

The Comets' Tale

*The Official
Newsletter of the*



December 2014



**Next Meeting: Christmas Potluck,
Thursday, 18 December**

7:00 PM at the Oak Park Community Center

President	Alastair Brennan	(805) 388-0180
Vice President	Dale Nash	(805) 532-1433
Secretary	Lynn Breedlove	(805) 933-6647
Treasurer	TJ Moran	(805) 890-2217
Field Marshal/Safety	George Lanquist	(805) 646-5365
Park Liaison	John Dugan	(805) 646-6898
Webmaster	Don Sorensen	(805) 968-4288

dsorensen@tri-counties.org

Comets' Tale Editor Jerry Deanda (805) 641-3730 deandamid@charter.net

Comets' Website: www.vccomets.com

Board of Directors

Alastair Brennan, George Lanquist, Dale Nash, Lynn Breedlove, TJ Moran

Instructor Pilots

Emery Balasa Steve Billings Andrew Carlson Bob Root Ron Scott

George Lanquist TJ Moran Steve Steinmetz Alastair Brennan

The Comets' Tale is the official newsletter and record of the Ventura County Comets, AMA Chartered Club #173 and is published monthly at the Comets' Tale Plaza, somewhere in Ventura.

Editorial contributions are welcome.

**Coming
Up!**



**All SBRCM Float Flies at
Lake Cachuma are
Cancelled Until Further
Notice
not enough water :-)**

**Thursday, 18 December
Comets' Christmas Party
7:00 PM!**

**First Sunday of each
Month
Open House at Santa Paula
Airport
Free Young Eagle rides for
kids 8-18 years old**

Prez Sez!

We had the float fly a few weeks ago and there were a fair number of flyers and some came just to watch. The weather cooperated and made for some great flying each day. Thanks again to George L for manning the retrieval boat.

Where did the time go? 2 years in the President spot and now the time is up. Thanks to all that supported me. At the last meeting we introduced the "cabinet" for 2015; it's really just two changes:

I will be taking over the Secretary duties and Dave Fishman is taking over as President. Dale remains as VP, TJ is Treasurer, George L stays on as Field Marshal and John D is Lake Liaison Please give Dave and the rest of the gang your support.

As I'm taking over as editor I'll be looking for stories, so if you've got one, write it up, or give me some notes and we'll get it published.

Lastly, the Holiday party is a few days away. I hope to see you all there. Marilyn took the usual lead on this project. There will be the end-of-the-year raffle too. Any last minute additions (food or people), please let Marilyn know. Her and Dale's contact number is at the top of the newsletter.

The party....er, meeting starts early - At 7:00
See ya at there,

Alastair Brennan

ROOT'S RAMBLING



I fell in love with the unusual airplane shown in picture 1 after seeing it at several airshows in the Northwest in the 60's. This picture was taken in 1967. It is a two place 36 hp Aeronca C-3. During that time period I took a lot of detailed pictures of this airplane with the thought of someday building a model of it. A few months ago one of TJ Moran's Santa Barbara club friends was selling several old kits including a quarter scale Balsa USA kit for the Aeronca C-3 which I bought. So now I'm researching details for an accurate scale model. In addition to all my old pictures the modern Internet is a fabulous source of information.

Picture 2 shows a modern restored version.



Picture 3 is of one during the early 30's.

Picture 4 shows a typical instrument panel. Not much there.



Even with only 36 horsepower some C-3's were flown on floats as shown in picture 5 and 6.





I found some information on the 40% model shown in picture 7. Even the structure is scale.

Picture 8 shows what the Oshkosh airshow and EAA is all about. The Aeronca C-3 is a two place airplane!



Picture 9 is the lead in picture for a flight report written by Budd Davisson in the August 1979 Air Progress magazine. A summary of this write up follows. It is a very interesting description of the Aeronca C-3.



Summary of Text by Budd Davisson

Air Progress, August, 1979

"In the beginning, there was the Aeronca C-3"

Flight, in its most elemental form, was Icarus, flinging his fluffy little body off a cliff only to find that Copper Tone didn't work on feathers. Flight in its second-most elemental form was me, floating around over St. Augustine, Florida in a contrivance that would have made Da Vinci giggle ... the C-3 Aeronca, an almost-airplane whose chromosomes are heavily tainted by an ancestor's illicit love affair with a box kite. As the first successful "light" airplane, the C-3 is the seed from which the maple tree of general aviation sprouted. That makes it a maple seed. And, until you've floated, wafted and flopped around in a C-3 in a decent wind you don't know how accurate the seed comparison is.

In the late twenties and very early thirties, "light" aircraft were Travel Airs and Bird biplanes that dwarfed their pilots. They were, in a word, big. Since the engines had the power-to-weight ratios of granite slabs, the engineers had to go for big wings, which meant more wires and struts, which meant more

weight, which needed more wing, etc., etc. The Europeans had been playing with some puddle jumper designs, but nobody here had made any serious attempts at designing a really practical light aircraft for the masses.

By 1931, the Aeronautical Corporation of America (later Aeronca) decided to take a crack at the problem and found the first obstacle was that there weren't a heck of a lot of small, inexpensive engines to choose from. Solution: Build your own engine! Right from the beginning, the goal was to build an airplane that would cost a fraction of the airplanes then in vogue. They figured by cutting everything to the minimum, including the engine, they would come out with a cheaper airplane. One of their designer types decided to reduce the number of cylinders. Four was probably the original number but someone figured out, if four is good, two would be fantastic. They began to think seriously about the minimal number of parts in a two-cylinder engine. And so it came to pass that Aeronca developed a two-cylinder engine that would have looked right at home under an old Maytag washing machine. The E-113 Aeronca twin could crank out 36 spindly horses. Not exactly a Merlin, but then it was so light a single man could lift it.

Of course, when you've only got 36 anemic ponies to drag you around, it's no secret that you'd better have a hell of a lot of wing span if you expect to climb. So the designers tacked on what looked like a fair amount of wing. Only it wasn't a fair amount, it was a huge amount! With a span of 36 feet and a gross weight of 925 pounds, the C-3 is much lighter than lightly loaded. Weight is the enemy of tiny motors. So, since cantilevered wings require a lot of heavy internal structure, the designers went for totally wire-braced units. On the ground the entire mess hangs from a bunch of wires attached to a pylon on top of the "cabin." In those days, reducing drag was not a primary issue.

Exactly how they arrived at the concept of putting the engine at eye level and tucking your feet under it is not known. Anyway, that is the rather nebulous history of the development of the C-3. However, a few facts about how

the C-3 was designed do stand out as being both true and amazing. Also, a little frightening. EDO equipped at least a couple of them with floats, which must have almost doubled the weight of the airplane. Imagine, 36 horse-power and floats!!! (*Note: In Seattle I used to see Pete Bowers in the early 1960s climbing his C-3 on floats out of Lake Washington. Once around Mercer Island to get above it!*)

Many schools used them for flight training, including one operated by Ernie Moser, owner of the one in which I did my St. Augustine sight-seeing. If one is truly objective and looks past first appearances, the C-3 is one of the cutest and most innovative pieces of design work to come from that era. Reportedly, it is even the first to use all metal ailerons. Even today, you'd be hard pressed to find an engineer who would even consider designing a two-place airplane with only 36 horses and a minimum of moving parts. Actually, the C-3 has all the normal components for an airplane, it's just that they are arranged a little strangely. You have to fly one before you discover that the C-3 is not just another ugly face.

These days, one does not find C-3s tied down at every little airport. As a matter of fact, if they're found at all, they are stuck back in the corner of a hangar playing the role of neighborhood hangar queen. Not so with N13094. She's the around-the-patch- plaything of Ernie Moser, founder of AeroSport in St. Augustine and one of the very early pushers of sport aviation. Ernie and his son, Jim (current president of AeroSport), have an extraordinary love affair going with aviation, and it shows in the effort and direction they've put into AeroSport. It is an operation that has to be experienced to be believed. One of the Mosers' secrets of operation is to make it fun. And the C-3 is an important part of that fun. Eventually the C-3 will be part of the museum complex the Mosers plan to build across the field.

The day it came time for me to be drafted (or wafted) into the C-3 club, the weather was doing its best to blow everything in the area flat as a fritter. So, we got out real early one morning, feeling as if we had outfoxed the weatherman. Well, you can't always be right. It was eight o'clock in the morning and palm trees already looked like their hair was being parted in the middle. We went up and played cat and mouse for awhile, trying to get pictures of the C-3 out of a Citabria but decided to call it quits as a nearly-lost case. Back on the ground, I fell out of the Citabria in my usual graceful manner and saw Ernie standing by the C-3, motioning towards the empty cockpit. "What?" I thought, "He wouldn't send a young kid like me up in a creepy crate like that!" But he did.

Incidentally, one quite literally must lower oneself to fly the C-3. The wing is only waist high and to get in requires ducking under the wing, finding a man-sized opening in the wire bracing and threading your way through it to the cavernous non-door to the cockpit. Once hunched over in front of the door, it's anybody's guess as to the proper boarding procedure. I started by trying to stick first one leg in then the other. That, however, left most of me lying on the grass outside. I finally worked out a variation on the basic womb-exit technique where I crawled in head-first, crouched in the seat in a semi-embryonic position and worked my feet down to the rudders and my head into the upright position. I think.

The cockpit (and I use the term loosely) is "different" (and I under-exaggerate). The stick is to the left of center about six inches, presumably so the pilot can sit on the left. The throttle, however, is in the upper center of the "panel" (and again I describe in very loose generalities). Since it's both unnatural and obscene to fly with a stick in the left hand and the throttle in the right, I found myself flying slightly cross handed. (*Note: I find this comment interesting as I owned and learned to fly in a 1949 Piper Clipper with my left hand on the stick and my right on the center mounted throttle!*) There is a line of tiny little pedals spread across the floorboards with equal distances between them all. First I tried the left two and nothing happened, and I realized there was some sort of combination that I was missing. So, I punched the last one on the left and watched to see which one moved the other way and it turned out to be the third one from the left (I think).

The instrument panel isn't. There is a giant padded area that covers the entire top half of the bulkhead in front of you and extends, in an inverted "V" shape well above your head when on the ground. Under that is a flat space with three dials the size of steamboat gauges: airspeed, tach and altitude. None of these are any damned good, however, because the padded portion of the panel protrudes enough that you have to squinch down in the seat to see under it and read the gauges.

I don't generally take this long scoping out such a rudimentary cockpit, but I had plenty of time to think about it while I tried to clean out the plugs. The engine had been idling while I hopped onboard and all the plugs were fouled (both of them). So a couple guys held the airplane back while I worked the throttle up and burned off the plugs. At no time did the guys at the end of the wings appear to be straining even the slightest to hold the airplane back and my confidence in this fugitive from a Maytag factory was waning rapidly.

Eventually, the engine stopped skipping a beat and my heart started skipping them. I pushed the throttle the rest of the way forward and the guys politely ducked under the wings as I started moving forward. Slowly, the clatter from up front was just that...a clatter. A high quality lawnmower sounds much, much smoother, if only because its power pulses are muffled rather than being accentuated by tiny little stub exhausts. Then we were moving faster. But, not much. The clatter began to increase in rhythm and I could actually feel the controls begin to work. I pushed the stick forward and the tail sagged into the air and stayed there. By this time, I was certain we were moving faster than **I** could run. But not much. Then, the maple seed came alive and floated back into its own element. And **I** watched.

I didn't have the slightest inclination to bring the power back, once airborne. As a matter of fact, I'm not certain that I knew what to do. Nobody had told me what speeds to use, and the only comment I had to go on was that 50 mph hour is ... "awfully fast" ... so I tried to hold something around 45 mph as the airplane meandered vaguely upward and vaguely to the right. Ernie had told me to drift to the right so I'd have a better chance of making it back, if the engine quit. An unusual piece of advice, I thought, until I found he has had it quit on him six different times! Six times!! I had already made up my mind to keep the airplane directly over the airport.

The fairly brisk wind combined with the not-so-brisk speeds of the C-3 gave me three or four minutes to get used to the airplane before I came to the end of the runway. Oddly enough, the C-3 doesn't seem nearly as blind as it should. Even in a climb the nose is over your head, but the way the cockpit is shaped you can easily look around it. The seat forms the bottom of a triangle with the nose and engine at the top. But, your head is near the narrow top of the triangle so it's easy to look out to the sides and guesstimate your direction of flight. Also, since you aren't exactly streaking through the heavens, you have plenty of time to correct any directional wanderings you didn't plan.

By the time it came time to make my first turn, I was no longer fighting the strange feel of the machine. Only the vague, lackadaisical controls bothered me. There was plenty of control to make the airplane do what I wanted, but that wasn't always enough to overcome what the wind wanted me to do. Like a leaf in a fast moving stream, the C-3 is totally at the whims of any gust, breath or belch Mother Nature decides to aim at it. I didn't even try to correct for most of the turbulence because it wouldn't have done any good. The C-3 rides over them like the bit of thistle down it is.

In terms of performance, I never really figured all the numbers out. I never saw anything higher than 60 mph on the clock and I couldn't come close to reading the altimeter ... the needle was bouncing so much it blurred across a band 1000 feet wide. The one bit of performance, which is hard to ignore is that it glides like there's no tomorrow. I must have been up around 1500 feet when I started considering making a landing. It took me almost a complete lap of the field to get it down to 800 feet to make even a semblance of an approach.

Throughout the entire flight the airplane kept whispering, and then yelling, "...RUDDER. Use RUDDER, dummy!" It wasn't a matter of using enough rudder to balance the ailerons, it was just the other way around. Everything was done with lots and lots of footwork, something I had to remember as I turned final. I only brought the power all the way back once. When I did, the engine sounded like it was going to stop dead. With only two cylinders and a featherweight prop, it doesn't have a heck of a lot of inertia going for it. So, I kept just a tad of power on as I fluttered down final towards the grass alongside one of the main runways. The wind was more playful than dangerous; jabbing me here and there with a precocious gust or a quick downer. In any other airplane, it wouldn't have been noticeable. In a C-3 it was really fun. As I passed low over a cross runway, I needed a quick jab with the throttle to stop a downer. Then I throttled down and prepared to flare. All this time I was trying to hold around 45 mph, which gave me the ground speed of an armadillo.

Okay, there it comes. Gently, gently. flare. Ooops! I suddenly found myself another 20 feet in the air, looking down off the top of a gust. Poking the nose somewhere in the down-ward direction I woke up the two-cylinder rubber band for just a second to stop the rate of descent and flopped back to earth like a pooped albatross. Roll-out must have been less than 100 feet because the touch down was at about 35 mph and the tail skid was digging in to slow me even faster. Since a C-3 has no brakes of any kind, I was glad for the tailskid ... right at that moment anyway. As I tried to taxi back, I learned to hate it because I never could get it to turn. They finally had to send somebody out to grab a wing tip and swing me.

As I crawled out from under the wing, one of the guys asked me what I thought of the C-3 and the first thing that came to mind was, "It flies like a butterfly." And that can't be all bad.

MINUTES of the NOVEMBER 2014 MEETING

*M*Meeting was called to order at 7:04PM by President Alastair Brennan.

Minutes from the October meeting were approved.

T.J. Moran gave the Treasurer' Reports and it was approved.

Field Marshall George Lanquist had nothing to report.

Lake Casita Park Liaison John Dugan reported all is okay.

NEW BUSINESS

1. The Comets' Christmas Party will be December 18th. Sign up with Marilyn Nash so we know who is coming and what food to bring

2. Club elections. Nominees will be:

President– Dave Fishman

Vice President- Dale Nash

Treasurer- T.J. Moran

Secretary– Alastair Brennan

3. V.P. Dale Nash is updating the club inventory list. Contact him if you have anything or if what you have has changed. We need this info for the AMA inventory.

4. John Dugan spoke with the boat rental people and no deals are available. cost is \$50 if we need to rent a boat to retrieve a floating plane.

5. T.J. Moran nominated Jerry Deanda for the Bill Gast trophy for 15 years of publishing the news letter. This was whole-heartedly approved by all present. Good job Jerry, we will miss your experience and work doing this.

Model of the Month

There were 2 planes presented this month, a Hobby King Sundowner by Peter Perry, and a scratch built Fokker TV5 bomber by Bob Root. Both talked about their build and model performance. Award went to Bob for the Fokker TV5.

Meeting adjourned at 7:45pm



Respectfully Submitted,
Ron Golding,
standing in for Lynn Breedlove



The Mystery Plane

If you recognized this thing as a Mooney, well, a small tip of the hat to you. That tail leaning into the wind is certainly a Mooney hallmark but this one's special... it's the only military Mooney there ever was. The TX-1 was pretty much a Mooney 230 tweaked to have a sliding bubble canopy and no back seat. It was intended as a cheap basic trainer that could also do some light attack work with four hardpoints under the wings. First flight was in 1982 and by 1989 they'd cancelled the registration, so I 'spect they scrapped it. Power was from a

Continental TSIO-360-GB making 240 horses. (Hmm, the versions of that engine on the Piper Arrow and Seneca made 200 and 220 respectively... where'd that extra 30 or 40 come from? Maybe a bit more boost from the turbo?) Top speed was said to be 239 mph at 16,000 feet, which sounds a bit optimistic to me. Oddly, they quote a cruise speed of 185 mph at sea level. Cruising at sea level is a bit problematic almost anywhere. Anyway, nobody bought the thing and since Mooney said they needed 100 orders to make it pay, that was the end of that.

Speaking of Mooney, they're Chinese-owned these days and here's a photo of a mockup for the new trainer they're proposing for the world market. It's all composite and diesel powered. The debate has already started about how well this airplane will be received. The 155 hp Mercedes-based diesel is breath-takingly expensive but with 100LL aviation gasoline either hyper expensive or just not available at any price in much of the world, it might work out for some operators. It should be interesting to see what becomes of this project.



RANDUMB THOTS :-)

Bob Root's article about the Aeronca C-3 jogged a few of my brain cells loose this month. I have a bit of history with a C-3 myself and Bob said it was OK if I tossed my hat onto the ramp. The airplane belonged to my buddy and late Comet Steve Pfister. Steve traded a Piper J-3 Cub for a C-3, must have been along about 1982 or so.

Bob's photos all show the early version of the C-3, which itself was a widened version of the single seat C-2. The early C-3 was called the Collegian and was easy to

recognize with its "razorback" fuselage. The fuselage structure was just what you see in Bob's photo 7. The welded tubes were formed in a triangle section with three longerons and they pretty much just stretched fabric over the truss. Steve's plane was the later C-3 Master, where they added some simple plywood formers and spruce stringers to give the fuselage a more pleasing, rounded section. This also cleaned up the airflow around the wingroots and aft fuselage, and I think this is the only time I've ever heard of a vertical tail getting smaller as an airplane went thru its evolutionary development. This was before I started photographing everything, so I don't have any pictures, but this is what it looked like, right down to the paint job.

That triangle section fuselage truss carried thru in all the subsequent Aeroncas and in fact persists to this day in the current American Champion line of Citabria, Scout and Decathlon lines. Yup, the C-3 is a distant, direct ancestor to those airplanes.

The wings were fabric-covered wood and the built up ribs had cardboard gussets instead of expensive plywood. OK, they called it fiber, but trust me, it was pretty much cardboard. I think they're all gone now, replaced by plywood. I hope. The ailerons were sheet aluminum, almost as thick as the stuff you'd wrap a sandwich in, and had tidy integral stiffeners bent into the skins, with a neat tuck at each end. I'd love to know how they did that.

Steve's C-3 had all the options offered. Are you ready for this? It had a tailwheel, doors and... AND an AIRSPEED INDICATOR. Pretty fancy, no?

Steve said the brakes were on all the airplanes and they were very nice units, even by today's standards. They were heel-operated, multi disc things that fit completely inside the streamlined wheel/tire units, cable operated and just as effective as they needed to be. Of course, you could open the door, reach out and grab the tire in a pinch. Wear sturdy gloves...

The control stick the Budd mentions was off center so the pilot could fly from the left seat (left seat, ha! It was the left end of the plywood bench with a plywood back, and there was one long seatbelt for both people) It had a big ring at the top so an instructor could reach over and help a student pilot. There was no right stick, but there were rudder pedals over



there. The student still had all the brakes on his side.

And by the bye, that pad above the instrument panel was on the back end of the soldered tin gas tank. No aluminum here.

Steve's plane had the E-113C Aeronca engine, the two-cylinder opposed kind (one wag called it a two cylinder radial) and it was actually a fairly miserable engine, but an interesting one. If you look at the photos, you can see where the two exhaust pipes come together under the cowl in a cylinder-shaped thingie, and then the one pipe exits below that. The cylinder was the carburetor heat muff and it was on all the time, so there was no carb heat knob like most carbureted airplane engines. There was an ignition switch for the one magneto marked 'on' and 'off'. Weird not to see 'Off', 'Left', 'Right' and 'Both'. Starting was of course by hand propping and it generally started easily. Fair enough, it didn't run all that well after that, a bit rough and popping intermittently at idle since the Robert Bosch magneto didn't fire well at low RPM. It actually sounded a bit like a Harley Davidson with a mild speech impediment. You could count on it. The thing quit on Steve something like 3 times. (Ask Cap'n Leo about that...) And they all cracked their crankcases in the same place.

There was no pressure oil to the valve train on these things so you were supposed to stick a long neck oil can in thru 1" holes in the rocker boxes before each flight and dribble some oil on the valve stems.

The carburetor was a Zenith updraft thing, pretty complex and not too great. And it had a choke, just like a lawnmower, which had been removed. Some folks put Ford Model A carbs on and the rumor is, they worked at least as well as the Zenith.

Pre-takeoff runup checks consist of checking for oil pressure and listening carefully. The engine is ready for takeoff if you can hear it running.. Wiggle the stick to see if the controls work and you're ready to go. There really wasn't anything more to check. Steve threatened to label the throttle "Noise. Push loud." You sure didn't get any noticeable power.

Steve used to tell folks that if Walt Disney designed an airplane, this would have been it. He kept it in a hangar away from the runway at Santa Paula Airport and I remember hand propping it for him, and then I'd run around to the front and play innocent to hear the comments from spectators. Lots of folks laughed when he popped and farted around the corner. One guy assured his girlfriend that that wasn't a real airplane and the guy would never fly it.

Poor Budd's one flight in the airplane was on a gusty day, and the very light, underpowered C-3 just does not cope well with those conditions. I sure wish he could have had better weather. I flew the airplane on several occasions and really enjoyed it. First, the performance was actually surprisingly good for such low power. OK, it climbed almost as well as an asthmatic banana slug, but it cruised almost as fast as a Piper J-3 with nearly twice the power, and if you're playing dogfight, it would handily turn inside that same J-3.

Handling was on a par with what aero engineers knew in 1930. There was plenty of rudder and elevator, and mediocre ailerons. Budd's right, you fly with your feet at least as much as your hands. Stick forces were light, as you'd expect from an airplane approaching 70 mph. It stalled just a little abruptly with the ailerons losing effectiveness but recovered nicely just by putting the nose down a bit. As the saying goes, that thing didn't have a mean bone in it's airframe.

Budd didn't talk about the "C-3 slouch." If you're flying from the left side, you tend to kind of lean to the left to look around the nose and then duck your head down a bit to see under the cylinder. Cool thing, you could look thru the hole in the rocker box and see the valve spring. Of course it's a blur and Steve once shouted to me that every time that valve spring compressed, the piston had been up and down twice. I don't think I really needed to know that right then. Anyway, the view forward was not bad if you didn't care too much about what was right in front of you.

Takeoff and landing was pretty easy although I did get it pretty sideways on one memorable landing and almost had my second groundloop. Naturally, Steve was watching. I managed to straighten it out but it was a near thing. Steve said the very attractive young lady in the right seat distracted me. OK, I'll go with that. She WAS very fetching. Still is, in fact.

So, yah, it does fly a bit like a butterfly and if you're excited about airplanes that "fly on the wing" instead of doing it with raw horsepower, (like me) the C-3 is a pretty neat airplane.

As things improved financially in the United States, pilots began to demand a little more performance and the C-3 had gone about as far as it could. Certification requirements demanded that the wire braced wings and single ignition had to go and rather than re-engineer the C-3, they came out with the Aeronca K, a pretty, strut-braced high wing thing that supposedly did not fly well. It used a dual ignition version of the E-113 that was not seen as a step forward and so they moved on to the Model L low wing cantilever monoplane, which again, did not do well. With war imminent, they were quick to design the Defender, a Cub-like, Continental powered airplane that led to the postwar Champ, which grew into the Citabria, and then the Scout and Decathlon lines, which are still in production.

Jerry 'kid' Deanda

Alignment Of Wings And Tail Surfaces

A very important task in building an RC model is alignment of the flying surfaces with respect to the fuselage. Most of the time there is no absolute reference which will allow you to measure the mounting angle and be certain that it is square. One method is to mark a point at the nose or tail (depending on whether you need a reference for the horizontal stabilizer or the wing) at the center of the fuse and measure to the tips of the respective flying surface until it is properly centered. If your aircraft model is in the "bare-bones" stage, using a large heavy straight-edge can easily create hangar rash even before you have done the finishing. Here are a couple suggestions to avoid the large metal straightedge problem.

One is to use a length of ordinary lamp cord. If you get a piece of it fresh off a roll and hang it in your shop, with a small weight at the bottom end, for several days it will be straight enough to ensure accurate measurements. Put a piece of heavy tape around one end (about the last 3/4" or so) and use a pin immediately in front of the tape and through the center of the cord to locate the reference point on the aircraft fuselage. Then hold the other end at a reference point on each end of the stab or wing to compare the two measurements. A small piece of duct or masking tape will mark your measurement on the lamp cord while you make adjustments to the mounting location of the airframe component.

Another trick is to use what home builders refer to as a "story stick". This is merely a small piece of wood (carpenters use a 2 x 4 but that could be as dangerous as the metal straight edge) possibly a long, 1/2" dowel or similar sized piece. Drill a hole about 1/2" from one end which accepts a heavy building pin to use as the locator. Use the other end to mark wing and stab locations. This can be a good reference tool to ensure your wing mounting is secure. Mark the dowel with the name of the plane next to the final dimension to the wing tip and check your model after several flights.

And the Last (?) Word...

I think I must have started doing the Comets' Tale about 1994 or so. Member and President Emeritus Bennett Spencer had been doing it with his wife Helen for a couple of years and when they retired and moved to Texas, Bennett just told me I was going to do it and there would be no discussion about it. I had already been Recording Secretary a time or two and submitted hand written and then typed minutes to Howard and Maxine Broughton.

My first 'Tale happened before I owned a computer (or much of anybody owned a computer, for all that) so it was done partly by hand and partly typed, pasted up with scissors and real paste, and all done very badly. Of course, nobody dared complain or they'd be the new editor, so I kept the job. I got better, and after I got my first computer, the 'Tale happened using Microsoft Word, an application I grew to really dislike. I asked for, and got, some help from other Comets, George Lanquist's wife, Carrah was especially helpful. My brother finally heard my griping about Word and sent me a copy of Microsoft Publisher, which solved all those problems and I got pretty good at bumping text and pictures around the pages. Pretty good means I didn't anger too many people, I think.

I was advised to go back to Word and I tried, but Word is like a wrestling match and I went back to Publisher. Another Comet took the 'Tale for a few months, but I had it back pretty soon and I've had it ever since.

I decided to try a Mac computer a couple of years ago and that went OK using their word processor, called Pages, until I ran up against a wall on that one, too. There is a Word for Mac and it's a monumentally awful thing, so I found an application for the Mac that would supposedly allow me to run Microsoft Publisher (there is no Mac version of Publisher... !) but never did get it to work. I finally conceded defeat and went back to the PC and I keep it only for the newsletter.

Alastair and I have had some conversations about how he's going to do this. He has a favorite word processing program that he likes to use and of course I'll help him all I can. I'm really looking forward to seeing what he does with this thing. I expect great things.

It's been a great run, and I learned A LOT of useful stuff doing the Comets' Tale. So, thanks for the opportunity, Comets, it's been a good, long, challenging, fun run.

Al asked if I'll still write Randumb Thots or any other drivel. My wife says no. We'll see!