



# The AMA History Project Presents: Biography of FRANK V. EHLING Modeler, Competitor, AMA Technical Director, Writer, Designer



August 23, 1912 - August 21, 2001      Started modeling in 1924  
AMA #798

Written by JWH; Submitted by FVE (11/1996); Transcribed by NR (11/1996); Edited by SS (2002), Updated by JS (12/2005 and 09/2007)

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## Career:

- Model designer for major model magazines
- Model designer for a major kit manufacturer
- Donated design of the AMA - Cub, to the AMA & Hobby Industry
- AMA technical director for 22 years

## Honors:

- 1966: AMA Fellow
- 1970: AMA Distinguished Service Award
- 1976: Model Aviation Hall of Fame Award
- 1978: National Free Flight Society Hall of Fame
- 1979: F.A.I. Outstanding Service Award
- 1989: N.A.A. Elder Statesman Award
- 1990: AMA named its National Model Aviation Museum in his honor
- 1990: Society of Antique Modelers Hall of Fame
- 1995: AMA Fellow
- Received the Paul Tissandier Diploma award

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*Frank Ehling's autobiography was dictated to his friend, Joseph W. Harris, who transcribed this text for him.*

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Frank Ehling, “the rule beater, the bad guy,” of model contests was so apt at this he was asked to become the technical director of the AMA.

Let’s go back to his first exposure to flight. This was in Monticello, N.Y., at a very young age. He would watch hawks and buzzards glide and soar for hours. He decided then that the reason his father's chickens could not do this was because they could not hold their wings out straight. He took some string and some sticks and tied the wings so they appeared fairly straight. He then took the chicken to the loft of the barn where it was launched. It dropped like a rock. The next day they had chicken stew.

It was here also that Frank tried his hand at model construction. The only thing to guide him was the newspaper and wood from old oranges crates. The most important thing was that these models had props that turned.

Several years later, the family moved to Jersey City, when he was about 12-years-old. It was here in public school he saw his first real model airplane. It hung in the wood shop and was built by

the shop teacher. When the teacher saw how much Frank was interested, he said he would help him build one, if he could maintain an 85 average in all his schoolwork. This was like lighting the fuse to a firecracker. The A frame pusher was soon built. Frank learned to work with balsa wood, tissue paper, to carve props, (both left and right hand pitch), and to make glue by melting tooth and hand blush handles with acetone. The finished model was powered by a small amount of rubber. The first flight was described by Frank as gracefully descending to the ground. This was followed by a second model – Franks own version of the first. The second model was a bigger success. It would actually climb.

He could not wait to test this model. In the street, under the streetlights the model was launched. It flew higher than the row houses but came down and landed in the electric wires. He went to a neighbor's house to call the electric company. He told them his airplane landed in the electric wires. He did not mention that it was only a model airplane. They dispatched an emergency crew right away. When they arrived and found a large group of people and a small model airplane, they were not mad. As a matter of fact, they started making jokes about it. The model was returned with very little damage.

The Jersey City Recreation Department sponsored a "Boys Day Out of Doors" every year. The events to be held this year were boats, kites and model airplanes. The rules were easy; any size, any power. The longest single flight would be the winner. Well, Frank knew that his twin pusher was only capable of flying 50 seconds. He heard that this was less than the flight of the compressed air motors that could run as long as one minute. Some of the kids from New York had them, and they were sure to be there.

Well, Frank showed up at the contest. He had a shoebox with string hanging out that was tied to a one-inch balsa model. He waited until almost the end of the contest, making note of the high flight times – 2, 2-1/4, 2-1/2 minutes. He walked up to the judges' table and asked if he could now fly? They said yes, where is your model? He then placed the box on the table and pointed to the one-inch model. He then opened the box and out flew a startled pigeon. The judges were just as startled but they started their watches. The pigeon circled the field three or four times then seeing the water where the boats were sailing dropped down for a much-deserved drink. After all, he was in that darned box all morning. After a long drink, up he flew and headed for home. He was home long before Frank. The judges pulled up a set of rules, the other contestants were mad, but the prize of first place went home with Frank. This was the direct result of the entry requirements in the rulebook today: "The power must be self-contained."

Frank built solid models that there were many contests for in those days, sponsored by many sources: movie theaters (who had pictures featuring flying), newspapers, of which there were quite a few, and, of course, the Recreation Department. Many of the awards that Frank received were presented by, such notables as Ruth J. Roland, Jack Benny, George Burns and Gracie Allen.

Indoor competition was also being, flown in the big armory in New York. There would be so many modelers there that if you didn't show up before 9 a.m. you could not find a place to put your box down. The air was filled with models, it looked like there was a large mass of moths all

flying around and around.

There was also the time when the first model gas engines started to make their appearance. Bill Browns engine in the hands of Maxwell Bassett made the "biggest impact." With engine running as long as the gas tank would allow. There were two engines available, the Brown and the Loutrel. Frank preferred the Loutrel. Loutrel had been making boat engines for some time and was persuaded to make an aircraft engine. The only problem was it had turned clockwise, unlike the other engines. This was no problem for Frank, but it required him to keep spare props available because he could not borrow from competitors who used the other type engine. Loutrel told Frank to run a quart of fuel through the engine every day. Frank was building a monstrous eight-foot model and by the time it was finished, the Loutrel engine was well broken in.

The eight-foot model had a fuselage built from five-eighth inch (5/8") balsa. It was covered with rayon and about 15 coats of nitrate dope. The wheels were made from Goodrich tire ashtrays, with about a five-inch diameter. The center of the ashtray was glass. That was removed and replaced with a turned piece of maple. The landing gear was 1/8" music wire wrapped with rubber bands, thread and glue. Frank had not mastered soldering yet.

The important thing Frank found out when flying at a contest was to keep the model in sight for the whole flight. The solution: Keep your eye on the timers and find one that seemed to have the best eyesight. Bring a friend with a car that had good running boards and had good knowledge of the roads around the contest area. A full tank of gas would also help. Sometimes the path of the model would be in line with a hot dog stand and to stop for a coke and a hot dog was not unusual while chasing, because you had the timer with you.

Needless to say, the rules had to be changed. Gas allotment was used and smaller engines were introduced. Each month new engines appeared and some just as quickly disappeared. Money was still tight. Transportation was always a problem. At one time, Frank hired a moving van and charged all of the kids in the neighborhood 25 cents for a ride to and from the contest. This paid for the van. When the van arrived at the contest, everyone waited to see what the mass size gas model Frank had constructed this time. When all the kids jumped out there stood Frank with this small .09 ELF power scale model.

Traveling longer distances to contests now was getting to be quite common. When you arrived, there was no hobby shop, so you really had to plan ahead. It was not unusual to lend one of your precious props to a competitor, or even a wing. Many a contest was won by wings and stabs other than the original one on the model.

Frank started selling some of his designs. If he won a contest with this design one week, he always tried to have a new one for the next. He was making his living now by selling model designs. He sold to Model Airplane News, Flying Models, Airways, Air Trails, Via Hobbies for Young Men, Via American Modeler and Via Model Aviation.

Many of his designs appeared in ZAIC yearbooks and for a few years, he was employed by the

Jasco Co. to do some designing. While he worked for them, he designed hand launch gliders, tow-line, Free Flight of many sizes and even Radio Controlled (RC) and one riverboat. His name also became a leader in the event called PAA load. Sponsored at that time by the now defunct Pan-American Airways.

It was just before Frank's association with Jasco that he won the prestigious Mirror Meet (New York) with his famous Phoenix model powered with the new Arden 19 provided by his good friend, Ray Arden (engine designer). He was out testing it when he was impressed with the great pulling power this engine had with this Aero Prop. When he stood the model on its tail, while holding the front of the leading edge, it was pushing his hand. He pulled his hands away and the model just shot straight up into its normal power pattern. Thus became the jackknife takeoff, later to be known as the V.T.O. This was the choice of launching models for quite a few years until Rise-off-Ground (R.O.G.) was done away with, except in Old-Timer models in Free Flight. It created quite a stir when it was first used and another change in the rulebook was needed.

Frank at one time had so many designs going to different magazines that he had to use some pen names. Some of them that Frank can remember are Elliott Ford, Capt. Van Buren, Old Timer and many more. He also designed work tables, Barbeques, end tables, tool boxes, cars, air boats (one of them man carrying); in board and out board, sea planes, fire boats, tug boats, the Monitor and the Merrimac, kites of all kinds, space helmets, clocks, wall decorations and built two houses, including the one he lives in now. He not only designed them, but he built them.

The most requests that he has had from the past models seem to be for his Bi-plane Cabin Models. They have been built in every size. The one model that he is the most proud of is the AMA Cub. At last report, 3 million have been built. This is the design that Frank gave to the Hobby Industry to promote modeling. It has not only been built in the U.S., but many have been built in countries around the world. There is even a rumor that one flew around the moon.

Frank feels that the most rewarding time of his long career was in the 1930's when friendship and competition was its own reward. Many of his friends now are gone but a lot still remain to keep the feeling alive and well.

“Modeling has been very rewarding to me and I am very proud to have the Museum named in my behalf,” Frank said.

*(signed) Frank Van Buren Ehling*



*Circa 1939 – Frank Ehling at a model meet, most likely in Creedmoor Long Island, New York.*



*1976: Presentation of a Hall of Fame award by Frank Ehling. Photo by John Worth.*



*Circa 1967 – AMA Headquarters office in Washington, D.C. Frank Ehling was AMA’s Technical Director at the time. The National Model Aviation Museum is housed in the Frank Ehling Memorial Building. Photo by Norm Rosenstock*

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*The following was printed in the December 2001 issue of Model Aviation magazine after Ehling’s passing.*

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### **Frank V. Ehling 1914-2001**

I met Frank for the first time early in 1963 when, after being elected AMA president, I visited Washington DC to meet the AMA Headquarters staff and to be briefed on the status of the organization.

I knew about Frank because he was famous in the mid-1930s as a top competition modeler, with many of his Free Flight model designs previously published in model magazines or produced as kits by various companies in the model industry. He was one of a group of pre-WWII modeling pioneers such as Bill Brown, Charles Hampson Grant, Maxwell Bassett, Leo Weiss and Ben Shershaw.

In 1963, Frank was “holding the fort” as the senior AMA employee in the absence of Executive Director Russ Nichols, who was hospitalized for treatment of a prolonged illness. Frank had joined the organization in 1960 when the Headquarters staff consisted of about half a dozen people, understaffed and underpaid, trying to serve the needs of about 20,000 AMA members.

When we met, Frank was cheerful but worried about the future of AMA, as membership was in an apparent decline from a previous high of approximately 22,000. He welcomed my offer to help in any way I could, noting that he did not relish having to be the active Executive Director and there was no assurance that Russ Nichols would return anytime soon.

It was obvious to me that Frank preferred the role of Technical Director – the position he was

hired for – involving competition rules and records, contest activity, organization of the National Aeromodeling Championships (Nats), and helping with team selection programs for World Championships.

As a longtime competition model designer, builder, and flier, Frank was comfortable dealing with that kind of activity, but he felt like a fish out of water worrying about office administration, employee problems, and budget management.

Because AMA was barely making it financially (it was actually operating at a deficit), I found myself spending more time in Washington than the president usually did, offering advice, assisting with decision-making, and helping with paperwork. As a result of frequent trips to Headquarters, I got to know Frank quite well. I helped him and he helped me. Between the two of us and the lean Headquarters staff, we managed to keep things going while looking for a long-range solution to AMA's needs.

Russ left AMA in mid-1963, as his health prevented him from returning to the daily grind of office operation. AMA really needed a full-time Executive Director and Frank and I asked the AMA Executive Council to make hiring one a top priority. Both Frank and a special AMA Finance Committee that had been studying the headquarters situation recommended me, and the recommendation was approved.

At the beginning of 1964 I made the transition from President to Executive Director, to the obvious relief of Frank who was able to return to the part of AMA work that he enjoyed and was best suited for. I concentrated on administration and Frank was able to unstable complicated competition-based problems resulting from previous neglect during an expansion of contest and record activity.

For the next 20 years, Frank and I - encouraged and assisted by the AMA Executive Council - developed new programs involving insurance, clubs, and publications. Frank showed his tremendous insight as to what members wanted and how to provide what they needed.

Of particular value was the fact that he was known throughout the model industry and on a first-name basis with practically all of the business leaders.

With industry support, largely generated by Frank's efforts, financial problems for AMA eased. Because of Headquarters improvements, including an expanded staff, we were able to reverse the membership decline which had dipped to a low of roughly 17,000. By the time Frank retired in the early 1980s, the membership totaled more than 100,000.

Frank was recognized for his many achievements. Besides being designated an AMA Administrative Leader, he was presented in 1970 with an AMA Distinguished Service award, and received an AMA Fellowship award in 1986. In 1977, Frank was inducted into the Model Aviation Hall of Fame. In 1978, the National Free Flight Society did likewise for the Free Flight Hall of Fame, and in 1990 the Society of Antique Modelers followed suite with the SAM Hall of

Fame.

In 1973, Frank received worldwide recognition when he was awarded the prestigious Paul Tissandier Diploma, presented in Paris by the Fédération Aéronautique Internationale (FAI) for his service to modeling in general and for his activity as AMA's designated expert on the FAI's Free Flight Subcommittee of the Committee for International Aero Modeling (CIAM).

Honored again in 1989, Frank was named an Elder Statesman of Aviation by the National Aeronautic Association in recognition of his leadership efforts on behalf of youth in the field of aeronautics.

Probably the greatest tribute to Frank is the credit as the designer of the AMA Delta Dart, also called the AMA Cub. Used all over the world to introduce thousands of youngsters to the world of model aviation, the Delta Dart provides for most of them their first successful model-flying experience.

The Hobby Industry of America (HIA) took particular note of this when they presented him with their Award of Merit in 1977 in connection with their HIA Education Program.

When Frank designed the Delta Dart, he donated the design to model companies here and abroad, enabling them to mass-produce the model without paying royalties.

Frank felt that the continued operation of Delta Dart programs was adequate compensation because the introduction of youngsters to the art and fun of model building and flying was what he felt most important.

Although Frank never asked that his name be included in Delta Dart promotions, it probably would be appropriate to do so now to serve as a memorial to his contribution.

About 10 years ago Frank suffered a stroke that paralyzed his left side, arm, and leg. With this disability he was often frustrated at being unable to continue the modeling activity he had enjoyed for more than 70 years. Worse yet, his eyesight gradually worsened so that in the last couple of years he could not read, draw plans, or watch television.

Frank's mind remained sharp despite his condition. His memory and imagination were amazing even though he was physically limited in what he could do. Even while bedridden he continued to explore model design ideas. Near the end he and I discussed his thoughts and desires for a small electric-powered two-channel Radio Control design.

Frank died peacefully in his sleep on August 21, 2001, just two days short of his 87<sup>th</sup> birthday.

Frank never married but he liked women and they liked him. He simply preferred to be a bachelor. During the years of Frank's disability and for many years before, Joe W. (Bill) Harris was his housemate.

They built and flew models together, shared a great model engine collection, and enjoyed the camaraderie that only a couple of longtime bachelors could appreciate.

Unfortunately, Bill's health has also deteriorated in recent years. Shortly before Frank passed away, Bill found it necessary to move into a nearby assisted-living apartment.

Bill was coping with difficulty as this was written, and it is clear that the loss of his longtime friend was discouraging. While remembering Frank, I also wish the best for Bill.

It was great to know Frank Ehling and share memories of him. His main regret in recent years was not being able to visit Muncie, IN and the AMA complex that is named for him.

Just knowing that he would be remembered there was a source of great satisfaction to him and his friends.

-John Worth

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