

Bert Kinner: The Ups and Downs

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His aircraft and power plants, Part 2

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Winfield Bertrum “Bert” Kinner imagined that if he could produce aircraft cheaply enough they would be as common as the family car. In 1926 the new Air Commerce Act required licensing of both pilots and mechanics, restricting this futuristic plan. Nevertheless, the 1930s “Golden Age” of aviation was ready for Kinner’s improved and less costly aircraft and engines. There were a lot of “ups and downs” along the way.

During several months of 1925 Bert Kinner was too ill to work, and a thief broke into his hangar stealing all of his tools and spare parts. Bert Kinner and Kinner Airport in East Los Angeles were out of business — but not for long.

Although he was physically ill, Bert Kinner had an unsuppressed healthy imagination. During recuperation, he focused on designing an air-cooled, five-cylinder radial engine. He called it the K2. John Underwood, an aviation historian and friend of the Kinner family, describes the tense moments the following year (1926) when the K2 was first tested with only family present “in case it was a flop.”

“Despite financial adversity, Bert made steady progress with his five-cylinder K2 radial, and the prototype was finally ready for testing. Anxious to avoid unfavorable publicity . . . he rigged a test stand inside the hangar and closed the doors . . . Methodically, Bert checked the battery ignition and primed the cylinders. He then unbuttoned his vest and rolled up his sleeves. Grasping one blade with both hands he swung the propeller with a practiced wind-up and stepped back. There were a couple of feeble chugs as the prop arced through two or three jerky revolutions. Then one cylinder fired a healthy charge and the wooden Hamilton propeller became a whirling disc. The beat quickened as each cylinder cleared itself and began firing in sequence. Lee Brusse [Bert’s brother-in-law]

advanced the throttle and the little tin hangar resounded to the cacaphonic clatter of five pistons working in unison. For a family of dedicated experimenters it was a time for jubilation.”

The K2 evolved with help from Leslie Harold (“Les”) Bowman into the 100-hp K5; the first in a long line of five-cylinder Kinner radials. Les and his wife, Martie, were both pilots, and Bert Kinner’s daughter, Donna Kinner Hunter, remembers them being her parent’s closest friends. When the K5 was ready for testing at the Bureau of Standards in Washington, D.C., Kinner sent the engine by train in Bowman’s care. Running for 500 consecutive hours on the test stand hand-built by Bowman, the K5 was approved for production. With open arms, the aircraft industry welcomed the new affordable and reliable “Kinner Five.”

As the WWI OX5 engines began to wear out, the K5 took its place on the nose of war surplus aircraft. Three dozen aircraft manufacturers ordered Kinner engines including (Consolidated) Fleet, Fairchild, and Travel Air. The Kinner family business hired dozens of employees and went into full production.

The downs and ups

While engine sales grew, Kinner continued marketing the Airster and designed an open cockpit monoplane, the Kinner Coupe. A dealership for Kinner’s Airster was picked up by a firm in Massachusetts where Amelia Earhart held a part-time job at the Dennison airport. As they had previously done in California, Kinner and Earhart struck a mutually beneficial bargain. For the use of his aircraft, she became Kinner’s sales representative.

During this time Earhart corresponded with Kinner suggesting improvements to his airframes and engines. Their smooth working relationship would probably have continued for years had she not been selected to become the first woman to fly as a passenger across the Atlantic. Thereafter Earhart and Kinner remained friends with occasional chance encounters for hangar flying. In 1928 Earhart made an overnight visit to the Kinner home in Glendale.

When the stock market crashed in 1929, Kinner reorganized the Kinner Company with outside funding, and moved to 2 1/2 acres near the Glendale Airport. Once again Cora did the bookkeeping and the children pitched in to help.

Bert’s daughter, Donna recalls life at the Glendale Airport, while she was in grammar school.

“We lived across the field from the hangars and the landing strip was so dusty sometimes we left the house. It was easy for Dad to walk to work, day or night, to change drawings or work on the latest project. My brother Win [Winfield Bertrum Kinner Jr.] was 11 years older than me, so he worked at the factory more. Bob and I would sweep the hangar out after school and do little odd jobs.

“Sometimes Dad would fly to air meets. Weekends at the airport were always busy . . . lots of flying. Dad was gone a lot on business, but when he was home we all ate dinner together and, when he could, he went to church with us on Sundays.”

In 1930 Kinner and his eldest son, “Win” founded the Security Aircraft Corp. (SAC) staffed with a board of directors and trustees with whom he did not get along. While there, he and “master welder” Lloyd Royer developed the idea for a folding wing aircraft which Kinner felt would revolutionize general aviation. At this juncture the administration at SAC muddied the waters and management differences overcame creativity. Kinner stepped back, resigned as president, and took his wife and children on a trip in their new Cadillac across the United States. Donna remembers frequent stops at small town airports along the way.

By this time the Kinner brand name was emblazoned on hundreds of power plants, Kinner aircraft appeared at airfields all across the country, and advertisements for Kinner products filled magazine pages. Yet Underwood describes Kinner chatting up the local mechanics. “Few recognized the slender, quiet-spoken visitor as the designer of the country’s foremost lightplane engine.”

Seeking security

From 1930 to 1935, Kinner separated himself from Security Aircraft Corp., in Glendale, founded Security National Aircraft Corp. in Downey, and won patent rights to his folding wing design. From Downey, Kinner moved to Van Nuys Airport and built Airsters with wings that a pilot could single-handedly fold up in five minutes. Built about the same time were the Kinner S-1-A, the Sportster with removable canopy, the Kinner R Sportwing (215-hp Kinner B5) and the Kinner R Playboy (with a 160-hp Kinner R5). None of the models were big sellers and aircraft sales slumped. Ironically, the folding wing concept was, in Underwood’s words, later “borrowed” by the U.S. Navy during WWII so that thousands of military aircraft like the Grumman Wildcat and the Corsair could be transported on carriers.

In 1935 Kinner moved his business for the last time, to Long Beach, south of LA. There, in 1936 he built the C7 Envoy (with a 300-hp C7 power plant), and the Kinner P Sedan, a two-seater with a 210-hp Kinner C5 engine. Kinner’s family was never far from the action. “Win was older than me, and he was part of dad’s work force for a long time,” recalls Donna. “But, as a teenager in high school, I sometimes helped Mother [Cora] lace the fabric wings. It took two people on opposite sides of the wing to pull the needle through.” In 1939, after several company reorganizations, Bert Kinner transferred all rights to products using his name to the Timm Aircraft Corp. of Glendale. Kinner’s R Sportwing was later known as the “Timm 160 Trainer.”

The Kinner family has no trace of it, but Bert probably got his pilot's license and aircraft mechanic rating certificates right after it was required by the Air Commerce Act in 1926. However, an often-folded paper certificate issued by the Department of Commerce indicates he regularly renewed his Transport Pilots License #5777, between 1930-1935. Kinner retained his single engine rating, including sea landings in 1934. On his license in 1939, Kinner described himself as 150 pounds with black hair. Just two years later he changed the description, weighing 10 pounds less and with gray hair.

No doubt Kinner earned his gray hair and decided to slow down.

“Retired” in 1940

By 1940, Bert Kinner sold his Long Beach facilities and “retired,” doing well buying and selling real estate. For relaxation he flew into remote back country meadows camping under the wing of his plane. He fished, hiked, and hunted. CAA records show he renewed his Airman Certificate (#5267) for Aircraft Engine Mechanic in April 1941. A few months later he recorded his total flying time at more than 7,600 hours. “I don't think he ever actually retired,” says Underwood. “He kept pretty busy.” Donna remembers, “Dad restored old farm machinery with his grandson, John. Now, John's son teaches high school auto shop. He has my Dad's micrometer set and other tools — which he cherishes.”

At the Wings of History Air Museum in San Martin, CA, Donna's son, Russell, is helping to restore a 1939 Security Airster. With obvious pride, she is hoping to once again see her father's “favorite airplane.”

From 1919 until his retirement, Kinner's ups and downs can be traced through seven different corporation names, 11 aircraft designs, and nine power plants, in 10 moves for his factory, airport, and home. His legacy continued during WWII as the Kinner Motor Company produced thousands of B5 (125-hp) and R5 (160-hp) engines for the American Ryan PT-22 trainer, and Fleet trainers used by the Royal Canadian Air Force.

Kinner died on the Fourth of July 1957 at the age of 74. His life partner, Cora, is buried next to him in North Hollywood, CA, at the Portal of the Folded Wings in P.B. Valhalla cemetery. Located adjacent to Burbank's busy airport, commercial jet liners and small aircraft take off overhead. The roar of their engines is a salute of sorts, befitting the team that created an aviation legacy, despite all their ups and downs. *Giacinta Bradley Koontz is an aviation historian and author.*