



EWING FAMILY NEWS

Descendants of William Alexander Ewing

Clair E. Ewing, Youngest son of Grant Ewing

A Journey From Kansas to the Stars

Most people who delve into family history hope to find that they are related to someone famous—a well-known military leader or politician, a famous inventor or entrepreneur, perhaps a great explorer or adventurer, or maybe even royalty of some kind—someone recognized in the pages of history books. That is a driving goal of many genealogists. But not everyone finds that in their family tree.



Clair E. Ewing - 1938
Sophomore at Kansas State

There were a few generals or other military officers from America's early wars—Revolutionary, War of 1812, and Civil War—that carried the Ewing surname. But there isn't enough definitive proof to convince me that they were from our immediate family branch ... maybe distant cousins, at best. And not much information about their activities is available. But there is a person in our family who had a rather profound impact on today's lifestyle. His adult life would center around a military career and his involvement in the development of technology that eventually would be used in the creation of GPS navigation systems, although you probably won't find him in the history books.

The majority of this newsletter's readers are descended from William Alexander Ewing's son, Ira. And most of them probably never knew—or maybe never even heard of—Ira's siblings or their families. Ira had three sisters and two brothers that lived into adulthood and had their own families (there were actually 12 children born to William Alexander and Rebecca Ewing, but only six lived long enough to have families). The subject of this writing was a son of Ira's older brother, Grant—so he was a first cousin to Ira's kids (Frank, Ray, Nellie, Forrest, Eldon, Mabel, Dean and Mary). He was born September 20, 1915.

Like most rural Kansas children born in the early part of the twentieth century, Grant and Margaret Ewing's third child was born at home, on their farm east of Blue Rapids. The local doctor arrived after the birth, and while hurriedly filling out the official paperwork, listed the child's name as "St. Clair Ewing." The parents had intended to name him "Eugene St. Clair Ewing." The resulting confusion would not be resolved until years later when he would legally change his name to "Clair Eugene Ewing."

Clair was the youngest of five children in the family. Two, Lena and Levi, were from Grant Ewing's first marriage. Grant later married Margaret Fincham, and they had three children: Leonard, Gloria and Clair. The family lived on the farm, east of Blue Rapids in Wells Township, that Grant called "Cedar Ridge," until the spring of 1920 when Grant bought a larger farm in southwest Marshall County—about four miles southwest of Waterville in Cottage Hill Township. He named that one "Pine Ridge."

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A year after the move, Clair started school at Harbaugh, just a half mile from their house. The one-room school, District #44, was originally named Excelsior and was located on land that had been donated by a Lutheran minister named Harbaugh. After he died, the school was renamed in his honor. It sat on the corner of "Pine Ridge" farm. The teacher, Lilian Sedivy, boarded with Clair's family during her 3-year stint at Harbaugh, which was common for teachers who were not from the immediate area. They would live with someone close to the school since they were required to arrive first at school each morning and to clean and "keep house" in addition to teaching.

Clair and his siblings grew up on the family farm, each with chores to do and sharing the work that had to be done to provide a living for the family. They were not considered to be "prosperous," but they always had something to eat. Pork, chickens, eggs and milk were produced on the farm, along with fruit and vegetables from the garden which could be canned for use in the winter. Cash was a scarce commodity, so entertainment and frivolity were extremely limited – necessities came first. That was very typical, not just for Clair's family, but for most of the families at that time. The first quarter of the 20th century was a difficult economic period for farm families. And it didn't get any easier as the 1920s passed into the 1930s. The stock market crash in October, 1929, started a domino-effect of bank failures and business closures that precipitated an enormous economic depression. What had been weak prices for farm products became terrible prices. Farmers went broke, as did industrial and commercial enterprises.

Clair's father struggled to make payments on the loan he had gotten to buy the "Pine Ridge" farm, and his well-drilling business had dwindled to practically nothing. In his March 13, 1931, newspaper column Grant Ewing wrote, *"I must seek a new location and move at once. It has cost me \$15,900 to live here eleven years – that is my equity alone, besides interest, taxes and other losses add over \$8,000 more."* The lender had foreclosed on the loan. Grant also indicated in that column that he would take his family and leave the area if not for his son wanting to finish high school in Waterville. Grant rented an old stone farm house a few miles northeast of his "Pine Ridge" farm. He called that place "Cedar Flat."

Throughout the tough economic times, Clair had excelled in school. He breezed through elementary school at Harbaugh, finishing the 8th grade there in April, 1928, when he was less than 13 years old. Going on to high school at Waterville, Clair continued his educational quest. He was active in the Lone Scouts – an organization similar to the Boy Scouts, for farm boys – and the Future Farmers organization in Waterville. He participated in track and football, but never felt that he had done very well at either sport... of course, he was younger than most of his teammates. When he graduated from Waterville High School in 1932, Clair was at the top of his class of 33 students. At the age of 16, he was younger than the rest – it was not uncommon for high school seniors to be in their late teens or early twenties, due to fragmented school attendance. Many of the boys dropped out of school each year in early spring and didn't resume their education until late fall... a schedule that was secondary to their work on family farms.

A couple months before Clair's graduation, Grant moved his family again. This time, to a farm east of Blue Rapids that was owned by Tom Fincham, Margaret (Fincham) Ewing's brother – bordering Grant's old "Cedar Ridge" farm. Clair commuted to Waterville until graduation. The family stayed on the Fincham farm only until December of that year, when they moved into Blue Rapids, to a house that had been owned by Margaret's recently deceased father, William Fincham.

So, what does a 16-year-old do after graduating high school... in the middle of an economic depression? The answer is: anything he can – anything

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On this website you will find previous issues of the newsletter as well as numerous photos and historical information about the family of William Alexander Ewing

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that will help the family put food on the table. Clair worked as a farm hand, wherever he could find an opportunity. He and a friend established a cream station for a while in Blue Rapids, buying cream from local farmers for resale outside the area. When Grant was finally able to get back into the well-drilling business, Clair worked with his father, putting down wells throughout the region. The drought of the early 1930s had increased demand for new water wells. Clair continued to work wherever he could, saved a little money, and in the fall of 1935 he enrolled at Kansas State College of Agriculture and Applied Science in Manhattan, beginning his education in the field of civil engineering. In addition to the engineering curriculum, which was heavy in math, physics and chemistry, Clair began a required 2-year involvement in ROTC (Reserve Officer Training Corps). Since Kansas State was a land-grant college, ROTC was mandatory for all students.

Clair also went out for football, making the freshman squad. He had a successful first season, but decided to take a red-shirt season the second year. Resuming his position on the football team in the spring of his sophomore year, Clair was having what looked like a promising athletic career at fullback until the last game of that spring season. A blocker hit his leg in a bad position, breaking both bones in his lower leg — shattering the tibia, and resulting in a 30-day hospital stay. Healing without surgical procedures led to a crooked lower leg and the end of his football career.

Clair applied for and was accepted into advanced ROTC, choosing to study field artillery. Successful completion of advanced ROTC would result in a commission as Second Lieutenant in the U.S. Army after graduation. He also took college pilot training in his senior year of school, and received a private pilot's license in December, 1940.

Having finished his college courses in the fall semester of 1940, Clair took a job with Phillips Petroleum in Bartlesville, Oklahoma, surveying for a seismograph crew. He was back in Manhattan, Kansas, by spring for graduation from Kansas State, and shortly after that he took a job with the U.S. Soil Conservation Service as an agricultural engineer. After a month's training for the new job, he reported to his first assigned station in Oklahoma. A few days later, he received orders from the Army to report for active military duty. On August 22, 1941, Clair began what would be a long and successful military career.

With a Second Lieutenant's commission from college ROTC, Clair started as a platoon leader in an anti-aircraft battery and then was sent to Coast Artillery School in Virginia. He was on his way back to Ft.



Bliss, Texas, from Virginia, when he got word that Pearl Harbor had been attacked. He was soon sent to the west coast, where he was part of the coastal defense around Boeing Aircraft in Seattle. The next spring, Clair was transferred to an aerial observation squadron in Georgia, which landed him back in school for aerial gunnery in Panama City, Florida.

There had been a lot of moving around since he graduated from Kansas State just a year prior, but Clair had maintained contact with family and friends in Kansas, especially a girl from his hometown. Evelyn Anderson, daughter of Edward and Esther (Ljungberg) Anderson, had graduated high school in Blue Rapids while Clair was in college at K-State. Now, at the beginning of World War II, Clair did what a great number of U.S. soldiers did — he reached out to “the girl at home.” Evelyn joined him in Panama City, Florida, and they were married on June 19, 1942. When Clair was finished with school in Florida a few weeks later, his next assignment was in Tennessee, where adequate quarters were not available for Evelyn, so she returned to Kansas.

Clair had always wanted to fly, but he had reached 26, the maximum age allowed for powered aircraft pilots in the Army Air

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Forces. So he applied for glider pilot training and was accepted. Following a brief visit in Kansas for the funeral of his father in September, 1942, Clair went on to glider school and training at various locations in Texas and at Venita, Oklahoma. Evelyn joined him at the locations that had living quarters available. After a number of moves, Clair graduated and received his glider wings in April, 1943, just in time for the Army Air Forces to abandon the glider program. He responded to a request for volunteers to attend Intelligence School, and was accepted... so, it was back to school. By the end of 1943, Clair's short military career had taken him all over the continental United States, and to four military schools—a pattern that would be repeated many times over the next two and a half decades.



At the beginning of 1944, Clair was sent to the Aleutian Islands—off the southwest coast of Alaska—where he was an intelligence officer for the 344th Fighter Squadron. Part of the Aleutians had earlier been occupied by Japanese troops, who had been driven out by U.S. forces. Now the islands served as a staging area for bombing runs against Japan's Kurille Islands. Near the end of 1944, Clair became the chief of the intelligence section of the Advanced Command Post of the 11th Air Force in the Aleutians, and was promoted to the rank of Captain. He remained there until after the war ended, returning to the mainland and his family in December, 1945. The next few months saw him moving to Colorado Springs; then Grand Island, Nebraska; and then to Spokane, Washington, for engineering school; and finally to Rapid City, South Dakota, where he was assigned to the 28th Bomb Wing as the base engineer. One of the peace-time projects undertaken by his staff while at Rapid City, South Dakota, was the design and installation of permanent lighting for Mount Rushmore National Monument near Rapid City. Other events of note that occurred while Clair was stationed in South Dakota included his promotion to the rank of Major, and the birth of his and Evelyn's first child... Michael.

Near the end of 1948, Clair was assigned to the Air Command and Staff College in Montgomery, Alabama, where the principles of command and staff functions were taught. Upon graduation in June, 1949, he was sent to Boulder, Colorado, with orders to enroll at Colorado University. There he entered the civil engineering program, receiving a Masters Degree in August, 1950. A second child—daughter, Kathy—was born to Clair and Evelyn while they were in Boulder.

In the fall of 1950, Clair was promoted to Lieutenant Colonel and sent to Korea, where the conflict between north and south had escalated to full-scale war. He was commander of the First Shoran Unit (short range navigation), and remained in the Korean theatre until March, 1952.

Upon returning to the states, Clair was sent to Louisiana for a few weeks, and then on to Forbes Air Force Base in Topeka, Kansas, as commander of the 5th Shoran Squadron. While stationed in Topeka, a second daughter, Karen, was born to Clair and Evelyn.

The fall of 1953 once again found Clair being sent to school, this time at Ohio State University. The military wanted him to get a PhD in geodesy... but there wasn't a doctoral program in geodesy being offered anywhere in the U.S., so they created one—just for him. After two more years of full-time study, Clair Ewing became the first American to receive a PhD in geodesy. So, you might ask... *what the heck is geodesy?* Simply put, it is the science of the shape of the earth.

In the beginning of the intercontinental missile and space programs, long-range missiles launched over the oceans would behave unpredictably at various points in their flight paths, causing them to stray

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from their intended courses. It was the geophysical scientists that figured out that the gravitational pull of mountain masses on the ocean floor were causing the problem. It was decided that the solution to the problem would be to map the entire surface of the earth—including the ocean floors—and that data would be used in calculating navigational patterns. Hence, the subject of Clair Ewing's doctoral thesis: "The Parallel Radius Method of Solving the Inverse Shoran Problem." This would become the basis for control of America's ballistic missile program and the space program. Eventually it would lead to the development of GPS navigation systems.

While working on his doctoral thesis, Clair was again promoted by the military, to the rank of Colonel. Upon receiving his degree in 1955, he was transferred to Patrick Air Force Base, Florida, where he was Director of Range Development for the Eastern Test Range, which extended from Florida half-way around the globe to the Indian Ocean. He was responsible for the development, installation and verification of instrumentation and communication systems throughout the Atlantic Missile Range. Under Clair's supervision, the test range became the foundation for successful advances in long-range missile programs and development of space systems—vitally important in the "race for space" that dominated the mid and late 1950s.

Even with all the responsibility he had, Clair remained grounded in his family life. He and Evelyn welcomed a third daughter, Patty, into their family during their stay in Florida. And when they were transferred to Virginia in 1958, where Clair would once again be in school at the Industrial College of the Armed Forces, the family would grow again with the birth of their fifth child, Kevin.



Dr. Clair E. Ewing - c. 1970
Scientist and Educator

So, how did an Army ROTC Lieutenant become a U.S. Air Force officer?

In the early days of aircraft development, each branch of service (Army, Navy and Marines) independently organized their own aviation segment. For the Army, it was the Army Air Corps, which was the largest group. Then, in 1941, the Army Air Corps became an element of the Army Air Forces. The National Security Act of 1947 created the Department of the Air Force, which then absorbed the Army Air Forces.

Upon completion of his latest educational assignment in 1959, Clair was transferred to Kelly Air Force Base, Texas, where he was Commander of Detachment One of the Air Force Intelligence Center, a Soviet missile technology intelligence group. After a year there, he moved to California, where he would be Deputy Commander of the Navy's Pacific Missile Range, representing the Air Force's interests and coordinating efforts for Air Force programs conducted on the Navy's range, which extended from California to the Indian Ocean. He personally briefed the Secretary of Defense, the Secretary of the Air Force and the Secretary of the Navy on activities that were important to the national defense.

Another move, back to Florida in 1965, found Clair as Director of Range Development for the National Range Division, where he was responsible for instrumentation and communication systems for both the Eastern and the Western test ranges. After two years there, he returned to California for his final tour of duty at Vandenberg Air Force Base, where he was Vice Commander of the Air Force Western Test Range and director of range resources. He retired in Decem-

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ber, 1968, at the rank of Colonel, after 27 years and 4 months service in the military. He had, indeed, played a unique and vital role in American defense and technology. He was decorated with the Legion of Merit with two Oak Leaf Clusters, in addition to the Bronze Star that he had received for service in the Alaskan theatre during WWII.

Retirement from the Air Force certainly didn't mean that Clair had finished his career. He accepted a position as chief scientist with ITT Federal Electric Corporation at Vandenberg AFB, and maintained a busy association with a number of national and international geophysical organizations, serving in leadership roles in many of them. He was named "Outstanding Engineer of the Year, 1970" by the Vandenberg

Section, Institute of Electrical and Electronic Engineers and was named as the principal delegate of the National Academy of Sciences to the General Assembly of the International Union of Geodesy and Geophysics held in Moscow, USSR, in August of 1971. In addition to writing a number of articles and technical papers that were published in trade journals, Clair co-authored a book, *Introduction to Geodesy*, which would go into four printings over the next decade. He was recognized in *American Men of Science*, *Leaders in American Science*, *Dictionary of International Biography*, and *Who's Who in the West*.



The Ewing family—1965
(front, left to right): Patty, Karen, Evelyn and Kathy.
(back): Mike, Clair and Kevin



Clair and Evelyn Ewing

And, as if that wasn't enough, Clair also taught classes at western military bases and on university campuses in the area. Plus, many Sundays would find him reading Bible scriptures in sessions at the base chapel.

Dr. Clair E. Ewing passed away June 4, 1995, having lived a full and very productive life. He had truly made a difference in the world, but when asked, would always give credit to the support of his family and his faith in God. Evelyn still lives in the California home they bought in the 1960s. And their children, like most families, have scattered — from the west coast to Kansas.

"Ad astra per aspera" — the Latin motto on the Kansas state seal — translates as: "To the stars through difficulties." Appropriately, that applies to the Kansas boy who literally helped to find the way to the "stars." We can all be proud to have Clair Ewing in our family tree.