



The AMA History Project Presents: Biography of CLARENCE F. LEE

Born September 4, 1923 Modeler since 1930
AMA #2579



Submitted by CFL (7/2000); Transcribed & Edited by SS (12/2002), Reformatted by JS (10/2009)

Career:

- 1941: Went to work for Vega Aircraft
- December 1942: Joined the Army Air Corps; served until 1946 and then was in the Reserves for seven and a half years
- Obtained a commercial pilots' license with multi-engine and instrument ratings
- 1956: Started flying Control Line in the service and continued until he became interested in Radio Control
- 1955: Placed third in Control Line Precision Aerobatics and in Proto Speed at the California Nationals
- 1959: Designed the first Lee .45 engine for Radio Control use
- 1966: Placed first at the LARKS Open in Expert class
- Sold production rights of his engine to Veco and proceeded to design numerous engines for them, including the redesigned Veco .45, the redesigned Veco .19, and the Veco .61
- After Veco closed, he eventually started his own model engine business
- Member of the National Miniature Pylon Racing Association, the Valley Flyers Radio Control Club and the Model Engine Collectors' Association
- January 1969: Started writing a column called "Engine Clinic" in the January 1969 issue of *Radio Control Modeler* magazine

Honors:

- 1983: Model Aviation Hall of Fame

Clarence submitted the following biography, originally written for Radio Control Modeler magazine by Don Dewey. In July of 2000, Clarence was writing a column called "Engine Clinic" for the magazine.

An Introduction of Sorts... Clarence Lee, Engine Clinic

By Don Dewey

Born in Los Angeles, California in 1923, Clarence Lee grew up and attended school in nearby Glendale, California. At the age of seven, he built his first solid model, which was quickly followed by flying stick models. His entry into powered aircraft came in 1937 when he built a Megow Quaker *Flash* after working for a year at odd jobs in order to buy the knocked-down, unassembled Bunch Mighty Midget that would power it. His second Free Flight was a Modelcraft *Miss Tiny* powered by a Keener Brat .15. Clarence found the model to be badly underpowered, so he designed a two-thirds size *Miss Tiny* that then flew quite well with the Brat.

Actually, as Clarence remembers it, the reduced size *Miss Tiny* flew well enough that he wore out the connecting rod! Since he was taking auto shop in high school at the time, he asked the shop instructor if he could make a new rod since the shop had a lathe and drill press. The teacher

agreed and Clarence learned to operate a lathe – something that he found came quite naturally to him. After a couple of attempts, he had a finished rod and soon after began making parts and repairing engines for his modeling friends.

Lee lived just a few miles from Grand Central Air Terminal where many historic flights took place. As a boy, he would stand outside the terminal fence, dreaming of becoming a pilot as he watched the Ford Trimotors and Curtiss Condors take off and land. A short distance away was an Army National Guard flying field where various military aircraft practiced their maneuvers, and Clarence decided then and there that he would become an Army Air Corps pilot.

While attending high school, Clarence worked part-time for a Glendale Chevrolet dealer, first detailing cars then, as his auto shop experience grew, installing new clutches, new rings, doing valve jobs and, eventually, complete engine overhauls. Lee's first car was a 1929 Model A Ford with a 1932 Model B engine. As he earned money, he installed a Winfield high compression head, a three-quarter race cam, an SR downdraft carburetor, and a Mallory distributor – a hot combination in those days! When he could afford the gasoline, he would run the car through the timing traps at Muroc Dry Lake (now part of the Edwards Air Force Base flight facilities). His best time was 101-102 mph. To this day, as with model engines, Clarence has remained involved with automobile work, both as a hobby and professionally.

After graduating from high school in 1941, Clarence went to work for Vega Aircraft, then a division of Lockheed Aircraft, where he worked swing shift as a machinist. During the days, he attended Glendale Junior College in order to meet the two-year college requirement for joining the Army Air Corps. Shortly after the Japanese attack on Pearl Harbor, that requirement was dropped for those who could pass an equivalency test. Clarence was sworn into the Army Air Corps as an aviation cadet trainee in December 1942. During flight school in Texas, Lee flew the *PT-19*, *BT-13*, *AT-17*, and *AT-10* with his final 10 hours in the *B-25*. Besides the aircraft mentioned, Clarence had flight time in a variety of military aircraft including the *P-38* and *P-51*.

During flight training, Clarence was supposed to be training to fly the Martin *B-25*, but, upon his graduation in 1944, the aircraft was declared obsolete. Lee ended up being sent to the China, Burma, and India theatre where he piloted *C-47s* and *C-46s* for a combat cargo group flying the “hump” (Himalayan Mountains) from Burma to various airfields in the Kunming area of China. He made 67 hump crossings carrying bombs, aviation gasoline, and Chinese troops. On VJ-Day, his group was transferred to Shanghai, China, to take over the Kaingwan Air Base from the Japanese.

Clarence returned to the United States and was discharged from active duty in 1946, although he remained in the Army Air Corps Reserve for an additional seven and a half years. Lee currently holds a commercial pilot's license with multi-engine and instrument ratings.

After his return to the U.S., Clarence married his wife, Peggy, who at the time had a small floral shop located in a local nursery. Inasmuch as many thousands of pilots had returned home from World War II a year before Lee, the commercial piloting jobs had all be filled; by cashing in some war bonds, the Lee's managed to raise enough money to rent a larger building in the main

part of Tujunga, California, where they opened up a floral business and where Clarence worked for several years.

Clarence began flying Control Line models while still in the service and continued until 1956 when he became interested in Radio Control. One of his best Control Line endeavors was placing third in precision aerobatics at the 1955 California Nationals where he also captured third place in proto speed.

After taking up Radio Control, Clarence was somewhere unhappy with what was available in the way of engines for Radio Control use. As a result, in 1959 he designed and built his first Lee .45 engine he designed strictly for Radio Control use. The engines were an instant success and used by most of the top pattern flyers for numerous contest wins during that era. His own personal best was a first place win at the 1966 LARKS Open in expert class. This event was the major West Coast contest of the year, drawing in excess of 120 entrants.

Clarence's custom-made Lee engines carried a money back guarantee if the purchaser was not happy with the performance. He never had anyone take him up on that guarantee! Following the success of the engine, he sold production rights to Veco Products and a redesigned version became the Veco .45. Lee was then commissioned by Veco to design a new ball bearing version of the original Veco .19 designed by Mel Anderson. Parts for four prototype engines were made and the first production engines released in September of 1964. Clarence kept serial number 001 and well-known West Coast flyer, Dale Nutter, got 002. Dale went on to set a new AMA Pylon speed record with the engine.

Lee was then commissioned by Veco to design a .61 size engine. With his past experience with the .45 and .19, he knew what he wanted in the way of a crankcase, so they went directly to the die-cast case without building sand-cast prototypes. While the dies were being made, Clarence made the crankshafts, pistons/sleeves, and remaining parts. Parts for six prototype engines were made with five engines being assembled and the sixth saved for replacement parts. Serial number 001 of the new Veco .61 was given to Cliff Weirick in July 1965 and Cliff went on to win the AMA Nationals with it that same year.

The next Veco commission for Clarence was to design and build a new ball bearing .29-.35 engine following the basic design of the .19, .45 and .61. Three prototypes were built, with one of them going to a Control Line Speed flyer, Gene Leedy. Gene, subsequently, set a new Class B Proto speed record with that engine. Unfortunately, the engine never went into production since Henry Engineering, the parent company of Veco Products, decided to drop the model engine business and concentrate on their manufacturing of aircraft seats since the airlines were in the process of developing the first wide-bodied commercial airliners.

Clarence competed in Radio Control competition pattern events for about 10 years until he became tired of the constant practice required. Not one to give up on competition, however, he entered the then new Formula I Pylon Racing event, first racing as a team with his good friend, Wayne Wainright, and later as a team with his own son, Jack Lee.

Today, Clarence laughingly refers to himself as semi-retired although he has not yet found a way to take things easier. In fact, busier than ever, Lee's model engine business is now a full-time operation as he sells custom fit versions of engines in the K&B line. Having sold many thousands of engines over the years, the servicing, and repairing of these engines is almost a full-time operation in itself. Clarence admits that he continues the model engine business mainly to keep active, never having been a person who could sit back and do nothing.

Clarence Lee holds AMA number 2579 and was inducted into the Model Aviation Hall of Fame. He is a member of the National Miniature Pylon Racing Association, the Valley Flyers Radio Control Club, and the Model Engine Collectors' Association. In addition, a ham radio operator, Clarence's ham call is WB6SAF.

Clarence's column, "Engine Clinic," has appeared in every monthly issue of *Radio Control Modeler* magazine since January of 1969. His column has been immensely popular with our readers since its inception and has always ranked among the top three in ever Reader Interest Survey conducted by the magazine. In addition, without fear of contradiction, I believe that most of us have learned most of what we know about the Radio Control engine from Clarence Lee. His personable type of writing, combined with his vast knowledge of his subject material has made him one of our sports most valuable assets.

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