THE YEAR WAS 1937. Aviator Howard Hughes made headlines and set records by flying from New York to Los Angeles in under eight hours. A few months later, Amelia Earhart disappeared over the Pacific trying to become the first woman to fly around the world.

An inventor filed a patent for a little thing called nylon. Walt Disney released the first feature-length cartoon with sound: “Snow White.” It was a smash hit. Franklin Delano Roosevelt was sworn in for his second term as President of the United States. And a guy named Frank Clement (EE ’37) graduated from Cal Poly in electrical engineering. It was a minor miracle he made it to Cal Poly at all. He and a buddy made a pact when they graduated from high school in 1934 that they’d both go to Cal Poly.

“The Great Depression was on,” Clement recalled. His father, a cotton sharecropper in the San Joaquin valley, was bedridden. “I wanted to go to college, but I had to stay home and take care of the family.”

Through 1934 and 1935, Clement worked the family farm during the day, plowing fields with their mule team and hiring out to drive a tractor on neighboring farms when he could. “I figured out later I made about 12 cents an hour,” he joked.

The only thing Clement did for fun was get on his amateur radio set in a shack behind the family farmhouse. “I’d look for people up and down the valley to talk to,” he said. One day he heard a familiar voice – his high school buddy. “He said I had to get over to Cal Poly right away, because there was a job open on the Cal Poly farm. Mom drove me over in the old Dodge the next night.”

Clement worked on the campus farm shoveling out hog pens, baling hay and milking cows in the summer of 1935. That fall, he was admitted to Cal Poly. He found a job downtown as a repairman in a radio shop and lived on campus in Heron Hall. Clement worked on the campus farm shoveling out hog pens, baling hay and milking cows in the summer of 1935. That fall, he was admitted to Cal Poly. He found a job downtown as a repairman in a radio shop and lived on campus in Heron Hall.

Clement graduated with a two-year certificate in 1937 (Cal Poly was not yet a four-year college and wouldn’t launch its bachelor’s program until 1940). Clement went to work for Shell Oil and then PG&E. He worked the night shift as he could pay his way through UC Berkeley and earn his bachelor’s in electrical engineering in 1943.

“I got my degree and I was married and in debt with a one-year-old son and just about to have a mental breakdown – boy that was a hard year – and I decided I needed to take the highest (pay) offer I could get,” Clement recalled.

The highest paying job offer came from a brand new outfit called Hughes Aircraft, founded by that aviator fellow Howard Hughes.

Clement was hired to be on a team of nine engineers designing the Spruce Goose for Hughes. World War II was on, and the government wanted a giant military cargo plane to fly supplies to Europe. The catch? It couldn’t be made out of metal. Supplies were scarce. Clement and his fellow engineers were asked to create the airplane using wood.

At one point in the project, Clement headed a special team assigned to engineer solutions to problems posed by super-gluing super-pressed plywood to make a flight-worthy airplane – and report their findings to the U.S. government in order for Hughes to keep its contract.

Watch the Oscar-winning film “The Aviator” for the whole story – but, as Clement points out with pride, “The Spruce Goose did fly”! And, about that aviator guy – Howard Hughes? “I didn’t get to know him, no,” Clement said. “He was kind of reclusive. He really didn’t have much to do with anybody but the chief engineer – who was a very bright fellow.”

Any alumni who are interested in learning more can look up Clement’s PolyLink page (look up Frank Anthony Clement) and send him an e-mail or find out about his books. His first is about the story of the Spruce Goose.

“I check my e-mail every day,” he said. He’s looking to connect with more of his 1936 and 1937 classmates online in PolyLink.

“Howard Hughes would be the only one of us left that I know of from the Class of ’37 electrical engineering program – the rest have gone on to Valhalla, I think.”

At 91, he’s had quite a life. As Clement notes: “I’m kind of a poor boy-made-good story.”