-260
Kyle Chapman.....	124-111
Brian Collins	107-150
Dan Cooley.....	124-111
Rich Dean	124-115
Ed DeRuiter	124-111
Jim Doty	124-111
Mike Eastman	106-183
Doug Emerson	153-260
Scott Emerson.....	105-167
Frank Gutierrez III	108-166
Gregg Lind.....	108-166
John Michael.....	108-166

John Crilley
2540 2nd Ave.
Marion, IA 52302

Jack Morgan
1209 Raney St.
Hiawatha, IA 52233

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

<u>NAME</u>	<u>M/S</u>
Patrick Neu.....	108-136
Jeff Niemeier.....	106-186
Marion Payne Jr.	137-146
Steve Platenberg	137-152
Crist Rigotti	164-100
Alain Suarez	108-166
Duane Smith	108-135
David Sneitzer	124-115
Van Snyder	108-104
Steve Timm.....	105-190
Floyd Van Auken	107-140
Charles Ward	139-142
Tom Wachtel.....	106-186
Bryan Wesner.....	153-260
Mark Woytassek	137-137

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

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