There are many names of individuals that are synonymous with the industries they founded or help to expand. They include Harvey Firestone with tires, Henry Ford with automobiles, James B. Lansing with speakers, and Bill Lear with business jets. Lear identified and established a niche in jet transportation, defied the critics, and built one of the most successful and identifiable aircraft of the twentieth century in the highly competitive industry of business jets. His path to success was marked by decades of effort.

William P. Lear was born in Hannibal, Missouri, in June 1902. His parents separated when he was only 6, and he moved with his mother to the south side of Chicago, where they lived in a tenement. The young Lear was indelibly affected by their abject poverty as he grew up. While in grade school he became fascinated with all things electrical. He pored over electrical journals he found on the newsstand or at the library, even if he did not understand the esoteric descriptions and symbols. He was bright and eager to learn. New technologies for communication and transportation were emerging, and for Bill Lear it was a fascinating time. Even at the age of 12, he saw himself inventing things people would need, and prospering as a result.

“I resolved first to make enough money so I’d never be stopped from finishing anything,” he said years later. “Second, that to accumulate money in a hurry—and I was in a hurry—I’d have to invent something that people wanted, and third, that if I ever was going to stand on my own feet, I’d have to leave home.”

Lear grew impatient about the living conditions in Chicago and the dim hopes for his future. He reasoned that if he joined the Navy, he could get the electrical training he wanted. When he was 16 he completed eighth grade, lied about his age to enlist in the Navy, and received the training he sought. World War I ended in 1918, and he was honorably discharged. Returning to Chicago, he eventually got a job at the Grant Park Airport servicing airmail planes. He succeeded in getting flying lessons in the bargain. These events would all have a bearing on the future direction of Bill Lear.

In 1922 he moved to Quincy, Illinois, and launched his first company, the Quincy Radio Laboratory, selling and repairing radio sets. This was followed by the Lear Radio Laboratory in Tulsa, Oklahoma, which he founded in 1924. He became part owner of the Radio Coil and Wire Company in 1926 and Galvin Manufacturing Company in 1928, both in Chicago. Lear made improvements in tabletop radios that effectively eliminated the radio’s storage batteries and permitted them to run on household current. He also worked to develop the first automobile radio, which was successfully marketed by Galvin as the Motor-ola line. That name was later adopted by Galvin as the corporate name Motorola. Lear sold his share of the companies to Galvin in 1930 and took his profits to launch his next company.

Anthony Young (ahyoung@mail.com) is a freelance writer based in Florida. He would like to thank the Lear Archives for their assistance with this article.
The 1930s marked Bill Lear’s foray into the nascent field of aircraft electronics and the home-radio market. In 1931 he started Lear Developments, Inc. Lear formed a loose partnership with Fred M. Link, former assistant chief engineer of the DeForest Radio Company. The Link Radio Company was located in lower Manhattan. Lear purchased a biplane and on a flight from Chicago to New York to meet with Link, realized the difficulty in navigating with only a compass and ill-defined landmarks. He began to research aircraft radio receivers to aid pilot navigation by picking up radio beacon signals. He pioneered the field of aircraft radio compasses, and his products eventually became the dominant choice for both private and commercial pilots.

Endures the Great Depression

Despite the lingering depression, Lear knew the economy would recover. He came up with a concept of a radio front-end that would be common to a host of different radios; this would lower the cost of manufacturing the entire line of radios. Lear designed and built the prototypes in only two weeks. Link introduced Lear to executives at RCA, to whom he demonstrated the concept. RCA paid him $50,000 in patent rights and $200,000 in consulting fees. In 1934, the RCA “Magic Brain” radios were marketed to consumers.

Lear used the money to finance the expansion of research, design, and manufacturing of his aircraft radio-communication business. At his new engineering laboratory on Long Island, he developed the Lear-O-Scope Radio Detection Finder in 1935, for which he received the Frank M. Hawk Award.

In 1938, he met 23-year-old Moya Marie Olsen backstage at Manhattan’s 46th Street Theater and promptly whisked her off to the Stork Club that evening. Lear was captivated by the vivacious young beauty, and she became intrigued with this handsome, prosperous entrepreneur. They were married in 1942, eventually having four children. She was a powerful and positive influence on the rest of his life.

Lear expanded his product line to include aircraft electro-mechanical actuators and other devices, and established plants in Ohio and Michigan. During World War II his company fulfilled government contracts amounting to tens of millions of dollars. After the war he developed a lightweight automatic pilot and in 1949 announced the production of the Automatic Approach Control Coupler, or Lear Autopilot for short. This device could automatically bring an airplane into an airport in virtually any kind of weather. For this and other developments, Lear received the Collier Trophy in 1950.

Lear was the name in aircraft controls and instrumentation, and Lear radios were in countless homes, successfully competing against Philco, RCA, Motorola, Crosley, and many others.

In the early 1950s, Lear launched work on a high-speed executive transport plane. This involved converting the twin-engine Lockheed Lodestar, improving aerodynamics to reduce drag, and outfitting the plane with luxurious appointments. Top speed was increased from 280 to 320 mph. First flight of the Learstar took place in May 1954. Eventually, 60 Learstars were sold, but Bill Lear had hoped to sell many more. The dawning Jet Age had passed the Learstar by, but Bill Lear was making plans to become part of that new age.

The Lear Jet

By the late 1950s Lear, Inc., employed 5,000 people in America and overseas, with gross sales of over $90 million. As chairman of the board, Lear spent more time flying around the globe pursuing business than at the company’s headquarters in Santa Monica, California. He saw that the future of air travel was by jet. While at his 22-acre estate outside Geneva, Switzerland, Lear conceived a small business jet—smaller, faster, and less expensive than the North American Aviation Saberliner and the Lockheed JetStar. He had closely followed development of the

Prototype of the Lear Jet model 23
courtesy of www.airchive.com
Swiss P-16 fighter and wanted to incorporate aspects of it into his new aircraft, such as the low-aspect-ratio wings and wingtip fuel tanks. He brought in Gordon Israel, who had worked with him on the Learstar, to design the aircraft. Lear flew back to the States and presented the concept to his board. Despite his well-reasoned arguments and supporting data, Lear was stunned when the members voted the idea down, saying the market would be too competitive by the time the jet reached production and development costs were too high with no guarantee of return on investment.

Bill Lear was used to getting his way, but he was outvoted. He confided in his wife, who encouraged him to go forward with his dream. Virtually every idea he had pursued had been a success, and they both believed a new small high-performance executive jet would succeed also.

Lear then negotiated a buyout of his shares in Lear, Inc., and received nearly $15 million. He then established the Swiss American Aircraft Company (SAAC) in Switzerland and consulted with Dr. Hans Studer, chief designer at FFA, the Swiss company building the P-16 fighter. The jet that emerged by 1961 had a small-diameter cabin that could seat seven passengers. It had a wingspan of 35.7 feet, a length just over 43 feet, and a target weight of 12,500 pounds. It would be powered by two General Electric turbojet engines. Problems with suppliers and production tooling motivated Lear to move to the United States in 1962. He chose the Wichita Municipal Airport in Kansas as the future home of his new company, Lear Jet, Inc., and broke ground that August.

Groundbreaking was significant in another way. Bill Lear was footing the entire expense of designing, developing, and building the Lear Jet himself. Despite his decades of success, bankers were reluctant to finance his new endeavor. Lear had made a fortune correctly perceiving market needs, and he believed he was right about his jet as well. The buildings of Lear Jet rose with amazing speed, and work immediately began on the first jet using production tooling. In September 1963 the first Lear Jet, with its gleaming unpainted aluminum skin, was wheeled from the assembly hangar for its first ground tests. On October 7 test pilot Henry G. Beaird with copilot Bob Hagan took the jet up for its maiden flight. It performed all tests flawlessly. Beaird, with years of commercial and military aircraft test-flight experience, said the Lear Jet accelerated faster than any jet he had ever flown, including the F-104 fighter, and was capable of reaching mach .85.

Months of further validation testing took place. Although this first plane was subsequently damaged as a result of a Federal Aviation Administration (FAA) pilot’s error, a second plane was built, and FAA certification of the Lear Jet was granted on July 31, 1964. The following week, the FAA administrator personally presented the type certificate to Bill Lear in Wichita. In October the first production plane—only the third Lear Jet built—was delivered to Chemical and Industrial Corporation of Cincinnati. Corporations weren’t alone in wanting the new jet. Heads of state, entertainers, and even rock bands began placing orders for their own Lear Jets during the 1960s. The jet was even the subject of a song by the band The Byrds.

“I have spent my whole life discovering needs and then finding ways to fulfill them.”

— William P. Lear

A New Leader

By 1967 Lear Jet, Inc., led all manufacturers in sales of business jet aircraft to civil operators. Lear Jets held numerous transcontinental and world records. The line of jets was expanded to include more passenger and fuel capacity. Nevertheless, the company was not in the strongest financial position. That same year the company was acquired by the Gates Rubber Company, and the company name was changed to Gates Learjet. Lear received nearly $30 million in the sale. Ever the inventor and innovator, Bill Lear looked for new challenges to pursue.

Vehicle-emission controls were being promulgated by the Environmental Protection Agency, and Lear wanted to develop a low-pollution or no-pollution engine. He looked into developing steam as the means
to do so. His team of engineers worked on steam engines for cars and buses for many months, but the engines did not develop the level of power that was necessary. After losing millions of dollars in the effort, Lear chose to shut it down, perhaps his first significant failure. He moved on to develop a new 12-passenger jet aircraft for Canadair, the Challenger 600, a successful design.

In the mid-1970s, Lear launched what would be his last aircraft project. The Lear Fan was a seven-passenger aircraft built of composites instead of aluminum and powered by two turboprop engines driving a single prop in the rear of the aircraft. Lear, however, contracted leukemia, so he directed his employees to complete the design and build it. He died in May 1978; his wife took over the company and operations. The Learfan 2100 was built and flown in 1981. However, the plane never went into production. If Bill Lear had been alive, it no doubt would have. Today, Bombardier builds the newest line of Learjets and Challengers, continuing the Lear tradition.

“There are two kinds of inventors,” Lear told BusinessWeek in 1972. “There is the inventor who just likes to be clever and come up with a new idea. And there is the inventor who realizes there is a need and tries to fill it. I have spent my whole life discovering needs and then finding ways to fulfill them.”

In that, Bill Lear succeeded admirably—an example of entrepreneurial vision and persistence that bettered the lives of countless people.