

**CALTRANS ORAL HISTORY - EDITED SUMMARY
BASED ON MY SEPTEMBER 10, 2010 INTERVIEW WITH CARL ZANDER
BY GUY LUTHER**

Born in San Bernardino, California, Carl was the only child of a Boy Scout Executive father and a mother who gave up teaching to be a housewife. Carl's father was an excellent athlete, who had been an artillery spotter in France during the first World War.

Stories of Carl's childhood often involved the experiences he and his father had while sailing between San Pedro Harbor and Santa Catalina Island, or hiking in through the snow to open the Boy Scout camp in the San Gabriel Mountains. According to Carl, neither he nor his father could catch a fish with a death wish in the Ocean. But they did catch fish from the Kern River. One story Carl likes to tell has him doing everything wrong (including falling in the stream) and his father doing everything right (including pulling Carl out), and Carl ends up catching a much bigger fish than his father. Unfortunately, I think Carl's father was more disgusted than proud.

Carl started school in San Pedro, California, and graduated from Inglewood High School. He wanted to be an electrical engineer, so he went to UCLA where he majored in engineering, and was a member of the Tennis team. While Carl did not inherit all of his father's athleticism, he did get great reflexes and timing.

Carl, by his own account, was not a particularly motivated student. High school had been easy, but being an engineering major at UCLA was not. After the attack on Pearl Harbor, Carl quit school and went to work at the Northrup Aircraft plant. He intended to join the service, but he wanted to earn some money so he could go back to school when he left the service. He worked at an assembly station where he and another worker assembled engine mounts for B-17 planes. Carl liked Northrup, and speaks highly of their aircraft, particularly the P61 "Black Widow" produced during the latter part of the war.

Carl liked ships, so he joined the Navy after 9 months at Northrup. The recruiter noticed that Carl had attended college for over a year, and encouraged him to take the test for "Aviation Radio Technician". This is what they called Radar Technicians, as radar was a war time secret at that time. Carl passed the test, and after two weeks of basic training at San Diego, he was off to Texas A & M for three months of electrical engineering training. He then asked for shipboard duty, so of course the Navy then gave Carl six months of advanced airborne radar training at Corpus Christi, Texas. Then he asked for European duty, so he headed to the Pacific. It was off to San Diego, California (Camp Kearney), and Hawaii for squadron training.

He was the reserve radar man on a crew based on Tinian (Marianas Islands) , and worked primarily on radar maintenance while the planes were on the ground. Carl's next stop was Leyte, farther west in the Philippines, then to Mindoro, where he was assigned to a crew as a radar man. His unit was part of a Navy patrol bombing squadron that flew PB4Y-1 (B-24) bombers on long range reconnaissance and bombing missions. Missions were generally to French Indo-China (Vietnam), about a 2,000 mile round trip out and back, plus about another 300 miles of search flying just inland from the French Indo-China Coast. They flights were single plane missions.

After his discharge from the Navy, Carl resumed his engineering education at UCLA, but was discouraged by a talk given by a professor visiting from the University of California. In the professor's opinion, there were going to be too many engineers, and only about the top 10% of the students would be hired as engineers. The best the rest could expect was a job as a draftsman. And, engineering pay would be so low that a person would need to advance to engineering management to support a family. On the basis of that talk, Carl quit school again, and moved to the Bay area, where he got a job in the telephone company's long-distance toll office in Oakland.

While he was in the military, Carl had been corresponding with a girl he knew from high school. Her father had quit his job as a manager for Montgomery Wards, bought Mathews Music Store in Eureka, California. After a commute courtship, the two married. Shortly after the marriage, the couple moved to Eureka so Carl could help his father-in-law run Mathews Music Store and the stationary/book store (he later purchased Lincolns).

Retail sales didn't pay that well, and being the assistant manager for your father-in-law's store can be a little touchy. And, Carl had three young daughters to support.

In 1957, a Division of Highways employee named George Young came into Lincolns to buy a slide rule, and wondered how Carl happened to know how the scales worked. Carl told him he had a couple of years of education in engineering. George asked him why he didn't work for the Division of Highways. Carl didn't think he had a chance of getting a job in engineering, but he took the Engineering Aid II test, passed it, and was appointed to a position in the Traffic Department, which he enjoyed much more than working in his Father-in-law's store.

In the Traffic Department, Carl worked in Signs and Stripes, where they designed signs and determined the striping configuration to be used for each section of State Highway. He also did accident investigations, to see if safety improvements were warranted. Carl enjoyed working in the Traffic Department, and found his fellow employees both friendly and supportive.

Carl's boss when he worked in the Traffic Department was Norm Worley. Carl said he got along fine with Norm, but that his cigars were rather overwhelming when they rode in a car together. The Cigars must not have bothered Norm much, since he only recently passed away at the age of 99.

Carl transferred from the Traffic Department to the Design Department in the early to mid-1960's. He describes highway design as trying to fit a highway into the terrain, balancing out the cuts and fills, while keeping the curves and grades within reason. The result should be a smooth highway that people can drive easily.

Carl was working there as a Highway Engineering Technician I, when a new ruling came out that people in this classification would be promoted to Assistant Highway Engineers when they passed the "Engineer in Training" exam. Carl had previously passed that exam, and so he received that promotion.

Generally speaking, people who lived through the Second World War are more comfortable with typewriters than computers. However, Carl has always been fascinated with science and new technology. Through the transition from mainframe (punch card) to remote terminals, to personal computers, Carl embraced computer technology during his career at Caltrans.

Carl even went to the extent of modifying a computer program so the printout would satisfy his immediate supervisor. The computer program initially rounded to two decimal places, but his supervisor wanted the numbers carried out to three decimal places, so Carl changed the program.

Carl noted that the computer has made a tremendous difference in the way we work, and has saved an enormous amount of time on otherwise tedious tasks. However, there were growing pains along the way. Carl remembers a computer program that, when you used a certain type of bench, changed all of the fills to cuts, and led to enormous errors. The program was developed in Sacramento, but they weren't that interested in fixing it. Their response was "well then you better stop using that kind of bench".

In the mid-1970's, Carl moved from Design to Transportation Planning for two or three years. As the Transportation Planning representative for Lake County, Carl wrote the Planning Report for Lake County for two or three years. He was impressed when he found out that Lake County was really using the Report to decide which roads to improve, giving the County Engineer a little leverage with the Board of Supervisors.

Carl transferred back to Design, where he continued until his retirement in 1996, after 29 years of State service, almost all of it at the District Office in Eureka. Carl would

have liked to work a few more years, but both his wife and the daughter were very sick, and he needed to be home to take care of them.

When asked about changes that the Division of Highways/Caltrans went through during his career, Carl noted three topics.

First, that computers have been a decided plus, and have changed workplace processes dramatically.

Second, that Caltrans is paying a lot more attention to the environment. While he considers this to be an improvement, he thinks that sometimes we pay too much attention to the environment, and waste resources.

Third, Carl feels that Caltrans lost a lot of really good people during the layoffs (circa 1975), along with part of our future. He's not convinced that Caltrans has fully recovered from that, since people who now would be in the upper echelons of Caltrans didn't return when they were offered their jobs back.