



The AMA History Project Presents: Autobiography of ELMER DEWITT HAYNES, III



Written by EDH III (2018), Photos by EDH III (2018), reformatted by JS (2018)

*The following was written and submitted to the AMA History Project by Elmer Haynes, III
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Elmer Dewitt Haynes III AMA 3366



Introduction

My history with modeling can be viewed with the changing of technology and model development over time. I began my journey by reading *Air Trails* magazines at home. I started with building cardboard airplanes, and today I am making molded carbon fiber gliders. I have been building and designing models of all types for years.

Early Beginnings

It begins in the early 1950s at 6 years old. I was viewing airplanes in the national magazine *Air Trails*. There was a paper airplane that one could cut out in each monthly issue. I learned to cut them out, glue the outlines to a cereal box, and use silver and black crayons from school as paint. They would begin my dream to fly. Later on I learned to put paper clips on the nose for weights, tie kite string on one wing, and swing it around. They were my first flying models.



A-J Firebaby
(Photo courtesy Elmer Dewitt Haynes III)

About the same time my dad, Elmer Jr., CD 525, had me cutting my fingers and copying Cleveland and Comet kits. I would wet the plans using cooking oil, and use an iron to heat them up to transfer the ink outlines of the parts to the wood. Then each part was cut out, including each stringer. Then the model was finished using tissue paper and dope. I learned to use mom's Windex sprayer to wet the tissue paper, then mixed up thin dope, cut, and applied it to the frame using a mixture of Ambroid glue and thinner for better contact to the wood.

This introduction to model building began my journey and led to the many pillars of knowledge that made up the modeling hobby that even today I still use.

I view modeling as applying different elements including design, aerodynamics, mechanical engineering, art, chemistry, craftsmanship, airmanship, and daydreaming. Each leg leads into the other leg.

Early Models

Early models were Cleveland models of all eras, models were of the rubber-powered types. Gliders I built were the Berkeley Trooper, Thermic hand launch A, B, and C models, hand launch gliders, and a host of homemade models. I flew towline gliders, and wonder at the sight of a silent flying model still today. It is something to see a glider flying in a thermal, going up on a towline. My memories of flying the Trooper are still with me today.

At the same time, my introduction to power models began with flying the A-J Firebaby ½A at 7 years old. Learning how to prime a ½A engine, having the prop snap back and hit your fingers, you learn fast how to flip a prop. I got my AMA number - 3366 at that time. I moved to building the Baby Ringmaster and Baby Flight Streak as trainer models. There were a few homebuilt models also at that time. This led to the next stage of modeling.

The 1960s

This period to me is the foundation to model building that many are missing today. This was the era of development of building, flying, designing, painting, and understanding how a model flies. They are basic pillars of modeling to me. They make up the foundation of your understanding of modeling.

Many models were scratch built. Most of them led to the kit manufacturing of today. I recall learning how to draw airplanes on brown paper shopping bags, then starting the building process. Many of my control line, gliders, and free flight models started this way.

I became the go-to guy at contests as a multi usable pit man for anyone that needed a launcher, holder, and/or retriever for free fights. I pumped air into dyna jets, chased dollies for speed ships, and launched screaming combat models. You needed something, it was my job to it. My dad was the Contest Director (CD), and that made me the multitask pitman. Control line models I used were the Ringmaster, Flight Streak, combat Lil Satan, Combat Kittens, and many homebuilt models.

This was the time when I started to learn the AMA stunt pattern using the Berkeley Lancer. Later, I moved into flying flap airplanes like the TomTom, Chief, Squaw, Tomahawk, and ending with the Stuka Stunter. I never got to that famous Hobby Pox finish, but I did try!

The driving force was the AMA scale event. Truly this event became my love for the 4 pillars of modeling for me: building, mechanical engineering, airmanship, and art. Nothing is like seeing a control line scale model entered in an AMA scale event.

Seeing doors that open, wheels retracting in flight, flaps working, finishes and details in the interior were to be seen. I saw many of the Berkeley models fly, some of the Eureka models, and many scratch builds.

I built the Sterling Spitfire as an attempt at making it scale. I flew the Berkeley profile Hellcat also. I feel like trying to get the perfect finish in scale and stunt presented me with the biggest challenges and led to my growth in modeling. Later it would be soaring.

RC Beginning

Early models included the Berkeley Rudder Bug, a 1/2A model with solid wings like the Little School House, Miss Americana, a modified Falcon 56 made to look like a U-2, pattern planes were the Taurus, Mach 1, along with many scratch-built models. Some used rubber powered escapements and single channel radios. Orbit and Citizenship radios were the Tx to use in the days of early RC equipment.

Part of my role was to use a hand drill to count the winds in the rubber. About 60 to 80 winds would last about a seven minute flight. I had to calibrate the turn of the chuck to the turn of the hand wheel to get the correct number of winds in the FAI rubber band.

Slot Cars

Slot cars started at this time and this is the only time I moved away from modeling, but I used my modeling skill to build my own frames and made my own bodies.

Using my skills in soldering, I made my own bodies. Using my skills in vacuum molding, I molded the plastic over balsa car shapes, and then using my homemade vacuum machine, I would manufacture anything I wanted.

Many of my car builds were outlawed at some races due to others not being able to build them. Some of them had moving wings like the Chevy Chaparral at that time. I also began my plastic modeling adventures at this time. Lots of Revell and Lindbergh models were built.

Again, my modeling skills came in to play and some of my plastic modeling skills helped in my flying models. How to make panel lines, rivets, and details transferred to my airplanes. But still today I am in search of improving these skills. Applying and selecting colors and mixing paint colors was key to painting car bodies. One of the pillars of modeling for me came in learning how to read the color wheel when selecting a color scheme.

Part of my skill set early on was how to mix paints. Stunt flying always had finishing as part of your score, so one had to become a mad chemist at times. Aero gloss paints came in basic colors, including silver, so if you're were modeling a WWII model, one needed to apply a scale finish. You need to know how to apply the use of the color wheel for that.

Color Pillar

I learned the color wheel simply by using the basic color. With red, blue, yellow, black, and white, one could make any color. Red, yellow, and blue are your primary colors. When you mix the primary colors together you create secondary colors; green (blue + yellow), purple (red + blue), and orange (red + yellow.) Tertiary colors are blue-purple, blue-green, red-orange, red-purple, yellow-green, and yellow-orange. They are all made by mixing a primary color with one of its secondary colors. If you added aluminum paint chips from a paint shop, one could make the metal flake colors, all learned from modeling.

Much of weathering techniques, like making a simple wash as a stain for oil and hydric leaks, comes from learning to mix up paint washes via Dave Platt.

In the sixties I saw what was to be my standard for finishing - a Navy SBD Dauntless by Dave Platt that still today would place at the top in any internationals contest. You have to see his model to understand that this was done in the 1960s! Other modelers I follow are David Vaughan (P-51B Joan), Mic Reeves, and Duncan Huston for examples of craftsmanship and finishing that motivate me to improve my models. It is their attention to detail, design, and airmanship that draws me to them. Many makers of today's top pattern planes, control line stunt, and the old Formula 1 class are good at this also.

Other events that I flew in were AMA Navy Carrier using a tri-gear Ringmaster modified by my dad, rat racing flying the Scat Rat with a Fox 36x (modified by him also) and special props. For Combat models, I use a wing called the Bat by Bill Judge of Casper, Wyoming. The Lancer also. For stunt, it was the Ringmaster, Flight Streak, and the Lance for contest flying and training.

Stunt

I learn to fly stunt by the rhythm method. You counted each leg of the maneuvers and visitation using the stunt training ball.

Rhythm training was based on the 4 beat. For example, the square loop/eight was 1, 2, 3, 4, pull, 1, 2, 3, 4 pull, etc. to make each leg symmetrical. The square eight was 1, 2, 3, 4, pull, 1, 2, 3, 4, pull, 1, 2, 3, 4, push, climb to the 60-degree horizon, push, count, push, midline 45-degree line, push, pull to finish. Each maneuver uses the method of pull or push at the horizon. In RC pattern, it was the same all in an effort to make each stunt symmetrical.

This device was a bowling ball with three divisions that represents each horizon and the three-foot base line, a 45-degree horizon and a 60-degree horizon, and a 90-degree horizontal centerline. Piano wire was shaped to the perfect shape of the maneuvers, placed at the correct horizon on the ball.

The patterns on the ball were in its proper zone or horizon. This ball was published in one of the AMA magazines. My dad made me make it to help learn the proper shape and placement of each of the maneuvers for stunt. It was stressed that rhythm was important at a time as well as placement.

Because of my dad serving as a judge and a CD at times, I learned to view the hobby from a bias that others may not have had - knowing the rules, placement, accuracy of the model, and finish if needed.

Free Flight

Free Flight was where I had my first contest experiences. I was flying hand launch and tow line gliders, and chasing gas models of my dad (the Fubar, Sandy Hogan, as well as other contest models) in an open field north of Denver. That's where the next pillar of modeling began for me.

We had an open field across from our house with small hills where I spent time learning about aerodynamics, decal ages, and how to trim for best glide. Many a day was spent atop a hill throwing gliders off it, learning how to change angles of attack and airfoil shape. Adding string to the wing acted as tabulators to improve the air flowing over the wing.

I spent time just playing with models. Flying towline gliders using a fishing rod with a silk flag and a paper clip as a tow ring would keep me daydreaming of silent flight, learning how to read the air for thermals.

Later in my modeling history, I would use these skills in RC soaring - from reading the air to looking for thermals and placing tabulators on the wing, to trimming the wing for best glide.

I recall watching early RC airplanes like the Mambo Live Wire. When flyers would hand launch their airplanes off a hill at Cherry Creek Dam, they would trim them before starting the engine. It was very common to see each flyer toss their model off the low hill to check the trim settings. Remember - most of the models were rudder only. If you added a T connector to the rudder, you moved the elevator. Then it was one pulse for right and the gap moved up elevator, 2 pulses gave left, or down elevator. No pulse and it became a powered glider. So it had to be timed for best glide. You would see flyers putting small weeds to the leading or trailing edge of the stab to trim the airplane.

If you had motor control, three pulses gave you either full power or reduced power. Take off was a screaming Cox 15 Medallion or a 15- to 25-powered Torpedo or a Fox.

Later, Proportional control entered the scene, using toggle switches to move the servos.

Early RC Experiences

The 1960s brought early models like the ½A solid wing models, Miss Schoolhouse, Miss America, and long FAI rubber band powered escapements. Flying them was nothing but luck, screaming 1/2s and 15-powered models were the norm. Most were covered in either silk or nylon. I used rip stop parachute material bought from the Army Navy store.

This is the beginning of the next pillar of modeling - becoming a mad chemist.

Because we flew in Denver, many of the motors, props and fuel needed to be reworked. At the time, the two fuels were Missile Miss in the blue can along with Sig Supersonic 100 fuel at the hobby shop. I learned to modify many models' intake and exhaust ports to improve performances at mile high altitude. This was apparent in rat race 90 lap contests, when fuel economy as well as performance was key. The favorite propeller was the Rev Up F, followed by the Top Flight nylon prop. They also were reworked at times. If you flew combat and believed that acceleration was important, reworking of the prop was your weapon of choice.

Chemistry

If there is a black art in modeling, it is in mixing fuel. Knowing when and the amount of nitro and castor oil was a close secret you kept to yourself, as well as knowing what air can do to fuel, and heat and sunlight does to the mixture. Everyone had their own private mixture. I recall sitting in the basement with a syringe, scale, and gas cans, measuring to make dad's special fuel mixture.

These skills showed up in stunt, rat race, combat, and later in Formula 1 in my modeling career.

For RC soaring, most of my modeling skills be would called a pond.

1970s to Current Modeling

In the 1970s, the Navy brought me to the west coast, where Uncle Flavious of Los Angeles would induce me to gliders one day. I was visiting him at his home where he took me to a hill overlooking the Hughes aircraft facilities in Los Angeles.

He opened up his car and unloaded one very large airplane with no motor. I asked him how/what does this model do, and he smiled and said, "Just watch." With a short run off the hill, this model went into the blue only to reappear above the horizon. I was in shock, watching this soaring glider going by, performing stunts. I had never seen this before. The next day, we were standing on a hill overlooking Malibu Beach, watching another eye-opening event happen. A gentleman, Hans of Wellshire Hobbies, showed up with a 1/4 scale Ka6, and my love for soaring was set. Off into the blue, with the ocean in the background, it went. Soaring silent in the sunshine, gliding to a stop. I knew then that soaring would be my next adventure.

Thornton State Beach, San Francisco

Back at the base, Hans told me about soaring in the bay area at a spot called Thornton State Beach. Off I went to find it. Sometime later I was standing on a hill overlooking a beach surrounded by club members of the San Francisco Vultures.

In a few weeks I had my first glider, a Graupner Circus. I was introduced to Rich. He served as my instructor. He checked my glider over and the rudder was hooked up wrong, so he let me fly his trainer. The next day I returned to watch him fly my glider, then it was my turn at it. Well,

after 10 minutes of up/down/ left /right turns ending with a crash, my first flight was over. The glider was in one piece. Over time I learned to fly with his help.

One day I was flying and this man walked up with what was one well-built glider, equipped with ailerons - all balsa - and a pound of lead weights in one hand. We talked and I assisted him in launching it. It flew so fast and whistled so loud, turned smooth and hard. He then landed it, took off the wings, and added more lead in it under the wing. "Why?" I asked. "Well, to bring the total weight up to 11 pounds." "What for?" I asked. "Watch and stand back."

Over the side of the hill, I launched it into the wind. On the first flyby, I stepped back from the edge of the slope. Talk about fast, loud, and exciting. This was nothing that I had ever seen before.

His name is Ken Willard. The airplane was the Dude, a pylon racing machine at over 8 feet of wing and at 11 pounds when full of lead for winds blowing 15 miles-plus. You added lead under the wing to be able to penetrate the wind as the winds became stronger.

At the end of the day, he invited me to the Radio Control Modeler (RCM) Trophy Races for pylon racing that next weekend, held at Sunset Beach in Santa Cruz, California. I arrived early, walking up the hill to see this event. Talk about technology overload!! Now there were many lead sleds racing, running through each other in the turns, balsa and fiberglass flying in the wind from broken airplanes running into each other, head to head racing. This is good stuff.

I flew in the RCM Trophy glider pylon races between 1976 and 1980.

The club putting on the event was the South Bay Soaring Society in Santa Clare in the San Francisco Bay area. I was lucky to compete in several races as well in thermal soaring contests, flying my uncle's design named the Paean, and I did well with it.

I worked at the far pylon as a turn judge and saw more action at that base. I went back to the Navy base and talked about what I saw to my uncle about the races. His response was, "Would you like to build one to race?" You bet! So in a few weeks he sent me plans on drafting paper and that was my beginning.



Paean MK V
(Photo courtesy Elmer Dewitt Haynes III)

The Pylon Racing Paean

A short history. You have to know that my uncle, dad, his brothers, Mr. Lewis, and I were members of the Haynes Rowell (H/R) Racing Team, formed in the 1960s. We competed in control line and RC as a team. My uncle was the designer, aeronautical engineer, and builder of the team due to his background in the aviation field of work. With his knowledge, he taught me how to approach modeling from a professional point of view. The other members were flyers. He was a designer first, along with finishing. His slope racing glider named Paean was my entry into the sport of pylon racing.

He sent me drawings on drafting papers in ¼ scale that I would enlarge to full size, and I built them in the barrack while I was in the Navy.

His efforts taught me how to build a self-cutting foam cutting board, cut foam wings, improve my painting tips and flying tips, make tapered ribs, use a .dat file to draw airfoil sections, and make molds - most via mail, sometimes over the phone. I flew his designs and used his airfoils in many contests to great success. They were better than me as a pilot, but I placed in many racing and thermal contests using his designs. Some used a turbinated wing to improve airfoil over the wings to great success.

Perhaps one of his highest honors was where his design (my racer Paean) won first place at a major hobby show in Los Angeles. It also appeared in *RCM* magazine with me holding it one year.

My success in soaring is due to his help and directions.

Conclusion

You could say I was around at the start of modeling, but my modeling career is not over. I still enjoy the building, designing, and flying of all types of models.

I have been inspired by many modelers around the world. Here are some of these models and modelers who have shaped my dreams of becoming better at this hobby over time. Examples below:



Dave Platt T 28
(Photo courtesy Elmer Dewitt Haynes III)



Mick Reeves RF4
(Photo courtesy Elmer Dewitt Haynes III)



David Vaughan's P-51B Joan
(Photo courtesy Elmer Dewitt Haynes III)

Magazines I used for building and research:

- *Air Trails*
- *Model Aviation*
- *RCM*
- *RCM&E*
- *RC Scale Modeler*

AMA clubs I was a member of over the years:

- Jefco Aeromod'lers, Denver, CO
- Denver Mile High Club, CO
- Woodland Davis Aero Modelers, CA
- SF Vultures San Francisco, CA
- South Bay Soaring Society, CA

This is my modeling history. Thanks at all who helped me along my journey of building and flying models.

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