



# Somerset RC

A Chartered Club of the Academy of Model Aeronautics  
est. 1972, AMA 1002

**Dedicated to the Enjoyment and Promotion of  
Radio Control Model Airplane Flying**

CLUB NEWSLETTER      [www.somersetrc.org](http://www.somersetrc.org)      March-April 2021

*A "Member Helping Member" Club for ALL AGES!*

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**\*\*IN THIS ISSUE\*\***

From the President.....2

Waco Wing Attachment by Jeff Randolph.....3-7

Developing Rudder Skills by Don Ramsey.....8-11

Mystery Plane Challenge.....12

Member Profile—Ernie Evon.....13-15

Club Schedule.....16

Eulogy for Larry Gray.....17-18

Newsletter Article Index.....19-20

Club Application and Info.....21

*Do you have something for the next issue?*

Send it along to the editor's email above!

Next issue this  
May



## From the President

We are slowly emerging. Emerging from our homes, our workshops. The hint of warmer weather offers a touch of hope. Someone once said that something is either growing or dying; there is no such state as status quo. Everything is either in some state of growth or decline. There is evidence of growth in our club. We have launched a new apparel campaign. We are making available for purchase Somerset RC emblazoned polo, sweat, and Tee-shirts and hats. And they look good, too. We have a booked season with an event for each month to look forward to (see our schedule in the back). We have a pattern initiative that is taking off; members have purchased pattern planes. Skills are improving. Competent pilots are becoming even better pilots. And the newsletter continues.

In this issue, we will see how **Jeff Randolph** set the correct wing incidence on his scratch built Waco project. His fully built-up biplane is turning out to be a beauty. We are reprinting an article by **Don Ramsey** on the use of the rudder in anticipation of a season of precision pattern flying. Anyone who wants to be a better pilot can do so by reading this succinct article. Our member profile for this month of **Ernie Evon** is rewarding, as he shares his many years within the hobby and RC community. For those who are up to the challenge, a **mystery plane** awaits you.

Included also by member request are remarks given by me at **Larry Gray's** funeral for those who could not attend. Having been able to attend, I was honored to have been given the opportunity to offer condolences to Larry's family and friends, and to pay tribute to Larry on behalf of our entire membership.

Thank you to all of our membership who continue to buoy our club ever skyward.

We are family. We are Somerset RC  
—Domecq Smith, President, Somerset RC  
*domecqsmith@msn.com*



## Feature Construction Article

### Waco Wing Attachment

by Jeff Randolph



Well, the Waco is completely framed up, as you will see from the photos. Assembly instructions were very rudimentary, so I had to do some research on wing attachment and alignment. I found Balsa USA to be a valuable source for techniques as they specialize in bipes. Online, I discovered that the wing incidence should be 0 degrees for the bottom wing and 1-1.5 degrees for the top wing. The horizontal stabilizer will be set at one degree positive. There are many ways to set all this up, but here is how I did it:

First, I leveled my building table so I had a good starting point. The fuselage horizontal line is determined by the “crutch,” around which all the formers and stringers are aligned. The firewall is perpendicular to the crutch, so I simply leveled the plane fore and aft until the firewall was exactly vertical.

I then attached the bottom wing and shimmed the wing saddle - side to side - until both wing tips were at exactly the same height from the floor. Using an incidence meter, I

checked for zero degrees and adjusted as necessary. Finally, I drilled for the  $\frac{1}{4}$  - 20 wing bolts and rechecked when tightened.



The plans call for simply screwing the top wing onto the cabanes. I am not sure how one would make all the adjustments when you do that, so I instead chose to solder lugs onto the cabanes and use 6-32 bolts attached to blind nuts embedded in the wing.

After the lugs were soldered on and the bolts were installed, I set the top wing on the cabanes and measured each wingtip from the floor. This distance should be the same, just like the bottom wing. I shimmed under the top

wing until the distance from the floor was equal on both sides. Next I attached the incidence meter again and checked for the positive incidence. This involved more shimming - each time I would adjust the incidence I would have to go back and adjust the wingtip height to ensure it was level. Back and forth; back and forth, until all was just so. I glued the shims to the bottom of the wing, reset it on the cabanes, and tightened the bolts.





When both wings were attached and rechecked for correct measurements, I fabricated the outer struts from basswood, 4-40 bolts, and blind nuts. Now it's time to begin the covering process.





—Jeff Randolph

# Developing Rudder Skills

Reprinted from *The K-Factor*, February 2020

by Don Ramsey, [DonRamseyPattern.com](http://DonRamseyPattern.com)



When you first start flying pattern you don't even think about it. Once you've had a little time in the sport, you start to notice some people never seem to need to correct their line while others are constantly banking to reestablish their heading. Rest assured the pilot that always seems to be on heading didn't get there by just having a well trimmed plane and being lucky in his maneuvers.

OK then, how do you go about making these less noticeable corrections to heading. It's that other control that you only use for takeoff and stall turns, the RUDDER. I competed a season without using the rudder to any real extent and placed in the middle of the pack in most contests. Once I started using it reasonably, I started to score much better. This is a necessary control if you want to compete effectively in Sportsman and Intermediate and essential in higher classes if you want to keep your shinny pattern plane in one piece. The point is, learn this control when you start and you'll be far ahead of your competition.

To learn to use rudder, you must have a starting point. The plane does manage to get into some reasonably strange positions

sometimes and knowing what rudder to push isn't always intuitive. Well, it's almost never intuitive to a new pattern pilot. I'm going to give you two ways to think about rudder. It's not the only way and maybe not the best way, but you have to start somewhere.

Ideally, you want your model to have a pure response to rudder (when you push the rudder, the plane only yaws and does not roll). If you have a computer radio, the mixing functions will take care of this, otherwise you may (will) have to use some aileron to get the necessary response (harder!). Your position in the pilots box is also important. I strongly recommend you stand with your shoulders square to the flight line with the radio's antennae pointed down the centerline. Assume this position and don't move for the entire flight. This position also gives you the best chance to develop a mental picture of the required corrections.

These suggestions may seem a little mechanical, and they are, but with practice they become easy. Rules:

1. Rolling from upright to inverted, the sticks go in opposite direction. Right roll, left rudder; left roll, right rudder. This will always give you top rudder when you are knife edge.
2. Rolling from inverted to upright, the sticks go in the same direction. Right roll, right rudder; left roll, left rudder.
3. When the line needs to be corrected and the plane is upright, I find it easy to visualize myself in the cockpit and push the nose of the plane in the direction it needs to go. Standing square to the

flight line makes this easy. If the plane needs to move the nose right, push right rudder.

4. If the model is inverted and the line needs correcting, I again go mechanical (can't seem to get myself in an inverted cockpit without going goofy). If you're coming in toward center, inverted, push the nose in the direction it needs to go. If the nose needs to move right, push right rudder. Use your eyes as the direction for the rudder. Your head is turned to the plane so push the rudder toward the eye that would put the nose where you want it. Think about it! Once past center, going away, push the tail in the direction it needs to move. If the tail needs to move left, push left rudder. Push it toward the required eye or simply push the tail the direction you want it to move.

5. Here's another way to get it done and this works every time for top rudder when the model is in knife edge. When rolling, if you see the top of the plane, push the rudder stick toward the tail when you need top rudder to hold the nose up. If you see the bottom, push to the nose. Learn this and you will be far ahead.

That's it for the mechanical part. Pretty easy huh? Now let's put these rules to use and talk about practicing.

- Correcting your line while upright; straight flight out, straight flight back, setting up for and exiting maneuvers, etc. Do a complete flight of just flying a straight line along the path you will use for your maneuvers. Use the rudder coming in and going out

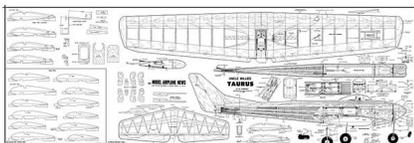
while visualizing yourself in the cockpit and note the aircraft movement. About a tank of fuel and you should have this down.

- **Half Reverse Cuban Eight:** You're always looking at the tail of the airplane when you start this maneuver. As you pull up into the 45 degree climb note the position of the nose as if you are sitting in the plane and make any needed correction. Release the correction and roll inverted, note the tail position and go mechanical. Since you are going away from yourself inverted, push the tail in the direction it needs to move. Do this a couple of times and the correction becomes automatic. This is already getting easier.
- **Loops:** Starting loops can be visualized just like starting a take-off. When I start a pull up for any looping maneuver I push the nose in the direction it needs to go. As the plane comes inverted, I assume I'm looking at an inverted airplane coming toward me and push the nose the direction it needs to go. Use your eyes as suggested above.
- For Intermediate flyers rolling inverted and upright, try making the rolls a little slower and use the rudder going in and out of inverted. Do this for your straight inverted flight and reverse outside loop. Use the mechanical inputs suggested above for these rolls.

Start all corrections very gently as soon as you notice the need and gently release as quickly as possible. Experience and practice will make a big difference. Burn the fuel and it will pay dividends!

# MYSTERY PLANE CHALLENGE

*Model airplane flying back in the day was an aerobic sport. Many free flight designs were helped aloft with their pilots running along side of them to keep their planes on track and from tip stalling. For this month, answer three questions: what is the name of this radio control plane (check out the transmitter antenna in the background), who is helping it along, and why is this plane important in the history of RC? domecqsmith@msn.com*



*Congratulations to Ernie Evon for identifying last issue's plane **The Taurus** (designer Ed Kazmirski at left). Appearing in 1962, this influential design paved the way for many first-time pattern flyers.*

## Member Profile

# *Ernie Evon*



AMA 1129

I started building models at a very young age. My father liked to build plastic battleships. I liked to build plastic planes and cars. There used to be a local camera shop in my town that sold models, and each summer would sponsor a contest for model cars, and display them in his window. I built U-Control (control line) models and also bought the Cox plastic U-Control planes. Most of them lasted a weekend.

I got into radio control in the early 70s when I was helping a friend of mine build a wooden Chris Craft boat, and he wanted to make it radio controlled. We both knew nothing about radio. We purchased a Blue Max radio that was for aircraft and put it in the boat. Back then, frequencies were limited.

We built a plane next, and did not know where to fly it. One day, my mother had told me that she and my father were driving by the old Hadley Air Field and had seen some guys flying planes, and they stopped. To my surprise, someone I knew since I was younger had stopped flying U-Control and now flew radio. This was my lifelong friend Joe Niemiec. He took me under his wing (no pun here) and taught me how to fly.



I became a member of Central Jersey R/C Club in Piscataway. I served as an officer of the club for many years and was the longest running president until the club disbanded about ten years ago. As a club, we ran many fun flys and glider contests, and we had a point system that



was awarded by how many contestants took part in the contest. At the end of the year, we would give our Flyer of the Year awards to the top five pilots. I worked closely with Leon Shulman who was the creator of the Eastern States Pattern contest that he ran every October. This was one of the largest pattern meets on the East Coast.



I became a Contest Director and Leader Member, and he eventually handed over the responsibility of the contest to me. This was at one time the largest pattern meet on the East Coast. I enjoyed flying the pattern back in the day when it was simple and planes didn't cost a small fortune.



Over the years, my three boys have learned to fly and today they each enjoy different parts of the hobby. They are into the drones and long distance FPV and cars.

I have been learning to fly

control line again and now enjoy the challenge of speed racing, and have become competitive mainly from the help I am receiving from the members of the Middlesex Modelers.



I still enjoy building and flying R/C, and still prefer glow powered over electric, but I have a few electrics that I bring out once in a while.

I enjoy bringing out some older planes that only the seasoned fliers can recognize along with some old Super Tigre Engines. I enjoy watching all the latest drones, foam planes, and giant scale creations.

So, all in all, I have to say I continue to enjoy the hobby and enjoy the old school of working with balsa and glue. I hope the hobby continues to thrive, and who knows when the next new creations are coming.

—Ernie Evon



# Club Event Schedule, 2021

*All events at North Branch Park Flying Field, 355 Milltown Road,  
Bridgewater, New Jersey 08807, unless otherwise noted.*

**April Meeting and Club Expo, Saturday April 24 11:00AM**  
(doors open at 10AM)  
American Legion Post 306  
707 Legion Place  
Middlesex, NJ 08846

**Opening Day, Saturday May 22**

**Big Bird Fly-In, Saturday June 19**

**E-Fly, Saturday July 24**

**Larry Gray Memorial Warbirds Over North Branch,**  
Saturday August 28

**End-of-Season Picnic, Saturday September 25**

**Turkey Fly, Saturday November 13**

*please refer to [SomersetRC.org](http://SomersetRC.org) for event updates*

*The eulogy below was delivered in person by club president Domecq Smith to honor club member Larry Gray at his funeral. It is included here at the request of members who were unable to attend. It was given on behalf of our club membership, and for the benefit for Larry Gray's family and friends.*

Audrey, Larry Jr., Sadina, Nathaniel, Rev. Rutherford, family and friends of Larry Gray, I, Domecq Smith, President of Somerset RC, bring condolences and greetings from the over 100 members of Somerset RC Radio Control Airplane Club of which Larry was a beloved member.

As you well know, Larry Gray did not like airplanes. He loved airplanes. They did not merely capture his idle hours, moreover, they captured his imagination.

Larry's specialty in the hobby were World War II reproductions of those great and glorious planes that flew in the European and Pacific Theaters during the 1940s. Larry built and flew almost all of them—the Corsair, Spitfire, P-47, P-51 and others. Such was his specialty, that Larry was known universally as “Warbird Larry,” and not only within Somerset RC, but within the two other clubs in which he was also a member—Augie's Fellowship of RC Flyers, and the Burlington RC Club.

Larry specialized in large, oversized planes with large sophisticated engines and equipment. Some of those who spend the hundreds of hours and many more dollars in this branch of the hobby are not known to laugh, smile, or joke around very much at the field. Mostly, they're preoccupied with flight preparations and worries of what potentially could go wrong.

An element, however, that made Larry stand out was not just the sophistication of his planes, impressive as they were, but his gregarious sense of humor and generosity of spirit. Yes. Generosity of spirit. He

could be seen assembling a giant airplane before what could be its last flight, yet he always took the time to stop and talk to you, share a laugh, a story, a joke. And listen. I remember Larry was a good listener; he knew and understood the value of silence.

When Larry put one of his magnificent warbirds in the air, everyone at the field generally stopped what they were doing and watched. Many of us were as emotionally invested in his planes as he was, as they would lift off from earth, and normal breathing for many of us not to return until after he had landed.

We celebrated with him for his successes, one of which after much trial and error was getting everything in a giant-scale P-47 Thunderbolt to function properly. It was only last month at North Branch Park that we watched Larry fly to perfection that magnificent plane, and land it with equal finesse. It was a moment in which Larry breathed a deep breath of satisfaction. He had indeed arrived at a pinnacle in the hobby.

But to many of us, the pinnacle of Larry Gray was the gift of his person, his humility, his laugh, his glorious gift of not taking himself too seriously. Larry I believe, was one of those rare individuals with few complexes. Inner demons we all have, but Larry when he was present, although he may not have known it, helped us to forget our own demons for a while. Perhaps it was grace? Love?

Jim Vigani, Vice President of our club said, “There is a big hole in our club, now” which is a feeling felt by all. A feeling only attributable to a generous spirit.

To Audrey, Larry Jr., Sadina, and Nathaniel, know that your Larry was esteemed and loved in our club. In his memory, our annual Warbird Event held at North Branch Park each summer will be named and advertised to all clubs nationally in Larry’s honor and memory. All of us at Somerset RC and beyond wish you well.

# Article Index

all newsletters archived at [www.somersetrc.org](http://www.somersetrc.org)

## Construction Articles

Big Hots	Tim Cullen	January 2020
Big Hots Update	Tim Cullen	May 2020
Comments on Covering the Robin Hood 25	Jeff Randolph	March 2020
My Adventures in Scratch Building and Flying	Gene Graber	November 2020
Pica Waco 1/6 Scale YMF-3 Project	Jeff Randolph	September 2020
Extra 330 LX, Krill—Part 1	Bob Both	July 2019
Extra 330 LX, Krill—Part 2	Bob Both	September 2019
F-86 Sabre 15 DF ARF, E-flight—Part 1	Tony Rossi	March 2019
F-86 Sabre 15 DF ARF, E-flight—Part 2	Tony Rossi	May 2019
P-47D Razerback Giant Scale, Top Flite	Larry Gray	January 2019
P-47 (1976) 1/6 Standof Scale, Top Flite	Domecq Smith	November 2019
Waco Wing Attachment	Jeff Randolp	March 2021

## General

AMA Expo East 2019 (photos)	Tony Rossi	March 2019
AMA Report	Jon Gerber	January 2019
AMA Report	Tony Rossi	May 2020
AMA Report	Tony Rossi	November 2020
A European Summit	Domecq Smith	November 2019
Developing Rudder Skills	Don Ramsey	March 2020
Field Accessibility Update	Domecq Smith	July 2019
Freeze Fly 2019	Domecq Smith	January 2019
So <i>This</i> is Pattern	Domecq Smith	September 2020
How to Renew Your Permit Online	Felipe Trucco	May 2019
Metropolitan Sports Squadron	Jon Gerber	May 2019
My Other Vice (MS Access and club records)	Dave Szabo	March 2019
Pattern Plane Evolution—The Early Years	Duane Wilson	July 2020
Somerset RC—Club Logo Clothing Program	Jim Vigani	November 2020
Somerset RC Pattern Challenge	Ernie Evon	January 2021
The Survey Says (club statistics)	Dave Szabo	September 2019

## Literature

Eulogy for Larry Gray	Domecq Smith	March 2021
STS-51-L	Jon Gerber	March 2019
The Killing Fields	Jeff Randolph	November 2020

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## Member Profiles

Michael Ahlff	May 2019
Bill Broillard	May 2020
Rich Blatt	March 2020
Tim Cullen	September 2020
Robbie DeVergillo	November 2019
Ernie Evon	March 2021
Larry Gray	November 2020
Jerry Lustig	September 2019
George Mariasz	July 2019
Jeff Randolph (contributed by Paul Audino)	January 2021
Tony Rossi	March 2019
Domecq Smith	January 2019
Dave Szabo	January 2020
Jim Vigani	July 2020

## Shop Articles

A Glow Plug Caddy for the Flight Box	Dave Szabo	July 2020
Checkerboarding a Cowl	Domecq Smith	January 2021
DYI High-Torque Motor Starter	Dave Szabo	November 2020
Cowl Cutting for a Muffler	Domecq Smith	May 2020
How to Take Care of Your Glow Engine	Rich Blatt	January 2019
Installing a Speaker in Your Transmitter	Dave Szabo	July 2019
Model Airplane Assembly	Rich Blatt	March 2019
On Electrics	Jim Vigani	January 2019
Safely Handling and Charging Lithium Batteries	Jim Vigani	May 2019
Taps, Dies, and Thread Sizes	Rich Blatt	September 2019



## **Somerset RC Membership Application**

Name: \_\_\_\_\_ Date: \_\_\_\_\_

Address: \_\_\_\_\_

Phone: Home: \_\_\_\_\_ Cell: \_\_\_\_\_

AMA Number: \_\_\_\_\_ Email: \_\_\_\_\_

To obtain an AMA Membership go to:  
<http://www.modelaircraft.org/>  
Membership is \$30.00 for adults \$4.00 for  
students up to the age of 21

Mail all applications with check to :  
Dave Szabo  
12 Shoshoni Way  
Branchburg NJ 08876  
Make check out to "Somerset RC Club"

Paying by PayPal send to:  
[Somersetradiocontrol@gmail.com](mailto:Somersetradiocontrol@gmail.com)  
Put your name in the notes and use the":  
"send to a friend option.

Meetings are 8:00pm every last Tuesday of the month at:  
American Legion Post 306  
707 Legion Place  
Middlesex, NJ 08846  
732-356-9699

For full club information, please visit [SomersetRC.org](http://SomersetRC.org)