

# FlightLine

A Monthly Publication of Collins Model Aviators December 1998



## Reminders:

- Next CMA meeting is Thursday December 3<sup>rd</sup>
- The second Build Session is Thursday December 10<sup>th</sup>

## Featured Photo:

This month's featured photo is Geoff Barrance's Skyman. Geoff and Frank Gutierrez wrote a two-part article on the plane included in this issue.

Thanks to Geoff and Frank for the articles and some great photos of the plane in action.

James H. Doty, FlightLine Editor →

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CMA Web Page Addresses:

<http://bbs.cacd.rockwell.com/data/clubs/cma/>  
<http://members.aol.com/cmaflightl>



Collin Model Aviators  
Academy of Model Aeronautics  
Charter Club #3257



Time passed, and I got more planes to fly, so the Skyman got less flying. I can't remember ever damaging it seriously in England. When all our belongings got packed in 1985, for the journey across the Atlantic, the Skyman was one of the things that got wrapped up in padded brown paper and carefully stowed in the big container. It emerged in Cedar Rapids safe and sound!

When we had got minimally settled the bug to fly RC bit again (I had known about that nice flying site at Seminole

## The Saga of the "Skyman" (Part 1)

by Geoff Barrance

The plane was built from a kit I mail-ordered from Bowmans of Ipswich, England. Bowmans had a small line of kits – nothing special but reasonably priced. They must have been a small setup, and I'm pretty sure they don't exist now. I was quite pleased with the kit, certainly it wasn't as complete as what I've now come to expect from, say, a Sig kit, but it had all the necessary balsa, landing gear wires and a very nice pair of Obechi-sheeted foam wing halves. It was the first full-house trainer I had built.

All this was back in about 1980, before I moved to Cedar Rapids. The plane was duly completed, fitted with my old loop-scavenged OS20 and an assortment of old (even then) Futaba servos (the kind that had five wires and the linear push-pull output) and a 5 channel Futaba receiver on 27 MHz (which was all we were allowed back then). It flew well, under-powered though it was by today's standards, and I did learn a lot from it, starting to get to grips with loops, rolls, stall turns and so on.

Valley before we moved!). So out came Mr. Skyman, and out I went! I seem to recall initially having trouble keeping the motor going and having to pressurize from the muffler. Must be the extra 400 feet or so of altitude. Had lots of good flights. Met Mark Woytassek there and that got me in touch with the Skyhawks.

By this time the old Futaba gear was getting rather past it. A fun-fly at Dave Wilson's proved the point, with a basically out-of-control decent into the beans, which detached the firewall from the fuse. It was too oil-soaked to repair. But I'd still got that nice wing, and a new fuselage was real simple to build, so it wasn't too long before a New Skyman took to the skies, this time with up-to-date Futaba gear, and an O.S. .30 motor.



I had several other planes by now, and so the Skyman became the one I'd take out when I wanted a more relaxing experience. One day my son and I went out and flew off the snow at Beverly Gardens. A beautiful, calm, crisp day, but the air temp was co-o-o-o-ld! On about



the third flight I was just about to hand the transmitter to my son, when – you guessed it – “It’s not responding”!! A graceful spiral down to the frozen earth followed – bits everywhere – the engine broken off the mount and that nice wing snapped in half. If I ever find the pictures we took I’ll show them to you! It turned out that the cold had soaked into a servo, causing it to contract and short out the battery through a minute blob of solder that up-to-then hadn’t been doing anyone any harm.

It looked pretty bad, but after putting all the bits aside for a while I again got the bug to see if I could mend the old friend back together to fly again. The fuse wasn’t too badly oil-soaked, so CA and a new motor mount were most of what was needed there. The wings were glued together again, holes filled, carefully bandaged with fiberglass tape and re-covered. Seemed pretty much as good as new (well not quite as smooth as before, you could see the join if you cared to look)! And so the Grand Old Skyman took to the air once again, training and fun-flying until early this year. And Frank can tell you what an exciting time it’s had since then... .

Geoff Barrance. ➔

## The Saga of the “Skyman” (Part 2) by Frank Gutierrez

After a 17 years of being out of the R/C hobby, I didn't have an airplane to fly. Through the kindness of Geoff Barrance, he let me borrow the Skyman to get back into the air. This turned out to be the perfect airplane to get my skills back and also train my kids. Because it has a symmetrical airfoil, its flight characteristics are not typical of a trainer. It is very responsive in all three axis and will stall quickly when C/L Max is reached. It has a low drag coefficient, which makes it very slippery in flight. I found that taking off can bit tricky with this design because at higher angles of attack when the plane breaks ground it may stall spin before you know what has happened. This means shallow climb angles and stabilized flight to build up speed are required before radical maneuvers are performed. The Skyman has endured quite a bit of punishment this year from my kids and me, which says a lot for this design. I believe we can contribute the Skymans ability to survive hits and keep flying to the foam wing.



The plane is currently flying with a HiTec/RCD Focus 4 radio and micro 555 receiver with Futaba S148 servos. The combination works well and may be duplicated in future planes that leave the Gutierrez hangar. The Skyman is currently undergoing its 100 hour maintenance and will be ready to fly again this spring. It will get the old O.S. .30 up front and some firewall and fuel tank modifications. Look forward to seeing it in the pattern again this next

I never seen the plane fly with a .20 up front but I am sure it flew well based on our flight experience this year. It flew most of the year with an O.S. .30 engine and later with a Supertiger .46 which is as old as the plane. A large number of the flights were



flying season. Jay Gutierrez 4 years old got his first introductory flight at the Marion field on Friday as well. Assisted by his two brothers flying the Skyman, he demonstrated

hand launch because the .30 couldn't drag it through the grass but with the .46 engine the plane leaped off the ground hungry for the sky and more fuel. Inverted flight, Snap rolls, Cuban eight's and Spins are smooth and precise. It takes very little stick movement to make the Skyman dance. Drew flew this plane like its on a wire, flying a straight down line with a smooth roll to waist high inverted flight down the length of the runway.

that he has what it takes to learn how to fly R/C. He has been practicing on the flight simulator and can take-off and land without crashing. His specialty is doing loops—he is good at that and it has become his favorite flight maneuver.

Frank Gutierrez, CMA Flight Instructor. ➔



## President's Column

by Crist Rigotti

As I sit down to write my last column as this year's President, it amazes me how fast this year went by. A smile comes to me as I review my past columns. Let me share some things from them. My introduction to the members of CMA, my progress reports on the Zenith 60 and some changes to the by-laws. The Beauty Contest, AMA renewal, the ban on helicopters, receiver batteries and switches, and using your PC to help with color schemes. The bulletin board in 106, the news about losing our field, a safety lanyard, and lots of flight instruction going on. Some more on safety, the Fun Fly, nominations, and finally starting up the building sessions. It's been quite a year!

I have received my wood from Superior Balsa for my Zenith 40. It looks very good. I contacted the designer with the mods that I want to do and he felt they would all work out well. It will be awhile before I start anything serious because I need to finish the basement, which I started last winter. I sold the Zenith 60 to a good friend back east. Now I have to pack it up for the trip. I know he'll enjoy it. I know Mark; I shouldn't have sold it! I might build a Tracer 60 this year also, we'll see. Take your time when building this winter, and your finished model will be better, and you'll feel better about it too! Anyways, we have ALL winter!

Let me thank some very deserving people. Thanks to Floyd and Doug for their hard work as officers this year. A BIG thanks to Jim Doty who produces a WORLD-CLASS newsletter every month. Thanks Steve for keeping the Web site going. Rich, Frank, and Mark for all their time with flight instruction. Those who were faithful in keeping the flying field mowed. Kyle, Duane, and Dan for the help with the Fun Fly, and to each and every member of the CMA club for your support.

The New Year gives each and every one of a chance to review what we have accomplished, a chance to reflect on our shortcomings, but most of all a chance to start over. Do you realize that we will be taking another year's knowledge and wisdom, that we didn't have a year ago, into the New Year? Let me encourage you to take this time to refresh our ideas so that we can make the coming year even better than this one.

Thanks to all for allowing me to be a President of this club. I've enjoyed it immensely. I hope history speaks kindly of this administration and its accomplishments. I wish future administrations well, and only clear blue skies and gentle breezes. Take care.

Crist Rigotti, CMA President ➔

## November Minutes

By Doug Emerson

### November 5, 1998 Minutes

Crist Rigotti called the meeting to order. There were 13 people in attendance.

#### Old Business:

The September minutes were approved as read.

Doug Emerson reported we have received \$500 from Rockwell for the new fiscal year, so the current treasury balance is \$500.

Clean up activity was completed at the flying field on Saturday, November 7.

It was suggested that a letter of thanks be sent to Dr. Sherman for past use of the flying field. Crist said that he would draft a letter. It was also suggested that a picture of the field be taken for

possible use in finding a new field. Dan Cooley volunteered to take some photographs.

Crist reported results of the new flying field search. He has two possibilities that he will check out in the next couple of days. John Crilley described an existing flying field that he visited that is east of Marion/Cedar Rapids on Highway 30. The field is 23 miles from Marion. He thought this field could be a possibility if nothing closer is found.

### **New Business:**

A foam wing demonstration is planned for the January 7 by Frank Gutierrez.

Nominations were taken for new officers for next year. They include:

**President** Frank Gutierrez,  
Van Snyder  
**Vice President** Floyd Van Auken,  
Dan Cooley  
**Secretary/Treasurer** Doug Emerson  
**Flightline Editor** Jim Doty

Crist brought some balsa wood from Superior Balsa for members to look at. He also brought a supply of old model airplane magazines that members could take home if they wanted them. The remainder were headed for the recycle bin.

The meeting was adjourned at 5:30 PM.

Doug Emerson, CMA Secretary →

Jim Doty and daughter Amber made major progress on his Pro Cub.

John Crilley brought some plans and got some hints on setting up differential ailerons for a Four Star 40 and a Citabria.

Jack Morgan was there for morale support and trying to figure out his winter project.

Steve Plantenberg was doing final balance and mechanical hookup on a great looking, modified Ugly Stick.

Scott Erdman and son Quinton broke open the box on an LT-40 and started building the tailfeathers for it.

Rex Chapman and son were observing the action, looking over what it takes to get started in the sport.

I brought the barrel shaped fuselage of the Gee Bee Z that I have started.

If I left anybody out it is because it was one of the best attended build sessions ever, and I lost track of people coming and going.

Pizza was ordered and eaten during the evening, and a good time was had by all. There are going to be a lot of neat projects coming from our club members this next spring.

Rich Dean, Build Session Coordinator →

## **November's Build Session**

By Rich Dean

The November build session went very well. There is a lot of activity early on in the "build" season, and that is great. As long as winter seems it is shorter than the flying season and we all know how fast that slips by.

Attendees and activity was as follows:

Frank Gutierrez was assisting John Michael with a foam wing replacement for an Eagle 2.

Basil Tilley was installing hardware on his LT-40.

Ed Deruiter was working on a hand launch glider for his son Drew and had his Dazzler there to show.

## **Thanks Guys**

Thank you to all the people who contributed articles to this year's FlightLine issues. There were a lot of good articles from a number of people.

A special thanks to Crist Rigotti for writing the Presidents column each month, and to Doug Emerson for sending me the minutes to all those club meetings.

Thanks also to Rich Dean and Frank Gutierrez who each wrote a series of articles.

Thanks to everyone who helped me fill the FlightLine pages every month. It's your articles that make the FlightLine the CMA FlightLine.

Jim Doty, FlightLine Editor →

# Northrop P-61C 'Black Widow'



Northrop P-61C 'Black Widow'  
USAF Museum



## **NORTHROP P-61C "BLACK WIDOW"**

US Air Force Museum  
Wright-Patterson AFB  
Dayton, Ohio

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

The heavily-armed Black Widow was this country's first aircraft specifically designed as a night-fighter. In the nose, it carried radar equipment which enabled its crew of two or three to locate enemy aircraft in total darkness and fly into proper position to attack.

The XP-61 was flight-tested in 1942 and delivery of production aircraft began in late 1943. The P-61 flew its first operational intercept mission as a night fighter in Europe on July 3, 1944, and later was also used as a night intruder over enemy territory. In the Pacific, a Black Widow claimed its first "kill" on the night of July 6, 1944. As P-61s became available, they replaced interim Douglas P-70s in all USAAF night fighter squadrons. During WW II, Northrop built approximately 700 P-61s; 41 of these were -Cs manufactured in the summer of 1945 offering greater speed and capable of operating at higher altitude. Northrop fabricated 36 more Black Widows in 1946 as F-15A unarmed photo-reconnaissance aircraft.



The Black Widow on display was presented to the U.S. Air Force Museum by the Tecumseh Council, Boy Scouts of America, Springfield, Ohio, in 1958. It is painted and marked as a P-61B assigned to the 550th Night Fighter Squadron serving in the Pacific in 1945.

### SPECIFICATIONS

**Span:** 66 ft.

**Length:** 49 ft. 7 in.

**Height:** 14 ft. 8 in.

**Weight:** 35,855 lbs. loaded

**Armament:** Four .50-cal. machine guns in upper turret and four 20mm cannons in belly; 6,400 lbs. of bombs

**Engines:** Two Pratt & Whitney R-2800s of 2,100 hp. ea. (shown below)



**Cost:** \$170,000

**Serial number:** 43-8353

**Displayed as:** 42-39368 (P-61B)

### PERFORMANCE

**Maximum speed:** 425 mph

**Cruising speed:** 275 mph

**Range:** 1,200 miles

**Service Ceiling:** 46,200 ft.

TYPE	Number built/ Converted	Remarks
XP-61	2	Prototype nightfighter
YP-61	13	Service test
P-61	80	Pwr turret S/N 42-5485 to 5522 only
P-61A	120	Imp. P-61; no top turret
P-61B	450	Imp. P-61A; drop tanks added
P-61C	41	Eng. chg.; top turret added
XP-61D	1 (cv)	Mod. P-61A w/ eng. chg.
XP-61E	1 (cv)	Mod. P-61B; new armament
XP-61F	1 (cv)	Mod. P-61C;



Northrop P-61 "Black Widow"  
USAF Museum Photo Archives



## Hints for Flight Training

by Howard Sullivan

IMS/AMA Convention 99

<http://www.modelaircraft.org/imsad.htm>

There are a few things that a student pilot should keep in mind when preparing for each flight. These will help in getting the feel for the model in flight.

Be very gentle with the controls. It takes very little movement to get the model to execute a maneuver. Remember that the farther the stick is moved, the more the control surface moves and the more the model will respond.

As long as the stick is held in a control position, the maneuver will continue. This is most important when using the ailerons. When the stick is moved to roll the model, it will continue to roll as long as the stick is held in that position.

Fly it in...fly it out. When a maneuver is executed, it takes equal and opposite controls to overcome it and return to normal flight. A turn requires the movement of the ailerons in the desired direction of the turn. To recover from the turn, opposite aileron input is required.

Keep the model high. A Certified Flight Instructor once said, "The two most useless things to a pilot are air above you and runway behind you." By this he meant that if a pilot gets into trouble, he must have plenty of air below him to recover. When landing, the runway that is behind the airplane after touchdown is wasted because there is a reduction in length of runway to take off again in case of trouble.

Keep the model in sight. Do not fly too high nor too far away. Although the trainer may seem fairly large, it is easy to get it far enough away so that it is difficult to see its orientation. Do not fly into the sun. A moment of blindness caused by the sun can be long enough to lose a model.

Do not become discouraged. There will be times when nothing seems to go right. Each maneuver results in a near catastrophe. Everyone who flies

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Children under six admitted free when accompanied by an adult.

RC models today has been through this in learning to fly. Do not give up. The next session will be better.

**DO NOT PANIC.** When a maneuver goes wrong, take all the time necessary to recover from the mistake. Panic will cause a student to over-control in an attempt to recover and cause the condition to worsen in the opposite direction. Although the instructor may seem to be a casual observer standing at the side of the student, he will be

watching in case the student gets his model in a dangerous situation.

**Editors Note:** This information is from the *Beginners Guide to RC Flight*. This web-based publication has 25 pages of useful information on aerodynamics, modeling terms, radios, first airplanes, and handling characteristics of a trainer.

### **Beginners Guide to RC Flight**

<http://www.geocities.com/CapeCanaveral/Lab/1284/BegGuide.html>

Howard Sullivan, [hlsulliv@mindspring.com](mailto:hlsulliv@mindspring.com) →



## **Ideal Flight Instruction**

by Randall Trumbull

When I started at the AMA as the publications intern, I was eager to get flying. It worked out well that the AMA's Grand Event was only a month away and I would have the chance to learn to fly with Clarence Ragland, originator of the Ragland Teaching Method.

Clarence, from Lockport, New York, has been flying and teaching for over 25 years.

The Ragland Method is a technique of buddy-boxless flight instruction with the use of vocal commands and some hand-on-hand instruction. This technique is not one that is new to modeling.

Through many decades of modeling, some modeler has passed their radio to their son or daughter.

In my opinion, Clarence is not successful because of his method. Clarence is successful because of his attitude, patience, and drive for teaching. These are all things that any flight instructor should have.

I had the chance to observe Clarence teach Chris Tupling, a 12-year old from Muncie, Indiana, as well as learn from him. As a standard for teachers, I believe he has many ideals and principals to share with the up and coming or already established instructor.

**Attitude:** As an instructor, you should always be teaching a student to look on the brighter side of flying, and steer clear from the "crash" side. Clarence does this by positive reinforcement and distraction. He was constantly telling Chris and me "you are doing great" or "that was a nice turn," even if our flying was a little rough. It inspired confidence. He also had a way of distracting me from my flying, taking away any pre-existing nervousness. Before I knew it, I was telling him all about college and what I was studying. This calmed me down tremendously.

**Patience:** Patience is irreplaceable in an instructor. For a while, I had some nasty looking turns and unstable flight. Even though he knew they were pretty scary, Clarence would say "good," but then, through hand-on-hand instruction, show me a way to smooth it out. Clarence never got short or mad. This, once again, kept me calm.

**Drive:** A flight instructor not only has the responsibility of teaching one to fly, but also teaching one to love the hobby. Clarence constantly talked about how excited he was to be a part of this hobby. By doing so, he sparked my interest enough to come back to the flying field and seek instruction from others.

**Method:** The method used by the instructor is probably the most important part of teaching. Choosing a method involves a matter of preference for both the instructor and the student.

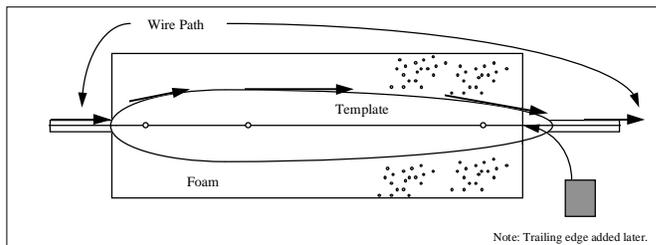
My suggestion is that you use a technique that suits your needs. Clarence's calm attitude works well

with the pass-the-box method, but this may not work for a more on-the-edge instructor. Talk with other instructors and see what works for them.

Student preference will vary from person to person. I was comfortable with the pass-the-box method, but have been told that it can be intimidating for the nervous student.

Over the course of the past few months I have learned with a buddy box and without. I can't say that I favor one over the other. My first attempt at flying was with Clarence. The trust involved in handing the transmitter to me really helped build my confidence. Now that I am flying my own plane, I would prefer to have a buddy-box co-pilot. There is something to be said for having that extra piece of mind in case I get out of control.

Randall Trumbull  
National Newsletter Editor  
randallt@modelaircraft.org



## Foam Cutting Demonstration

**There will be a demonstration of foam-wing cutting techniques at the January 7<sup>th</sup> CMA meeting**

### 1998 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



### Heads Up, CMA Activities

Thursday, Dec 3, 5:00 pm — Club Meeting  
 Thursday, Dec 10, 6-9 pm — Build Session #3  
 Friday, Dec 18, 5:00 pm — FlightLine Deadline  
 Thursday, Jan 7, 5:00 pm — Club Meeting  
 Thursday, Jan 14, 6-9 pm — Build Session #4  
 Friday, Jan 22, 5:00 pm — FlightLine Deadline  
 Note: Meetings and build sessions 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  
splanten@cacd.rockwell.com

### For an AMA membership application:

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

## Build Sessions

Build Sessions are the second Thursday of each month in the Main Plant Cafeteria from 6 to 9 pm

### Senior Flight Instructors and Test Pilots for first flights of new airplanes:

Rich Dean  
Frank Gutierrez  
Mark Woytassek

### Flight Instructors in training:

Irv Anderson

### ✍ Send your input for FlightLine to:

James H. Doty  
MS 124-111  
x5-2931  
jhdoty@collins.rockwell.com



### For membership information:

Contact: Doug Emerson  
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The FlightLine is now available on the World Wide Web (outside the firewall):  
<http://members.aol.com/cmaflightl>

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# 1998 CMA Membership

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<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	Jeff Niemeier.....	106-186
Larry Black .....	155-100	Marion Payne Jr. ....	137-146
Bob Buschette.....	108-260	Steve Plantenberg .....	137-152
Kyle Chapman.....	124-111	Crist Rigotti.....	164-100
Brian Collins .....	192-111	Alain Suarez .....	108-166
Dan Cooley.....	124-111	Duane Smith .....	108-135
Rich Dean .....	124-115	David Sneitzer .....	124-115
Ed DeRuiter .....	124-111	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	Tom Wachtel.....	106-186
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
Gregg Lind.....	108-166		

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John Crilley  
2540 2<sup>nd</sup> Ave.  
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Jack Morgan  
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Hiawatha, IA 52233

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Hobbytown  
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Cedar Rapids, IA 52404

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