

# Scale Modeling

By: Carl Lindou

Hi I'm Carl and I was asked to write about Scale Modeling. I've been modeling for 54 years. I've flown and competed in almost every discipline in modeling. I enjoy challenging myself. I was always timid about getting into Scale. Why? it seemed like it was beyond my abilities, and when I first started there were only two classes, fun, and museum scale. Just the name museum scale scared me. When hobby shack and the Riverside Club had their 4-cycle scale contest, I was working for them as an Assistant Manager. I bought a 40 size Pilot Scale Tiger Moth Biplane and a Saito .40 four cycle. I had no idea what I was doing, and I finished the contest in almost last place. I still had my plane and I had learned a lot. I then read a magazine article by Dave Platt, in it he suggested that when first starting into Scale, start with an easier subject. He mentioned a Chipmunk and I just happened to be building a Carl Goldberg Chipmunk. I set out and collected documentation, photos and three views. I had a lot! I had been watching the Professor since I was five years old and I thought I was totally prepared this time. The Saito .40 Four Cycle ran perfect and the airplane flew perfect. I was so proud of my documentation book. A friend, who was a judge, looked at my book and said. WHAT THE HELL IS WRONG WITH YOU! Me: "um, I don't know, why". All's you need is eight photo's max is what he told me and I had sixty. I had the whole history of Arts Chipmunk, his aerobatic sequence, a picture of his dog aileron and three views from the original Chipmunk to all the variations. I fixed my book to only show the judges what they needed and I did much better. I think I finished third and again, I learned so much. Later I built a 1/4 Scale Proctor Albatross DVA, here again had a great time and learned a lot more. The Albatross is now at the March Air Museum on display.

Scale today is so much different then when I first started. It is worlds apart from where it started. Why? First, we have a place for everyone now. You have fun scale, pro-am, sport, pro-am pro, advanced, team scale and expert classes to compete in (compared to just two classes). Today ARF'S and Pre-Built models including foamy aircraft are allowed and encouraged to enter scale events. Compared to a time when you had to build your plane from a kit or scratch build it. That alone drove a lot of people away from scale. People just didn't have the time to invest in a long scale project. Today, we have a huge selection of scale models available that are fairly inexpensive, fly great and are very dependable. One thing I hear a lot by people who don't fly scale is: "you have to have a giant scale to be competitive at Scale contest". This is NOT TRUE AT ALL. Chris Wolf won the US Scale masters in Expert class with his Ki fir EDF and it's not large. When in gets into scale flying you need to think about flight maneuvers. You have five mandatory maneuvers and five optional maneuvers. Your flight maneuvers need to match the type of aircraft your flying. For example, I flew at the 2016 US Scale Masters with my 1/3<sup>rd</sup> Scale Ercoupe 415C. One of the Ercoupes big claims to fame is its Spin proof. But it also doesn't do much else. So, my flight sequence is as follows, remember, you get an optional trim pass and I always take it:

1. Maneuver #1 - Take off

- a. Taxi in a prototypical manner turn into the wind bring the aircraft to a full stop on the centerline of the runway. Announce Take off stating now. (Keeping it as close to or on the centerline while on the takeoff roll) once the aircraft is above 15 feet announce Take off is complete.

2. Maneuver #2. - Fly By

- a. The fly bye is done between 10 and 20 feet high. Approximately 30 feet out and Parallel to the edge of the runway. I call the maneuver about 150 feet before the center of the maneuver, the pilot is the center of the maneuver. And

call the maneuver complete once I fly another 150 feet past myself for a total of 300 feet. Ideally, you're not to gain or lose altitude. Or lose your heading.

3. Maneuver #3 - Horizontal figure eight

- a. This maneuver is centered on the pilot/judges. I take my time to get my altitude and heading correct. I announce my next maneuver is the horizontal figure eight. The angle of bank and speed and size of circle greatly depend on the type of aircraft your flying. But no matter what, it's shape should be two equal circles connected in the center. Your looking to maintain the same size circles cross at the same point you entered maintain the same bank and airspeed. Seems easy enough lol. Just remember the figure eight is NOT TEAR DROPPED SHAPED. And you should perform the figure eight at 20 to 30 feet high. So, there is three of the Mandatory maneuvers. That covers 3 of the mandatory maneuvers, 1. Take off. 2. Fly Bye. 3 Figure Eight.

4. Maneuver #4 – Climbing 180

- a. This is my first optional maneuver, the climbing 180.

5. Maneuver #5 Descending 360

6. Maneuver #6 – Procedure turn

7. Maneuver #7 & 8

- a. My next maneuver counts as two maneuvers. It's the Touch 1 and Go 2.

8. Maneuver #9

- a. Next is Landing my forth mandatory maneuver.

9. Maneuver #10

- a. And fifth is flight realism.

Some might call my flight sequence Boring, but that is exactly what the Ercoupe can do in real life. You're not going to see a full scale Ercoupe 415c do a loop or roll. A few more items. One, find a scale subject you like. I found all my Documentation online for free. For Pro-am sport and

Pro AM Pro all you need is a picture of an airplane your flying. So, if you have a P-51 just bring a picture of any P-51. Flying scale is greatly satisfying. You compete against yourself to fly and present your aircraft in a scale manner. I've never been in competition where the other contestants are so willing to help and encourage as in scale. It is really amazing; the camaraderie and friendship makes the contest a place where you hang out and have fun. No, my friends, Scale isn't what it once was, it's evolved to be more inclusive. You can find all the maneuvers on the AMA Website. Or go to the US Scale Masters Association Website, and you can find all the listings and descriptions for all the maneuvers. That give you the downgrades as well. So, bring your favorite scale ARF or Foamy or one you built up and give a scale contest a try and have some fun.