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# Autobiography of FRANK E. NELSON

Birth Date: October 2, 1924      AMA Number: 562475

Written and Submitted by FN (2/01)

Transcribed and Edited by SS (6/02)

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## Career:

- Started the first modeling club in Washington, D.C., the Capitol Model Aeroneers
  - Serves as secretary of the Silent Knights Soaring Society
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## A Bit of Modeling History

By Frank E. Nelson

This chronicle covers a brief period, 1936 to 1942, prior to World War II, during which I came of age as a teenaged modeler and helped form the first model club in our nation's capital city.

I had always been nuts over airplanes. My older brother, Harold, introduced me to modeling and to the world of Bill Barnes' Air Trails magazine, banana oil and 10-cent Megow flying scale kits. Harold built some neat-flying Rise-off-Ground (ROG) stick jobs of his own design using bent safety-pin eyes as thrust bearings.

I met other neighborhood modelers at a class at the Boys Club of Washington, D.C., where Brent Daniels was the instructor. Brent was a pioneer-developer of the semi-prefabricated line of In-a-Minit model kits, which he produced in his basement.

In 1938, when I was 14, two memorable events occurred. I had my first ever plane ride in a huge, lumbering Curtiss Condor biplane that famed Clarence Chamberlain was barn-storming around the country. Clarence delighted his passengers with pylon turns over the Capitol and the White House.

## Capitol Model Aeroneers Club

The second event was the formation of our model club. A bunch of us kids had the idea, but didn't know how to go about it. One Saturday, as I was wandering through the Smithsonian's old Quonset-type hangar, as I often did, admiring the historic aircraft on display, I noted the name of the curator, Paul Garber. I wondered if he would advise us on forming our club. So, I wrote to him and received a letter in response. It turned out that Paul was a modeler himself, having built and flown twin-pusher canards. He was eager to be of help and suggested I contact Al Lewis, head of the fledging AMA (fortunately for us, headquartered in Washington, D.C. at that time).

Al helped us get organized, and soon we formed a nucleus of members. We met in the basement of the local library and I was elected president. Al and his assistant, Russ Nichols, attended many of our meetings and flying sessions. We eventually had about 50 members of all ages, from all walks of life.

## Club Activity

We built and flew almost everything; mostly gas engine-powered, but also gliders and indoor and outdoor rubber-powered craft. We flew at Seminary Field near Alexandria, Virginia, and at our small, auxiliary field at the Anacostia Flats (with the attendant danger of landing in the adjacent river!).

As we gained experience, we took on other clubs in contests in Baltimore and Lockhaven, Maryland, Harrisburg, Pennsylvania, and Berlin, New Jersey, and eventually won our share of prizes. We made it to the Nationals (Nats) in Chicago. Fred Long had six flyers crammed into his car, which had a huge car-top box housing the models.

Many memories come to mind: local luminary, Carl Wheeley, ushering in the era of the Zipper with his black and white, silk-covered fantastic performer; Norm McMorrow and Howard Kuhn with their first Playboys in the area; Bill Mayo and Andy Knox with their twice-sized Zippers; Jack Demshock's beautiful Clod-Hopper Wakefield rubber job; and Walt Weaver's Korda Wakefield plane under a hawk attack.

Norm McMorrow and I had success with hand-launched balsa gliders with pine bodies. We had similar side-arm throwing techniques, and often entertained patients at a nearby hospital with our side-by-side simultaneous launches. We had several OOS flights.

My best-performing ship was an Ohlsson 23-powered Scientific Coronet cabin job. It had a vertical, corkscrew climb, much like that of a pylon model. Mysteriously, it required loads of down-thrust to prevent looping! It had a sweet glide and, on 20-second engine runs, flew OOS in its first two contests prior to being lost.

## A Modeling First

Here is a tale that must be told. In 1938, our premier modeler, Norm McMorrow, asked me to help test-fly his just-completed indoor microfilm stick model. He wanted to test it that Friday evening, on the eve of a modeling event in Constitution Hall the next day. Norm was then a Western Union bicycle messenger and knew of a place to give it a try. Being a friend of the security guard, Norm got permission to fly in the lobby of the old House Office Building on Capitol Hill. This was about 10 p.m. The lobby was a bust, being too small and drafty.

Norm was not one to give up easily and happened to think of a better place. So, we packed up his model into its rather large cardboard box (the model had a three-foot wingspan) and carried it down into the basement. From there, we somehow made our way into what I finally realized were the bowels of the Capitol building. It was then about midnight.

We tip-toed our way, toting this big box up the stairs into the dimly-lit rotunda of our nation's Capitol! There, in the shadowy perimeter, we quietly re-assembled the model, cranked in a few thousand egg-beater turns on the rubber band motor and gave it a launch. Norm had made just the right adjustments and it flew beautifully, silently and slowly climbing and circling, just overhead of and unobserved by the occasional security guard who happened to pass through that

august hall. Satisfied with its performance, we repacked the fragile model into its box, retraced our steps out of the building and returned, on Norm's bike, to our homes, saying not a word to anyone.

The next day, Norm might have won his indoor event, having made one superb flight, except that his prized model lodged up on top of an ornate support pillar alongside the stage in Constitution Hall. Someday it may become dislodged and continue its stately flight to the astonishment of some concert or graduation audience!

A few years later, Norm was flying a P-38 over Europe and I found myself an engineering officer on the old carrier Enterprise. The war proved to be a major inconvenience to model activity. I don't believe the club survived it.

## Post War

I received a mechanical engineering degree from Georgia Tech. Engineering seemed just a natural follow-on to my modeling experience and lifelong interests. This, in turn, led to my career as a design engineer on aircraft catapults with All American Engineering Company in Wilmington, Delaware, and, later, as a rocket design engineer on the Apollo Moon Mission with Thiokol Chemical Corporation in Elkton, Maryland.

I didn't get back into modeling for another 50 years. Somehow college, marriage, raising a family, frequent job moves, sailboat racing and learning to fly full-sized aircraft took up most of my time.

## My Return to Modeling

I returned to modeling at age 72. It was comforting to realize that with Radio Controlled (RC) sailplanes there was no longer the need for cross-country chases as there was with Free Flight. I have, however, had to climb a few trees while learning the mysteries of glider flight! I am secretary of our local club, the Silent Knights Soaring Society, which has over 50 members. We are blessed with having a world-class soaring field near Newark, Delaware. Actually, we are doubly-blessed as the site has the protection of being part of the state's parkland. The club conducts annual AMA/ESL-sanctioned sailplane contests. For information, visit our Web site: [www.SilentKnightsSoaring.org](http://www.SilentKnightsSoaring.org).

*(signed) Frank E. Nelson  
February 26, 2001*

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*The following article about the Capitol Aeroneers ran in the Washington Daily News on July 24, 1941 on page 8.*

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## **Air-Minded? Start With Model Planes**

Local Enthusiasts Find Thrills in a Fascinating Hobby

Builders of pee-wee planes have been holding their own against Lockheed and Douglas for years and making 50,000 planes a year no dream, but an actuality.

Model planes are comparatively new to Washington, but the fad is making headway. [The] only club here, the Capitol Aeroneers, is 3-years-old, has some 50 members and is growing fast. They boast that they've cleaned up in all local meets in the Washington-Baltimore area and have skunked everybody that was worth anything in the state of New Jersey. They also claim they've "got some of the best model builders in the East."

The pioneers in the model plane game used to stick strictly to rubber-band models. There are still a few hangers-on in the rubber-band class, but ever since the cost went down on gas engines that is all you hear about now.

### **Model Cost Varies**

You can build a complete model for anywhere from \$12 to \$45 and higher. Cheapest sets cost about \$1.50 for the kit and \$15.50 for the motor. Radio Controlled models run into the \$100 figures.

There are three classes of power-driven planes, depending on the engine size, 1/7, 1/6 or 1/4 horsepower. The engines are so small you need a magnifying glass to clean the spark plugs, but they perform like a Messerschmitt. On the take-off a good model will climb almost straight up at 20 mph. In level flight it will do 35 mph. When you get a few models in the air together they sound as if the whole Luftwaffe were overhead.

### **Have Amazing Power**

In meet competition there's a timer on the engine, which cuts it off automatically after 20 seconds. From then on it's up to the plane to glide for a record. In 20 seconds a plane can climb as high as 600 feet and its glide is largely a matter of luck and the skill of the builder. Big planes glide better and little planes climb faster, which evens the score.

The average plane will stay up about three or four minutes after the motor stops, but some of the Capitol Aeroneers have made 12-minute hops and better. Often a sudden gust will turn a plane over while the motor's still going full blast and it will go into an earth-bound power dive. Many an expensive model cracks up that way on its test flight.

### **Contests Offer Prizes**

Sometimes a plane will get caught in a thermal draft and be carried up and out of sight. Or, if it performs too well, it may glide over into the next county. In such a case, the owner usually wins first prize anyway, which compensates for the loss.

Most contests throw in a few color events such as stunt flying, parachuting and bombing from trick models and there's usually a prize for the best crack-up.

The sport has its dangerous side, too. The engines turn over as fast as 10,000 revolutions per minute and if you tangle with a propeller at that speed it's apt to lop off a nose or finger.

### **Capitol Enthusiasts**

The Capitol Aeroneers fly their models at Seminary Field in Alexandria on Sundays. The rest of the week they spend their spare time tinkering around in their home workshops trying to design models that will be as stable as possible for flight without controls.

A lot of them work in the Navy Yard or drive taxis. Some are younger boys still in school. Most of them want to end up in some branch of aeronautics.

They meet on the first and third Mondays of each month at the Southeastern Branch Library, 7 p.m. New members, they say, are always welcome.

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