



The AMA History Project Presents: Autobiography of FRANK W. BEATTY

Born August 9, 1926 Modeler starting in 1936
AMA #08479



Written & Submitted by FB (09/2005); Edited & Formatted by JS (09/2005), updated by JS (09/2007); Updated by JS (04/2012, 02/2016)

Career:

- 1930s: Took course on building models by Miss Larcomb at Model Airplane Club meetings at Settlement House in East St. Louis.
- 1944-1946: Motor Machinist for the U.S. Navy
- 1947-1948: Began designing Control Line, beginning with a Control Line Pfalz *D-12* model.
- 1951-1967: Employed by Mobil Oil Refinery
- 1955: First design published in Model Airplane News, a 44" Fox 35-powered CL *RE-8* biplane
- 1958, 1965, 1968, 1970, 1996-2005: Competed in AMA National Championships
- Late 1950s-early 1960s: Joined East St. Louis Prop Benders
- Mid-1960s: wrote column 'Scale Tales' for Granite City, Illinois Sky Steelers Model Airplane Club monthly newsletter.
- 1967-1989: Draftsman, Granite City Steel
- 1989: Retired to building Control Line models
- 1995-present: Competes annually in SAM N-X-211 Old Time Control Line Contest event for COX .049 Thompson Trophy Racers.
- 1999: Designed Control Line Ryan *PT-21*, being marketed
- April 8-10, 2005: Attended FAI workshop in Huntersville, NC
- Currently works at Lafayette Club contests at Buder Park in St. Louis

Honors:

- Late 1930s-early 1940s: Competed in two drugstore model airplane contests, Wullers and Eisellees; won 2nd place at one with a Comet Sparky.
- 1965-1978: Member of District VI Scale Contest Board
- 1965-1967: Member of AMA Scale Advisory Board
- 1967-1980: Member of AMA Contest Board
- 1989-1995: President, St. Louis Gateway Modelship Crafters
- Jan 2000-present: Vice President of SAM Chapter N-X-211, St. Louis, MO
- 2005: Won 8th place at an FAI competition with a CL Staaken Z-1 Flitzer
- 2006: Model Aviation Hall of Fame inductee.
- Won five High Static awards
- Spent six years as President, St. Louis Gateway Modelship Crafters Club

Frank Beatty wrote the following and submitted it to the History Project in September of 2005.

The Airplane Factory

The summer of 1926, just a few months before Lindbergh's epic flight set the aviation world on fire, is when life began for me. This means that I was growing up during those exciting years we call the Golden Age of Aviation. It is little wonder then that a lifelong love for the old between-the-wars race planes and bi-planes was developed.

My earliest memories include a sightseeing jaunt to a local airport with my grandparents. I can also recall dashing outside to peer skyward when an airplane was heard passing overhead. Occasionally, deeper rumblings of many engines would indicate one of the dirigibles operating out of nearby Scott Field was passing overhead.

The earliest models I can recall were stick and tissue models. One was a *SE-5* and the other was a Vought *Corsair* bi-plane that was offered as a mail order promotional item by Quaker Oats. Sad to say, neither was completed since my dad and I couldn't figure out how to assemble those bundles of sticks and tissue.

A while later I learned of a model airplane club that met once a week in the nearby Settlement House. On those days, as soon as our grade school classes were dismissed, my classmates and I would dash as fast as we could to those club meetings in order to have a few extra moments to spend building our models. I can still remember three of the models I completed, which I was very proud of. They included a ten-cent solid Fairchild *Amphibian*, a ten-cent solid Fairchild 24, and a ten-cent Comet *Art Chester Racer Special* stick and tissue model. The *Art Chester Racer* has been a special favorite dating from that happy experience.

By then we were in the depths of the Great Depression and times were tough. This condition was exacerbated for us when my dad became disabled in an industrial accident. We survived for a while by going on relief and later things improved just a bit when my mother became employed by the W.P.A. But there would be no money to spare for any model airplane supplies. Fortunately, delivering newspapers and various other odd jobs enabled me to continue building small solid or rubber-powered models. In addition, for my birthday or Christmas, I might expect a model. I can still remember a huge 25¢ Megow Waco biplane that I got for Christmas. OH, JOY!

Time marched on and I continued building models as time and finances permitted. However, the models looked a lot better than they flew. Then my Uncle Jim gave me a copy of a *Flying Aces* magazine. I began to buy that magazine and *Model Airplane News* regularly. These new "Bibles" began my first introduction to the fine art of trimming a model to fly properly and my models' flight performances improved markedly.

After awhile, it became recognized that my models were the best in our circle of builders and some began to ask me to build models for them. I readily agreed, but with one stipulation. It was that duplicates of whatever materials that went into these models must be provided to me. This helped provide materials for some of my own projects.

My first airplane ride was in a ten-passenger Stinson Tri-Motor on May 28, 1938. The Seven Up Soda Company had a promotion going that for seven Seven Up bottle caps and 50 cents you could get a ride in the Stinson at the old Curtiss-Stienberg Airport in Cahokia, Illinois. Soda was an unheard of luxury in our household, so my younger brother, Robert, and I foraged through the dump behind a corner saloon to come up with the necessary bottle caps. We had no automobile, so my father, Robert, and I walked the six miles to the airport. But we did get a ride that crossed the Mississippi River and circled over downtown St. Louis in that old air liner. A little souvenir card that I still have lists Alex Varney as the pilot.

Now in my teens, I was beginning to earn a little spending money from such endeavors as ushering in a movie theater, working in a bakery, and delivering Western Union telegrams on my bicycle. Whatever money I could spare from necessary expenditures was channeled into model supplies. I wouldn't have dreamt of spending any of it on cigarettes as many of my friends were doing, and to this day, I have never smoked. This was an unforeseen benefit of being a model airplane nut.

Classes in high school included machine shop and drafting. My performance as a machinist was so-so. But due to all those years of studying model airplane drawings, the drafting class was a snap. I loved it and I excelled at it. Now I was able to draw up some of my own designs.

Then came Pearl Harbor and graduation from high school. Poor depth perception kept me out of the Air Force, so on my 18th birthday I enlisted in the U.S. Navy. The Navy sent me to various diesel engine schools in Richmond, Virginia, and then shipped me out to the Pacific where the bulk of my overseas service was spent on LSTs and LCVPs as a Motor Machinist.

After the war, a lot of time was spent at Jones Park in East St. Louis watching that new phenomena called Control Line flying. It soon became evident that certain engine, fuel tank, and bell crank arrangements in the larger size models would almost always perform well and generally would out-perform any other setups. It was time to design my first Control Line flying scale model.

As design work proceeded, it was soon evident that a large model of an airplane with an in-line engine would be required in order to get all the hardware in it properly. The German WWI Pfalz *D-12* was selected and Williams Wylam's fine drawings were the reference source. It was built 1½"=1' with a 44-inch wingspan and an Atwood Champion engine for power. In those days, that was a huge scale model. It flew well and was capable of doing five consecutive loops. This was the first of a succession of kits or scratch-built models of my own design that enjoyed varying degrees of success.

My wedding day on June 24, 1950 was a momentous day in more ways than one. That was the day that North Korea invaded South Korea. My bride and I awakened to find our country was in a war of sorts. I was working for McDonnell Aircraft on the Banshee. In 1951, I left McDonnell to go to work for Mobil Oil Refinery because I didn't think defense work would be steady. How ironic. The oil refinery has been shut down for thirty some years while McDonnell is still going strong, albeit under a different name. Valerie Anne was born on March 17, 1953, and Frank, Jr. was born on my birthday, August 9, 1954. What a birthday present. Both were taught to fly Control Line, but neither continued with it after their pre-teen years.

Three models in particular stand out as milestones in the learning curve required to be able to design models with predictably good flying and ground handling characteristics.

The first, designed and built in about 1949, was a 36" Madewell 49 powered Fokker *DR-1* tri-plane, which turned out to be absolutely unflyable until eleven ounces of lead ballast, was fitted into the cowling. That's when I really began to learn how to analyze airplane configurations and moment arms to ensure that a Control Line model would balance properly and fly well.

The second was a 36" *Spitfire* powered by a Fox 35 and drawn up using Wylam 3-views. I was accustomed to models nosing over or tumbling on landings. These upsets were attributed either to pilot error or by hitting a rough spot in the field. But it required draconian measures to keep the Spitfire from nosing over on the take-off run. After that, analysis of wheel placement was considered mandatory in order to ensure good ground handling. To this day, I turn my nose up at planes with unsuitable moment arm ratios or poor wheel placement.

The third was a 37" Ryan *PT-21* powered by a Fox 25 built in 1955 or 1956. In those days, there was a contest within a fifty-model radius almost every weekend. I began to look enviously at the Stunt flyers that had to merely wipe their model clean to be ready for the next contest, while more often that not, most of the scale models entered would require some repair work. That Ryan had simply wonderful flying characteristics and absolutely foolproof ground handling and never ever needed repairs.

Those three models convinced me that although there are thousands upon thousands of subjects we could build as models, not all are good choices. Some configurations will almost ensure successful models that will grow old gracefully, while others virtually guarantee a disappointing result. To this day, I select models from those configurations that promise good flying and ground handling qualities. The Ryan was by far my most successful model and it gathered in about three dozen trophies during its career.

A few years earlier, I had begun to sense that my models were performing better than many that were built from kits or magazine construction drawings. In fact, some were virtually unflyable dogs. So I decided to offer a design to a magazine. William Winter of *Model Airplane News* accepted my 44" Fox 35-powered Control Line WWI-era *RE-8*

biplane, and it was published in the July 1955 issue. Additional designs were published in *Model Airplane News* and *American Modeler* in years that followed.

Designing and building models was a nice change of pace from the work I performed for Mobil Oil Refinery. When the refinery announced plans to shut down in 1967, I accepted a job as a draftsman at Granite City Steel. This necessitated taking classes in math and other sciences. An inside desk job and studies was a new experience, and it wasn't too long before my hobbies of designing and building models became a drag. I needed a change of pace. Over the next twenty years or so my spare time was devoted to fencing with an epee or saber, do-it-yourself home improvements, building furniture, and a little model ship building. I did keep up my AMA membership and various model magazine subscriptions during that time.

After my retirement in 1989, I had occasion to visit the Antique Airplane Association Museum near Ottumwa, Iowa. I couldn't take my eyes off a Rose *Parakeet* that was on display. When I got home, I fired up my drawing board and a few months later had a wonderful flying Control Line version of that plane in the air. *Model Aviation* was gracious enough to publish it in the March 1995 issue. Since then, there has been a succession of scale model construction articles published in *Model Aviation* and *Flying Models*.

It gives me great pleasure to see my designs published as construction articles. This, for me at least, is the equivalent of winning a major contest. I prefer to do the old race planes and biplanes built to a 36 to 50 inch wingspan so that they will be easy to transport in my four-door Dodge. My favorite Control Line scale designer was the late Cal Smith and Sterling's fine line of scale models were my favorite kits, so it is not surprising that my drawings and construction techniques were influenced by these old favorites. I prefer to employ construction materials and techniques that an average modeler can manage (meaning no lathes or exotic materials required). I still ink my own drawings the old-fashioned way with technical pens and insist on doing them myself so that any mistakes will be my mistakes.

In 1995, the local S.A.M. N-X-211 Old Time Control Line Contest included an event for COX .049 reed valve engine-powered 18" wingspan Thompson Trophy Racers. The event is great sport, and I have built a new model for each annual contest since. These take about an evening to design and a few evenings to build so they are a welcome change of pace from my larger, more complex, scale models that take weeks to design and months to build. *Flying Models* magazine has graciously published five of these little racers to date.

About six years ago, I became acquainted with John Brodak, and agreed to design some Control Line flying scale models for him to add to his line of stunt model kits. A 45" Ryan *PT-21* is already being marketed. A 50" Borg *Parakeet* and 45" Polish *PZL P.8/11 Fighter* are in the works.

I love to research and draw models up, and draw three or four up for every one that eventually gets built. The mainstay of this activity is my library of thousands of magazines dating back to 1938 and hundreds of books. All are catalogue indexed into a 15,000-card file system so that it takes only a few minutes to locate whatever research material I have on hand for any airplane that has captured my fancy.

Current projects include a 40" O.S. 32 powered *Der Jager* that is framed up ready to cover and paint. It has been set aside temporarily while I rush a 46" Curtiss *CR-2* for the 2002 Nationals at Muncie. After that, I have a Berliner *Joyce XFJ-2* drawn up ready to go.

Retirement has been wonderful. Josephine, my wife of 55 years, and I go ballroom dancing every Saturday night. We swim several times weekly. And, of course, I spend many hours designing, building, and flying my beloved Control Line flying scale models. There are nearly a dozen designs drawn up waiting to be built, so given enough years, there's a lot more to come out of what Josephine laughingly calls our home - namely, "The Airplane Factory."

Frank W. Beatty
2002

Addendum:

It must have been in 1965 that I accepted Claude McCullough's invitation to become a member of the AMA Scale Advisory Board. This advisory board became the AMA Contest Board a year or two later. I was on that Board for about fifteen years, approximately from 1965 to 1980. One of the major tasks I undertook was to rewrite the Control Line Scale rules. Participation in C/L Scale was declining and it was thought that multi-engine models with many point-gathering operating features were discouraging participation by modelers with simpler Piper Cub-like models. One of my solutions was to limit the number of point scoring options to just six. This would even the playing field for simpler models, although admittedly, *B-17*-type models still have an advantage. I believe the rule changes I wrote are still in use to this day. I was also on the contest board when the C/L Sport Scale event was created, this also being an effort to encourage newcomers into scale contest flying.

Since my retirement, I have been able to get back into contest flying. I have participated in many scale events at local contests in Illinois, Missouri, Indiana, and Pennsylvania. I have also competed in each National Championship since 1996. My models have been awarded many trophies at the Nationals. These include a first and many second and third place awards. In addition, I am particularly pleased that five of my Control Line scale models have been awarded High Static plaques in their class at the Nationals.

I cannot say that I am one of the real "workhorses" as far as club officers or contest management goes, but I have done some of the following:

- For our Lafayette Club contests at Buder Park in St. Louis I have helped on field clean-up and set-up activities prior to many of our contests. I also have helped as a timer at speed events, pull tester, and other necessary work at the contests.
- For four years, I have been an officer of the local S.A.M.S. NX-211 model airplane club.
- For a few years, I was into ship modeling. During that time, I was President of the St. Louis Gateway Model Ship Crafters Club for six years. I also completed two ship models and have done serious on-going research for another ship model I would like to build.
- I have a really huge library of magazines, books, plans, photos, drawings, etc. on aviation and modeling-related matters, approximately 130 shelf-foot-plus filing cabinets. Almost all of it is catalogued on a card file index system. This enables me to locate research material almost instantly on any airplane I am interested in modeling. I often see requests in magazines by a modeler for information on an airplane he is interested in building. I have copied and sent material in response to such requests countless times. (Certainly scores of times, maybe even in the hundreds.) But in all fairness, I have been helped in like fashion.

Published Articles by Frank W. Beatty

Model Construction Articles

1. R.E. 8. Model Airplane News. July 1955.
2. Fokker D III. Aeromodeller. March 1956.
3. Travelair 2000. Model Airplane News. June 1956.
4. Curtiss R-6. Model Airplane News. July 1957.
5. Ryan PT-22. Model Airplane News. March 1959.
6. Howard IKE. American Modeler. March 1961.
7. Cassutt Special. American Modeler. May/June 1965.
8. Chilton DW1-A. American Modeler. March/April 1966.
9. Douglas Skystreak. American Modeler. March 1967.
10. Pitcairn Mailwing. American Aircraft Modeler. August 1968.
11. Rose Parrakeet. Model Aviation. March 1995.
12. Hot Canary. Model Aviation. March 1996.
13. Longster Wimpy. Model Aviation. August 1996.
14. Art Chester Special. Flying Models. April 1998.
15. Alexander Eaglerock. Model Aviation. April 1998.
16. Howard Pete. Model Aviation. October 1999.
17. Laird Racers. Flying Models. April 2000.
18. Stits Playboy. Flying Models. April 2001.
19. Israel Redhead. Flying Models. June 2001.
20. Curtiss CR-2. Flying Models. December 2002.

21. Chester Special. Model Aviation. October 2003.
22. Der Jager. Flying Models. February 2004.
23. Bonzo. Model Aviation. July 2004.
24. Laird Super Solution. Model Aviation. Upcoming.
25. Laird Solution. Flying Models. April 2005.
26. Berliner Joyce XFJ-2. Flying Models. June 2005.
27. Howard Pete. Flying Models. Upcoming.
28. Staaken Z-1 Flitzer. Flying Models. Upcoming.

First Published Photo

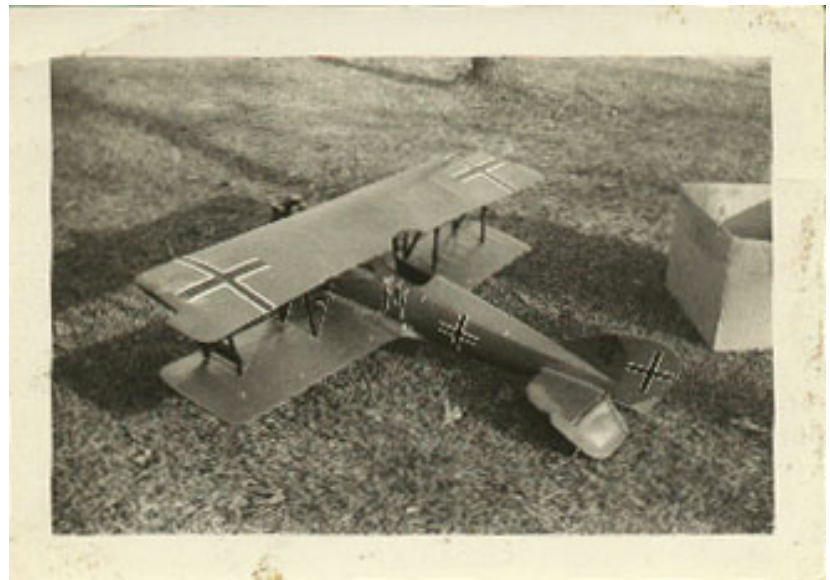
1. Pfalz D-12. Model Airplane News. April 1949.

Inked Drawings of Other Designers Models

1. John Blum. P51D Mustang. American Modeler. June 1967.
2. James Wilson. Corrigan. American Aircraft Modeler. November 1968.
3. James Wilson. Curtiss XP-55. Model Airplane News. April 1969
4. James Wilson. Two for the Show. American Aircraft Modeler. March 1972.
5. James Thomerson. Cheap Thrill. Model Aviation. December 1998.
6. Allan Brickhaus. Privateer. Flying Models. September 2002.
7. Allan Brickhaus. Laird Super Solution. Flying Models. July 2004.
8. Allan Brickhaus. Scimitar. Flying Models. Upcoming.
9. Allan Brickhaus. 1/2A Grassroots. Flying Models. April 2004.

Articles

1. Scalesville, U.S.A.!
American Modeler.
Jan/Feb 1966.
2. Scale-Osophey.
American Aircraft
Modeler. Annual
1968.
3. Get Organized Now.
Custom Planes.
December 2002.



Pfalz D-12: My first Control Line flying scale model, designed and built in 1947.



c. late-1950s: At work on a Curtiss R-6 Control Line scale.



Ryan PT-21: This featured a Roberts-operated homemade throttle control and flaps, which were rarely seen in 1956. The model flew great, handled beautifully on the ground and won three dozen or so trophies.



Douglas Skystreak – My beard was grown in 1961 for the East St. Louis Centennial Celebration. It was an interesting experiment and yes, the model did fly.



Pitcairn Mailwing – Had a 39” wingspan and was powered by a McCoy 35. Bill Winter called it a Control Line masterpiece when he published it in American Aircraft Modeler. An excellent performer, it placed third in 1968 Nationals at Olathe, Kansas.



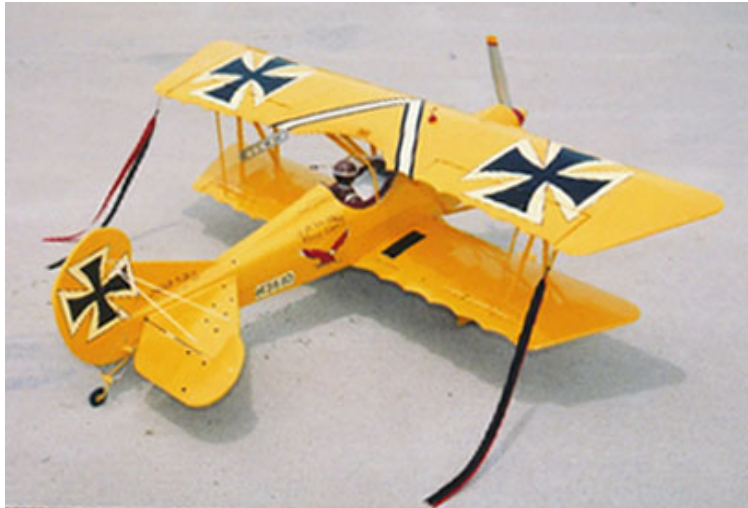
Rose Parakeet. After a twenty-year absence from the hobby, this was my re-entry back into designing and building Control Line models.



Borg Parakeet and Art Chester Special. Richard Borg, who modified a Rose Parakeet design, furnished dozens of photos and drawings to enable me to design and build a very accurate model. The model flies great with an O.S. 46 engine. It won a High Static award at the 2000 Nationals. The Art Chester Special flies great, but gets bouncy on landings. It placed third in 1999 and 2000 Nationals and was featured in Model Aviation as a construction article - and I am in the photo also.



Curtiss CR-2. It has a 45" wingspan and is powered by an O.S. 61. It won in High Static and first place in the 2000 Nationals Designer Control Line Event. It was featured in a construction article in Flying Models magazine.



Der Jager. It has a 40" wingspan, with an O.S. 32 engine. It won High Static and second place in C/L Sport Scale at the 2004 Nationals. It was featured in a construction article in Flying Models magazine.



Berliner Joyce XFJ-2. It has a 49" wingspan and an O.S. 46 engine. It won High Static and first place in Control Line Designer Scale at 2004 Nationals and was featured in a construction article in Flying Models magazine.



The following was printed in the January 2007 issue of Model Aviation magazine.

Frank Beatty has been in aeromodeling since approximately 1936 when, as a 10-year-old, he built his first model at a club meeting. He continued building until he entered the Navy and spent two years in the Pacific and Asian Theaters during World War II.

Frank resumed his modeling when he returned, building Control Line (CL) Scale models. In 1948 or so, he joined AMA and entered his first contest with a scratch-built Pfalz *D.XII*. He began competing in CL Scale and amassed a number of trophies in the 1950s and 1960s.

In 1965, Frank was approached by Claude McCullough to join the Scale Advisory Committee that later became the AMA Contest Board. He was a member through 1978 and was responsible for rewriting CL Scale rules. Frank wrote that the intent of the new rules was to “limit the number of point-scoring options. This would even the playing field for simplest models, although admittedly, B-17s would still have an advantage.”

A prolific designer, Frank has been published in *Model Airplane News*, *American Modeler*, *Model Aviation*, *Flying Modeler*, and others. His first published design was a CL *R.E. 8* in *Model Airplane News* in 1955. He has had roughly 22 designs published in total and his contributions have included articles and inked drawings for others' published designs.

Employed as an operator in an oil refinery, a draftsman, and an appropriations engineer at a steel mill, Frank dropped out of competition in the 1970s and 1980s and returned after retirement.

Frank's models have won many awards at the Nats. He wrote, "I am most pleased that five of my models have won High Static Awards in their class at the Nationals."

In recent years, Frank became acquainted with John Brodak and designed CL kits for Brodak including a Ryan *PT-21*. Others, including the Borg *Parakeet* and a Polish fighter, are being developed into kits.

Frank is well known for his huge library of magazines, books, drawing and other research materials that he has cataloged in a card file index system. "This helps me to locate research material for my projects almost instantly," he wrote. Additionally, he has provided research material to scores of modelers requesting help with Scale projects.

President of Saint Louis Gateway Model Shop Crafters for six years, Frank belongs to the Lafayette Esquadrielle club and is a self-proclaimed "worker bee" at the club's five annual contests, helping out as judge and timer, performing pull tests, and helping with site preparation.

Charlie Bauer, AMA District VI Vice President, presented the Model Aviation Hall of Fame award to Frank during the 2006 Nats in Muncie, Indiana.

The following was published in the September 2015 issue of Model Aviation magazine, in the "I Am the AMA" column, written by Jay Smith.

I Am the AMA

Frank Beatty, Accomplished Control Line Scale Modeler

Jay Smith: How did you get involved in model aviation?

Frank Beatty: From my earliest days, I have been interested in airplanes and drawing. My and my father's early attempts to build stick-and-tissue models were utter failures, but when I was in grade school, I attended and model club at the Leslie Bates Davis Settlement House. I learned to build solid models and rubber-powered models at those meetings.

Over the following years, I built dozens of these models. In high school, I took courses in mechanical drawing which markedly improved the drawings of models I was designing. I have been designing and building models ever since.

JS: How has model aviation impacted your life and/or career?

FB: When I joined the U.S. Navy in 1944, it was noted that I had experience with model engines, so I was trained to become a motor machinist in LCVP [land craft, vehicle,

personnel]. After discharge in 1946, I took up modeling again. These were scale models of my own designs. Several were published as construction articles in various magazines.

In 1966, the oil refinery I worked for closed down. My friend, Howard Ogden, suggested I apply for a job as a draftsman at Granite City Steel. The chief engineer reviewed my published drawings and I was hired.

Industrial drawings are not just pretty pictures. They are based on engineering principles. Additional courses in mathematics, physics, etc. were now on my plate. Largely because of my hobby, I enjoyed a 20-year career as a draftsman at the steel mill until I retired in 1989.

JS: What disciplines of modeling do you currently participate in?

FB: At 89, I am beginning to slow down, but I still like to attend club meetings and participate in local contests and the AMA Nationals. I still design and build Scale models. I specialize in biplanes and race planes of the 1930s.

I am also into 1/2A Profile Scale models. Many of the aircraft I select are of English origin. I guess I get tired of the same old subjects we see.

JS: What are your other hobbies?

FB: It seems to me that a person with a hobby or interest is likely to have many interests. My other passions include ballroom dancing, bridge, swimming, opera, crossword puzzles, and amassing and indexing an aviation library of books, magazines, photos and drawings. This collection allows immediate access to any information on an airplane I am considering building. That's an invaluable resource for a Scale modeler.

JS: Who (or what) has influenced you most?

FB: The late Clarence Idoux, owner of East Side Hobbies, and the late Howard (Bill) Ogden, master designer and craftsman, each gave me invaluable advice and inspiration. Also, my two most disastrous model failures caused me to learn how important center-of-gravity locations and balance were to good flying, and how important wheel location was for ground handling. Any proposed model is first analyzed to see if the aircraft's configuration will be satisfactory on those counts.

JS: What advice would you give to someone looking to get started in Control Line Scale?

FB: Control Line flying encompasses many disciplines, which include Speed, Stunt, Sport, and Scale. Many Control Line fliers tend to specialize in a particular discipline. Select one you will enjoy.

I like Scale. It includes research, drawing, building, flying, and competition events. My skills were developed over many years from many sources. These will help you. Join a club and attend meetings and club flying sessions. Attend fly-ins and enter contests.

My first contests were real eye-openers. Rubbing shoulders with experts cannot help but be beneficial. Most model builders you will meet will be willing teachers. If you stay with this, I recommend all of these.

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AMA History Project
National Model Aviation Museum
5151 E. Memorial Dr.
Muncie IN 47302
(765) 287-1256, ext. 511
historyproject@modelaircraft.org

