

FlightLine

A Monthly Publication of Collins Model Aviators

July 1997



July's Featured Model — A scale model of a classic Monocoupe at the Skyhawks' Fun Fly

Reminders:

- July's CMA meeting is on Thursday the 3rd in the main plant cafeteria at 5:00 p.m..

July's Featured Model: I took this photo of the Monocoupe at the Skyhawks' Scale Model Fun Fly. I don't know where it placed in the judging, but it was my favorite. This model really shows that you don't need to build a sexy WWII fighter to produce a beautiful scale model.

For more photos from the fun fly see *Skyhawks Fun Fly* on page 2 ↗

James H. Doty, FlightLine Editor →

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This plane may be a Hurricane, but it still couldn't handle the strong, gusty winds at the Skyhawks' fun fly. Fortunately the battle damage was minor, this war bird will soon take to the air again.



Despite the strong wind, there was still a good showing at the Skyhawks Fun Fly

worse, the wind was gusty, and an almost perfect cross wind to the field. This meant that the pilots had to take off crosswise to the field, and land crabbing almost sideways.



Here's a closer look at some the planes further down the flight line

Skyhawks' Fun Fly

by Jim Doty

On Sunday June 8th the Skyhawks held their scale model fun fly. It was a cool sunny day, but unfortunately it was very windy. To make things

Fortunately there were several good pilots, with high power planes, willing to give it a try. Only a couple of the planes were flipped over by unexpectedly large gusts. The battle with the wind was very interesting to

watch, and made for a lot of tense moments during landings.



de Havilland Tiger Moth shows a lot of detail



Two Sig AstroHogs modified to look like Hurricanes. The model in the back is a sea Hurricane. The wing isn't quite scale, but it gives the models excellent flying characteristics



Pennzoil Chipmunk in a colorful red white and blue paint scheme



This Citabria almost took off straight up in the strong wind. Plenty of power, and a lot of dihedral in the wing, made this a good flyer.



The builder of this Sukoi SU-26M made it easy to identify the model by recording all the relevant information on the wing

The range of planes represented was quite large, with both military, and general aviation aircraft well represented. I didn't notice any WWI planes, but the wind was probably too much for anyone with one of

those. A WWI biplane probably wouldn't have even sat on the ground without flipping over.



A hurricane makes a low pass crabbing into the wind to hold the line down the runway



Another red white and blue Chipmunk with a Pepsi logo. I wonder if modelers can get sponsors like their full scale counterparts

I had a good time at the fun fly, there were a lot of different types of planes to look at, and some really impressive flying in very poor conditions. Thanks to the Skyhawks for putting on a great event.

I don't know most of the Skyhawks yet, so I couldn't figure out who owned all the planes. I didn't do a very good job of recording what all the planes were, but Rich Dean looked at the photos and tried to help me identify them. I hope we got most of them correct. Thanks for the help Rich.

James H. Doty, FlightLine Editor →

From the Field

FlightLine



by Rich Dean

We have had several great flying sessions already this summer. It is good to see everyone out there. The days are getting shorter already - so get out and get flying.

Wayne Savold had a really neat P-51 Mustang at the field the other day. It was the quietest P-51 I have ever heard. It is powered by an AstroFlight geared Cobalt .05 and has a four foot wingspan. It flies very well and is quite maneuverable. It is finished in the bright yellow Bob Hoover/Rockwell International color scheme and looks great!

The electric planes are getting more popular with the better batteries, motors and matching propellers helping them get flight performance above the powered gliders that were once the norm.

Congratulations to Dave Snetzer on becoming the newest solo pilot in the club. Actually he is a pilot from way back and is just getting his thumbs back in shape. He is flying a HUGE plane from years gone by. So if you see someone that you don't know, flying a big plane you can't identify, introduce yourself to Dave!

Rich Dean, CMA Flight Instructor →

National Newsletter

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

AMA/EAA Aeromodeling Academy Debuts in July 1997

Muncie, Indiana—(March 18, 1997)—A full week of hands-on experience building and flying model aircraft await 14-17 year-olds this summer during the inaugural AMA/EAA Aeromodeling Academy at the EAA Aviation Center in Oshkosh from July 12-17.

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The Aeromodeling Academy, co-sponsored by the EAA Aviation Foundation and the Academy of Model Aeronautics (AMA), brings together experienced instructors with young people eager to learn more about this facet of flight. The residence camp features a balanced menu of aviation and recreational activities in the aviation-rich environment of the EAA Aviation Center.

"This new residence camp offers a unique entry point into the world of flight," said EAA Aviation Foundation President Tom Poberezny, "Aircraft modeling is an interest for thousands of young people and is often a path to further exploration of a lifelong aviation interest. We are pleased to join with AMA to sponsor this new camp, helping to develop a new generation of aviation enthusiasts."

Camp registration is \$450. Transportation costs are the responsibility of individual campers and their parents/guardians. For more information and registration material, write or call: AMA/EAA Aeromodeling Academy, PO Box 3065, Oshkosh WI 54903-3065. Phone (414)426-6815 or fax (414)426-6560.

The EAA Aviation Foundation was founded in 1962 and is dedicated to aviation education, preservation and research. Its headquarters are at the EAA Aviation Center in Oshkosh, Wis.

From the April 1997 issue of the
National news letter →

How fast do they fly?

by Clay Ramskill

One of the first questions asked of us by non-modelers! And one for which we seldom have any accurate answer, unless we have access to a friendly cop with a radar gun. Actually, a lot of us, perhaps secretly, would like to know (just for grins) how fast our planes DO fly. Aside from that radar gun, there are ways to find out; the most obvious is to set up a timed run over a known distance. But that's a lot of trouble.

Without too much trouble, though, we can get a pretty good estimate by knowing our engine rpm and

the pitch of our prop. Naturally we can tach the rpm on the deck—but knowing how much extra rpm we pick up in the air is part of the estimating process. It will all depend on your engine, the prop, and how slick your airplane is. If you assume you'll gain 1000 rpm, 2000 if your plane is pretty fast, that will put you in the ballpark.

Let's take an example: a relatively medium-drag airplane, powered by a .40 which tachs a 10 x 6 prop at 13000 rpm on the ground, and we'll assume 14000 at speed. The 6" pitch means that at best (a perfect prop!) The plane will go 6" for every revolution—that's half a foot. 14000 rpm is $[14000/60=]$ 233 RPS (revs per second)—multiply that by .5 feet per rev, and we get 116 feet per second. Converting to miles per hour ($60 \text{ mph} = 88 \text{ fps}$), we have $116 \times 60/88 = 79 \text{ mph}$.

A similar, but slicker plane turns a 9 x 7 at 13500 rpm—assuming 2000 rpm pick up at high speed, we get: $15500/60 = 258 \text{ rps}$, $\times 7/12 \text{ ft/rev} = 150 \text{ ft/sec}$. Converting to mph, $150 \times 60/88 = 102 \text{ mph}$.

In the past, we would have taken off about 10% for prop slippage at this point—after all, no prop can be perfect. But use of inflight data systems has shown that top speeds are closer to the calculated figures than initially thought. This is because most props, using cambered airfoils, still have a positive angle of attack, and thus develop thrust, at their nominal pitch speed. Thus, a 7" pitch prop may have to go up to a 7-1/2 or 8 inches per rev before thrust falls to zero.

Note that the internal timing of most sport engines is such that they don't produce much usable power above 16-17 thousand rpm.

So, beware of claims of well over 100 mph with a non-racing plane, unpiped sport engine, and a sport prop!

Perhaps possible—but highly unlikely!

Clay Ramskill, 5709 Trails Edge Court
Arlington, TX 76017

<http://www.startext.net/homes.cramskill/rcclub.htm> →

Lament of the Model Aviator

from the Billings Flying Mustangs

*The takeoff smooth, the flight divine.
I love this model plane of mine.*

*The wind is calm. The day is clear.
I can't believe I'm really here.*

*My boy says, "Dad, you're doing great."
I feel so proud. I feel first rate.
"Can you do a loop?" says little he.
"Of course," I say, "just look at me."*

*"What's happening? Something's amiss!
I don't know what. I can't watch this!"
I hold my breath. My heart just pounds.
My pretty plane has gone to ground!!*

*Slow and sad, my son and I
Watch it crumble, watch it die.
We walk to where it fell to earth.
Slowly, like a funeral dirge.*

*"Oh, Dad, how sad!" he says to me.
I say, "How can this really be?"
Three times I've built this plane from scratch.
And now there's nothing left to patch!*

*"Let's put it in a hefty bag.
This is one time I can't brag."
"What made it crash, Dad?" "I don't know.
I thought I'd finally made it go."*

*"Can we save the engine?" said my son.
"I hope we can. It's my last one."
Then, we both know, as if on cue.
We realize what I didn't do.*

*We turn slowly toward the radio.
"That's IT," I said, "Oh no, OH NO!!"
"Dad, I probably should just shut up.
But shouldn't the antenna have been up?"*

from the Billings Flying Mustangs Newsletter,
Doug Haacke, Editor,
via The Monocle, Barons Model Club,
Spokane, Washington →

Things We Can Learn from Kids

from HeliNews

Nobody can pedal the bike for you.

*If you wait until you're really sure,
you'll never take off your trainingwheels.*

If you want a kitten, start asking for a horse.

from HeliNews,
Cascade Model Helicopter Club,
Dick McKenna, Editor →

Tech Talk

by Jim Maroldo

Over the years we've seen many different ways to install radio gear in our models, some clean, some not so. One of the most often neglected areas, however, is the wire dressing within the model itself. Most of us know that the receiver antenna should be routed as far away as possible from any power leads to avoid any stray pickup of interference (you do know that, right?).

A corollary to that is that all leads should be fastened somehow to the framework of the model. This is often not a problem with the smaller planes as things are often pretty cramped anyway, but in the larger stuff, we find lots of open space within the cabin area. If leads are left to fly around loose, they will eventually fail due to metal fatigue.

One of our club's members had this happen to a power switch once which resulted in the loss of his aircraft! The post-mortem didn't reveal any obvious cause for the loss of control until we disassembled the RX switch. While the insulation was completely intact, one of the wires inside was broken at the strain relief just as neatly as if it had been done with a knife!

The moral of this story is simple: a tie-wrap or two, placed at strategic locations along the servo and power leads will go a long way toward a long life for that new plane!

from By-Lines & Fly-Lines,
Thom Lamborn, Editor
PO Box 1232,
Lakehurst, NJ 08733-0732 →

Local Events

The World's Most Unique Aviation Event

July 16 – 20, 1997
Ankeny Exposition Park
Ankeny, IA
July 16 & 17 R/C Flying Only
July 18 – 20 Show & R/C Flying

GREATER
DES MOINES

AVIATION Expo

ANKENY,
IOWA

FEATURING "STRIKING BACK"
Founded by Byron Godbersen

Vintage Warbirds Display

Full-Scale Airshow Daily!

SKYCHIEFS

Be a Fighter Pilot for a Day in a T-34!
 Experience the thrill as you actually fly air combat.

Fascinating Exhibits & Displays

Local Events

- June 30 SKYHAWKS Demo Days, Marion Airport
- July 4–6 Skyraiders Fun Fly, Belle Plaine, IA
For more information call 319-444-2350
- July 6 Float Fly, Ottumwa, IA
For more information call 515-684-4375
- July 6 Aerohawk R/C Airshow, Iowa City, IA
For more information call 319-351-1778
- July 11–13 National Float Fly, Ottumwa, IA
For more information call 515-684-4375

- July 13 SKYHAWKS R/C Combat, Marion Airport
- July 18–20 Des Moines Area Aviation Expo Ankeny, IA
For more information call 515-965-9000
- July 30–Aug 5 EAA Annual Fly In Oshkosh, WI
- Aug 2–3 Giant Scale & Jets. Oskaloosa Airport
- Aug 10 Skyraiders Fly-In, Moline, IL
For more information contact:
Dan Jones 309-755-5621
- Aug 15–17 SKYHAWKS Float Fly, Hannen Lake, Blairstown, IA

Aug 16-17 1st Claude McClough Fly In, Blakesburg IA

For more information call 515-682-0203.

Aug 16 Blackhawks Fly In, New Hartford, IA

For more information call 319-277-0211

Aug 23 SKYHAWKS Helicopter Fun Fly

Aug 24 Aerohawk Big Bird Fly In, Iowa City Airport

For more information call 319-354-5705

Aug 30-31 MDA Fly In. Taylor, MO

For more information call 573-393-2098.

Aug 31 Sig Memorial Fun Fly.

For more information call SIG Mfg.

JULY 13--Lake Mills, IA (C) July Jubilee Fly-In. Site: Lake Mills Airport, 1 mi E of Care Center on S 10th Ave E. Delane

Behr CD, 208 S 4th Ave W, Lake Mills, IA 50450
PH:515-592-4195. No landing fee, no contest, just fun, drawing for

prizes, 11AM to 5PM. Sponsor: JULY JUBILEE COMMITTEE

JULY 13--Stormlake, IA (C) 7th Annual Summer Fun Fly. Site: Stormlake Municipal Airport. Steve Swanson CD, 606 S

Main St Alta, IA 51002 PH:712-284-2506. 10AM til dark. No entry fee, free lunch at noon for pilots. Any size RC

planes welcome. Open flying on grass runway.

Sponsor: NORTHWEST IA RC CLUB

Aviation EXPO '97

July 16-20, 1997

Ankeny Exposition Park

Admission \$8 per day
Children 8 and under free

Reserved Seats \$2 per seat per day

General Information: 515-964-2000

FAX BACK number: 515-964-0558

Web address:

<http://www.dwx.com/~rcguru/expomain.htm>

JULY 11-12-13--Ottumwa, IA (C) National Float Fly 97. Site: Ottumwa Park. Jerry Hancock CD, 6463 110th Ave

Ottumwa, IA 52501 PH:515-682-7411. 3rd annual event. Join us on your way to aviation expo. RV camping on site,

prizes, \$20 landing fee includes meal. Sponsor: HOBBY CHEST/OTTUMWA RC FLYERS

JULY 13--Marion, IA (C) Open RC Combat. Site: Marion Airport. Scott Grady CD, 2208 Mallory Cedar Rapids, IA

52404 PH:319-366-4309. Two classes by engine size, \$5 registration fee per class, registration 8AM, flying 10AM.

Sponsor: CEDAR RAPIDS SKY HAWKS

CMA Recommended equipment ✓

CMA members have had good luck with the following equipment:

Plane: Sig Kadet LT-40 — Great instructions, easy to build, great flyer

Engine: SuperTiger 45 — Powerful reliable, easy to set up

Radio: A good 6 channel radio with dual rates such as Airtronics Vanguard V6DR, or Radiant RD6P; Futaba Skysport 6VA, or 6XA; or JR XP642.

The CMA recommends the above equipment to any beginning flyer. However, there are many other good choices, and no particular brand of equipment is required to receive flight training or to fly at the CMA field.



Heads Up, CMA Activities

Thursday, July 3, 5:00 pm—Club Meeting

Friday, July 25, 5 pm—FlightLine Deadline

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

Friday, August 22, 5 pm—FlightLine Deadline

Note: Meetings and build sessions will be held in the 35th street N.E. Facility (main plant) Cafeteria building 140.



For membership information:

Contact: David Gillespie
CMA Secretary/Treasurer
MS 153-163
x5-8512
djgilles@collins.rockwell.com

For an AMA membership application:

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



Send your input for the CMA Web Page to:

Tom DeWulf x5-4015
tvdewulf@cacd.rockwell.com

AMA National Newsletter goes on-line:

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

1997 CMA Staff

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Dave Decker
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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x5-2931
jhdoty@collins.rockwell.com

Flight Training

Flight Training is given every Tuesday and Thursday night from 6:00 pm until dark weather permitting

Tuesday night introductory flight training is given Most Tuesday nights at least one club trainer is available for introductory training.

Advanced flight training is held Thursday night Beginners with their own airplanes are welcome, but the club trainers are usually not available unless requested in advance

Check the CMA Hotline **295-8888** for the latest information on the training sessions

1997 CMA Membership

<u>M/S</u>	<u>NAME</u>
108-103.....	Irvin Anderson
108-166.....	Geoffrey Barrance
124-111.....	Alan Bechtold
124-111.....	Bob Buschette
137-109.....	Brian Collins
124-111.....	Dan Cooley
124-115.....	Rich Dean
153-264.....	Tom DeWulf
153-163.....	Dave Dillman
124-300.....	James Doty
106-183.....	Mike Eastman
153-260.....	Doug Emerson
153-163.....	David Gillespie
153-163.....	David Gillespie (for James)
153-163.....	David Gillespie (for Amy)
108-166.....	David Mason
108-166.....	John Michael
108-166.....	John Michael (for Kevin)
108-136.....	David Neu

<u>M/S</u>	<u>NAME</u>
108-136.....	Patrick Neu
137-136.....	Marion Payne
108-175.....	Elio Piccmenti
137-152.....	Steve Plantenberg
164-100.....	Crist Rigotti
124-123.....	Wayne Savold
137-137.....	Troy Simonton
108-136.....	Duane Smith
108-136.....	Brian Smith
124-115.....	David Sneitzer
105-152.....	Basil Tilley
137-101.....	Steve Timm
107-140.....	Floyd Van Auken
107-140.....	Floyd Van Auken (for Ehren)
139-142.....	Charles Ward
153-264.....	Bryan Wesner
153-264.....	Bryan Wesner (for Michael)
107-110.....	Victor Wolfe
124-115.....	Mark Woytassek

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