



# The AMA History Project Presents: Autobiography of ROBERT REDER

Born July 9, 1917      Started modeling in 1930  
AMA #586445



Written by RR (2000); Transcribed & Edited by SS (05/2003), Reformatted by JS (01/2010)

---

## Career:

- Worked part-time for Comet Model Airplane and Supply Company while in high school; started working there full-time as a draftsman/designer after high school graduation
- Became chief engineer at Comet after working there full-time for several years
- While at Comet helped design identification model building programs during World War II
- Started Monogram Models with Jack Besser shortly after the end of World War II; Monogram's first three kits were warships – an LST 607, Destroyer U.S.S. Hobby and Cruiser U.S.S. Chicago

## Honors:

- 1997: Kits and Plans Antiquitous Hall of Fame

---

*The following autobiography of Robert Reder was published in a book called A Brief History of Monogram Models, Inc.: the First Forty Years in 2000. A copy of the entire book can be found in the Lee Renaud Memorial Library. See the AMA librarian for assistance.*

---

## Personal Background

In my early years, our family was very poor, like a lot of people at that time. I earned money by selling newspapers on the street corner after school. When I was 12, I landed a job in a local fruit and vegetable store working after school and all day on Saturdays. It was not easy work, and I had to sacrifice quite a bit of playtime, but the pay was great! I earned \$2 a week plus two big bags of fruit (much on the verge of being too ripe) that made good eating at home for the family.

Recreation in the early years was mostly in neighborhood activities. Our local “gang” was made up of a wide assortment of ethnic groups. This was a big plus because we learned early in life to judge people as they are, rather than rating them depending on where their parents or grandparents were born. As I look back, I can better appreciate many things that happened early in my life. Quite a bit of my free time was spent in activities at the Millard Avenue Presbyterian Church. Sunday School and Vacation Bible School were significant in the early years. Later there was Boy Scouting and participation in plays as well as the annual Minstrel Show. I also enjoyed singing in the church choir.

I believe my life was better because of the moral and social values developed in this atmosphere. Many people gave of themselves so younger people could benefit. I guess life has always been like that – but we rarely think along these lines until we begin to look back.

## Early Model Building

In 1930 when I was 13-years-old, my cousin Andrew Jaros introduced me to model airplane building. Together we assembled and flew a Wanner R.O.G. (Rise-Off-Ground model) from a simple kit using a combination of thin music wire, balsa wood, tissue and a rubber loop. When we flew the model and it would actually rise-off-ground, I was hooked! Model building and flying became a part of my life.

As I continued and developed modeling skills, I associate with other modelers at flying sessions and competitions. We flew indoor models in large gymnasiums, but the best spot was the large, high-roofed armory at Rockwell and Madison Streets in Chicago. We gathered on Sundays to fly our extremely lightweight rubber-powered models and to share ideas and skills. While the earlier designs were made of thin balsa wood strips covered with very thin tissue paper, we progressed into microfilm-covered models with hollow motor-sticks, tapered spars, and more sophisticated, hand-carved propeller designs.

We flew our models outdoors at any number of large fields around the Chicago area. Model flying contests, sponsored by automobile manufacturers, newspapers, etc., were held in open fields: 83<sup>rd</sup> and Cicero, Sky Harbor Airport and various parks. We had no automobile, and public transportation was the means of getting to contests, so we built huge lightweight boxes (some as large as two-feet by three-feet by six-feet) to transport the models. Needless to say, the streetcar and “el” conductors didn’t like the size of our packages when we traveled to fly models. It was necessary to move this “coffin” from side to side on the rear platform to make room for other passengers.

During high school, I joined the Aviation Club. This was organized and led by Mr. Nelson, our mechanical drawing teacher. We decided to build a man-carrying glider as a research project. The design was a structured profile fuselage with an open seat and controls up front. Wings were conventional for that era being built up of wooden ribs mounted on wood spars. Wing and tail covering was fabric, coated with clear dope. Because funds for supplies were hard to come by, much of the material in the aircraft was less than adequate. When the glider was completed, arrangements were made with a glider pilot from Joliet, Illinois, to fly it for us. This was done at a small airfield strip on west Ogden Avenue.

We used a car to tow the glider down the runway. The pilot took it up about eight feet high and then set it down. As soon as it touched down, the landing wires broke and the wing tips folded to the ground. Practically no damage resulted. Among the major problems discovered were: 1) the pilot had to use his knees as well as his hands to operate the ailerons for banking. We had not used ball-bearing pulleys for the control wires. 2) The towline mechanism would not release easily to cut loose from the tow car. 3) Bailing wire was not adequate for flying and landing wire braces.

In reflecting on this adventure, the pilot was daring and we learned a lot. Instead of being disappointed, we were charged with enthusiasm to correct the problems. All the necessary changes were made. I have no recollection of what flying was done after that, because the school

year ended. The last I can recall is that our beautiful “bird” was suspended from the ceiling of the drafting room.

## **The Comet Years**

While filling my need to get model supplies, I became acquainted with the owners of Comet Model Airplane and Supply Company. These meetings led to my working for the company part-time after school and on Saturdays. I ran errands, filled tubes of cement, bent wires to shape and packaged kits, as well as the dozens of other tasks involved in a small business.

Model airplane kits in that era consisted primarily of balsa wood strips, imprinted balsa sheets, balsa semi-shaped propeller, colored tissue for covering framework, thin music wire for landing gears and propeller shafts and instruction sheets. Considerable dexterity and patience were needed to assemble the parts into a model. But that was part of the challenge, intrigue, and learning process.

While I sometimes went to the plant to work part-time for Comet, much of my work for them took place at home because of travel time and distance and the demands of school, home maintenance, etc. A good bit of this model homework involved making built-up aircraft models from kits, to be used for photography, promotional displays, and exhibitions.

On the first day after high school graduation, I started working full-time at Comet as a draftsman/designer. My math, drawing, and art classes in school and designing and building flying model airplanes as a hobby combined well to prepare me for this position. In addition, I was very fortunate to work under the direction of William Bishop (formerly Bibichkow) who was one of the three Comet owners. Bill was not only a fine person, but also a knowledgeable engineer who shared with me his ideas and skills. He regularly encouraged the concepts of doing things easier and better.

The model kits we developed were well accepted in the growing hobby industry, and after several years of expanding volume and distribution, I became chief engineer of our group of five. My activities were broadened in scope to include manufacturing methods and design of special production machinery in the plant.

The company soon outgrew its space. In 1937, Comet moved to a first and second floor space in a large building on the corner of 29<sup>th</sup> Street and LaSalle Street in Chicago.

About that time, Carl Goldberg joined the Comet organization and a series of his designs was marketed. First came the Clipper, a gasoline-engine-powered Free Flight model. This was followed in 1939 by the famous Zipper, which soon became one of the most popular performance models of that era. The entire engineering group, working closely with Carl, participated in bringing his projects into kit form because the interest at the consumer level was great and there were always shipping deadlines. I drew up one instruction sheet for the Zipper and Fred Schlienzy, another Comet designer, made the other one. The Mercury model kit for smaller engines came next and after that the large Sailplane was produced.

In the wake of the sales success and the fine performance in model contests, Carl became better known among the model builders and the industry. As a grand promotion, a custom trailer was devised to hold a collection of Carl's assembled models and kits. Carl towed the trailer behind his car to visit hobby shops and contest sites throughout the country. He conducted seminars and exchanged thoughts on modeling with everyone who came. The reception to this program by hobby dealers, wholesalers and model builders was outstanding.

My first venture into Radio Controlled (RC) flying was with a modified Comet Sailplane. The wingspan was increased slightly and removable trays in the bottom of the fuselage held radio equipment and engine ignition accessories. At that time, a licensed radio operator had to control the model or be standing by while the modeler flew it. I teamed up with a "ham" who helped me with the radio end of the venture. We used rudder control only, but the radio, transmitter, and escapement had to be built from scratch, including winding relay coils. The transmitter was bulky and used an automobile battery for power. We entered the model in the 1940 National Meet in Chicago. Shortly after takeoff, one of the nearby spectators accidentally kicked loose the coupling wire between the transmitter and the antenna resulting in a crash that ended the flying in that event until the following year.

While I was working at Comet, an angel named Bernice Jordan came into my life. It took a while for me to recognize this gift. She was neatly dressed and was hired by the company to do office work, starting with filing and expanding to switchboard operator and executive secretary.

A short while later, perhaps in 1938 after Comet moved to 29<sup>th</sup> and LaSalle Streets, we got to know each other socially at the Christmas party. Both of us enjoyed dancing and also shared an interest in several sports like ice-skating, horseback riding, and other outdoor activities. Bernice assembled a kit model and also liked rubber- and gas-powered flying models. She attended many flying sessions and model contests with me and the Comet gang, which included Joe Konefes, Al Horback, Syl Wisniewski, Fred Schlienzy, Sid Axelrod, and Carl Goldberg.

Bernice became a knowledgeable mechanic and an excellent spotter, standing on the running board of the car while we chased models that caught thermals. I married that angel in 1941.

## **The War Years**

In 1939, the clouds that led to World War II were gathering. Along with most other industries and businesses, the supply of materials needed to make commercial goods would gradually be choked off. Even materials not needed for wartime use were in short supply because of transportation priorities. It became apparent that it was only a matter of time before model building, as we knew it then, would come to a halt. Balsa wood, which grew in Ecuador and Costa Rica, became a vital war material. Because of its high strength-to-weight ratio, it was excellent for making life rafts and cores for "sandwich" construction in aircraft such as the British Mosquito bomber. Besides, it was bulky and shipping cargo space was at a premium and soon became government regulated of necessity. In order to maintain sales and keep the factory open when balsa was no longer available, many of the regular kits were marketed using other wood that could be obtained at that time. Some of the basswood sheets used in kit production

were “peeled” off of a rotating log in lathe fashion – similar to making veneer for plywood and facing material. It was a poor substitute for balsa.

At Comet, there was a massive effort to put the facilities to good use in the war effort. This involved intense exploring and resulted in a variety of interesting ventures. There was need to train more of our young men and women to be flyers. In one of our studies, we worked with the Civil Air Patrol in Washington, D.C., to develop and produce kits to build full-scale training gliders. One of our designers, Alex Horback, was the headman on this venture. His broad search finally settled on a British design that could be used as a training glider. In effect, it was a full-size model airplane design because it resembled so closely what we as hobbyists had been making in a smaller version for so many years. The major structure was wood framing covered with fabric because wood was more readily available than metal. After much study and evaluation, the project was halted. Because of the urgency for training thousands of pilots, a basic decision was made by the top brass to eliminate the glider phase of training and go directly to training pilots in powered aircraft from the outset. Thus, our glider-training phase was eliminated.

A very important need in wartime was to recognize and identify aircraft flying overhead to determine if they were friend or foe. This was vital, not only to aircraft crews, but to land- and sea-based gunnery crews as well as civilian spotters. At Comet, we worked with the U.S. Department of Navy, Special Devices, and the U.S. Department of Education to develop a nationwide program for building 1/72-scale identification models. Our liaison for the project was (then Lieutenant) Paul E. Garber, aviation curator at the Smithsonian Institution.

The program involved the design, templates, and step-by-step illustrated instructions for models of Allied and Axis aircraft to be built in high school woodworking and craft shops and on military bases throughout the country. The models were made of basswood in 1/72 scale and painted all black. In the building process, the students became familiar with the differences between airplanes. After they were complete, the models were used in pilot ready rooms and for training gunners and spotters. The program was successful and served the purpose well. As the war progressed, these recognition models were made of injection modeled plastic. Examples of these models are on display at the National Air and Space Museum in Washington, D.C.

Another important contribution was the development and production of Lieutenant Garber’s Target Kite. This was a five-foot maneuverable kite flown on two lines so it could simulate the movement of an enemy fighter, the profile of which was stenciled on the face of it. Black top views of a Japanese Zero or a German Fw190 were used. The kites were an important aid for gunnery crews in learning to lead a target. When the wind was not strong enough, the kits could be towed behind a Jeep or flown from shipboard when underway.

A great variety of other projects were developed and manufactured to help in the war effort. Among these were:

- Wind Tunnel: Tabletop unit for classroom use to teach and explore the forces related to flight. Carl Goldberg designed and led this project.

- Target Gliders: Catapulted models made of harder wood for higher wing loading and speed. Used for gunnery training. The profile fuselage was equipped with an insert panel hinged at the rear so a hit would open the flap and bring the glider down noticeably. Used in conjunction with a special BB machine gun.
- Air-O-Trainer: Profile model of a Bell P-39 fighter with a 24-inch wingspan, working stick and rudder pedals that moved the control surfaces. These were used for classroom pilot training.
- Waco Gliders: Scale models of invasion gliders for classroom training purposes.
- Balsa Life Rafts: Developed alternate designs for more efficiency and rapid assembly in construction.
- Radar Reflectors: A lightweight package of reinforced aluminum foil secured to a folding balsa framework measuring 1-½-inches by 24-inches by 48-inches. Thread connected the corners of each two-foot by four-foot panel when opened. Equipped with a simple pneumatic Austin timer to delay deployment and attached to a weather balloon, it opened after a pre-set time into a 12-foot long array of radar reflectors for checking wind speed and direction aloft. It could be used from land or shipboard. Hundreds of these units were produced.

The years spent at Comet were rewarding from a learning standpoint, and the excellent design group that I had the privilege of supervising was made up of many prominent modelers. Among these were Al Horback, Syl Wisniewski, Carl Goldberg, Ed Lidgard, Wally Fromm, Sid Axelrod, Fred Schlienzy, Joe and Rita Konefes, Pete Vacco, Walter Eckart, George Gordey, Vito Garofalo and so many other designers who helped make it all go.

### **The Start of Monogram**

With the Allied invasion of Europe in 1944 and the improving military successes in the Pacific region in 1945, it looked like the war would soon be phasing down. It was time to start thinking of post-war activities. Like so many others before and after us, there was a desire to carve out our own business. World War II was winding down and it appeared that the Allied forces would prevail. Victory in Europe came in June of 1945 and was followed in September of 1945 by the surrender of the Japanese forces.

At that time, Jack Besser was the sales manager for Comet Model Airplane Company and had excellent sales and marketing ability. I was in charge of design engineering and also had experience in manufacturing methods. Each of us had about 15 years of experience in the hobby industry. It seemed to be a natural for us to share our skills and start our own model company. Every new enterprise needs a reason for being. In our case, we felt that if we could supply parts to the consumer that were prefabricated to some degree so that the ease, pleasure and reward of assembling a model could generate pride and success, it could broaden the market substantially. At the same time, we were fussy about quality in each kit.

We reflected on this decision for some time, because each of us was married with a family to support and had only modest savings. We would be going up against some well-established model manufacturers. All we had for starting a company were combined savings of \$5,000, some knowledge, and a lot of guts.

Because our funds were limited, and we would need all of the money we could borrow as the business progressed, it was necessary that much planning and preparation had to be done before we announced our intention to leave Comet.

Jack and I did most of the early preparation for our first products in my mother's house after regular work hours at Comet. The war was ending and naval vessels had gained in popularity. We planned to introduce three balsa ship models. We decided to produce kits to build an LST (Landing Ship Tank) 608, Destroyer U.S.S. Hobby and Cruiser U.S.S. Chicago – our first three models.

I had a drafting area set up in one of my rooms at home, where I drew the design patterns and instruction sheets for these three ship models. In the meantime, Jack had the task of scrounging each night and Saturdays for machinery that we would use for production and pattern making. Remember that the war was just ending and equipment was very difficult to find. When Jack was successful in acquiring needed machines and supplies, we hauled our purchases home in my old 1932 Willys Overland four-door, our transportation, and truck.

Our first batch of machinery was predominantly Delta home workshop units. They were relatively inexpensive and easy to modify – and they could be located, though not easily. To get us started, we needed circular saws, spindle shapers, planers, vertical and disc sanders and portable suction units that we would modify and convert to collect the balsa sawdust and chips. To this, we added plywood and detail parts for building production fixtures. Jack and the 1932 Willys were mighty busy.

Several pieces of the equipment were set up in the basement of my mom's home so we could build jigs and fixtures for use in production of kit parts. Some of the night work sessions would last until 2 a.m. To unwind, we would occasionally play darts after that for a half-hour or so.

## **What's In a Name?**

One of the questions most frequently asked of us is, "How come you picked the name 'Monogram?'" Selecting a name for a business can be fun, challenging, and sometimes frustrating.

We had many factors to consider when developing a company name. A few of these were:

1. Is it easy for customers to say and use?
2. Can it be remembered easily?
3. Is it short and sweet?
4. Does it identify, describe, or remind you of the product?
5. Can it be confused with other products or services?

6. How will the name fit if the product line expands?
7. Is there any conflict with existing registered trademarks?

Anyone who has named a company or service, or sat in on meetings to select or modify a company name knows the challenge we faced. The ideas are usually put down on paper for evaluation. Inevitably, humor enters in and unusable, funny names find their way onto the list. These always brighten up the sessions.

Often names of the owners become a part of the company name. If the organization will do business in a limited local area, the name of the city or state is sometimes included. In our case, the plan was to sell the products nationally and internationally.

So, we started listing possible company names. We included the usual names such as Diamond, Paragon, Gold, Acme, etc., that are associated with top value or quality. Because of Jack's and my background with Comet, whose products were predominantly model aircraft, we had several air or sky related names like Air Flight, Star, Astro, etc. These did not make it since our first products were to be warships. The list finally covered two lined pages, each with two columns and included many names that were obviously not sound candidates, but were added initially so ideas were not confined. It was not easy to zero in on a name.

Time was drawing near when the decision had to be made! Jack Besser had conceived the idea of a series of teaser mailings to introduce the new company to hobby wholesalers throughout the country. And that scheme needed a period of four to six weeks to complete.

One night, unexpectedly, my wife Bernice said, "How about calling it Monogram?" The following day, Jack and I compared it with all the names on the list. It had possibilities.

Monogram was a sign of identity. It was also a mark of distinction. While it did not describe the product, it sounded smooth. So we added Models and the company name was born – Monogram Models. Jack produced a series of mailing that started with a simple "Watch for the big M." We were off and running! The last of the six teasers told what we were about to do. There was a great deal of discussion and interest by people in the industry.

---

**This PDF is property of the Academy of Model Aeronautics. Permission must be granted by the AMA History Project for any reprint or duplication for public use.**

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

