Mines and Airplanes: A Reminiscence

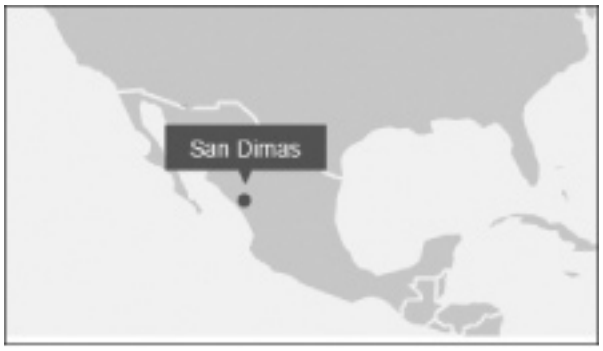
By
Eleanor Swent

Mining history and aviation history are intertwined in the story of the San Luis Mine in the Guarisamey-San Dimas district of northwest Mexico, on the Piaxtla River, which empties into the Gulf of California at Dimas, forty miles north of Mazatlán.

The Piaxtla River cuts through mountains, and for centuries the only access to the mine was by a narrow and precarious trail cut into the side of the river's canyon. Mules carried people and supplies for four days or more from Dimas northeast to the town of Tayoltita and the San Luis mine, where our story of aviation and mining begins. Long before that, there were mines in the Guarisamey District significant enough to be noted by Baron Alexander von Humboldt in his account of his visit to Mexico in 1803. He mentioned the "very old mines" there and listed them as one of the major sources of the country's riches.[1]

More than two centuries later, in 2023, the San Dimas mine is still active in the Guarisamey district. One of the companies that purchases its metals reports:

> The San Dimas deposit is located on the border of Durango and Sinaloa states and is considered to be one of the most significant precious metals deposits in Mexico. The mine is owned and operated by [Canada's] First Majestic Silver Corp.... The district comprises of over 100 epithermal bonanza type mineralized gold-silver veins.... The mine is a low-cost producer of gold and silver, is situated within a very large (15 square kilometre) mining district, and has been in continuous production for well over 100 years. Historic production has been estimated to total 11 million ounces of gold and 582 million ounces of silver.[2]



In the intervening years, the Guarisamey mines had been visited by engineers and potential investors from Spain, France, Great Britain, and the two English-speaking countries to the north of New Spain. The visitors were men who stayed for a few months or years measuring and examining the silver and gold deposits.

It was not until 1915 that James Waterman Swent, a graduate of the Michigan School of Mines, brought his courageous bride, Ursula Langan Swent, and they remained to raise their two sons in the district. In 1947, one of the sons, Langan Waterman Swent, by then an adult and, like his father, a graduate mining engineer, returned with his bride, Eleanor Herz Swent, to be welcomed by the community that remembered him as *el niño Americano*, the American boy. They were called, behind their backs, "los Swents Chicos" (the Junior Swents) and she was "la Senora del Niño" (the boy's wife).

On 7 September 1947, Eleanor wrote to her college friend Edith Kynor Sprouse:

We flew down to Mazatlán, flying most of the way along the Gulf and the indescribably green coastal plain. It really is the most brilliant color imaginable, and we flew over the very richest gardening section, where were enormous fields of cane and tomatoes. The foothills are about a hundred miles inland, and the plain is absolutely flat, with meandering rivers that make circles of tan out into the gulf.

The flight up here [to Tayoltita] is magnificent. Mountains go up to 8,000 [feet] but the plane never goes over 6,000. You see enormous peaks whizzing by each shoulder, and then you glance back and see the tail just barely missing the ridge below ....

It's really arid topography, although at this time of year it's all covered with green. The plane follows the valley of the Piaxtla River, until it comes to Tayoltita. Then it gives a sudden bank and goes zooming straight down—I was so scared my stomach simply turned over.

Years later, Langan Swent recalled the development of air service to Tayoltita:

They started trying to build the field in 1929. There was a cornfield upstream from the mill. They used scrapers and had a level space that was about six hundred feet long and maybe two to three hundred feet wide .... At the far end was a big cliff, and it went straight down to the river.

A fellow named O'Donnell owned a Waco biplane and tried to land on it and the field wasn't long enough, so to keep from going over the end and down into the river, he locked his brakes and turned the plane up on its nose. It had a wooden propeller, and this broke the propeller .... He had to send to Los Angeles for a new propeller. It took about a month for it to be made, get shipped, ... and come in by muleback.

He finally installed it and tried the landing again, and he had the same result. He had to lock his brakes and turn it up, and he broke the propeller again! So, he had to spend another month there ....

They didn't really know whether a plane could land uphill. So, on one of his trips up to the States, Dad [James Swent] went out to Crissy Field in San Francisco and told the general the problem. The general sent for this young officer, Lieutenant Doolittle, and he said, "I'll go out and find a place where there's a grade and I'll see if I can land on it." He did, and he came back and reported that it was feasible to land on a grade of around 6 percent. So then they went ahead and designed the field that way.

(Lieutenant [by then Lieutenant Colonel]

Flying through La Sierra Madre Occidental en route to Tayoltita. (Author's Photo.)

James Doolittle was the pilot who became famous in World War II for leading the first U.S. bombing attack against Tokyo.)

[The field] had to be extended and they used the tailings from the mill as a source of fill. The tailings amounted to maybe three hundred tons of solids a day that came out as a slurry that was pumped up and allowed to dry out.

There was a pioneer American airline in Mexico at that time, called the CAT (Compañía Aeronáutica de Transportes). Dad got them to try a landing there late in December, just after Christmas. The field was now about a thousand feet of 6 percent grade runway and then maybe six hundred feet of flat runway.

The whole town went over to the field, hundreds of people, and sat on some observation benches along the side of the flat part. The plane came in, a very slow, high-wing, single-engine plane, called a Ryan Brougham. It circled the field a couple of times and then went down the river a ways, turned around and came up the canyon, and came down to land. He had only used about two or three hundred feet of it to land. With the grade helping him—he was landing uphill—he had stopped early and he wondered why there was nobody to meet him, and everybody was up at the other end of the field!

The landings in Tayoltita can only be made in the early morning, because after the sun gets up and warms the air in the canyon it becomes very turbulent. It is quite risky to fly in this narrow canyon in that turbulence. The turbulence exists right down to ground level. The airfield was only one runway wide, and with these wind currents, if you happened to be in a downdraft at the wrong moment, you might crash into the mill instead of making it up to the field.

They limited the flying to the hours from the time after it got light until maybe 9:30, 10:00 in the morning when the winds begin to spring up. Sometimes, especially in late December, we would have three-day windstorms. The wind would start blowing at 5 or 6 a.m. and blow all day. This meant that planning a trip with an exact starting date was a matter of luck.[3]

At first, the basic aircraft serving Tayoltita was a Lockheed Vega. Then the company bought a large, single-engine Bellanca Airbus. Later, Cessnas and Stinsons were commonly used to transport people and limited cargo, primarily mail.

On 10 December 1948, Eleanor wrote to her parents:

The field here demands a plane that can land in a short distance and can rise immediately on the take-off. A light plane, like a Piper Cub, or a Stinson Cruiser, which lands at about 40 mph and can rise quickly, is ideal. They now have a Stinson Cruiser which until this week had a private license only, and now has a commercial license. This means that it can carry mail and if someone like me has to go out to get a tooth filled, they will charge. The plane is kept here and the pilot lives here. It makes it much more convenient.

San Luis still needed a plane large enough to bring in equipment and supplies, but could also land at a slow speed. The one plane that filled the bill was made before 1928, by Ford: a tri-motor airplane sometimes called the "Tin Goose." After a search, the San Luis Mining Company bought a terribly corroded one in Florida for five thousand dollars, which included the cost of flying it out to Los Angeles. The company then spent another sixty thousand dollars getting it into shape: recoating and covering the wings, painting it, revamping the motors, and putting in bucket seats. Its huge wheels did not retract, and it became known as "La Tortuga de Tayoltita," the Tayoltita Turtle, as it crawled through the air.

Eleanor's letter of 10 December continued:

It will be ready, they say, about the first of January, and then we can have a regular passenger, mail and cargo service once again. Now, Pancho Ferreira [a local rancher] can handle passengers, and mail is getting in occasionally, but all second class and cargo is coming in, if at all, by mule from the coast. Naturally, there's a lot of loss. We haven't had a newspaper or a magazine for weeks and weeks—the last NY Times *was for October 26.*

It took some time to get all of the necessary permits, but on 19 May 1949, she wrote to her parents:

We heard Monday afternoon that we had the mail contract, and then had to wait until Wednesday. Then there was so much that it took them until nearly noon just to load the burros and get it taken down from the airfield, and they didn't get it sorted and up here to the Colony until just a few minutes before 5. We spent a lovely evening poring through all the letters, magazines, and newspapers.

Over the years, several pilots who flew successfully to Tayoltita went on to become legendary in Latin American aviation history. Lowell Yerex was instrumental in the growth of Central and South American aviation, ultimately selling his company to Varig. Gordon Barry formed his own company, LAMSA [Lineas Aéreas Mineras, S.A.; Mines Airlines] that became part of United Airlines, linking both aviation history and mining history.

Eleanor Swent was born in Lead, South Dakota, home of the Homestake gold mine. Her mother was a geology major; her father, father-in-law, and husband were mining engineers. She has degrees from Wellesley College, Denver University, and the South Dakota School of Mines, and is a past president of the Mining History Association. She directed the "Western Mining in the Twentieth Century" project at the Oral History Center, University of California, Berkeley, and is now retired. Her book, One Shot for Gold: Developing a Modern Mine in Northern California, *is published by the University of Nevada Press (2021).*

Notes:

1. Alexander von Humboldt, *Political Essay on the Kingdom of New Spain* (John Black, trans.), London: T. Davison, 1811, v. 2, bk. 4. Tayoltita lies approximately sixty air miles northeast of Dimas.
2. Wheaton Precious Metals Corporation (Vancouver, B.C., Canada), "San Dimas, Mexico," (www.Wheatonpm.com). Wheaton purchases gold and silver that First Majestic extracts from the San Dimas Mine.
3. Langan W. Swent, "Working for Safety and Health in Underground Mines; San Luis and Homestake Mining Companies, 1946-1988," (2 vol. transcript of oral history conducted by Malca Chall, 1987-1988, 1994), Regional Oral History Office, Bancroft Library, University of California, Berkeley, 1995, 62ff.