A Reminiscence over Old Airplanes

Three generations of personal flying adventures and surprising historical revelations about the post-WW II General Aviation industry

Fred T. Martin

(Second Edition: Revised 2022)

My father, left, with a Cessna 140, 1946.

My special thanks to Babette Andre´ for an editing review of my first edition.
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The hostess at the Las Vegas, Nevada airport, 1946 Frank Martin

To third generation aviators:
my daughters,
Elan, who flew beside me, and **Cherie,**
who inspired me to write this with her interest in taking flying lessons.
It is a thing that few experience in their lives: flying aloft by their own hand.

Elan, Cherie, and me with a Cessna model 172 Skyhawk.

1968 Cessna model 320 Executive Skyknight (one of Dad's favorites). Cessna press release photo

Editor's Note:
To explain the rather complex layout of this content page:

This book interweaves themes of both personal and historical perspectives by presenting common personal flying experiences that many pilots will relate to, set alongside historical accounts of the development of the General Aviation industry that made this experience of safe, routine personal aviation possible and accessible for so many around the world.

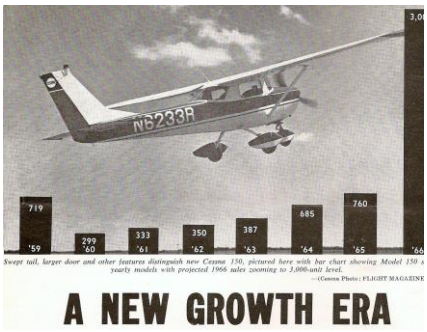
Those themes are:

-Personal Reminiscences;

-The Old Airplanes;

-Parallels in the History of General Aviation.

Specific airplanes are identified by their registration call-numbers.



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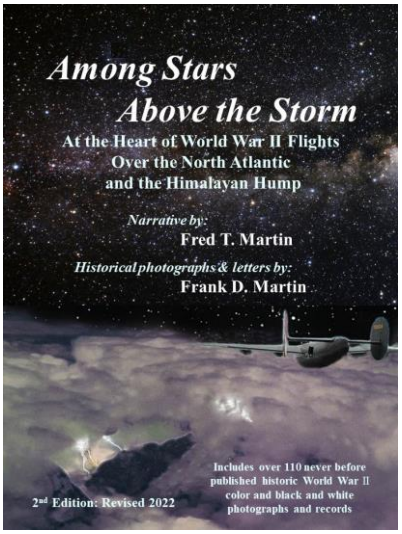


I write this to continue a history I began in another book, ***Among Stars Above the Storm***, (1) a story of pioneering World War II flights across the North Atlantic delivering B-17 bombers to the war in Europe, and flights in the treacherous India-China Airlift over the Himalayan "Hump." That book comes to a close at the end of World War II when my father, Frank D. Martin, returned from war and took a job offered to him by a fellow Hump pilot, as a regional sales manager for the Cessna Aircraft Company. Those flights in World War II were only the beginning of his historic career in aviation. So, the story deserved to be continued for the larger story of how the heroism of the war opened the door to new opportunities and possibilities in aviation for the future.

Because of these two books, the Selection Committee for the Kansas Governor's Aviation Hall of Fame inducted my father, Frank Martin, into the Hall of Fame. That honor and recognition very much validated the significance of this history and these stories.

Dad was the first generation of our family to fly airplanes. I, along with my brother and sister, were the second. My daughters are of the third. My flights in small aircraft, though personal adventures, are routine and prosaic as it is for most private pilots. They were not the pioneering flights of my father and his associates in the war and throughout the development of General Aviation. Yet, the one made possible the other, and that is my premise in these stories. Growing up in Wichita, Kansas, "The Air Capitol of the World" (as we Wichitans like to say), I was a young boy often surrounded by aviation industry leaders. I toured with my father through factories and secret aircraft development hangars. I had flying lessons from notable aviators. I witnessed firsthand some history behind the building of the airplanes that are flown routinely throughout the world on a daily basis. Some of what I witnessed as a boy immersed in flying culture, does deserve to be told. So, on one hand I tell personal stories as a private pilot; a user of the product, a light airplane, and in parallel, I discuss some histories of that product's development.

These stories are relatable experiences for aviation enthusiasts and thousands of light aircraft pilots. Flights in personal airplanes are described in often humorous ways and sometimes as cautionary tales for new pilots as well as experienced pilots with reminiscences about their own adventure of flying.

Let me begin these reminiscences with a prologue story of a mid-summer's flight that combines one of my own personal flying experiences seated next to my dad, with a piece of aircraft development history. It was an evening flight across an awesome Kansas sky in a twin engine Cessna; a brave, beautiful lady that saved our lives that day, Zero Seven Tango.

Prologue

Cessna Zero Seven Tango: An Airplane that saved many lives (and nearly died doing so)

Zero Seven Tango was a factory-fresh Cessna model Three-Twenty (320). She was an incomparable beauty, with a stylish, sweeping stance on long tricycle gear. She had an alluringly shaped tail, and a perfectly sculpted nose, sharp, graceful, sophisticated. Yet, the appreciating eye was first drawn to her conical camber wingtip tanks, canted at a striking upward poise to form a soaring, delicate structure of aerodynamic balance. Those were her standout dihedral features; the sublime shapes that captured the admirer's infatuation. But there were also those twin, proud and pert nacelles, thrusting far out ahead of her leading edges. They rounded forward past flaring, ovoid intake nostrils, to the tips of her bold spinners that enclosed the hubs of her full-feathering, constant speed, triple-bladed propellers. These were mounted on the drive shafts of 285 horse power, turbo-charged Continental engines. This was an airframe that promised enthralling flight, even when she was standing still, waiting for those select few who were privileged to board her.

This particular Three-Twenty "Skyknight" was appareled in an audacious, yet sophisticated orange stripe design that swept along her slender fuselage and accented the flow of her windswept tail. Gracefully, she was entered by retractable steps up to a walkway atop the right wing, into a wide door. Her interior was appointed in soft, muted tones of top grain leather upholstery with racy orange trim to match the exterior striping. The cabin was awash in plush orange carpet, leather headliner, and solid walnut trim. In the front office, on the control panel, was the full suite of the finest late-sixties technology "Nav-O-Matic" avionics. High performance flight was sublimely managed with this equipment. On climbing out after take off, with throttles set at appropriate manifold pressure and rpm settings, a flip of the "synchronizer" switch melded those two Continental engines into one 260 mph assured fluid movement through the sky. When the "Master" switch was engaged, the Three-Twenty steadied herself in coordinated flight, and the pilot's hands were no longer required on the control yoke. As the altimeter wound up to the desired flight level, a flip of the "Alt" switch would command this vaulting mistress to capture and maintain her altitude assignment within plus or minus twenty feet. Then, by tuning the nav radio to the desired destination and engaging the "Nav" switch, she would simply and effortlessly fly there, even if the pilot were to fall asleep, or turn to a rear seat passenger for a hand of gin rummy, my father's favorite card game. Dad was known to have done both at times (sleep, and win card games), while in flight.

Zero Seven Tango had all the luxury options offered by her maker, Cessna, in the model Three-Twenty. When the secretary of the Vice President of Marketing called the Cessna flight department to request that an airplane be readied for the VP's travels, it was just such a fully-loaded unit that they would pull off the flight line and prep for the trip. That was for better reason than to merely assuage the boss's ego. When Dad flew out from the Wichita factory in a new Cessna, he never missed the opportunity to demonstrate and show off the airplane to prospective customers. My father liked to give a good showing, and he was very good at it. As a result, he sold a great many airplanes.

It was on a sunny August morning that we boarded Zero Seven Tango in Montreal, Quebec, for the flight home to Wichita. As with most of my flights with Dad during these halcyon days of my youth, the trip had been a mix of business and family vacation. All of the six seats were occupied, and with luggage piled behind in the rear of the cabin, and in the airplane's wing lockers, we were fully loaded. I was up front with Dad. My best friend, Giffy Booth was in the second row next to his mother Natalie who was the wife of Cessna's Director of Advertising. In the back, were seated my stepmother Binnie, and my sister, Binnie Brook. I was age twelve, Binnie Brook was five. For Dad, it had been a working

trip, meeting with the eastern Canada Cessna distributor and salespeople. For the ladies, it had been a couple days of touring and shopping in Montreal. For Giffy and me, it was our standard adventure, as we had shared before on other such trips, of carousing around the hotel, pool, and the streets of another city far from home.

Flying out of Canada, it was a seven-and-a-half-hour flight back to Kansas including a stop in Detroit to clear customs. As the long day turned to the pastel shades of early evening over northeast Kansas, one of those majestic and awesome prairie squall lines stood up before us, rising to the troposphere. It was not yet insuperable. There were holes and great corridors beckoning us toward the other side. We were without oxygen on board, so had to remain below twelve thousand feet. But that was of no matter. Even if we had ascended to the Three-Twenty's 28,000-foot service ceiling, those cloud canyons would still have risen thousands of feet overhead. I had been to this ethereal place before with my father on other flights. It was like an entrance to the vast halls of Heaven, through corridors of breathtaking beauty, whose fancifully architectured walls lofted overhead, beyond sight, that were ephemerons of flashing and fleeting pastel lights; a corridor which would befit the city of God. The Three-Twenty soared on, wending its way through these gigantic catacombs of soft and violent glowing color. The Skyknight, with our family cargo, was just a tiny bird scurrying amongst these Titans. Dad maneuvered the airplane to and fro, hoping to avoid their notice, but at times he inadvertently teased at their flowing white beards with the airplane's stiletto wing-tip tanks. That seemed to annoy the Titans. The evening pastels were trending toward shades of seething green and angry grays.

Abruptly, rain started to beat a mesmerizing rhythm on the windshield and water streaked up the windows in the fascinating way water does when driven at over 250 miles per hour. The rivulets crawl in pulsating rows of droplets along the plexiglass, clinging and dancing along, resisting, but finally losing their grip, torn off into the tumultuous airstream. Then, suddenly, explosion! Hail! Kansas hail! It was machine guns on the windshield. Dad pulled back on the throttles and slowed to maneuvering speed. He braced in concentration. The pounding noise on the windshield was deafening. Dad reached over and patted my head, then he patted the top of the control panel and made a lowering motion with his hand. It was clear he was telling me to get my head and my eyes below the control panel in case the windshield failed. I began to ponder the possible effect of horizontal hail bulleting through the cabin. Wild rolls ensued as one wing would drop out while the other was caught in updraft. It was one of flying's worst monsters, the convective storm, with immediately adjacent air columns moving at hundreds of feet per minute, one up, the other down, then reversing with the forward movement of the airplane. Yet, Dad continued with my flying lesson. He pointed toward the "DME" instrument (Distance Measuring Equipment) that electronically calculated true ground speed from a ground-based radio station. It was reading five miles per hour! That spoke of an almost three-figure mile per hour headwind! We were stopped dead in the teeth of this storm, despite our howling Continentals. Those teeth were gnashing at the Three-Twenty as a carnivore rends its prey. The machine guns continued.

Then, after who knows how long, a short time really, and just as suddenly as it had all begun, the teeth of the storm lost their grip, and we were flung out into the breathtaking serenity of calm air in the midst of Kansas thunderheads lit in the glorious colors of the western sunset. The Three-Twenty steadied herself. The engines resumed a synchronous hum. We flew on and landed in Wichita at the Cessna Delivery Center. Mechanics met us on the ramp and walked around the airplane in obvious amazement. One wondered how it had been flyable with such blunt leading edges. The other pointed out how the port nacelle air intakes were chewed away and the cowling had begun to peel back. *"Don't know if those engines would have kept running uncovered; hail mighta taken the wiring out,"* the one

said. The tips of the fuel tanks were splintered, the prop spinners were smashed, the rudder was serrated. Our glamorous Zero Seven Tango had been reduced to rags, and now sat in tatters.

The damaged parts on that Three-Twenty had been fabricated of fiberglass. It was a new, lighter-weight, cost-saving manufacturing innovation. Fiberglass was easily molded into any shape, thus saving the production costs of laboriously hand-forming aluminum parts to the complex shapes of the sharply curved and conical components of the Skyknight's exquisitely sculptured design. Zero Seven Tango had been one of the first production airplanes with fiberglass molded parts. Therein lies an inscrutable twist to the story of this incident. Was our flight into that storm an accident, or a demonstration? Weeks before this flight, a company engineer had met with Dad out of concern for the fiberglass production process. He was afraid people would be killed in this Cessna, since the fiberglass material would not be strong enough for flight conditions that the high performance Three-Twenty was capable of encountering. Dad took up the issue with fellow management. During these years, he too often had to engage in debates with them on such concerns. As he told me in later years, he had grown weary of having to champion safety and quality issues. The familiar fight ensued with the President and Chairman, and Dad was out-voted on the fiberglass issue. Yet, after our flight from Montreal, when the damage we did to Zero Seven Tango was analyzed, Three-Twenty production was recalled, and thenceforth the airplanes were built with traditional aluminum leading edges.

Did we save the lives of other Three-Twenty pilots and passengers that evening? The answer is probably, yes. Had Dad found his way to win the fiberglass argument? If our flight into the storm had been intentional, then I have wondered this: with three kids, wife and friend's wife aboard, did he find more than he bargained for inside that Kansas storm, or did he find precisely what he was seeking as he surveilled those cloud canyons that evening? No pilot expects to find flying pleasantries inside Kansas thunderheads. That was my dad though. He was undeniably competent, and yet at times, impulsive in his self-confidence. So, while some wondered about it, few could question his judgment. After all, our pilot that evening was my dad, a Hump veteran, recipient of the Distinguished Flying Cross and Air Medal. When he flew four-engine transports over the Himalayas in World War II, far worse flying conditions were an almost daily routine. My father knew his way around the sky.

Cessna Model 320 Skyknight. Cessna press release photo

Introduction

Generations of Personal Flight

My reminiscences over old airplanes begins, and will end with tales about my father and the Cessna Three-Ten (310) and Three-Twenty (320), but the writing of this was prompted by my daughter, Cherie, when she expressed interest in taking flying lessons. So, this is a multi-generational account of a family's use of personal aircraft.

I flew because my father flew. Yet, my experience with flying did not reach the same heights as his, or of other aviation pioneers. Accordingly, my stories are more prosaic than those found in most books about flying. In my flying of single engine Cessna airplanes I never flew heroic wartime missions. I never flew farther or higher than any pilot before me, and I never flew to places never before seen by human eyes. Mine are every day stories, shared by many people who fly light aircraft. That is why they can be relevant to my reader's interests. Many thousands of other pilots, besides myself, also flew because my father flew. It was his dream to share personal flight with others, and that is what he helped to accomplish, on a global scale.

This experience of personal aviation has been shared by thousands of others. Personal flying, termed "general aviation," is the opportunity for someone of average abilities, with average means, to fly at will with their own set of wings. It is an experience of personal achievement and freedom that is historically unparalleled. It was the fulfillment of a very ancient and powerful human dream. It is an ageless yearning that has been only very recently realized by our species, for the first time, by the common person. At last, for many, it satisfied humankind's ancient envy of the birds.

Humans have always admired the sublime confidence of birds as they soar upon unseen thermals. With subtle flare of wingtip, an eagle makes an unconscious turn in order to regard all that arrays to its eye below. That aerial vantage point excels the view and freedom of all ground dwellers. Humans in all generations have looked up in wonder, wishing to do the same. Yet, it seemed an eternal conundrum. The air that we breathe and sustains our life, offers little resistance to falling, and we face death in a fall from even a diminutive height. We are such fragile, heavy, and clumsy creatures to think of venturing aloft into the thinness of the atmosphere. Yet, after millennia of study, the design of a light weight cambered airfoil was finally worked out. With the advent of the machine age, that structure was combined with a source of thrust, an engine, providing continuous forward motion. As the thin air was accelerated over that wing by the engine, it became a fluidic, supportive and substantial surface. Then, the principles were discovered and calculated to precisely balance those components and forces. Controls and rigging were borrowed from the birds, and sailing ships, to direct that balanced motion in three dimensions, or "axes". Horizontal hinged tail surfaces controlled pitch, a vertical rudder controlled yaw, and opposite moving ailerons on the wings rolled the craft on its longitudinal axis. With all that accumulation of art and science, the thin air could be made to bear aloft tons of people and payload, at high speed, in sublime comfort even, to all the far reaches of the planet. It required the ponderings of thousands of generations of our kind, to master those innovations of the birds, in order to stop falling and start flying.

Personal flight has been sought after since prehistory, yet it is a very recent invention. Powered, controlled flight was not achieved until 1903, just beyond present living memory. The original inventors of the airplane had altruistic and poetic aspirations for their invention. They envisioned a flying machine that would rapidly connect people and cultures in global peace and prosperity. Airplanes have achieved that. They have been used as public mass transportation, freighters, luxury liners of the sky, and for many other missions. Yet, almost immediately, the flying machine was applied to war. The entrepreneurial

Wright Brothers found their first customer in the United States Army. Another great inventor of the airplane, a Brazilian who worked in France, Alberto Santos Dumont, was the first to demonstrate a heavier-than-air flying machine in Europe. Late in his life, he suffered from Multiple Sclerosis (as did my father) and committed suicide when he saw his magnificent creation turned to war. Historical aviation figures often derive heroism from just such a sensitive, poetic soul. So, notwithstanding the use of aircraft in war, personal flying for work and recreation, individual triumph and adventure, is a thing of poetry and grace for those who pursue it.

My father played a central and historic role in the realization of that dream of personal flying. The world war that he returned from prompted explosive development in aviation. Yet, many barriers remained to achieving this dream for those of average means. Costs, aircraft availability, and the challenging nature of the machine itself, complicated the recruiting and training of the thousands of new pilots that would be required to support a major post-war aircraft industry. Dad was a leader among those who worked to overcome these barriers during the years of his involvement in general aviation between 1937 and 1973.

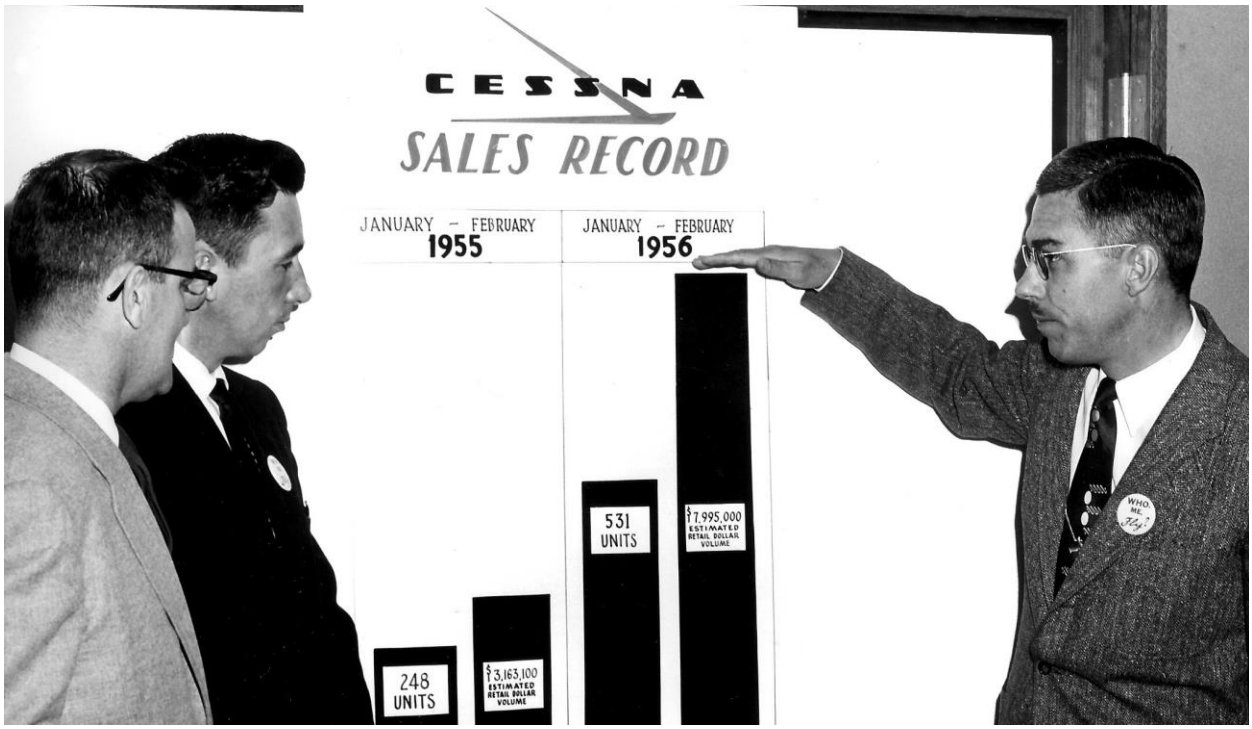
Cessna President, Dwane Wallace, expressed the challenge this way in a 1953 Cessna advertisement, the year I was born:

"Cessna history extends through 42 of flying's 50 years, and through it all we have had just one dream, one aim, to make flying so safe, so easy, so comfortable and convenient, that the business airplane would become as useful as the business automobile."

Inspired by my daughter's interest in flying lessons, I write of one family's multi-generational experiences with private aviation, and how such lofty experiences were made possible for thousands, when a World War II air warrior along with artists, engineers, and other true believers, made possible the dream of personal flight for so many. My own rather prosaic experiences as a small airplane pilot, common to thousands of others, are woven in with some history surrounding my father and other luminary aviation figures, along with a few aircraft development particulars, witnessed as I grew up in Wichita, Kansas, the son of a key Cessna Aircraft Company manager.

As well, there is a broad-brush marketing tutorial here. Many businesses follow patterns of growth similar to that of this story. Initial sales establish the product's marketability. Sales are then multiplied and market share is captured. Then, new markets and new customers are created to sustain further growth. Next, national and global sales distribution networks must be built to move ever increasing product volume. Eventually, political and public policy must be fostered and then controlled in order to promote growth and assure that it is not limited by politics. Throughout the process, competition drives technological development. Personal career growth proceeds in parallel. The salesperson becomes sales manager, then marketing director, and then must fill the role of general policy manager and political lobbyist, all the time striving to remain close to the product and customers he or she initially fell in love with. I write about this process from the perspective of both product user, and of a son of one who made key contributions that made it possible.

My father, second from left; Clyde Cessna, founder of the Cessna Aircraft Company, far right; Dwane Wallace, Clyde Cessna's nephew, and the company's Chairman of the Board, far left.

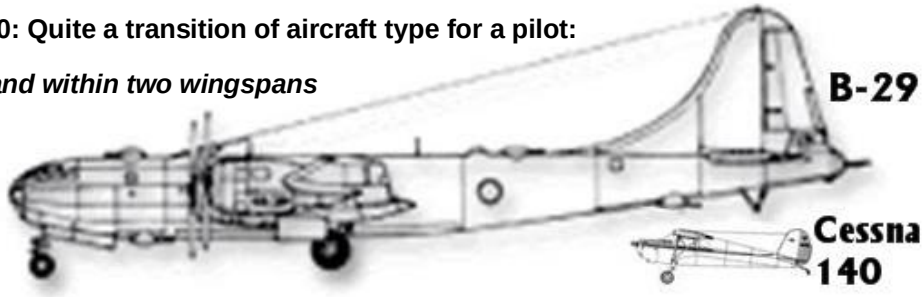


Returning From War to Sell Airplanes

In October, 1945, my father captained a B-29 bomber from Las Vegas, Nevada to Walker, Kansas. He shut down those four enormous radial engines, and sat for a time in the greenhouse-like cockpit of that giant warplane, gathering his flight gear along with his thoughts and emotions. This would be the last four-engine aircraft he would pilot, and it was his last flight for the United States Army Air Corp. His Army flying duties had taken him throughout the world, most notably on pioneering North Atlantic flights in B-17s, and on his sixty-six missions across the Himalayas in the treacherous "Hump" Operation of the India-China-Burma theater of World War II. (1) The next time he piloted an airplane would be six months later, in a very different aircraft type, a two-seat, eighty-five horse power Cessna One-Forty (140). He and Mother had a new baby, and Dad had a new job, selling airplanes for the Cessna Aircraft Company.

From B-29 to Cessna 140: Quite a transition of aircraft type for a pilot:

The Cessna 140 could land within two wingspans of a B-29.



Dad had sold airplanes before. Prior to flying bombers and transports in World War II, he had been an independent sales agent for the Luscombe Aircraft Company in Pennsylvania. He claimed that made him the first independent aircraft agent in history. For Luscombe, and in the early years for Cessna, he did what most airplane salespeople did at that time, he pursued a fly-it-until-someone-buys-it approach. In the starting years at Cessna, he would be gone from his new family for weeks at a time demonstrating new Cessna 140s, 170s, and 190s in all parts of the United States, Mexico, and Canada. A typical itinerary was a flight he made in the One-Forty, starting on August 1, 1946 from Wichita. He stopped in Hays, Cheyenne, Laramie, Salt Lake City, Boise, La Grande, Wallowa, Lewiston, Spokane, Seattle, Snohomish, Portland, Stockton, Fresno, Reno, Palmdale, and finally, Las Vegas where the airplane sold ten days later. He returned to Wichita, was home a couple days, and was off again. These fly-it-until-it-sold trips continued for years. On the 18th, he took a One-Forty from Wichita to Clayton, N.M., Las Vegas N.M., Albuquerque, El Morro, Devil's Lake, Winslow, Phoenix, Yuma, San Diego, San Fernando, Santa Paula, Santa Barbara, Burbank, Los Angeles, Death Valley, Long Beach, Casa Mesa, Monrovia, Rosemead, and San Francisco, where this One-Forty sold on the 28th. There were many such flights.

The goal of these long trips was not just to find individual buyers, but to visit airport managers and interest them in becoming sales agents for Cessna. With these flights, he began to develop friends and contacts all across North America. These he enthused about the Cessna product line, and this was the beginning of the global aircraft sales network that he became renowned for. My father's principal contribution to the general aviation industry was the transformation from selling airplanes to selling airplane dealerships. With this, Cessna became the largest selling aircraft manufacturer in the history of the world.

Delivering a Cessna 140 to Las Vegas, 1946. My father, third from left.

Ootsa Lake, British Columbia, in a Cessna 190, August 1948: a place Dad returned to time and again, for hunting with friends. This was a 23 day round trip from Wichita.

At Afton, Wyoming, in a Cessna 190, May, 1949. My father on right. This was the last day of a seventeen- day round robin tour from Wichita through Montana, to Spokane, Seattle, Portland, and Boise.

Apple Valley, California, in a Cessna 170, January, 1950. My father on right.
This was a ten-day trip Dad flew through New Mexico, Arizona, Santa Monica, Apple Valley, and Boise, where this airplane was delivered.
In 1964 Dad flew me to Apple Valley where I experienced all things "Roy Rogers," this being the resort Roy Rogers and Dale Evans had created. In all our flying together Dad always insisted that nobody scuff the paint by putting their shoe on the wheel faring of a new Cessna.

Growing Up in the Air Capitol of the World

When I was sixteen, with a Student Pilot's license, my father arranged with the Cessna flight department, to allow me to be the youngest pilot to fly solo, in a new Cessna One-Fifty (150), to the Flying Farmers Convention in Ames, Iowa, in the summer of 1969. We went to Flying Farmers conventions each year in different cities. They were a major marketing event for Cessna and other aircraft manufacturers, and great fun for a kid. My flight to Ames would have been an epic experience for a teenager. Especially so because that year's oldest pilot to the convention was *the* William Piper Sr., who was 83 years old at the time. He was regarded as the "Henry Ford" of General Aviation. Had I made that flight, I would have stood on the stage next to the designer of the Piper Cub and the founder of Piper Aircraft Corporation, to receive a trophy, and Dad would have had a great publicity event. Dad announced this goal of my flight the prior winter. So, as a high school student I was excited about it for half a year. I must have plotted my course a dozen times on my Sectional planning charts. But that flight was not to be. Dad quit his job at Cessna that spring, after twenty-four years with the company! Instead of making that epic solo flight, I had to solo his Ford station wagon to Ames, carrying a load of his belongings to his new home in Fort Lee, New Jersey, where he had taken the job of President of the Mooney Aircraft Company. I did however, get to again see the lovely Joy, a rancher's daughter from Ontario, Canada, who I had become sweet on the year before at Flying Farmers in Kansas City. But alas, she was stolen away from me that week by the rancher's son from Ponca City, who, at age seventeen, already had his Private Pilot's license in his wallet, and the keys to his daddy's new Cessna Skylane in his pocket. I couldn't blame that Ontario cowgirl for running off on me. She would rather be flying with anyone than sitting with me in the teen activity center. I did get to meet Mr. Piper though, and I shook his hand. He had flown to the convention in a 2-seater J-3 Cub, a classic, antique airplane that was still not as old as he was.

Growing up as a Cessna company kid exposed me to many other aviation luminaries. I was a guest at a Christmas party in the home of Olive Ann Beech, President of Beechcraft Corporation. Cessna President Del Roskam and Chairman Dwane Wallace were guests in our home. My brother had a job hanging the Christmas decorations at the home of Bill Lear, creator of the Lear Jet and the infamously quirky eight-track audio tape. When these top aviation celebrity executives were guests in our home it was important that my brother and I be on good behavior. But at one Christmas party, at about age four, I stole the show when I jumped over the coffee pot cord and pulled the whole burning pot down on my legs while I screamed in pain. That evening, some of the world's leading aviation magnates gathered around my bed as my mother salved my scalded legs. These world traveling aviators nevertheless, had a down-home Kansas spirit. My brother had a pet six-foot black snake. Our basement and backyard were full of reptiles, lizards, turtles and other interesting inhabitants that had flown home with us in Cessna airplanes. Dad had grown up in the rural mountains of Virginia, so he often reverted to his backwoods boyish spirit when he could escape the scrutiny of the professional world. On many trips, we went out into deserts and woods and collected such animals to fly home for our menagerie. At one cocktail reception in our home, Bill brought this snake "Shorty," up to see the guests, with the snake coiled around his neck and arm. The wife of a major aircraft manufacturer's president was sipping yet another martini as she turned and saw Bill and the snake. She apparently thought it was a toy snake and reached out to pet it to humor young Billy. Just as she said, "*Oh, that's cute,"* the snake flicked its tongue and blinked its yellow eyes. Her martini dropped from her hand and shattered on the floor, and she turned and ran full kilter, rebounding off our glass picture window amidst the shocked guests. As the floor to ceiling glass pane rumbled and vibrated like a drum, deciding whether or not to shatter, she bounced backwards on her back on the floor. After that, Dad made it exceedingly clear that Bill was never to bring his snake to executive parties again.

That society of aircraft designers, flyers, and aviation managers that I witnessed in my childhood were people of a kindly, collegial, and honorable ilk. Their culture was one of prepossessing humility despite their corporate power, and they reflected a confident air of Kansas-style, down-to-earth cooperative community. Having lived through World War II, these were men and women of America's greatest generation, and at the heart of their business and social relationships was the shared adventure of personal flight. It formed my view of how successful people should behave toward each other in business. I have measured the business environments of my own career against those childhood memories. Rarely have I experienced like standards. In the twenty-first century, the portraits and biographies of many of these family friends are displayed in the Aviator's Hall of Fame at the Kansas Aviation Museum in the wonderfully restored 1930's art deco air terminal of Wichita's first airport. This was a major air hub where Charles Lindberg, Amelia Earhart and many other celebrities stopped on their flights across America in the dawning air age. Fred Astaire once danced in the lobby of this terminal to entertain his fellow air travelers on a stopover. Those Hall of Fame photographs evoke fond memories of familiar folk who visited our home, or who traveled with us in personal aircraft.

Other guests in our home were television stars and public figures who came to Wichita to take delivery of their new airplanes. These included adventurer Lowell Thomas, and Kirby Grant, who was my television hero, Sky King. Sky King came to dinner in our home! Grant was there for the PR photo shoot, not to fly the new airplane away. As a child, I had no problem learning that Santa Claus was not real, but when I found out Sky King did not actually have a pilot's license, I suffered serious childhood disillusionment. As well, Penny was my Saturday morning TV flying cowgirl crush.

Sky King & Penny in "Songbird", a Cessna 310. Courtesy: www.SkyKing.com

My father was not my formal flight instructor because he was too busy at work, and for the same reason many parents don't teach their kids to drive. Yet, on our many flights together, I learned considerably more from him than from my later flight instructors. He taught me basic stick and rudder skills, holding altitude, holding the compass course, climbs and descents, turns and maneuvers. He wanted that compass held within three degrees, and the altimeter within two hundred feet, and if I wanted to be left alone at the controls I needed to nail those needles. A few times, in the twin engine Cessna Three-Ten, he pulled one throttle off to let me see that it took all the strength I had in my body, standing on a rudder pedal, to hold the airplane straight and level in the asymmetrical thrust on one engine. He taught me how to trim the airplane, and how to use an autopilot. Teaching instrument skills, he made me understand that, with my eyes covered, and with no visual cues outside, what is up or down cannot be sensed in an airplane. He taught the cardinal rule that, *always* trust the instruments, not your senses, when you can't see outside. He showed me how to use the glide path and glide slope needles for instrument approaches, and on a couple occasions, flying in to Chicago, and Washington National, he let me hand-fly the instrument approach down to the runway threshold. When talking about the capabilities of Cessna airplanes, he wanted to be able to tell his dealers and customers, "*My twelve-year old son can fly a Cessna."*

I enjoyed talking with Dad about worse-case scenarios, such as, what to do if the engine quit. He showed me how to glide dead-stick, and explained another cardinal rule, that, no matter what, and no

matter what was ahead of the airplane, always keep it flying above stall speed, right down into the ground. Never pull up when at minimum flying speed. "*If there are trees ahead,"* he told me, *"just aim the propeller spinner between two trunks, and the trees will take off your wings and slow you down."* He told me to feel perfectly fine about landing on an Interstate highway. Years later, I tended to follow these highways across Kansas, Oklahoma, and Wyoming and felt more secure having been told that by my father. He showed me things a Cessna could do that were not written in the operator's manual. He pushed envelopes. That gave me a confidence in the strength and reliability of the airplane that no instructor could instill.

On a Christmas vacation to the Florida Keys, we were blazing along the beach near Cape Canaveral at low level, and we ran on to a flock of seagulls. Dad yanked the Three-Ten in a hard climbing turn and yelled, *"Duck son!"* I thought he was kidding, but then, a bit later, he did it again to avoid another flock. I noticed that he had ducked this time, so I asked, *"What would happen if a seagull hit the windshield, Dad?*" He said, *"It would get pretty windy."* At an altitude of forty or fifty feet above the ground, the speed of a twin Cessna was all the more impressive. On the Arizona desert, we would chase rabbits and antelope in this way. On one flight, with a couple business associates aboard, along with my sister and stepmother, Dad got his passenger's attention focused on the ground blurring by just below the windows, by pointing out this or that animal. The blur at such low altitude becomes mesmerizing. Then, suddenly, (everything happens suddenly at 260 miles per hour that close to the ground), he launched out over the rim of the Grand Canyon! The Skyknight bumped slightly on the updraft, and the ground was gone, two thousand feet below! We all screamed and grabbed madly for handholds on the ceiling.

On several occasions, I co-piloted for Dad when he would "take a snooze," as he termed it. He told of the time he had left Washington National one night by himself in a Three-Ten, after an eighteen-hour work day. He turned on the autopilot over the Shenandoah Mountains, fell to snoozing, and didn't wake up again until the engines stuttered from the main tanks running dry, alerting him to switch to the auxiliary tanks. That was over Missouri. When he snoozed with me at the controls, he expected to wake up to find my needles on course, and at the assigned altitude.

On one flight, my sister Binnie Brook, at about four years old, fussed and complained that it was her turn to ride up front, and I was displaced to a back seat for that leg of the trip. At one point, I happened to glance forward between the seats just as her little foot kicked up and hit the toggle switch that disengaged the autopilot. The Three-Ten started to droop off in a descending right turn. Dad was chatting to someone on the radio, and we had one of those classic, parent-kid conversations:

"Dad.";
"Not now son";
"But, Dad";
"Not now son."

So, I sat patiently until he finished his radio conversation, and he finally turned to me and asked,
"Now, what can I do for you, son?"
"Oh, nothing. But, ah, we're twenty degrees off course, and we've dropped three hundred feet. Binnie Brook kicked the master switch on the autopilot," I told him.
"OK. Thanks, son."

We landed a Three-Ten at the Purdue University airport in Indiana. Research testing was being done that day with a Super Cub equipped with high-lift devices. They flew the airplane on a closed course at ground level, then jumped over a fifty-foot pylon, and straight back down at the ground. The idea was to fly the steepest parabolic curve over the pylon. Dad offered to fly the course in the Three-Ten to

demonstrate that it would fly as tight a curve as the little Super Cub. His offer was declined for fear he would actually do it. We did not know then that Dad's toddler daughter, Binnie Brook, would one day receive her doctorate degree there at Purdue.

When we started flying in the larger, cabin-class Cessna model Four-Eleven (411), which had eight seats and a partition between the pilots and the rear cabin, we usually had a couple of Dad's colleagues or clients along. He would hand me the controls and step in back. *"Let me know if someone calls our number,"* he would instruct me. He wanted to talk business with his associates, and play his favorite card game, gin rummy. It was his favorite game because he always won. That annoyed our passengers more than the fact that he had left a boy in charge of the flight deck.

The Four-Eleven brought along other interesting aviation figures who rumpled my hair and called me "Freddie." There was Max Bleck, a salesman who worked for Dad, and who went on to become President of Beechcraft Corporation, and then CEO of its parent company, Raytheon Corporation. Another associate of my father's was Dick Robinson. He was a funny friend, and very kind and attentive to me. He later became the CEO of Rockwell International, builder of the B-1 bomber. Bill Leck, Cessna Training Manager, years later became Director of Aviation Programs at The University of Arizona, Tempe, and offered me admission there despite my dismal high school record, but I turned it down.

Left to right: my good friend, Giffy Booth, Emory Rakes, a Cessna pilot, and me. We were working a trade show booth at the Hot Springs, Arkansas Flying Farmers Convention. It was 1967, I was fourteen. Giffy's formal name was Gifford Booth the Third, son of Gifford Booth the Second, who was the Director of Advertising at Cessna. Our families were close and traveled together quite a lot. Giffy became the Director of the New York Actor's Institute, and a political activist on HIV-Aids issues.

In one of life's many circles, Giffy's grandfather, Gifford Booth the First, was the managing editor of the Grit Publishing Company in Williamsport, Pennsylvania, where my parents met during World War II. My grandmother, a Williamsport native, was an avid reader of the Grit newspaper. Williamsport is also the home of Lycoming aircraft engines which powered many of the airplanes in these stories.

My favorite Four-Eleven fellow-sojourners were the company pilots who would chauffeur us on some flights now that Dad traveled in the "big equipment." I enjoyed the companionship of Dusty Rhoads, a pilot stationed in Washington D.C., in charge of selling Cessna military airplanes to the Army and Air Force during the Viet Nam period. He was one of several Cessna pilots with colorful names. My mother told several humorous stories about getting lost and arriving at the wrong airport and other mad-cap flying adventures in the 1950s with Cessna pilot, Salty Bacon.

My best friend among the Cessna pilots was Emory Rakes. I spent quite a few hours in the right

seat of Four-Elevens next to him. Emory would let me take the controls, but, unlike Dad, would leave the autopilot on and hope I didn't notice. After all, he had the Cessna VP and other bosses riding in the back and I didn't blame him if he couldn't trust my compass skills. In the tradition of the interesting pilot names, I'd chide him with, *"Does Emory rake?"* He'd reply with, "*Well, I am an old farm boy, but all I can do now is fly around hauling big wigs like your dad."* At stops along the way, Emory wasn't obliged to entertain the boss's son but he put up with me anyway, and we went to museums and on airport tours. He was kind to me and a great companion for a young boy.

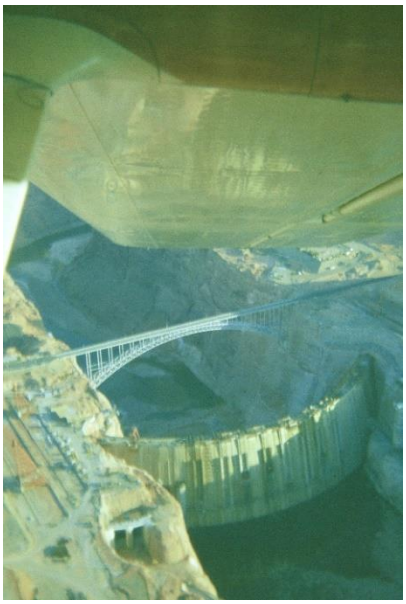
One summer we took a Four-Eleven on a flight to visit western Cessna distributors. We traveled from Wichita to Billings, Calgary, Edmonton, Seattle, Portland, and when we approached San Francisco, Dad came forward to the flight deck to take the controls. Emory moved to the right seat, while I kneeled on the floor between the two of them. Dad wanted to join the elite group of aviators who were similarly accomplished, from Earhart to Pan Am Clipper pilots, as he flew the Four-Eleven beneath the Golden Gate Bridge. Our passengers in the back may not have been alerted to our unusual approach pattern across the bay. So, we three up front, looking up through the windshield, shared and savored the experience of watching the great bridge and its thronging traffic soar past overhead.

With Dad at the Model 411 FAA Certification ceremony, Kansas City, 1963.

A Very Different Bird: Cessna Zero Three Zulu

One of my father's colloquial expressions, among many that he retained from his southern Virginia mountain upbringing, was to "Pull Your Leg." That meant to chide, kid, or surprise with the unexpected. He used leg pulling as part of sales showmanship. When Cessna introduced the revolutionary Model 336 / 337 Skymaster, a twin with one engine on front pulling, and the second, a pusher, on the back, hidden between a twin boom tail, he was the first to fly it to many points beyond Kansas. He enjoyed taxiing the Skymaster in front of terminals and towers with the front propeller stopped, or performing takeoffs for astonished onlookers with the front engine shut down. My brother and I were with him one evening in Baltimore, in the first Skymaster to arrive there. The tower called three times, "*Cessna Zero Three Zulu, what is your means of propulsion?"* The design was so new, that with the forward propeller not turning, it was not readily apparent how the airplane was moving along. Dad enjoyed that demonstration all across the U.S. the year the Skymaster was introduced. He knew how to draw attention to his airplanes and he would pull your leg to do it.

We took Zero Three Zulu on a family vacation to Taos, New Mexico, Monument Valley, and Flagstaff, Arizona. In 1963, Taos was still a sleepy Indian village, yet to expand far beyond the old town square and the ancient pueblo. At Monument Valley, when we landed on the dirt strip at the trading post, the manager came running out as we shut down the rear engine. "*Holy cow, mister! I thought we had a P-38 (a WWII twin-boom fighter) coming in here! What is that thing!"* We had parked near two Indian women weaving blankets on wooden looms. They ignored the dust and commotion and went on about their work. Dad had first flown to Monument Valley in 1946 in a Cessna One-Forty. The airstrip was not there then, and he landed on a dirt road. At that time, people were frightened, and some ran to hide. Even after World War II, parts of the American southwest remained so remote that there were people who had never seen an airplane.



Shiprock Peak, Farmington, NM, and the new Glen Canyon Dam, from Zero Three Zulu. Fred Martin 1963

A military version of the Model 337 was built for the U.S. Air Force for use in Viet Nam as a forward air control, target spotting aircraft. It was designated the O-2, replacing the Korean War era Cessna O-1 Bird Dog in its mission role. These aircraft flew low over enemy territory in order to spot targets and then direct the devastating attacks of heavier jet aircraft. They were also used in psychological operations to drop propaganda leaflets, and some were equipped with large speakers to broadcast messages to enemy soldiers and civilians on the ground. Cessna pilot Dusty Rhoads led the sales effort in Washington D.C. for the 0-2. I saw the first prototype military O-2 in Cessna's secret development hangar when I was a boy. I listened to the briefing on the bullet proof floor and other armaments.

A Viet Nam era Skymaster in 0-2 regalia parked at the Rocky Mountain Airport near the author's home.
Fred Martin 2010

A Cessna advertising photo depicts a later model 337 Super Skymaster flying over Long's Peak, Rocky Mountain National Park, Colorado, near the author's home.

First Solo Flight

When my daughter Cherie and I began discussing her flying lessons, I hoped to find her a lady instructor just as I had when taking my first flying lessons when I was age fifteen. Women have a softer touch with a light airplane, as well as with the student, and that is how both are best handled. Aircraft control is a delicate and precise skill, rarely calling for man-handling technique. It is an art and science that calls for more thoughtfulness and delicate finesse than bravado. As well, I have found lady pilots to be more graceful and self-possessed when faced with aerial crisis.

My first flight instructor that summer when I was fifteen, was a petite, crusty Kansas farm woman. Reba Uglow taught with more regard for developing flight skills than for the paint and tires of the airplane. So, I learned more from her about cross wind landings and rough off-airport landings and radical flight attitudes than most students are exposed to. Every time a near disaster occurred, she would utter the only expletive term in her Kansan vocabulary, in a calm and understated manner, *"Mercy."* It was her Kansas prairie-style apothegm. Whenever Reba said "*mercy*" I knew something had happened, or I had done something, that was outside the envelope of good and safe practice. It is all she really ever had to say to chastise me in the cockpit. Her technique of teaching everything she could, good, bad and ugly, kept me and my passengers safe years later. Most of my subsequent instructors couldn't hold a stick next to Reba. One I recall at the flight school at Montgomery Air Park, Maryland, with an English accent, would jump around as if panic-struck, every time I botched a maneuver and pitched the plane the wrong way. He'd snap his head back to see if I had broken something off the tail. I found him quite annoying, and when he would have one of his conniption fits, I'd quietly say under my breath, "*Mercy."* Reba flew me through my first solo flight in Wellington, Kansas on my sixteenth birthday.

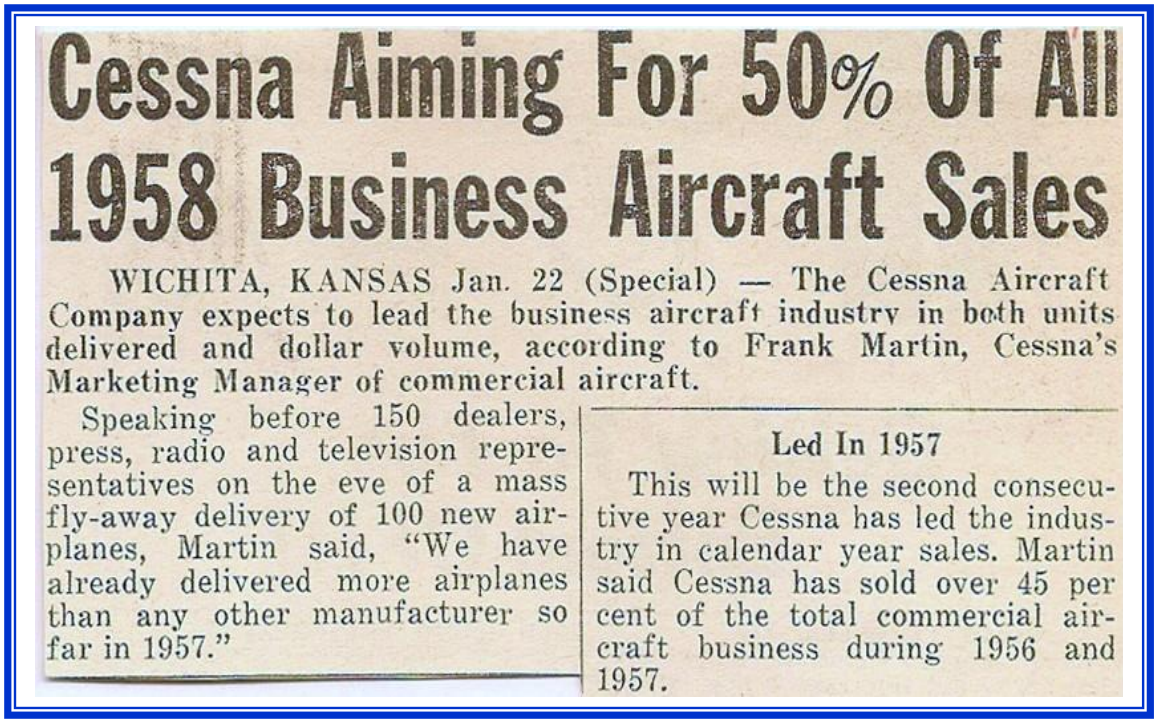
First solos are wonderful experiences for both student and instructor. In my case, it was my birthday, the date planned by my father for his marketing story, and Dad had flown a company plane down from Wichita to Wellington to watch, so I knew what was to happen. However, in many cases, a student is not forewarned that this day will be solo day. It is just another lesson to get ready to solo at some possible future date, when, after many more lessons, maybe the student will be ready to solo, sometime, perhaps, someday. But then after we flew down from Wichita, Reba says, "*Taxi in over there. Oh, uh . . don't shut her down.*" Then she climbs out before your panic sets in and says, "*Go out and give me three touch and goes, then come right back here. I'm going to get a cup of coffee."* She shuts her door in your astonished face, and without thinking, you taxi out to the runway and do what your instructor just instructed you to do. It is a significant life achievement to lift off the runway, and wow, without Reba on board, that little Cessna just leaps into the air! Then, you look over beside yourself at that never-before empty seat, and you realize, astoundingly, that, a.) I'm airborne, and, b.) there is nobody on board this aircraft who actually knows how to land this thing! It suddenly dawns that my personal survival is entirely dependent, perhaps for the first time in my life, completely upon: Me. When you complete the third T&G (I nearly bent my right wing on the pavement on the second one), what an experience it is in self-confidence and self-reliance! When you taxi back in to the ramp it is a wonderful triumph for both you and your instructor. As the student, it is wonderful to have survived. For the instructor, it's wonderful to have not killed another one. And there was Reba, actually holding a cup of coffee! She's just chit-chatting with my dad. Had they even watched me?! The time-honored ritual is to have one's shirt tail cut off for the trophy. So, the student should wear something natty. It will be sweat-drenched anyway.

After returning east for school that autumn of 1969, I continued lessons in Cessna One-Fiftys from flight schools at Montgomery County Airpark, Maryland, and later, Baltimore International, making

flights to the eastern shore of Maryland, Dulles, and solo round robins to Leesburg, Lancaster and Martinsburg, fields my dad had flown to in his J-3 Cub during World War II.

My early training went mostly without incident, but Montgomery County, Maryland Airpark was a baptism by fire for a young Kansas boy trained to flying the open prairie. Back then, it was an uncontrolled airfield (no tower), with dense, stacked up traffic in the pattern. That made for an aerial free-for-all. Building solo time, I would carefully and dutifully circle around until I saw my chance to enter the downwind leg at a nice 45-degree angle, giving plenty of courteous space to the fine aviators ahead of and behind me. Then I made a nice square turn to base leg, looked left for a clean turn on final, when all of a sudden, some guy in a turbo-charged twin Beech would roar past my windshield on a straight-in approach, and completely cut me off. Then he would lolly-gag on the runway because he didn't want to put any wear on his expensive brake linings, and I would have to power on for a complete go-around. Another time, when I was turning final, a big Aero Commander did the same, and I was so unnerved that when I reached down to power back, hoping to slow down and stay in the pattern, I pulled my mixture control by mistake, which turned off the engine. What fun that was, trying to avoid an inadvertent landing on a taxiway beside the Commander, while figuring out what wrong knob I had pulled and get the engine re-started. That was just the daily rush hour frenzy at Montgomery County. It was an east coast thing, and at this time in my life I was having very similar experiences learning how to drive a car on the D.C. Beltway. It was a huge relief to start flying out of Baltimore International, and just be able to sit back, relax, and have the tower controllers dictate my every move.

In 1970, when my future wife Debbie and I were teens at her Arlington, Virginia home, I proclaimed to her and her parents, that I was going to take her flying with me. To Debbie's parent's relief, I never completed my pilot's license back east. Too much teen stuff intervened. But we later moved to Colorado, got married, and with Deb's support, I got my Private Pilot's license and we went flying. Talking to my daughter about her lessons got me looking at old photos, and I saw that we did quite a lot of flying, and we got to know a number of interesting airplanes along with some very interesting people encountered on those flights. That is what got me reminiscing about old airplanes.



Cessna Aiming For 50% Of All 1958 Business Aircraft Sales

WICHITA, KANSAS Jan. 22 (Special) — The Cessna Aircraft Company expects to lead the business aircraft industry in both units delivered and dollar volume, according to Frank Martin, Cessna's Marketing Manager of commercial aircraft.

Speaking before 150 dealers, press, radio and television representatives on the eve of a mass fly-away delivery of 100 new airplanes, Martin said, "We have already delivered more airplanes than any other manufacturer so far in 1957."

Led In 1957

This will be the second consecutive year Cessna has led the industry in calendar year sales. Martin said Cessna has sold over 45 per cent of the total commercial aircraft business during 1956 and 1957.

September 11, 1953 article:

It was a big week for Dad. He was promoted to Cessna National Sales Manager, and his second son -*me*- had been born nine days earlier, on September 2.

Martin Is Named Salesmanager for Cessna Aircraft

Frank Martin, assistant sales manager, has been appointed sales manager for commercial aircraft, Cessna Aircraft company announced Wednesday. Martin assumed his new duties Tuesday.

The new sales manager joined the Cessna organization in April, 1946, as a regional sales manager,

FRANK MARTIN

and in early 1952 was advanced to divisional sales manager, eastern division. He covered the entire eastern half of the United States, supervising sales and sales personnel. Later in 1952 he was appointed assistant sales manager, filling that position until being named sales manager.

Martin's introduction to the aircraft business was as a salesman for a Cessna distributor. From 1942 until 1946 he served in the air transport command of the U. S. air force.

Cessna Claims 'Banner Year'

Even Greater Sales Expected in 1955

A "banner year" was proclaimed by Cessna Aircraft officials Wednesday with the announcement that Cessna sold more planes than any manufacturer of commercial airplanes in the country in 1954.

Frank Martin, commercial sales manager for the company, said that orders on hand for 1955

FRANK MARTIN

Faithful Old One-Three Quebec

Debbie and Cessna One-Three Quebec, a model 150, at Longmont, Colorado, 1979.

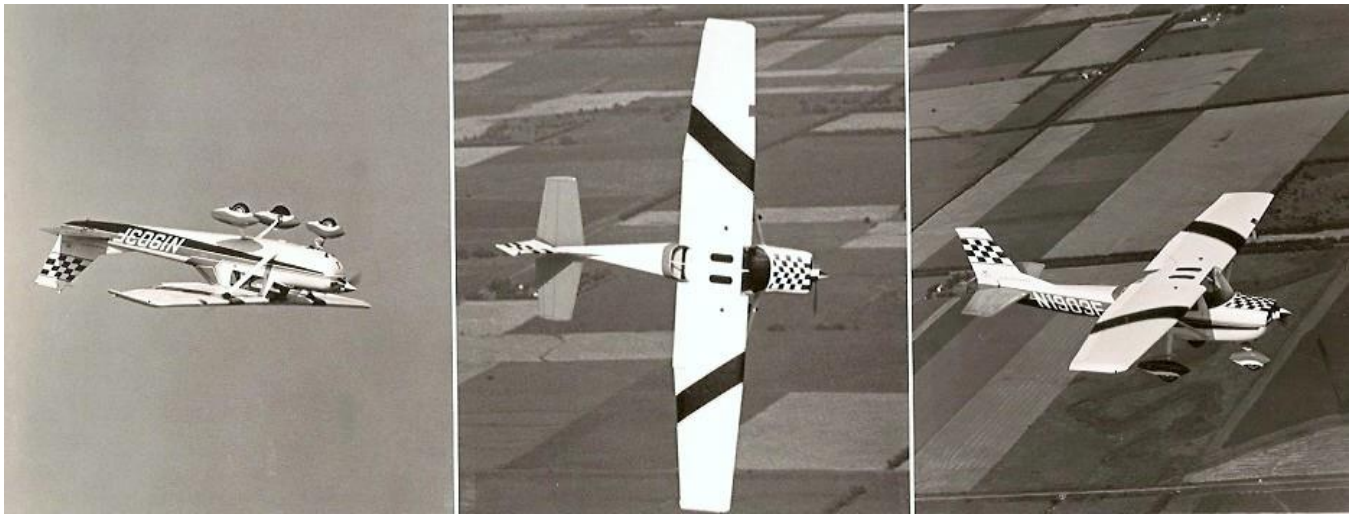
This was the most beat-up jalopy of an airplane I ever flew, but she was a stalwart, caring and forgiving Cessna, nearing the end of a combat-like career of years of training new, ham-handed, abusive students. One-Three Quebec was an old model One-Fifty, the same type I took my first lessons in at age fifteen. It seemed largely held together by duct tape. The throttle and air vents were adjustable only by unwinding and winding duct tape around them to keep them in place. The pilot's window was held shut by duct tape. Insulation would periodically stream out of seams in the wings. Her belly was slimed with oil from that tired old 100 hp Continental. Did we care about the appearance and condition of this airplane? Of course not! We were flying! And we were living in Colorado!

I completed my Private Pilot's license in One-Three-Quebec, and it was the only airplane I ever put a scratch on. At the end of my Private Pilot check ride with the FAA inspector, I taxied past the fuel tanks, and raked the left wing on the top of a chain link fence. I was embarrassed to mortification. The inspector passed me anyway.

The Cessna One-Fifty was the most popular training aircraft in the world, but it was discovered to have a tricky corner in its performance envelope. It could be difficult to recover from a stall-spin when full flaps were deployed in sloppy flying regimes. The One-Fifty's wing flaps could be lowered to forty degrees which made for very fun dive-bomber plummets down to the runway, but caused trouble for some pilots in spins, including myself. In spins, the fully extended flaps could disrupt airflow to the control surfaces on the tail.

My Dad encountered this characteristic during a near-fatal flight with aviatrix Joyce Case, who was then the world woman aerobatic champion. He had hired her as a Cessna consultant when the company developed an aerobatic version of the One-Fifty. They were on a demonstration flight. He told me, *"I hadn't done a snap roll since I flew old bi-wing Stearmans in World War II. In a Stearman, if you slapped the stick sideways as hard as you could, a Stearman might lumber over in one roll before dropping off in a stall. But when I did that with the One-Fifty, I think we spun twice while horizontal, and then it dropped straight down spinning faster than I could even see out the window. If Joyce hadn't been with me, I would have died that day,"* he explained.

When I was fifteen, I got to watch the demonstrations that Joyce Case performed with the One-Fifty "Aerobat" during the filming of a promotional motion picture for the new airplane. She climbed to two thousand feet and placed a glass of water on the top of the control panel. Then she shut down the engine -power completely off- and proceeded dead-stick, to perform a full routine of loops and rolls down to the runway where a man in a suit had been positioned wearing a blindfold and posed holding his hand out in a "stop" gesture. Joyce set the airplane down in a very short rollout, and she placed the propeller spinner precisely in the man's hand. An onboard camera recorded that not a drop had sloshed out of the glass.



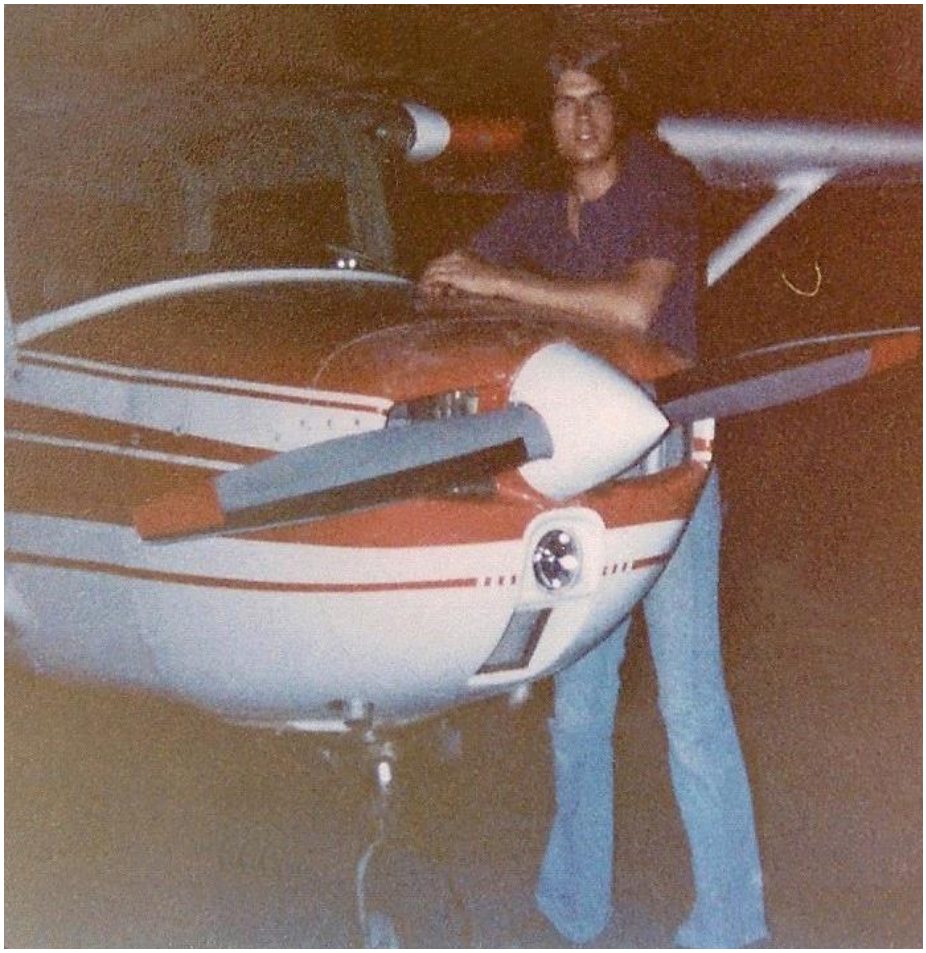
Cessna 150 Aerobat **Cessna press release photos**

One day, during solo practice, I inadvertently spun One-Three Quebec over Longmont, Colorado. I was sloppy practicing stalls with power-on and flaps fully extended, which is how to do simulated aborted landings and go-arounds at a safe altitude. I let the airspeed needle drop to the red stall line and the stall warning reed started squealing. Before I could put power on in time to recover, One-Three Quebec snapped over sideways, spun by the engine's torque, and then dropped down at the ground, spinning around like a top. I had entered the so-called "death spiral," the forbidden corner of the One-Fifty's flaps-down envelope. I lost control of the airplane.

A few moments later, Dad and Joyce saved my life. After his own similar experience all those years before, Dad had given me a flying lesson with Joyce Case. On a sunny August morning in Wichita, a few weeks before I turned sixteen, she and I donned parachutes and flew an hour in a new Aerobat. Before letting me start the engine, she gave me the only sky-diving lesson I have ever had, saying, *"If I tell you to, jump out and pull this handle."* Then we took off and she taught me loops and rolls, and finally, how to recover a One-Fifty in a tight spin. Most instructors don't teach spin recovery, but they should. Joyce's lesson from my adolescence came back to me in that panic moment over Longmont, and

I had a split-second recollection of what she had taught me about ignoring my own instincts when spinning, and instead of pulling up, I cut the power, shoved the control wheel all the way in to the panel, and dropped straight down at the ground, holding full opposite rudder with my foot. The One-Fifty did not respond at first, but God gave me the will to just wait, hold the control inputs, and plummet. After two and a half more turns, sure enough, it unwound itself, just as Joyce said it would. My controls started working again, and Deb and I went out to dinner that night at an expensive place, and we went on to have some pretty neat daughters and decades later I am here writing about the incident. But alas, few of my readers will ever fly a vintage Cessna Model 150 and ever need my sage advice about not spinning with full flaps.

One-Three Quebec was the Cessna that refused to kill us, no matter what. It made thirteen a lucky number for me, and in it I started to learn about Colorado's high "density altitude". One night I took Debbie's dear college friend from Virginia for a ride around the Longmont airport. I never told her, but we almost landed in the trees off the end of the runway. She was a larger woman, and the two of us were a tad heavy for ole One-Three Quebec on that hot summer evening. The fact that she went on to raise six kids, and after they were grown, returned to college and became a medical doctor, may be owing to some rather delicate airmanship that night on my part, along with old One-Three Quebec's faithful strivings. We lifted off fine, but then mushed into an uncomfortably minimal rate of climb toward the trees. It required finger-tip coaxing with my left hand on the control wheel, mentally willing the airspeed needle to hold its place on the dial, while making utterances under my breath at the stall warning reed to get it to quit chirping at me. I was shoving on the throttle with all the strength in my right hand trying to make it go into the panel further, like a Type-A personality pushing an elevator button harder and harder, as if that would get the thing to go up any faster. One-Three Quebec though, once again defied aeronautical physics for me, and churning out its last ounce of power like the little engine that could, carried us skimming over the dark treetops, and flew us on out over the city lights, and on toward bright futures.



One-Three Quebec after a flight over Boulder one night.

Five-Dollar First Flight

My father and his counterparts at competing manufacturers including Beechcraft and Piper, put their heads together. They realized their greatest opportunity was not in competing with each other, but in working together to build the industry and customer base. It surprised me, when I was a boy, to see that each year they held a technology conference and allowed each other's engineers and marketing folk to tour their development shops prior to new model introductions. They realized that the market would grow only as fast as the state of the art improved, so they shared their new development concepts. A rising thermal raises all airplanes. Similarly, they realized that the best way to sell many more airplanes was to create many more pilots, and to this end, the major firms worked together. My father was a leader in this effort to greatly expand aviation sales by means of actually creating many new customers. He was a leader in the Learn-To-Fly program, and he implemented the famous and successful five-dollar first flight program for Cessna, at all his dealers nationwide and around the world.

14 CESSNA 150'S A DAY

Lightplane manufacturing history is made as Cessna 150 output goes to 14 per day. Two-place model popular in training boom

Frank Martin, Cessna vice president-marketing, sees heavy output of Model 150's as broadening the base of general aviation for even greater future growth.

Swept tail, larger door and other features distinguish new Cessna 150, pictured here with bar chart showing Model 150 sales by yearly models with projected 1966 sales zooming to 3,000-unit level.

—(Cessna Photo; FLIGHT MAGAZINE Chart.)

A NEW GROWTH ERA

Cessna kicks off biggest campaign by quadrupling production of its new Model 150

Then, in 1966, he directed an astonishing pilot-creating strategy, and a bold financial risk for the company. Cessna quadrupled production of the model 150 trainer in a single year, and pumped this excess inventory out to all its dealers. It was a cart-before-the-horse move. There was nowhere near that level of demand for the model 150. Yet, this infused the market with a vast supply of new trainers, and drove the price of a standard model 150 down to $6,995. It was an enormous act of faith in the "build it and they will come," principle. The cost barrier to becoming a pilot was drastically lowered, while the 150 itself lowered the technical barrier because it was so easy to fly. Dad knew his market numbers. Cessna eventually made huge dividends from taking this risk, because the new pilots quickly bought up to larger, faster, and more expensive airplanes such as the models 172 and 182, and most who learned to fly in a Cessna remained loyal to the brand.

Skyhawk Five-Five Echo

Debbie with Five-Five Echo, a 172 Skyhawk that was one of the first with digital read-out avionics.

We transitioned our flying up to four-seat Cessna One Seventy-Two (172) Skyhawks, and were able to fly this beauty, N73355E. This airplane was nearly new, with cushy upholstery and carpet, and had impressive digital read-outs on the radios. That was innovative and "techy" at the time. Now we could fly in style with friends. We enjoyed flying to nearby cities for dinner at airport restaurants, and returning along the front range of Colorado at night.

Yet, I still had lessons to learn about Colorado density altitude. One evening we took our east coast friends Ric and Jennifer out for dinner in Pueblo in Five-Five Echo. We lifted off of Broomfield's runway two-niner smoothly enough, but then hit the mountain wave downdraft that pours off the Flatiron mountains in Boulder. The One Seventy-Two just could not climb out as expected, loaded with the four of us. I had to fly down a ravine nursing her in that delicate balance between a couple knots above stall speed, and too few feet above the sage brush, full throttle, over what is now the big shopping mall. We finally broke through the wave and got free. Ric exclaimed, *"Cool Man!! Can we do that again!"* He seemed to think it was an intentional sightseeing tour of the ravine. Debbie and I didn't care to dispel that notion. Our hearts were thumping too hard, and our mouths were dry anyway. About an hour later over Pueblo, I got my heart rate down enough to land for dinner and act nonchalant. I was starting to learn about Colorado altitude flying. My respect for that mountain wave would thenceforth equal my respect for the sanctity of human life. When flying old airplanes in the Rocky Mountains or western high plains,

Jennifer with 55E on a dinner night out to Pueblo, Colorado.

my reminiscence would be this: consult the handbook, then, subtract about fifteen percent from the promised performance values in that book. Widen the margins and narrow the stress, is what I quickly figured out about mountain flying.

We flew Five-Five Echo to Wichita during a snowy October. On the return flight, I called Wichita Flight Service on the radio and confirmed their promise that the Goodland, Kansas runway would be plowed off before we arrived there for fuel. With headwinds as they were, we would need it. When we circled Goodland though, the plow was still plodding along down there, pushing snow. We had to get to a gas pump, but the only open field was now back east at Hays, and Hays had nearly forty knot cross winds, at the edge of the Skyhawk's crosswind envelope. It was the option that had to be successfully executed. I recall a rather heroic *(if I do say so)* cross wind landing in Hays. The gas guys were impressed that I hadn't altered the appearance of the airplane on that landing. When we taxied up to refuel, I kept the engine running to blow prop wash over the controls and keep her steady while three of them grabbed the wing struts and attached the tie-down chains. That day, I was able to draw on lessons from my first instructor, Reba. She had not been reserved about teaching me Kansas crosswind skills. My later instructors in the east and in Colorado never would have taken their students up in such winds for "liability reasons." Yet, such conditions are routinely encountered, and often not forecast, and that is the real liability. Because Reba had made me confront Kansas winds in training, with little worry over screeching tires, put her in my grateful reminiscences that day in Hays. Yet, she would have uttered a quiet "*Mercy*" at that landing.

As I grew up in Wichita, the "Air Capitol of the World", awash in a young boy's fantasy of flight, and in my hero worship of an illustrious father, I imagined a dialog with those Cessnas of my youth. They seemed to me to be far more sentient than mere machines. I promised I would never hurt one of them if they never hurt me. Those birds, born like me in Wichita, seemed to answer back when I'd talk to them. They did always keep their promise, and so did I.

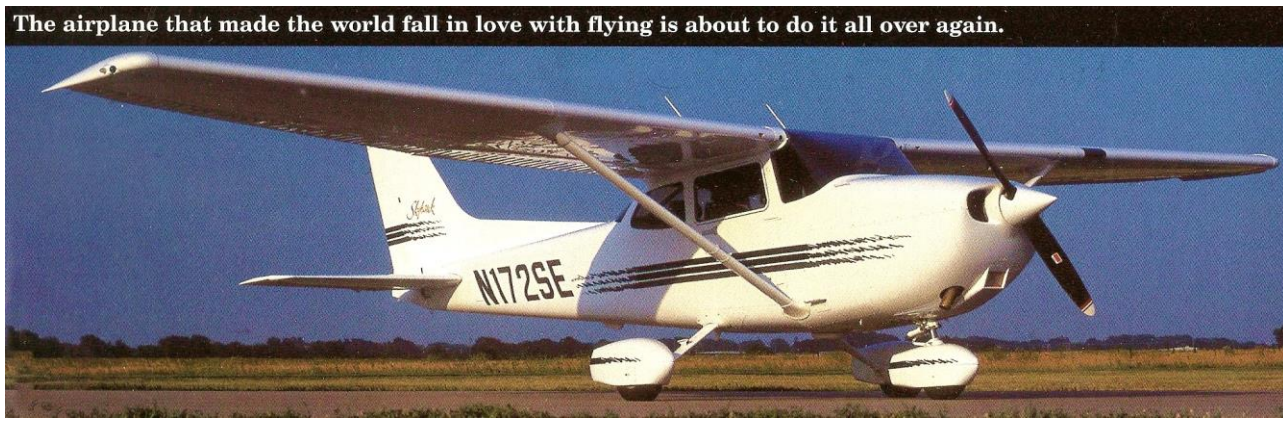
The Most Successful Personal Airplane in History: The Cessna 172 Skyhawk

My daughter Cherie's flying lessons would be in a late model Cessna 172 Skyhawk. Fundamentally, this was the same airframe that we flew in the 1980's and 90's, and that I took lessons in during the 60's and 70's. Many thousands of people have flown this Cessna model. It was the largest selling airplane in the world. More were produced than any aircraft in history. Over 43,000 have been built. My father was lauded by the industry for directing the sales success of the 172. Another reason for the global success of the 172 was that its designers achieved an optimal balance of the immutable principles of aerodynamics -lift-gravity-drag-thrust- right from its inception. That balance optimized the safety, docility and utility that the design is renowned for. The 172 was derived from the 1950's model 170. The 172 platform was established with the conversion of a 170 airframe to tricycle landing gear, a major safety advance.

In his 1992 book, *Cessna: Wings for the World*, (2) Cessna engineering test pilot, William D. Thompson, blames my father for delaying the development of tricycle gear that gave rise to the 172. On page 35, he writes, "*Unfortunately, Frank Martin, Sales Manager, was aware of our "experimental freedom" and frequently made weekend visits through the shop, where, on one of them he saw the (tri-cycle gear) mock-up."* Thompson says this resulted in a memo to destroy the tricycle gear project. I can not refute what Thompson says about this, but I am skeptical. If my father, acting with the wishes of the Chairman and President, ordered the "destruction" of such development hardware, it would have been an unlikely waste of company resources. He may well have ordered absolute secrecy about the project. In the 1950's, a tricycle gear conversion would have been revolutionary, yet it was inevitable. Its introduction to the Cessna model line would have required careful planning, as well as the lengthy process of technical fine tuning that Thompson later describes in his book. Had the project been found out too early, sales of the venerable and profitable model 170, which had conventional gear, would have suffered in the interim.

Another reason for the airplane's historic success came in the early 1960s, when the 172 was restyled by renowned aviation designer and our good family friend, Richard Ten Eyck. Dick swept the rudder, and added the rear window that is the signature feature that gave the 172 its sporty appearance and highly popular consumer appeal. Those styling changes very minimally compromised the pure aerodynamic performance of the airplane. Thompson, an engineering purist, also comments on Dick's modifications in his book, citing both the pros and cons. With Dick's changes to the design, the 172 airframe was established much as it remains today, still in production.

Nevertheless, the Skyhawk that Cherie and I inspected for her use as a trainer, was a much different bird than I had flown in previous decades. This new model had a fuel injected engine that improved power, reliability and simplicity. It had plush leather seats and other cushy interior appointments, contrasting with the often thread-bare, ragged and worn seating in the war-horse predecessors I flew. In the panel was a large-screen GPS display that directed the autopilot, allowing this airplane to fly and navigate on its own. It made our flights in earlier model 172s seem like the barnstorming days.

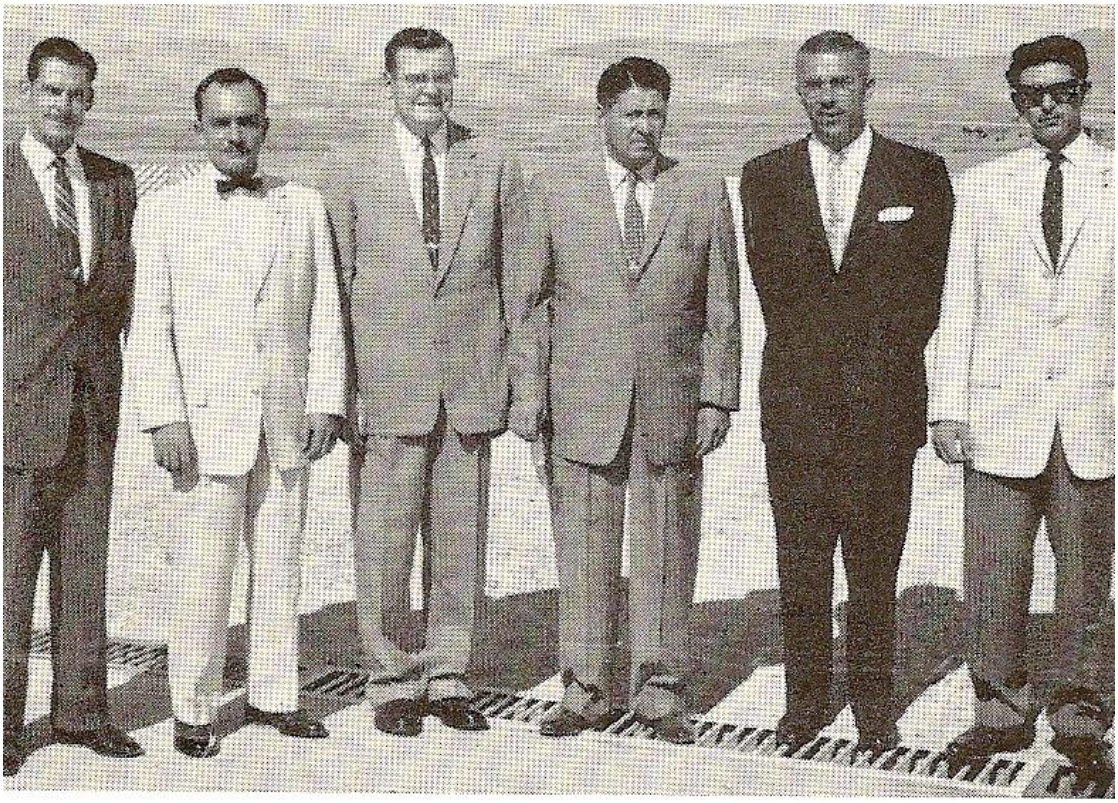


Late model 172 Skyhawk. **Cessna Advertising Photo**

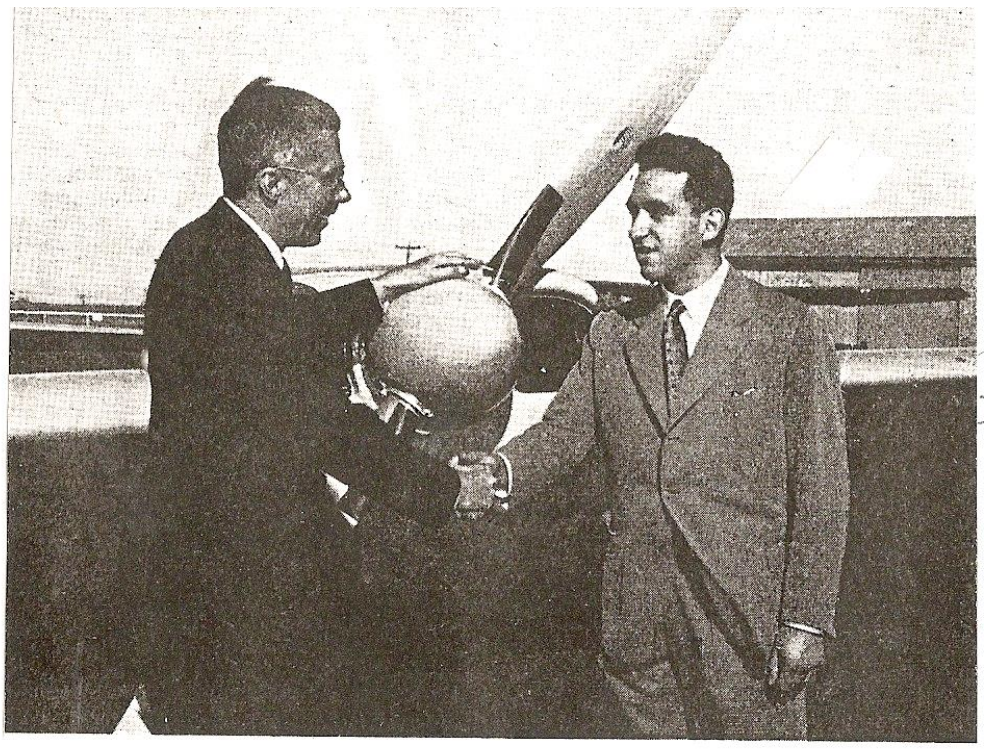
Taking Cessna to the World:

By the late 1940's, my father was flying Cessnas on sales trips outside the United States to develop the company's export market. He began in Mexico and Canada, and then made flights to Central and South America. He had flown some of these routes in World War II bombers. Later, he took new Cessnas on European tours. During his years with Cessna, he flew to and made sales calls in these countries:

Canada	Cuba	Venezuela	Guatemala
British Honduras	Bolivia	Uruguay	England
Switzerland	Turkey	Spain	Denmark
Mexico	Panama	Haiti	Costa Rica
Ecuador	Paraguay	Argentina	Belgium
France	Lebanon	Portugal	Sweden
Honduras	Columbia	Jamaica	Nicaragua
Peru	Brazil	Chile	Germany
Greece	Italy	Dominican Republic	



Los oficiales de la Cessna Aircraf Company que atendieron la inauguración de las nuevas facilidades del Servicio Aero Leo López T. De izq. a der. W. C. Cole, Gerente de Ventas para la Exportación de la Cessna, Ralph Matos, Gerente de Exportación Regional, A. E. Kangas, Gerente de Servicio de Cessna, Leo López T., Frank Martin, Gerente de Mercados de Cessna y Leo López Jr.

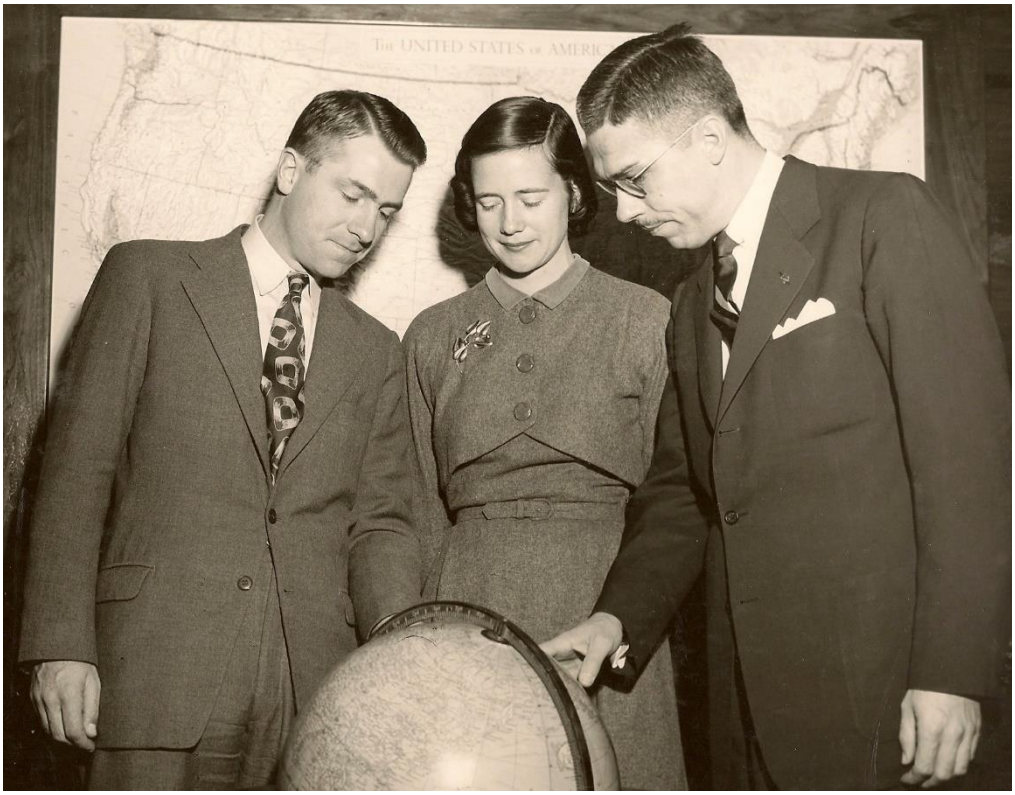


South American Buys 500th Cessna 310

Taking delivery of the Cessna Aircraft Company's 500th twin-engine Model 310 is Gustavo Mailhos (shown at the right in the photograph above), of Montevideo, Uruguay. Frank Martin (left), Cessna's marketing manager, commercial aircraft, is shown greeting the South American rancher. The airplane will be used for both business and pleasure on the Mailhos ranch near Montevideo. Prior to his purchase of the 310, Mailhos had logged 200 hours in a single-engine Cessna 170, but had no twin-engine experience. Martin pointed to the sale of the 500th Model 310 to a South American as indicative of Cessna's growing export market.

Das verbesserte Reiseflugzeug Cessna 310C mit zwei Continental-Einspritzmotoren wurde zum ersten Male in der Bundesrepublik vorgeführt. Im hellen Mantel: Frank Martin, »marketing manager« der Cessna-Aircraft Company, Wichita, Kansas; Mitte: Oberstleutnant Werner; mit Mantel: Chefpilot Rokes von Cessna

My father meeting the President of Greece.
Dad was traveling Europe with Emory Rakes in a Cessna 310.



Dad with Tay and Lowell Thomas Jr., authors of ***Our Flight to Adventure*** and ***Follow the North Star.*** Both books featured journeys in Cessna airplanes. (3)

Showmanship

The house lights lowered in the concert hall at the Century II Convention Center. Century II had recently been built on the bank of the Arkansas River, and was the pride of Wichita. The hall was packed with an international audience from all parts of the United States, Canada, Mexico, South America, Japan, South Africa, France, Germany, elsewhere in Europe. These were sellers of private airplanes, there to see what the world's largest private aircraft manufacturer would offer them that was new and exciting, for the coming year. Most had been to Wichita in prior years for the same purpose, so anticipation was high. They wanted to see something that would exceed their expectations set by prior year's events.

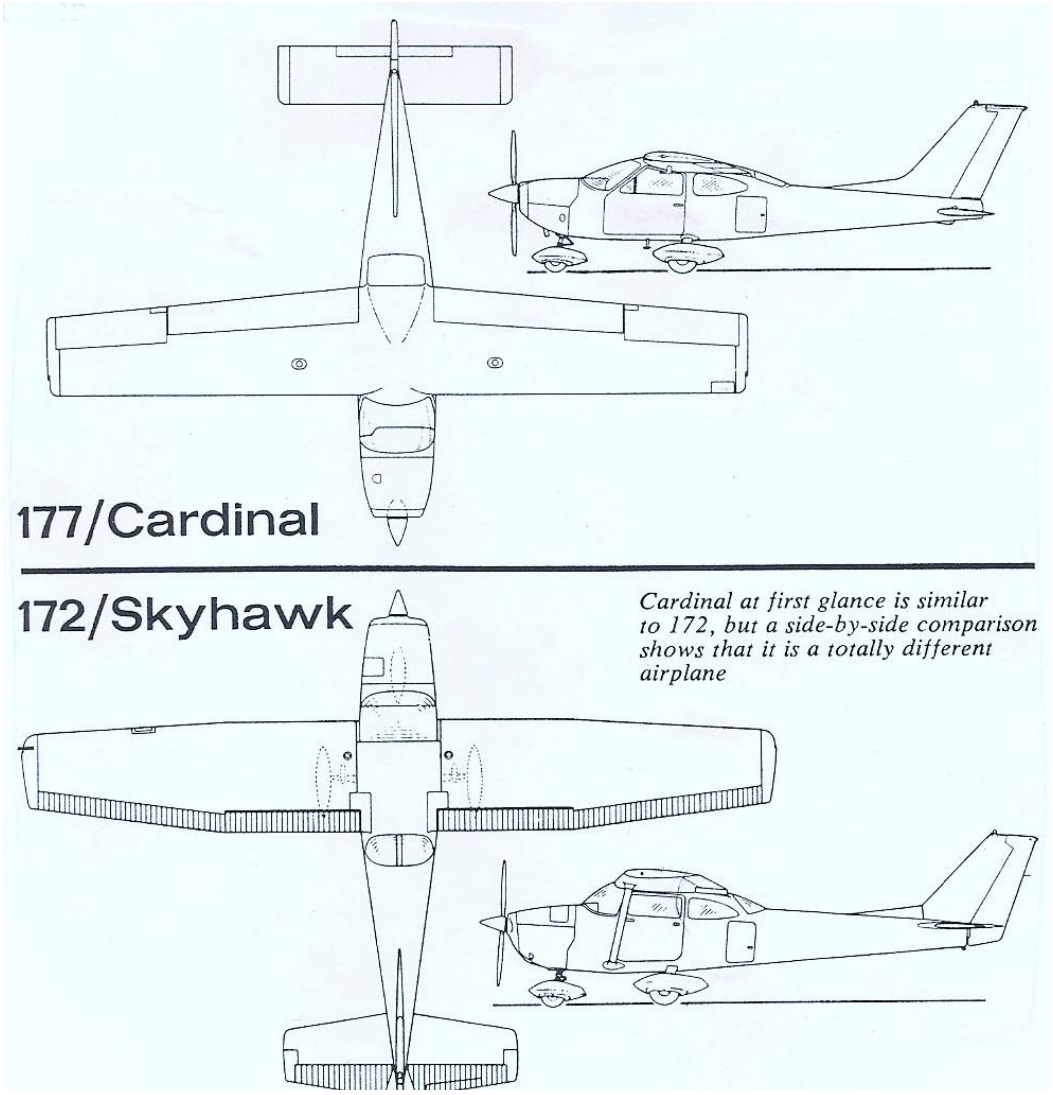
As the lights went down kettle drums began to roll and an orchestral fanfare began. It was live music. Dad hired the Norman Lee orchestra for his events. The curtain rose on a huge theatre screen and a new Cessna model Three-Ten appeared in flight. It soared dramatically across the big screen, then circled and was shown landing and taxiing in. The airplane pirouetted smartly on its tricycle gear and stopped abruptly with its cabin door facing the camera. The engines shut down, and Dad was shown stepping out on the wing and down the airplane's steps. He jogged toward the camera in his impeccable suit. At precisely the point his image reached six feet tall on the screen, he emerged in person through a slit in the screen, wearing the same suit, onto the stage, and stepped up to the microphone. The airplane continued to be projected on the screen behind. The music swelled, but his voice boomed across the concert hall public address system, *"Good evening ladies and gentleman. I am Frank Martin. WELCOME! Welcome to Cessna Aircraft Company's Worldwide Marketing EXPOSITION!"* It produced a standing ovation.

In a later year, the Model 177 Cardinal was introduced at Century II. It was a radically new design. I saw the first prototype in the secret Cessna engineering hangar when I was a kid, and recall how stunning it appeared, with its boldly swept windshield, enormous cabin doors and strut-less, cantilever wing. Cardinal development had been kept secret. The prototype was painted in military olive drab to obscure its appearance while in flight testing around Wichita. At that worldwide dealer meeting, the Norman Lee orchestra played, and Dad stood at the microphone extolling the features of this exciting new airplane. Then he said, *"Ladies and Gentlemen, allow me to introduce the new Model 177, the new Cessna Cardinal!"* The orchestra amplified on cue, and against all expectations, a real Cardinal, rigged on a complex system of pulleys and wires, suddenly descended from the ceiling, where it had been concealed in a shroud above the audience. It came in for a landing, bouncing to a stop on the stage behind my father. Again, Dad got the audience off their feet in a frenzy. Showmanship sold airplanes.

We flew a new Cardinal to the Flying Farmer's convention in Hamilton, Ontario, and even that was a significantly impressive stage show, Norman Lee and all. During my boyhood summer travels with Dad, I saw a number of such events. At a sales meeting at a desert resort in Carefree, Arizona, the airplanes were landed on the golf course, and I enjoyed helping the guys remove the wings to bring the airplanes inside the ballroom. I was surprised to see that the wing is held on by just four rather small nuts and bolts.

The Cardinal

In his later years, my father expressed some regret at that Cardinal gala introduction. As had happened with the Three-Twenty fiberglass parts issue, a company engineer had met with him to express concerns prior to the airplane's introduction. The Cardinal was a sound aircraft, but it was a completely different aerodynamic design than all other Cessna 100-series singles. The wing was different in design and flight performance, and the airplane had a one-piece "stabilator" horizontal tail rather than the conventional Cessna hinged elevator. For those reasons, there was a risk that it would be different to fly than other Cessnas that pilots were transitioning from. A pilot moving up from a Cessna 150 to a 172 or 182, expects to find familiar handling characteristics. If they had the same expectation of the Cardinal, there could be safety problems. Dad took up the issue with the company President. The Cardinal was the President's pet project. Dad lost the debate and said he felt goaded to give the Cardinal a dramatic marketing kick off. In the initial years, there were Cardinal transition problems, as well as criticisms that it was underpowered. Cessna had to implement a "Cardinal Rules" program of modifications and training, yet the Cardinal developed a loyal pilot following.



Four Yankee-Bravo

4YB was a model One-Fifty-Two (152), Cessna's improved derivative of the One-Fifty, with ten more horse power from a smoother Lycoming engine, and much less exciting thirty degree flaps (solving the spin issue of the 150 which had 40 degree flaps). In this gentle and forgiving two-seater we surveyed hiking trails above Boulder and saluted to glider pilots off our wingtip over Bear Peak. To soar among Boulder's peaks and canyons, and then toast the day on the Pearl Street mall! That was Colorado living!

We flew 4YB to Wichita to visit Dad, his wife, and sister Binnie Brook. In pilotage and chart reading, Debbie had a knack for discerning one Kansas wheat elevator from another identical one in yet another farm junction out the other window. Grain elevators set within townships and ranges all looked the same to me. The rectilinearity imposed on the Earth by humans is seen nowhere better than on the modern Kansas prairie. Long ago people drew straight lines from the stars and built the pyramids, yet before the airplane, surface travel had to conform to the divagations of waterways and land contours of the organically sculpted planet. Then, the mysterious compass needle was discovered that always swung and aligned perpendicular to the noon sun, always in the direction of the star Polaris. An invisible, linear cosmic force was revealed that confirmed our visual suspicions of a divinely ordered universe. Cartographers heeded this steadfast magnetic signal along with the sun and stars, and drew a grid from cardinal poles, parceling the Earth's landscape into quadrangles. The Earth itself was scored with this grid of roads, diverting and ensnaring surface travel in its right angles. But the airplane and sailing ship could move diagonally across that grid from one latitude and longitudinal coordinate fix to another. To pinpoint those fixes, radio waves, radar, then satellite global positioning systems transmitted homing beacons. And now, we marvel that birds and butterflies can navigate thousands of miles to precise destinations without our advanced tools. Yet, in personal flying, sage aviators still study the know-how of those birds.

Debbie checking fuel levels in 4YB, a Cessna 152.

When we left to return from Wichita, Dad came with us to Four Yankee-Bravo in his wheelchair. He had said, "*I want to see what a Cessna looks like*." That was funny, since he had been responsible for selling more Cessnas than anyone in history, and had launched the 150 sales program in the 60s. As we loaded our bags, he looked up at the sky, inhaled deeply to smell the breezes, and then told me, *"Stay below eighteen hundred until you get past Hutchinson. There the winds will shift and you can climb on up to four thousand. That'll get you a quick trip to Goodland."* We taxied out to the runway, made as dramatic a leap on takeoff in front of Dad as we could with 110 horsepower, and waved down. The tower called with, *"Cessna Four Yankee Bravo, climb to four thousand."* I replied with a request to hold at eighteen hundred to Hutchinson. They advised against it, but said "*OK, your choice*." At Hutchinson, the compass spun 30 degrees in the wind shift just as Dad had predicted, and we climbed on up. He had foreseen this wind shift as he sat there on the ground in Wichita. He was weather wise from pioneering the storms of the north Atlantic and the intense blizzards above the Himalayas in the "Hump" operation, flying four engine transports and bombers. And he knew the winds of the prairies and Rocky Mountains from his thousands of hours flying small Cessnas. Debbie and I arrived in Goodland ahead of a faster, higher-powered Beech Musketeer that had departed Wichita ahead of us, but had followed the tower's instructions on winds and altitude.

Grumman Three-Niner Eight

A Grumman Cheetah, Three-Niner-Eight was the only low wing airplane I flew. It had a neat sliding canopy, like a fighter, that could be partially opened in flight, giving it the feel of a 120 mile per hour aerial convertible. I was one with the Cessna high-wing bias; an endless hangar debate among pilots. Birds hang on their wings, soaring with unencumbered views, held aloft in sublime stability; they don't ride on top of wings held awkwardly beneath their center of gravity. And birds, like Cessnas, don't need electric fuel pumps. Yet we had wonderful dinners out in Colorado Springs, Pueblo and Cheyenne in the Cheetah.

One night, returning from Colorado Springs, we saw long bright tracers arching up over the ground ahead of us near the Air Force Academy. Then I saw specks in the windshield that I couldn't make out at first. I rubbed my eyes, and the specks suddenly got a lot bigger. We had about 6 parachutes in front of us over the training field north of the city. Encountering them after sunset on the en-route course was unexpected. It's not where I would want to be dangling on ropes that time of the evening. It required a hard right turn to avoid entanglements.

Night flight in small aircraft is enrapturing, wandering through treasure vaults of frozen stars, the airplane, itself a floating star. The cosmos is mirrored on the earth below by twinkling city lights that constellate into a vast navigation chart, perfectly recapitulating the paper one in my lap. The tenebrous atmosphere is most often smooth as silk, cool and dense for the engine to breath, floating the wings in a sense of serene motionlessness. Fellow aerial sojourners are fewer at night and signal me with brilliant strobes, their relative course immediately discernable by red and green wingtip lights. Airports, which by day are obscured in the mists, now stand out like pulsars with homing beacon searchlights, white, then green, white, green, offering safe harbor. I always felt the embrace of peace and elation in the night sky.

My mother, who flew with me a number of times over the years, enjoyed the Cheetah. I think she liked climbing up the wing and stepping over and in through the canopy to hunker down into the bucket seat. It was more fighter-pilot or sports-car like than the gracious, step-up entry through the side door of a Cessna.

I was in the solar energy business at this time and was selling Grumman solar systems. So, the brand name appealed to me, but I started flying the Grumman because the second best instructor I ever had was selling them. Arnie Ellsworth resumed my training in Longmont where Reba and the easterners had left off, and took me through my private license. He was a retired naval aviator and was a bit crazy in a way that taught you things not learnable from less crazy instructors. There is a kind of 'crazy' that instills confidence by touring the student around the edges of the performance envelope in order to clearly define the safe boundaries of that envelope. Arnie did that. He was also the owner of One-Three Quebec, as well as a lovely old 1940's Beech Bonanza that, unfortunately, he landed after forgetting to lower his wheels, right in front of us one day, as we waited for takeoff in the Cheetah. It was awful to see that vintage Bonanza get torn up that way, along with prop and engine. We had to avoid old Arnie for a while after that incident. He was pretty surly after that.

With Ric & a Grumman AA-5 Cheetah

Skyhawk Three Delta-Alpha

Our downstairs neighbor at our newly-wed apartment in Broomfield, Colorado, Russell Smith, from Lander, Wyoming, was attending the aeronautical college up at the airport. He often annoyed us by exploding fireworks and shooting his pistols off his balcony below us late at night. But, despite these weapons discharges, he was otherwise such a fine and kind Wyoming lad, and his mother would send us fresh homemade apple pies from Lander. After all, I figured, shooting guns off the porch at random intervals is just a thing normal Wyoming cowboys do.

With Russ Smith and Three Delta Alpha.

I much enjoyed our flights together. I had the pilot's license, Russ had the "A&P" mechanic's license, and this aircraft needed a flight engineer. Three Delta-Alpha was balky to start, and Russ would get her going. *(We didn't want to **not** fly just because the motor was balking)*. Once, Delta-Alpha's controls got sticky in flight, which was slightly un-nerving for me, but Russ reached under the panel and found the bind. She also collected an unusual amount of water in the fuel tanks after a rain storm, and Russ and I had to drain and wait, rock the wings, drain and wait, to be sure we got it all. Delta-Alpha was a good-looker with nice paint and cushy upholstery, but I preferred less-quirky Skyhawks for my $55 bucks an hour.

Light personal aircraft are conceived from the mating of two separately engineered systems, the airframe, and the power plant. Safety aloft depends on the integrity and reliability of both, and both have evolved to be incredibly reliable. Different companies manufacture each, and often, different airframes are built around the same engine. Great sailing ships have for centuries traversed the planet without the clamor, complexity and combustion of an engine, but an airplane remains uselessly stationary and earthbound without it. That has been cited as a poetic difference between the two conveyances. Before humans could fly, they had to emerge into a technical machine age involving highly crafted materials and refined fossil fuels.

Modern airframe and wing structures, when piloted within structural speed and load limits, withstand severe atmospheric forces. Rarely do aircraft structures fail in flight, and so, flying is quite safe while aloft. It is abrupt or unexpected encounters with the ground that are risky. Airframes which can easily battle the storms of the atmosphere, are fragile in the extreme against the other elements of earth and water. They must be returned to the Earth in the way a skilled lover bestows a kiss, with utmost aplomb and delicacy. Accordingly, aside from the skill of the pilot, we depend on the engine to bring about predictable outcomes to our flights.

That modern engine is a thing of beauty in itself, and with its system redundancies, and subject to stringent scheduled maintenance, will almost never betray a modern pilot. That is, unless pilots betray themselves. Over ninety percent of aircraft engine failures result from fuel exhaustion, an alluringly common pilot error. To acquit myself of a flyers or writer's hypocrisy, I admit to being one of many pilots who have parked an airplane with nearly empty tanks.

Skyhawk Seven-Four-Six

Seven-Four-Six gave me my first actual business use of an airplane. With two of my sales associates from the solar energy company, we flew this Skyhawk toward a sales appointment at a large ranch near Casper, Wyoming. The third-generation rancher on that 3,000-acre spread had assured me on the phone that his private airstrip was *"Fine. No problem."* Fortunately, a wall of unanticipated thunderstorms blocked our way and ushered us to a landing in Cheyenne. We rented a car for a three-hour drive over open prairie and oil fields to reach the ranch. While my friends measured the barn for solar panels, I walked the airstrip. It was strewn with softball size rocks and had a four-foot-deep ditch bulldozed through it about one third of the way down. I was angry at the old rancher, and told him so. Expecting us to set down a Skyhawk on that rock strewn field and then jump the ditch on the roll-out was taking cowboy flying a bit too far, I told him. The rancher took me a barn and showed me his beat-up old Super Cub that had clearly been on the rocks many times. "*I do it all the time,"* he smirked. Obviously he did, from the looks of that battered rag-wing in the barn.

We got back to the Cheyenne airport after dark to find Seven-Four-Six caked with snow and frozen solid. I couldn't open the door. A Wyoming squall had blasted through Cheyenne while we were up at the ranch. The hangar guys took pity on us and towed her in under their heaters next to a Lear Jet they were also de-icing. An hour later we got down the Front Range and home for a late dinner.

Skyhawk Seven-Four-Six. Cessna 746 was good clean, reliable fun. It took me to work on a number of Wyoming flights when I did environmental testing work.

“How Does Business Look? . . .

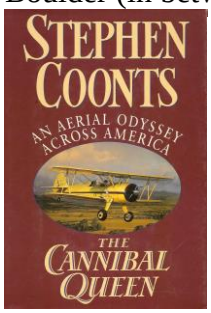
We asked Frank Martin, Marketing Division Manager. *“It will require more hard work to overcome the ‘wait and see’ attitude of the buying public. I believe the cloud of political and emotional uncertainty will pass and our business will resume its course. In the meantime, we have been given a real challenge. The challenge is to continue our excellent sales record and lead the industry. A challenge which we can and will meet. We all know that continued good sales in 1961 are going to call for a mighty big effort. But there is only one place where progress comes before work, and that is in the dictionary.”*

1961 “Cessquire” company newsletter article

Left to right: Richard Robinson, who later became CEO of Rockwell International, builder of the B-1 bomber, my father, company pilot, Emory Rakes.

Seven-Charlie-Bravo (aka "Charlie Brown" by Boulder pilots)

A notable thing about Charlie Brown was that this particular airplane was mentioned by *(and piloted by)* famous aviation author and Boulder resident, Stephen Coonts, in his book, ***The Cannibal Queen***. (4) Coonts is best known for another of his books, ***Flight of the Intruder,*** about his Viet Nam jet flying days as a Naval Aviator. In ***Cannibal Queen***, he writes of how he flew Seven-Charlie-Bravo from Boulder (in between our using it). On page 108 he writes,



*" . . . That Cessna 172 I used to rent in Boulder, 'ol November One Seventy-Seven Charlie Bravo, has a little placard mounted right in the center of the instrument panel: " **Don't Do Anything Stupid."***

I recall that placard. Its humor was that it tacitly summarized and satirized other less memorable, but wordier placards that adorn many rental airplane panels with superfluous, obvious information, like the common, "*Do Not Exceed Maximum Aircraft Structural Speed."*

My daughter Elan with Good Ole Charlie Brown (and Barbie). Photo shot from video.

We -Elan, Debbie, and my brother Bill- flew Charlie Brown to Wichita to visit our friend and business partner, Richard Ten Eyck. That added a historic dimension to this flight. Dick had been the styling designer of the very airplane we were flying, the One Seventy-Two Skyhawk.

In the early 1960s, Richard Ten Eyck created for Cessna the design of the Skyhawk's sweeping tail, engine cowling, and distinctive rear window. He had done similar styling re-design for the Cessna One-Fifty, and also worked on those Cessna masterpieces of wind-swept style, the One Eighty-Two (182) Skylane, the Two-Ten (210) Centurion, and the Cessna Three-Ten.

In his book, ***Cessna, Wings for the World*** (2), William D. Thompson discusses Richard Ten Eyck, devoting half of page 11 to the technical and performance problems Dick's styling changes created for the Cessna engineering department. They had to strengthen this part, and dampen that control system, add torsion stringers here and there to support the slimmer shape, and the rear window caused more drag and a slight reduction in cruise speed. This is a reflection of the classic struggle between marketing and aesthetic goals, and the engineer's devotion to pure function. Thompson does add this sentence to his technical critique:

> *"On the other hand, this new styling transformed a rather prosaic, plain-vanilla airplane into a pert and sporty little airplane that caught the imagination of our pilots, salesmen, and customers - so much for efficiency!"*

At the end of the day, it is about getting the airplane sold in high volume. Dick knew how to style an airplane to make it highly desirable to pilots, and Dad knew how to sell it to those pilots. The Skyhawk's fortunate combination of function, style, and energetic marketing made it the most-produced, best selling airplane in history, in the world.

Dick's photo from a 2005 book that features his life work, *1945: Creativity and Crisis: Chicago Architecture and Design of the World War II Era,* published by The Art Institute of Chicago (5).

Dick's artistic rendering of his Skyhawk design that made it the most popular airplane in history.

We were Dick's house guests for a fine evening and dinner at his design and artist studios complex of RTA Associates in Haysville, in a lovely wooded setting along Cowskin Creek. This is where Dick had designed the shapes of Cessnas, did design work on Learjets, styled Rival appliances, Zebco fishing reels, and Hesston tractors. And this is where he entertained clients from all over the aviation world who came to see and buy his ideas for giving small airplanes and other products greater "sex appeal". Dick always said that he was in the "perceived factors" business. His reputation in aviation was first established in the 1940s when he was a principal designer of the Beechcraft Bonanza. He was a modern day DaVinci; a painter, sculptor, architect, industrial designer. He grew banana trees in Wichita, just because someone had told him he couldn't. On our visit, he was finalizing his design for the Vornado house fan, now sold in most home and department stores. In his large hangar shop, his staff was completing a full-scale mock up of a node on the International Space Station. They were preparing it for shipment on flatbed truck to his client in Houston, the National Aeronautics and Space Administration. NASA would use it for crew training. Also on this visit, his self-designed Frank Lloyd Wright style home was strewn front to back, top to bottom, with hundreds of mink hats he had hand sown on a small Singer machine set up in his formal dining room. He wanted me to join him in the mink hat business. Dick developed his mink hat obsession when the Piper Aircraft Corporation turned down his proposal to re-style the interior of their new turboprop aircraft. *"You are a hardware guy, not a soft goods stylist,"* a Piper executive had fatuously remarked, prompting Dick's monomaniacal mink fashion sewing. Dick had many charming and amazing artist's eccentricities and obsessions. He was a great man and a wonderful friend.

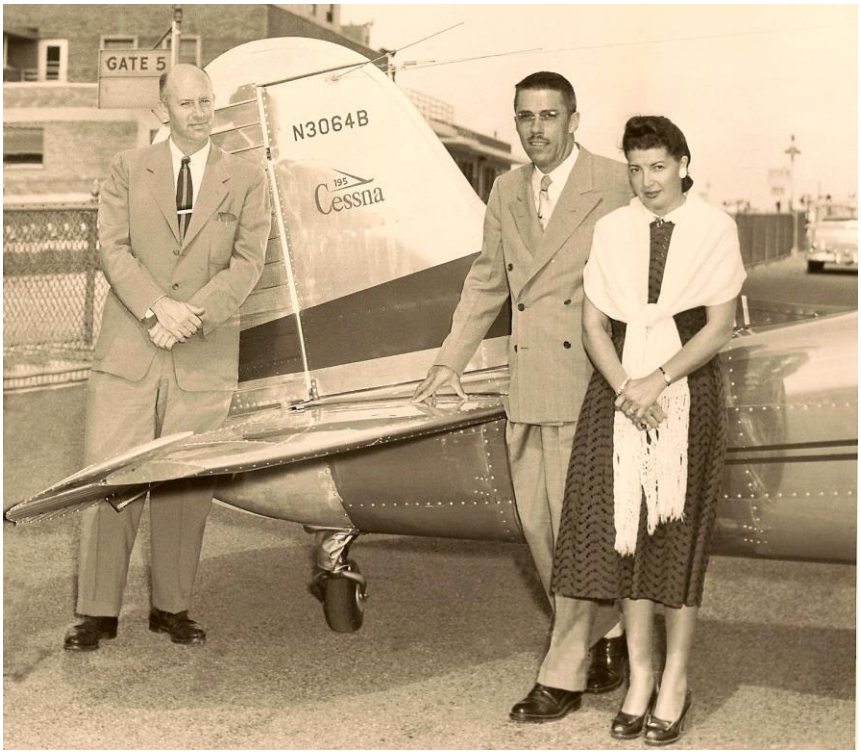
Our family's lifestyle had been enhanced as Dick designed our Wichita backyard with flowing stream, fish pond, a garden hill for my dad, shuffleboard court, and a regulation size croquette field. Croquette was a passion of my father's he had picked up from British friends while he was stationed in India during World War II. He was as annoyingly hard to beat at that game as he was at Gin Rummy. Our backyard was an adventure-at-home for me and my neighborhood friends. It was a free-roaming zoo for our reptiles, turtles, rabbits and other creatures, and a fine setting for aviation industry cookouts. Later, Dick undertook the interior design of our home complete with custom furniture, sculptured carpeting, and a beautiful hand painted portrait of my young sister holding a rose. In art and design, Dick did everything very well.

It had been my privilege in those years, to work with him on my father's invention for the control of urinary incontinence, a symptom of Dad's Multiple Sclerosis. This was a mechanical, electronic device that was a cleaner and more discreet system than adult diapers that were the only option for incontinence sufferers. My father had secured a patent based on a very crude prototype machine built inside a briefcase. Dick miniaturized the technology, creating a beautiful micro-computer styled device that had a surprisingly aesthetic appeal for something intended for such an unaesthetic problem. He and I traveled together around the U.S. presenting the idea to medical equipment firms. Dick was disarmingly humble at first impression, and was slow to unfold the commanding authority of his expertise. Our prospective clients had an established routine for interviewing inventors and dispensing with the mostly uninspired contraptions they had to wade through. As we would be ushered into another medical equipment company conference room, I could always sense that they expected just another meeting to get over with as quickly as possible. So, I much enjoyed watching executive jaws drop as my soft-spoken genius friend unfolded his astounding client portfolio -from airplanes and appliances, to space stations- in our presentations. To their wowed expressions, Dick would quietly reply, *"Yes, we do more in Kansas than just grow wheat."*

After the visit to Dick's home, we flew down to Tulsa to visit a client of mine about the radon and environmental testing business I was in at this time. On the flight home from Tulsa, we stopped to refuel in Garden City, Kansas. The June afternoon was turning toward evening. On the 2 1/2-hour flight to

Boulder from Garden City, with Deb reading to Elan in the back seat, we dashed amongst virga shower columns falling out of huge cumulonimbus towers that glowed red and blue as the sun set toward the mountains in the west. It was an enthralling spring evening on the high plains, with storms building overhead to high altitudes, challenging the jetliners, but leaving plenty of space for us between the cloud ceiling and the green and gold prairie. We went running through the sprinklers. Bill and I charged the Skyhawk through rain squalls that slammed the windshield hard enough to sound like gravel, then, shooting out of the dark gray into bright blue, the other of us would grab the controls to swing over there to hit another one head on. On that flight, my brother and I shared together, one more time, the joy we each had had so often in childhood, flying with our dad in Cessnas.

I did a number of trips in Charlie Brown, to Gillette, Rawlins, Cody, and Laramie for the real estate radon testing business. That Skyhawk gave me some magical flights over the Big Horn mountains and the Wind River Range. I surveyed Elk Mountain in it for a later hike to the summit. Dad had warned me about Elk Mountain, jutting out as it does, on the route between Laramie and Rawlins. A number of pioneering airmail and airline pilots had come to grief on its slopes in bad weather. Wyoming remains a land of free flight, unencumbered by dense air traffic control zones, and has sparse air traffic. The personal airplane provided me the privilege of flying that region from one end to the other, on routes my father had flown after World War II, that were pioneered by the earliest air mail pilots. I also found my own high places amid Wyoming's mountain reaches. These are places that can never be seen by those who travel on the ground, or fly in airliners where they can only glimpse through portholes from the obscurity of the high-altitude ether, seeing only a homogenous blur of gray-green scenery, passing too far below to be known or comprehended.



M**y mother loved flying in small aircraft. In this photo, dated September 4, 1952, 363 days before I was born, Dad and Mother are showing off a new Cessna 195 to a dealer.** They traveled North America and the Caribbean together in Cessna airplanes.

I have a video, taken from the back seat of Charlie Brown, of a flight with Elan and my mother. Mother sat in the right seat next to me, as she did each time we went flying together. She loved flying in small airplanes. I imagine that she was reveling in her own reminiscences of so many similar flights in her past. She was an adventurer and an adventurer's wife, and had also flown by her own hand starting in World War II. She and I were able to share that intimate heritage, in our time flying together in personal aircraft.

What's In a Name?

Product names are a crucial element of marketing. My father named Cessna airplanes, or influenced their naming from market research. The Cessna brand identity was characterized by the "Sky" prefix, such as, "Skyhawk," "Skylark," "Skylane," "Skyknight," and other variations on that theme that Dad's marketing department affixed to new Cessnas. When the company Chairman wanted the name "Futuro 500" for the new model 177, Dad conducted a marketing survey and determined that name sounded too Japanese to the American ear, and it was decided the 177 would be named "Cardinal" for the dual connotations of a species of bird, and "first place." The President wanted to name the new Cessna business jet, "Fanjet 500," but Dad argued for the name that is famous today, "Citation." He named the model 210 the "Centurion," a name for a Roman commander. As a kid, I had wondered if that related to the name "Martin" being derived from "Mars," the Roman god of war. Dad licensed several of these product names to General Motors Corporation. They applied his appellations to the Buick Skyhawk, Skylark, and the Chevy Citation. After his retirement, Dad rented Chevy Citations on his travels, and I bought a Buick Skyhawk, for no reason other than the connection to family history these names evoked. My mother owned a Chevy Citation, a car her ex-husband had, in effect, named.

DICK ROBINSON AND FRANK MARTIN

A PAGE IN THE AIR AGE

Frank Martin and Dick Robinson of the Marketing Division recently proved they believe what they tell prospective customers about the economics of time and money available in business flying. In a flight-sweep tour of the nation, they held conferences with every distributor in the United States in less than one week. Off early Monday morning, the two-some held two-hour airport conferences with our sales organization, Top Guns, at such widely spots as Dallas, Phoenix and Boise. A full day was spent in the office Wednesday after covering the distribution of the western half of the nation. Before dawn Thursday, the pair were off again to see eastern distributors at such by-points as Chicago, Pittsburgh, Atlanta, and Jackson, Mississippi. They returned Friday night. Moral of the story: If you have a travel job to do fast, a Cessna is the answer. Name one other mode of transportation which would permit such a schedule. Cessna is in the business of selling time and economy, and our airplanes are the tool making it possible.

Radon Flying

After helping to start up an environmental consulting firm in Boulder, Colorado, I had the good fortune to use Cessnas to quickly reach the multiple job sites that our work contracts required. For a contract with the nation's largest real estate company for radon testing of homes all over the United States, we had to figure out how to quickly get to all the work sites. Many were located between Wyoming and Oklahoma, and only a personal airplane could take me to two or three towns in one day, and often home again, the same day.

At the Gillette, Wyoming airport, I became known as "The Radon Guy." They always had an old beat-up Oldsmobile station wagon ready for me when I arrived there. One day I flew up over Cheyenne and Laramie Peak to Gillette, tested a home, and then flew over the Wind River range to Cody, to test a house in Meeteetse, Wyoming. I finished my work that day in time to drive up to Yellowstone Park for an evening hike along Yellowstone Lake, encountering a bear, and I watched the sun set over the lake. Only a personal airplane can so etherealize a work day like that. The next day I flew down through the middle of the Wind River Canyon, dipping below the rim, stopped for another test in Rawlins, and got home to Broomfield, Colorado for an early dinner.

On another trip, I did a test in Riverton, Wyoming. The very kind woman managing the airport had no pilot's loaner car for me except her brand-new personal Buick. I said I would call a cab, but she insisted, *"Sonny, just take that car for as long as you need it, and stop arguing with me,"* she exclaimed.

Fueling Skyhawk Two-Two Delta at Cowboy Aviation in Laramie.
Note the windsock -upper right- that always seemed stuck in the same position at most Wyoming airports.

I drove out, did the test, and then was so overcome with a sudden stomach flu, or maybe food poison, that alI I could do was get to a hotel, check in and start throwing up for a day and a half. I called her every few hours and insisted I'd pay the cab for someone to come pick up her new car. She just kept saying, *"Now sonny, you just keep that car for as long as you need to, and don't you worry about a thing. And stop your calling and whining. I'm too busy out here to fool with you."* When I finally could get up and out to the airport and stumble to the little Cessna, I found they had cleaned it, polished the windshield, had it full of fuel, and put away in their hangar. It was truly wonderful hospitality in exchange for buying just twenty gallons of 80 octane.

On another occasion, the assignment was a test in Cheyenne, then over for another in Rawlins, and then down to the northern Colorado mountain town of Walden. I had to plan carefully for Walden with the One Fifty-Two I was flying. The field was over 8,100 feet above sea level, where a little four cylinder has a tough time churning out enough power to get airborne. I planned to burn off my fuel weight going to Rawlins and to be nice and light when it came time to depart Walden. But the Boulder office called and I learned the Rawlins test was cancelled, and the real estate guy was waiting in Walden.

That flight from Cheyenne to Walden was memorable. First, the wind was, as is typical for Cheyenne, blowing like crazy. It is commonly joked that they tie anvils to Wyoming windsocks to get accurate readings. I taxied to the end of the runway very carefully, using a reverse-cross-control technique with ailerons and elevator, that pilots use in light tri-cycle gear planes to avoid being blown over on the ground. I took the runway into the wind, shoved the throttle, and nearly lifted off vertical like a helicopter. By the time I crossed the fence line I was over 10,000 feet and still climbing at a jet rate, with my vertical speed indicator pegged. The tower called to warn me against climbing into the Continental Control Zone, the jet lanes where little guys aren't allowed. I throttled off and pushed down, but still the mountain wave kept shoving me aloft like a loose feather. It was quite a ride in the tiny two-seater, on those Cheyenne updrafts. I turned southwest, heading over the hills, and came head on with an eagle prowling his sky. He was not interested in letting me pass. I'd turn one way and he'd move over to stay in front. I had to fake him with a right, then rapid tight left maneuver to get past.

The real estate guy was waiting in Walden and drove me to the test house. We got back to the airport and he wanted to watch me takeoff, but I explained my plight. I had landed heavy because of missing Rawlins, and I had to wait for cooler (and denser) evening air before trying a takeoff. He drove off, leaving me alone at the little airstrip. I found an old coffee can behind a dilapidated T-hangar, and spent the next hour draining off much of my fuel load, a few pints at a time. When I guessed that I had just enough fuel to fly up around the high divide and back down to Boulder, I started up and taxied to the runway. Still, I used most of the pavement and felt like I was dragging my tail through the sage brush. I finally got clear because the airport was on a bluff, and the ground dropped mercifully away from under me. I then could nose down for some flying speed. I circled up over the low passes of Wyoming and back down past Fort Collins, Loveland, Longmont, and home for dinner.

The Fun, Forgiving 152 Google image

On another testing trip, I had done a Gillette-Cody-Rawlins workday, and was trying to get home to Broomfield for dinner. But beyond Laramie, which was under clear skies, I saw the huge cloud bank of a Front Range up-slope front, drawn across my course toward home like an enormous curtain extending from high altitude to the ground. It fell exactly at the Tie Siding post office. The sun was shining on one side of the post office, and the other side was getting wet in the rain. A beautiful rainbow marked the closed door. Without the instrument rating that I didn't have, it was an impenetrable barrier, and I turned back and landed in Laramie.

At that time there were two old weather-beaten cowboy gentlemen who operated the FAA's flight service station in Laramie. They were venerable fixtures in southeast Wyoming, aviation, much relied upon by the light airplane pilots who passed through those parts. They were magic wizards of regional meteorology, and sage flight planning counselors. Aviation meteorology is as much art and philosophy as science. It is a skill won through years of experience observing weather patterns in order to gain such an instinct for the ways of the winds. It is like that time in Wichita when my dad could sniff the air, watch the movement in the trees, glance at the windsock, observe the cloud structure overhead, and then be able to forecast winds aloft many miles away. Such was the skill of those weather-wise masters in Laramie. In planning flights, I could call those Laramie fellows and get a weather briefing that was a lyrical vision of Wyoming atmospheric conditions, before venturing up there. They always provided a total clarity of thought for go, no-go decisions.

Right at this time, two things were happening to the careers of these old masters. For one, they were about to be retired and the station was to be converted to an un-manned automated weather observation system. Those laser weather sensors that fed data to computer-model forecasts, would greatly degrade the quality of weather reporting, in my view. I would miss the wise human observer at the station to look out the window and report what was really going on in the sky. The other thing these guys were contending with was the recent order from FAA in Washington D.C., that all FAA employees must be drug tested. These guys were consummate professionals, salt-of-the-Earth Wyoming cattlemen, and the last fellows who would ever go in the back room to smoke joints or shoot cocaine.

When I landed in their office that day, they were humorously livid about the government drug testing mandate. I was one of several pilots waiting in their office who had been stopped by the weather front. There was a fellow who had bought a Grumman bi-plane crop duster in Idaho and was trying to get home to his farm in southern Kansas. Another had just taken delivery of a brand-new tail-dragger Husky from the factory in Afton, Wyoming, and was headed home to Oklahoma. As we all sat for hours, waiting for these flight service guys to get rid of that standing front, all they could do was quip and complain about drug testing. *"Whelp,"* the one would say, "*I guess I better get back there and pee in my bottle."* The other would reply, *"Now don't you go get messed around and stick your thing in my bottle! I don't want any of your old clap, buddy!"* And the first would say, *"I'd never think of putting my thing in your bottle! Have you lost yer dam mind?!"* And it went on that way for hours that evening and the next morning. Since the cloud front never lifted all night, I had checked in to a motel, and was again in their office waiting for a break the next day. By afternoon it was clear that front was sticking around, and I rented a car and drove home. Two days later I drove back with my buddy Kent and recovered the airplane. Out here in the west I could usually get by without the instrument rating, but on that trip, not having it made flying almost as fast as walking.

Selling America's Aviation Infrastructure Expansion

My father's aviation marketing career reflected a series of marketing strategies of ever evolving sophistication. He started out before and after World War II selling airplanes. Then he sold airplane dealerships to create a global distribution network for Cessna. Then pilots had to be created in order to increase demand for the product with the "Learn to Fly" programs.

By the late 1960s, Dad took a central role in national politics, to expand the infrastructure needed to carry increased air traffic. More air traffic is what Cessna was really selling. The airways system, like the highway system, would have to be continually expanded to support the ever-increasing sales of new airplanes. He was appointed to the President's National Airports and Airways Development Task Force as an industry delegate. The resultant Airports and Airways Trust Fund imposed a tax on aviation fuel to build the needed infrastructure. It was modeled on automotive industry efforts to use the same means to build the nation's superhighways. One stated program goal was to create an airport system in the U.S. so geographically broad, that a pilot could lose an engine anywhere and glide to a lighted runway. Improved air traffic control and navigation aids were also funded. The Aviation Trust Fund became a hot point of political uproar during the Reagan Administration when that President fired the striking air traffic controllers, and then appropriated part of the fund to make the Federal budget appear more balanced.

In the late sixties, Dad's work on the Task Force brought him to Washington D.C. more often, near where I lived in the winter with my mother in Arlington, Virginia. I spent quite a lot of time with him at meetings in Washington D.C.'s Mayflower Hotel, and visiting Senators to observe Dad do his lobbying work. In another book, ***Among Stars Above the Storm***, I tell a story of being with Dad at one of these meetings. It was the night Eisenhower died. A number of the men at the table were also World War II veterans. All rose to toast their dead leader, the Supreme Commander of Allied Forces in Europe. Most of them, including Dad, wept as they raised their drinks in salute. "To Ike!", they toasted in unison.

The President's National Airports and Airways Development Task Force.
My father, front table, second from left.

Chuck Sassara's 1949 Cessna 195

One of our finest Cessna flights was during an Alaskan vacation, when our bed and breakfast host in Girdwood, Alaska, Chuck Sassara, took us flying in his 1949 Cessna One Ninety-Five (195) over the Kenai glaciers and Prince William Sound.

We had arrived in Girdwood late in the day after a long drive down from a B&B outside Denali National Park where we had stayed with dog breeders who raised some of the top Iditarod winners. The booking agency had failed to let the Sassaras know we were arriving, and they had settled in for the evening not expecting guests. Chagrined at finding they were not expecting us, we said we would be very happy to find a hotel. The Sassaras though, overflowed with enthusiastic hospitality at the arrival of these strangers off the road, and they insisted we come right on in. Ann set right into making us a batch of cookies from scratch, while Chuck made up the upstairs rooms that had a wrap-around balcony overlooking the Alyeska Ski slopes. We delighted in an evening of listening to their accounts of living through decades of Alaska history, and how they personally made a significant portion of it themselves. That night we drank wine on the balcony and sat enthralled at a vast display of northern lights flashing across the big dipper.

In the morning, our hosts served a wonderful breakfast of omelets and caribou sausage from an animal their son had shot near Denali. I was looking over their museum of wall photos, and was admiring a picture of an old Cessna One Ninety-Five parked at a bush strip. I remarked that my father had loved flying that type airplane after World War II. I thought it was just an old photo among many bush aircraft, hunting trips, and other Alaskan themes they had displayed on their walls. The Sassara home was fascinating. Their pictures and artifacts recalled Chuck's time in the state legislature. He had participated in the Alaska Statehood vote! They displayed photos of their son climbing Mt Denali, and he had been one of the first to summit the highest peak in North America in mid winter. Today, both Chuck and son can be readily found at multiple references on an Internet search of Alaska history. Another wall of their home featured their sailboat that they traveled in each winter to Costa Rica, to their second home. When he had not been busy helping to usher Alaska into United States statehood, implementing native claims settlements, or planning for the Alaska pipeline, Chuck had operated a flying service for many years in the Alaskan bush. Well, here was one from among my most admired of all types of aviators. I had befriended a real bush pilot!

When I mentioned my dad and the One Ninety-Five, Chuck said, *"It's parked just a few blocks away at the strip. Would you like to see it?"* We jumped in his pickup and drove over, and there was that spectacular old Cessna. After my father returned from World War II, and joined Cessna, the neatest aircraft they were building at the time was the One Ninety-Five, and it was his favorite. With its art deco styling, strut-less cantilever wing, and huge bullet cowling enclosing a big Jacobs radial engine that could deliver over 300 horse power, it was like flying one fourth of your very own Boeing B-17. It was a very classy and prestigious aircraft, not only of its own era, but is as well, greatly envied today among collectors. Dad flew One-Ninety-Fives all over North America, including on hunting trips in western Canada, and flying fresh moose meat back for Wichita neighborhood cookouts. He took my brother and business associates salmon fishing in Canada in this type aircraft.

At the nearby airstrip as we admired the airplane, Chuck said, "*Wanna go for a ride? I need to run her up and blow out the condensation."* That's as fine an excuse as any that pilots come up with to go flying. He started pulling the big radial through and told me to get my girls seated.

Chuck Sassara's 1949 Cessna 195 in Girdwood, Alaska. Fred Martin 1991

My daughter Elan, and me, in Chuck's 195, as he pulls the big radial through for start up,
(a procedure required on radial engines to clear oil from the bottom cylinders).

What a rare experience that flight was! We flew up over the Kenai Peninsula with its glaciers, vast ice fields, remote peaks, and high alpine lakes. It was an Alaska no one except flyers can ever see. We then circled out over the Prince William Sound, and on over Valdez.

My father had flown a number of One-Ninety-Fives off the Cessna production line in the late 40s and 50s so there was a good chance he had flown this one. When I got home and checked the registration number against his log books, I found he had flown 2 down and 3 up the production line from the One Ninety-Five Chuck had in Girdwood, Alaska. In ***Cessna: Wings for the World***, Thompson again mentions my dad in a tone that reveals the classic philosophical clashes between marketing folk and engineering folk. On page 105, he tells this story about my father and the One Ninety-Five during its pre-production development:

> *"(We) took the airplane out to the mountain strips of Colorado for operational high-altitude testing. We made the mistake of taking along Frank Martin, a gung-ho Cessna salesman. He, in turn, invited Cessna dealers, Lou Clinton and Grant Robertson, to join us at Denver. That started a non-stop demonstration ordeal at many high elevation strips. Each day started at 6 am and ended after midnight with Frank sitting on the edge of our beds talking non-stop about the 195's great performances during the day. He got Lou to pledge that if the airplane could take-off from Glenwood Springs and continue straight ahead over a nearby towering mountain without turning and/or circling, it would be a great mountain airplane. It did this with ease, and, consequently, Clinton Aviation Company in Denver became one of the biggest sellers of C-195s in the country."*

Thompson's anecdote testifies to Dad's skill for getting the Cessna dealers to place orders for new models. The best kind of selling derives from the salesperson's enthusiasm for the product. Dad had that for the One Ninety-Five, and most other Cessnas.

A view of a Kenai glacier from that 195 flight with Chuck Sassara.

The Cessna Citation

The Maiden Flight of the Cessna Citation jet. Cessna Company Photo
I was present at this September, 1969 historic event in Wichita.

Today, the Cessna line of Citation jets are the best=selling business jets in the world. The line offers a range of models from a smaller single-pilot personal aircraft, to the Citation X, one of the highest performing, global ranging personal business airplanes. The prototype that first flew in 1969, called the “Fanjet 500,” was designed to be a step-up to jets for the owners and pilots of Cessna’s twin-engine propeller driven airplanes. The Citation was my father's last major project at Cessna. It involved another contention with the President and Chairman, in the inimical relationship that had, after such a long successful partnership, developed between them in later years.

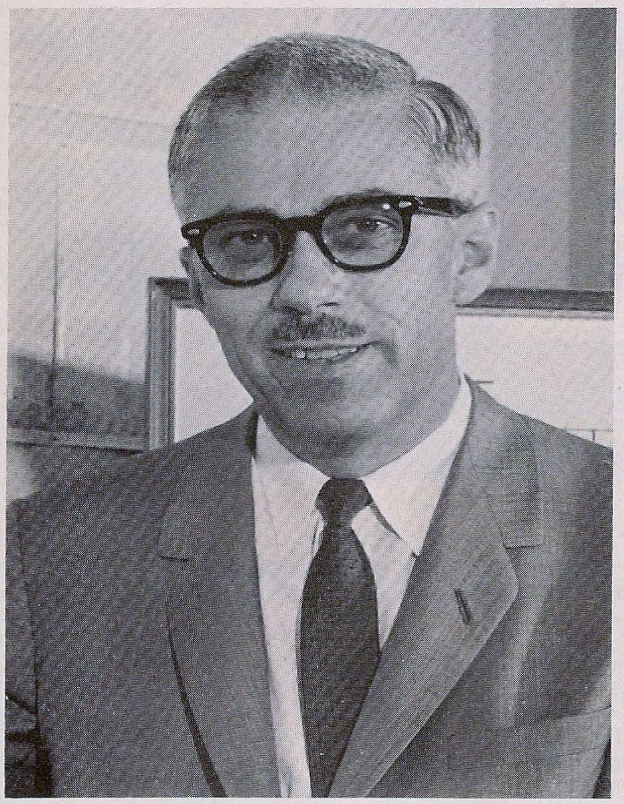
Dad described to me a pre-introduction meeting for the Citation. The cost engineers presented their figures and concluded that, with profit goals figured in, the new aircraft would have a surprisingly low price tag. Dad stood up and announced that the low price would make the Citation a market failure. He paused for reaction. Perhaps Dad was goading the others in the meeting for effect. The Chairman took the bait and chided him that maybe he just wasn’t up to handling a product at such a high price. Dad replied that no, the problem was, the price would be too low and would not garner buyer and pilot confidence. He knew how buyers thought about airplanes. Customers often judge quality by price. So, he proposed a rather large price -and profit- increase, a recommendation that was hard for the Chairman to argue with. In its first three years, Citation surpassed ten years of Lear Jet sales, its main competitor.

The Cessna Citation

The decision was made to establish a separate Citation marketing department, rather than sell the jet through the existing Cessna dealer network. The new jet was certain to be a highly lucrative opportunity for the global dealer network Dad had spent his career developing. Over eight hundred dealer organizations had invested their fortunes and careers in the Cessna product line, and now were to be denied the Citation opportunity. A class action law suit resulted that continued for years after. For most of the rest of his life, Dad was courted, entertained, interviewed, and deposed by lawyers working the lawsuit for the Cessna dealers. One of those attorneys became a partner in the development of Dad's medical invention, and often flew in to our meetings in his twin turboprop personal airplane, wherever Dad and his wife Sandra happened to be in their motor home. In the final weeks of his life, my father was still working with this lawyer, and so was I.

What the Citation became: Top: Model CJ-3, Bottom: Citation X. Cessna advertising photos
The finest personal aircraft in the world are still built in my hometown, Wichita, Kansas

Frank Martin. It can be said safely that Cessna Aircraft sells more general aviation aircraft than any other aircraft firm in the world and Frank Martin, as VP-commercial aircraft marketing, is in charge of those sales. Under his supervision are 870 retail sales outlets in more than 100 countries and the Marketing Div., which employs more than 300 personnel. Martin is a 20-year Cessna man, joining in 1946 as a commercial aircraft sales representative and moving through the ranks until he was named to his present position in 1963. Born in Poplar Camp, Va., 48 years ago, he began his business career as an insurance salesman. His love of flying brought a career switch to flight instruction. In 1940, he went to work in Philadelphia as a full-time airplane salesman (supposedly one of the first in the country). He signed on with the Army Air Forces in 1942 and was soon part of the Hump-flying crews. He joined Wichita-based



Cessna shortly after his discharge in 1946. Martin's travel schedule keeps his logbook pretty well filled and he holds both single- and multi-engine ratings, as well as an instrument ticket. Would you believe that one of his hobbies—in addition to gardening—is flying?

Three-Delta-Romeo

Elan and me, in Three-Delta-Romeo, diverted to Erie Air Park after a trip to visit Grandma in Brush.

The photo above recalls a day in October 1996. My daughter Elan and I had just returned from visiting my mother in a Brush, Colorado nursing home, a facility I chose to treat and manage her advancing Alzheimer's disease. It was poetic to fly to visit Mother, and Elan and I got in some flying time together, with she in the right seat, at the controls, holding our course and altitude, as I had done with my father. This airplane was based at Jeffco (now Rocky Mountain airport) in Broomfield.

This day, on our return flight, the winds had picked up on the Front Range to such a degree that, on approach to Jeffco, the tower advised that the airport had just closed to light aircraft due to severe gusts and microburst activity on the runways. We were cast adrift. The clashing cold front was coming over the mountains in the form of that familiar mountain wave at Jeffco, and it was moving in rather fast. So, our plan was to turn around and head northeast, out to the plains to a calmer airport. We went for the first option, Erie Air Park near Lafayette, Colorado, where the cross winds were picking up and lots of Jeffco traffic was piling up. We had to wait in line in the traffic pattern and hope to get to the runway before the wind became too bad. We circled west of the field until we saw a gap to squeeze into line on the downwind leg and made one of those heroic crosswind landings. We left some excess rubber on the runway, but no paint or aluminum scrapings. I did utter a quiet "mercy" to myself. In the photo we're just happy to have found a parking spot with tie down ropes with all the Jeffco refugees that were putting in there. It was a fun father-daughter adventure. We left 3DR there for the night and moved her over to Jeffco the next day.

Skylane Eight-Six-Mike

Skylane, 9886M, a Cessna 182.

The Cessna Skylane is a solid traveling airplane. With 230 horsepower turning a controllable pitch propeller, it easily moves four people and their luggage over multi-state distances at more than 150 miles per hour. The Skylane's cabin was more spacious and comfortable than the One Seventy-Two, within a sleeker, more stylish, Ten Eyck-designed airframe.

It was meaningful for me to pilot the Skylane because, in my childhood, this is the Cessna model that I would be sent back to Virginia in at the end of those childhood Kansas summers. So, there was a touch of poetic justice for me in flying the Skylane. As a young boy, I had been its right-seat captive, riding those 14 hours back east with a stranger; a "ferry-pilot" who carried me on a new aircraft delivery flight for an extra fee. My Dad would put me aboard at the Cessna Delivery Center in Wichita, at the end of another idyllic Kansas summer, in which I had flown with him all over the U.S. and Canada. I would be in a sorrowful state at being wrenched away again from my Kansas home, clutching a bag of cookies my stepmother had sent me off with, disgracefully teary eyed. I knew where I wanted to be, but was not allowed to remain. At the end of my Kansas summers, it was time to return to Virginia, and back to school. Dad would cheerfully say, "*Chin up, son!,"* he shut the door, and waved good bye.

On those trips I was an annoyance for the ferry pilot, but I got some good flying lessons. Dad would hand the pilot some cash, and tell him, *"Now, no flying in marginal weather, and no night flying with my son."* The pilot would reply, *"Yes Sir Mr. Martin,"* and off we'd go, hell-bent through any weather the pilot could handle, anytime, day or night. Those pilots were paid to deliver an airplane, not babysit a kid. I can still hear the haunting dah-dah-dit, dah-dah-dah-dit tone from the nav radio, repeating over and

over, hour on end, late into very dark nights, as the pilot sought after the signal to find his bearing, while the Cessna droned faithfully on through the night. We did a lot of looking for holes in overcasts as well, both climbing out on departures and descending for landings. It did not seem to me that these pilots were on instrument flight plans.

As a young boy, I wondered why, on several of those trips, we would stop short for the night in Wheeling, West Virginia, just two hours from my Arlington, Virginia home where I was to be dropped off. A fat lady would meet the pilot and me at the airport in a big Cadillac. The pilot would tell her, "*Feed the kid and put him in a room."* I'd get a burger and a dingy motel room with a black and white TV. Next morning the pilot would come to the door: *"Let's go kid."* And we'd hop over to Northern Virginia where my mother and grandmother would meet me. Only as an adult did I figure out why ferry pilots over-nighted in Wheeling to do business with the fat lady in the Cadillac. Oddly enough, many years later, I sold a business program to a retired Cessna ferry pilot. I never asked him about his flights to Wheeling, West Virginia though.

Flying with my sister Binnie Brook in the Skylane. She, of course, had also flown with our dad many times in this model Cessna, a Ten Eyck-styling masterpiece. A little joke was the “pitot tube cover”, a pair of lady’s thong panties printed with “Remove Before Flight.”

The Cessna One-Eighty-Two Skylane is an incomparably beautiful high performance single engine personal airplane, again, with credit to Richard TenEyck for its styling design which he created in the early 1960s; a work of art and function that has endured all these decades since. **Rendering**: Textron Aviation

Mooney-Aerostar & Butler Aviation International

My father had often expressed his goal of retiring before he was age 55. Yet, he was just 52 when he became increasingly affected by multiple sclerosis, and his Mayo Clinic doctors advised him to slow down. So, he announced his retirement from Cessna in 1970, after 24 years with the company. Retirement didn't suit him though. That year, he couldn't resist attending the Reading Aircraft Show, one of general aviation's major showplaces. When he was seen there, the aviation press published a flurry of speculation on his return to the industry. The offers and calls began.

For once in his life, he told me, he wanted to be the top man. So, when the offer of the President's job came, he went to work for Butler Aviation International's Aerostar Aircraft Corporation. Butler had formed Aerostar out of two acquisitions, the venerable Mooney Aircraft Company in Kerrville, Texas, and the Ted Smith Aerostar Company which had developed an advanced new twin engine design. Ted Smith was famous in general aviation as the designer of the Aero Commander decades earlier. Dad moved from Wichita to Butler headquarters in New Jersey and began commuting to the Kerrville, Texas factory.

Frank Martin Named President of Aerostar Aircraft

The Aerostar Aircraft program took a giant stride forward when Frank Martin, formerly Vice President of Marketing for Cessna Aircraft, was named President of Aerostar Aircraft and Executive Vice President of Butler Aviation International, Inc. in August.

Frank Martin
President
Aerostar Aircraft

Long recognized as a leading general aviation marketing executive, Mr. Martin has had a 30-year career in general aviation including flight training, aircraft sales and marketing management.

Aerostar Aircraft's new president has a simple, straightforward business philosophy -- "Know what your customers want, and then do your best to give it to them - the way they want it! It takes a lot of people working together to serve our customers," he continued.

My father at the Mooney factory, Kerrville, Texas.

At first optimistic about launching new aircraft sales, Dad quickly discovered he had joined a very troubled company. Butler was deep in debt from the acquisitions and other operations, and much of his time was spent appeasing creditors, a distasteful job for him. Then, the CEO of Butler was indicted for fraud and embezzlement and things worsened. As he settled in to his New Jersey offices, he found he had been left with a shocking legacy from the deposed CEO. He discovered that there was a hit man on his payroll. He told me that he began to feel like the Kansas boy come to the big city. He had to fear for his safety as he took steps to terminate this staffer. A final blow brought an end to hopes of selling more airplanes. Major manufacturing defects were uncovered at the Kerrville plant, forcing recalls of nearly a hundred aircraft and expensive modifications. Dad now had to manage an enormous lawsuit against Mooney's prior owner. He met with the Butler Board of Directors who expected a report on his projections on aircraft sales. He told them he had just one recommendation, get rid of Aerostar Aircraft Corporation. They assigned him that task, and he told me, *"I had sold a few airplanes in my time, but I had never sold an airplane company before."* He succeeded in selling Aerostar Aircraft, and to the present day, Mooney continues to build an advanced line of single engine aircraft in Kerrville, and Piper Aircraft took over the Aerostar.

THE WALL STREET JOURNAL,
Tuesday, September 14, 1971

Who's News

Management—Personnel Notes

Butler Aviation Names Frank Martin President

ENGLEWOOD CLIFFS, N.J.—Butler Aviation International Inc. said Frank Martin, 53 years old, had been elected president and chief operating officer, a post that had been vacant since Paul S. Dopp resigned last January.

Mr. Martin went to Butler as executive vice president in August 1970 after 24 years with Cessna Aircraft Co. He joined Butler's board of directors and executive committee early this year. Mr. Martin was born in Virginia and began his aviation career as a flight instructor and airport manager at Hopewell, Va. He was a pilot in the Air Transport Command in World War II, and joined Cessna after his discharge.

G. Norman Widmark, chairman and chief executive officer, announced Mr. Martin's appointment.

Butler Aviation Unit Sues American Cement Over Acquired Assets

Move to Nullify Purchase Alleges Concealed Defects in Aircraft, Parts Aerostar Bought in 1970

By a WALL STREET JOURNAL *Staff Reporter*

NEW YORK — Aerostar Aircraft Corp., a subsidiary of Butler Aviation International Inc., said it filed suit in the New York State Supreme Court against American Cement Corp., Los Angeles, to rescind its acquisition of the assets of an American Cement division.

The suit, which also asks a total of $20 million damages, alleges that American Cement concealed defects in airplanes and airplane parts which Butler acquired last February, when it bought the assets of Ted Smith Aircraft Co. from American Cement for $1 million cash and a $1-million note.

The aircraft involved is the Aerostar 600-601 line, which the Ted Smith division formerly made, and which Aerostar planned to make. The plane is a twin-prop, six-passenger business aircraft.

The complaint accuses American Cement of "falsely stating that the . . . aircraft was manufactured in accordance with the highest standards and manufacturing techniques when in fact the design selection of materials was inferior, inadequate, and unsafe, and the manufacturing techniques were defective and not in accord with the highest standards."

According to the suit, Butler's examination of the planes and parts it acquired showed numerous defects, including corrosion, negligent heat treatment, and improper design of certain parts. The design of the plane's flap tracks, the suit alleges, could create "serious problems of maneuverability and safety of flight."

Frank Martin, president of Aerostar, said a total of 130 of the planes were manufactured. Of these, American Cement sold 75 to 80, while Aerostar sold another 20 or 25. Thirty of the planes are still in Aerostar's inventory, he said.

Aerostar has, he said, sent telegrams to the planes' owners recommending that the planes be examined by Federal Aviation Administration inspectors for compliance with Federal safety standards.

Mr. Martin added that he didn't know of any cases in which the alleged defects of the planes led to accidents.

With the Butler CEO headed to prison, the Directors asked Dad to take the top job. He agreed to accept the Presidency of Butler Aviation International just long enough to groom a replacement. He then retired for good to tend to his health and begin a new life traveling across North America in his motor home, fishing, camping and in church work. He nearly made good his long-held goal of retiring at age 55. He missed it slightly, he was 54.

Aerostar Model 601

MARKETING MARTINET OF GENERAL AVIATION

FRANK MARTIN

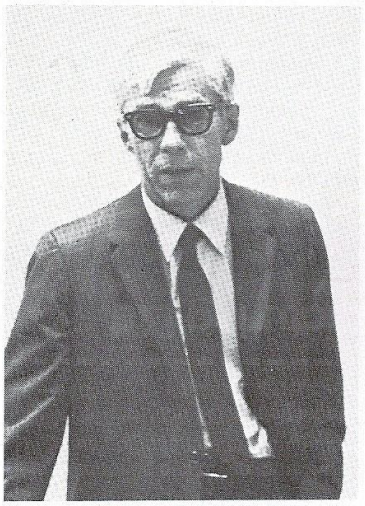
Man who made Cessna number one, now number one at Aerostar.

IT WAS AT THE READING SHOW last June that the word got out, "Martin's back in town," and the rumor mill began to grind. "He's getting a top job in FAA" . . . "He's going to run Beech's BH 125 program" . . . "No, Martin is going back to Cessna" . . . "Wrong, the real inside info is he's going to work for Paul Dopp at Butler Aviation International."

That last story was so vigorously denied by Butler's front office that every seasoned rumor sifter immediately knew there must be some substance to it. Finally, two months later, it was announced: Frank Douglas Martin was appointed executive vice president of Butler Aviation International and president of Aerostar Aircraft. Frank Martin, general aviation's top marketing executive, had come back to the fold. Except for a six-month sabbatical following his resignation from Cessna last March, and a four-year time-out for World War II, Martin, 52, had been in airplane sales for more than 30 years. During 16 years at Cessna, as regional manager, sales manager and VP of marketing, he brought the company from a weak number two spot to a strong number one.

Under Martin in 1954, Cessna regained the lead held by Piper in number of units sold in general aviation. Then, in 1958 Cessna became number one in both units and dollar volume and has held both first-place spots ever since.

Martin's first contact with aviation was in the 1930s when he sold carbon paper and typewriter ribbons for Underwood Eliott Fisher Co, in Trenton, NJ. Like a golfer who can't pass up the links and driving ranges, Martin would go out of his way on sales calls to stop at an airport. Eventually, he succumbed to the $3 ride. After a few of these, he was hooked. From then on it was just a question of how deep his involvement would be.



By fortuitous circumstance, Lock Haven, Pa, was in his territory. Though it hardly merited the diversion for paper and ribbon sales, the Piper plant was a regular stop. Within a year of his first Lock Haven visit and nine months after a first flight lesson (of 10 minutes), Martin couldn't hold out any longer. He bought a J-3 Cub demonstrator. It proved to be one of the best purchases he ever made.

He paid $900 for it, kept it a little over a year—during which time he flew it through a commercial license and instructor's rating—then sold it for $950. While he owned the J-3, Martin used it extensively to cover his sales territory, though his firm expressly forbade its employees to ride in any airplane—including an airliner—on company business.

In addition to helping him obtain his ratings, the J-3 was instrumental in getting Martin two sizable accounts whose commissions more than paid for the price of the airplane.

"I first learned then," Martin recalls, "the flexibility that an airplane affords a traveling salesman. I was able to service my large accounts often, and just the romance of arriving by air attracted several new customers. With the airplane, I could quit on Wednesdays because I already had covered my territory for the week."

Of course, flying at the time was not without its problems. For example, Martin did most of his navigating by road map and he had more than a few unwanted thrills trying to sneak under and around weather.

It didn't take Martin long to realize that what he should have been selling were airplanes, but, hard as he tried, he couldn't land such a job because of insufficient flying time. Thus, to add hours to his logbook, he took the job as airport manager and chief (and only) flight instructor in Hopewell, Va, in 1940. There, he taught three classes of Negro Civil Pilot Training students in 50-hp Taylorcrafts. "The students were hand-picked and exceptionally well-qualified. I learned as much from them as they did from me," he remarked. "I also learned a little about the community problems that black kids were faced with in the South," he added as an afterthought.

Now, ready for the world of airplanes sales in Jan, 1941, Martin began selling Luscombes at Wings Field, Pa.

He was given a 90-day trial on a 25 percent commission basis—no salary. The 90th day was an historic occasion: he sold his first airplane and formally was accepted into the profession.

On rainy days the eager and embryonic salesman used to follow up prospects who sent in coupons clipped from newspaper ads offering free rides. Most of the coupons were sent in by kids, so the follow-up process was seldom fruitful.

Martin tells one story of going to a well-to-do home in Philadelphia. While explaining the reason for his visit to the lady of the house, he noticed a small boy about 10 or 11 scurrying up the stairs. The woman profusely apologized, confessing that the coupon was sent in by her son and,

BUSINESS PLANE PEOPLE

FRANK MARTIN

since he had previously disappointed other airplane salesmen, she had warned him never to send in one of those coupons again. Martin asked if he could chat with the child and soon found he was an avid model maker with an astounding aviation knowledge. One of the first questions the child asked was how much "dihedral" did the Luscombe have. Martin had never heard the term before, nor "empennage," which the boy later mentioned during the conversation. He was so impressed with the child's knowledge that he invited him to take a ride. The boy's uncle was evidently impressed, too, because he subsequently bought a Luscombe from Martin. And, says Martin, "I bought a book that defined 'dihedral' and 'empennage'."

Martin temporarily stowed his sales kit for duty with the Army Air Transport Command in World War II. He applied to ATC to fly as a civilian pilot and made the grade after two 10-minute check rides—one in a B-18 and the other in an AT-6. A few months later he was allowed the option (?) of accepting a commission in the AAF or of being returned to his draft board.

All told, Martin spent four years in ATC. In his first two years he flew Martin (no relation) B-26s domestically in the summer and ferried B-17s across the North Atlantic in the winter. The next year he flew B-24s, C-87s and C-109s across the hump and his last year was in B-29s, operating mostly out of Wichita.

During his AAF tour, Martin acquired about 2500 hr of flying time, a captain's rank, and met scores of people who proved valuable future contacts—including Barry Goldwater, one of his first operations officers.

After the war, Martin was offered a regional sales position by Don Flower, who then headed sales for Cessna. His territory included Denver out to the West Coast. When Flower left Cessna in 1952, Martin moved into the sales managership and later became VP of marketing. During his Cessna years Martin, besides bringing the company to the top of the big three, was credited with building a strong sales team, with helping to broaden the company's product line and, particularly, with instituting distribution and marketing concepts that are becoming industry standards.

As president of Aerostar, he intends to implement many of the same methods.

"The fun years at Cessna were when we weren't in first place but trying to get there," Martin reflected. "At Aerostar we won't be an immediate Cessna or Piper, but I see lots of promise. Butler has made a very compatible marriage of the Mooney single-engine line and Ted Smith's twins. Both have a good edge on performance and economics. We are setting up a modern manufacturing facility at Kerrville and though our labor force isn't Wichita, it has at least 10 years' experience. . . . The important thing is that we have products that can be significant in the total market."

Martin says his first job is to look over what the company actually has. He has retained Don O'Meara, an aeronautical engineer, formerly a key man on Cessna's Citation project, to help evaluate the Aerostar line and to recommend changes.

"We'll have a pretty good idea of what we will do by the end of this year. First we have to find out where we are, before we decide where we are going," Martin told B/CA.

A firm believer in double-level management, Martin is right now looking for a number two man who will be VP of marketing for Aerostar Aircraft. He candidly admits that the man with the marketing knowhow he is looking for, will, very likely, not come from the ranks of aviation. Evidently, Martin had the same opinion while at Cessna. The man whom he was grooming to replace him, and who in fact did just that, Bernie Beaugard, gained his marketing credentials with J. I. Case farm machinery and, moreover, had never worked in aviation prior to coming with Cessna.

An intense optimist, Martin sees a bright long-term future for the general aviation industry. "The acceptance of aviation by the young is good. The majority of those under 25 believe they will fly, one way or another. We have to give the airlines much of the credit for promoting this belief."

As for the present downturn, Martin feels it isn't as deep as it seems. "We entered this slump in an overstocked situation. Our manufacturing ability got ahead of our marketing ability.

"We came into 1970 with a quarter to a third of 1969's production still in inventory. If you look at actual retail sales (which includes selling the 1969 surplus), 1970 has been one of our better years. True, many dealers have had to take a bath to make a sale, *but people are buying airplanes.* Now that the surplus has dissipated, things should get back to normal. But, without a doubt, the future promise of general aviation is fantastic. However, if we are going to be able to take advantage of that potential, we are going to have to learn much more about marketing techniques."

During his Cessna-to-Aerostar sabbatical, Martin spent some time at the Mayo clinic, causing the industry grapevine to ring with dire stories that he was beset with an incurable disease, ergo this is why he was forced to leave Cessna. Aware of the scuttlebutt, Martin admitted that, at one time, he did think he was seriously ill, but the Mayo Brothers gave him a clean bill of health. As for his reasons for leaving Cessna, although they were personal, he says, they were not because of health.

"During the interim I took time out to get to know my family [Martin has three children: two sons, 24 and 17, and a daughter, 9] and I got to know one Frank Martin. I wanted to find out what I really wanted to do. The Reading Show was my first venture back into aviation circles. I hadn't contacted anyone, although, I must say, almost everyone did get in touch with me with all sorts of propositions."

Obviously, the Aerostar proposition must have sounded best. Anyway, Martin's back in town and Aerostar's got him. —JH

Cherie's First Flight

Cherie had her first flight in a Cessna Skyhawk on a February day in 1996. She was a toddler, but says she recalls the flight. It seemed strange to her, she said, that we got into this airplane, went way up in the sky, and then returned right back to the very same place we had started from. At her age, she was confused about the purpose of the exercise. Aren't airplanes meant for going somewhere else? We want our children to learn that the best of life is found in the journey, and not always at yet another destination. May she take the finest flights her heart desires, and pursue her journeys to wherever she destines the embarkation.

Cherie's first small airplane ride.
A flight to nowhere, in her recollection.
Elan is in the cabin.

In 2011 Cherie took that first flying lesson in another Cessna Skyhawk. I got to ride in the back seat. This ride along the Colorado Front Range gave me the sense that personal airplanes had taken our family to a third generation. It was an accomplishment of tradition for me. In order to commemorate this flight, I made the photo montage below that conveys two things. First, Cherie has an instinct for piloting as the instrument needles prove: she was level, on-course, and nailing the 7,000 feet the instructor had told her to hold. As well, I photo-painted in her grandfather's B-17 in her windshield to portray the spiritual connection between the generations.

Cherie's 2011 first lesson

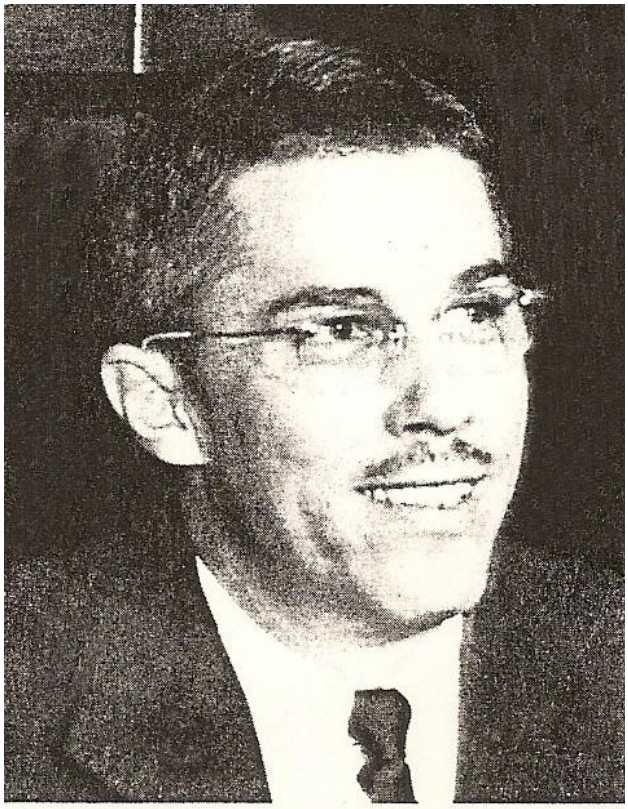
Following an old family tradition

Each new generation of personal flight brings change and advances in the flying machine. Reminiscence is laden with nostalgia for the past, yet I wonder if there was a golden age that I experienced, that has passed as measured by cost-benefit, or the same sense of freedom and adventure. My first flying lessons in a factory fresh One-Fifty, cost five dollars per hour, including gas. My instructor Reba was included in the hour for a total of twelve dollars. That meant a course of instruction through first solo flight could be accomplished for $160.00 plus books! A Private license could be obtained for about $500.00. Today, we will pay about $175 per hour for Cherie's lessons. During my radon testing days, a Skyhawk rented for about $60 per hour with gas. That was still quite a transportation value, buying more than 450 seat-miles for four travelers. The business missions I flew could never have been accomplished by commercial airlines since no scheduled service was available to

the rural locations I had to reach. Driving would have taken days longer, adding hotel, per diem, and personnel time to the trip. The private airplane was the best option.

The cost of the aircraft itself has increased far out of proportion to the declining value of the dollar. A new 1960's Cessna Skyhawk cost about $15,000. Today, in the early twenty-first century, the modern version of the same aircraft, albeit far more technologically advanced, yet with similar speed and payload, costs over $175,000. As my father's career came to a close, the general aviation industry was entering difficult times that drove aircraft production volumes down with the attendant rise in price. It is as if his career bracketed this golden age of personal flying. The challenges were many in the 1970s. An energy crisis raised the cost of aviation fuel impacting operational cost efficiency. The Interstate highway system was completed to all ends of America, so that, with airport congestion and security delays, the automobile can be time-competitive with commercial airlines up to 500 miles or more on many routes. And, in the 1980s, economics and tax code changes contributed further to declining demand for personal airplanes.

Finally, the exploding trend of litigiousness caught up to the personal airplane. Concerns for greater safety permeated American culture and became exploited in lawsuits. Safety is always to be prioritized, yet an airplane can never be made fool proof. Lawsuits blurred the line between pilot responsibility and common sense, and what manufacturers can design in to the machine for reasonable cost. As a result, by the late 1980s it was estimated that the price of each new Cessna single had to be increased by over $50,000 just to cover lawsuit costs. This expensive litigation was profitable for the few who engage in it, but has done little to improve light aircraft safety. When we deny our personal responsibility we lose many American personal freedoms, including the ability to fly as free as the birds, at least for those of average financial means. As a result of all these factors, the production of new Cessna single engine airplanes ceased for years. My father witnessed and lamented the decline of this freedom of flight that he had devoted his career to creating.



Cessna's Frank Martin "We, in general aviation, will always be reaching into the unknown, to fulfill the customer's air transportation requirements with better and better airplanes"

Yet, a new day of personal flight is available to my daughter's generation. The marketplace is full of intriguing new light personal airplanes. A simpler "sport" license category is in place, improving aerial access for recreational flyers. Computer technology that was unimagined in airliners just a few years ago is now installed in most two and four seat personal airplanes. Yet, I think that a return to the era of personal flight for anyone of average financial means, and to fly free as the birds by one's own hand, that dream, like many other dreams and expectations that Americans hold dear, will require a return to more traditional concepts of freedom. It would be an idea that each new day in America brings new opportunities for all; an idea requiring more optimism and less cynicism. As I ponder all that, I reminisce about old airplanes.

Frank Martin in the Kansas Aviation Hall of Fame

I set about writing my two books centered on the aviation history of my father simply because I once promised him that I would write his biography. As self-published books, these were never a project expected to garner income or profit. But then in 2012, the books returned an unexpected reward for our family when I submitted them along with an application on behalf of my father to the Kansas Governor's Aviation Hall of Fame. I did not know about the Hall of Fame when I wrote the books. I really didn't appreciate that this history has a broader interest and significance beyond friends and family. Dad's Hall of Fame induction proves otherwise. So, I realized that undertaking second edition re-writes of each book would be a valid and likely well-received contribution to aviation history.

The first year I submitted the application the application was rejected. The Selection Committee cited what they thought were two errors in the first edition of my book, *Among Stars Above the Storm*. I was chagrinned by that, but after careful review I found and was able to show that I had been correct on those points. One was a technical detail about the Boeing B-17; the other was the name of the man who offered the Cessna job to my father who he had met in India, flying the Hump. I re-submitted the books and application in the second year.

Accordingly, in 2012, Dad was inducted into the Kansas Governor's Aviator's Hall of Fame at the Kansas Aviation Museum in Wichita. His picture now hangs alongside other Kansas aviators including Walter and Olive Ann Beech, Clyde Cessna, Bill Lear, Amelia Earhart and other luminaries who made historic contributions to Kansas aviation. Several of those faces in the Hall of Fame are familiar to me from boyhood, a couple of them mussed my hair and called me "Freddie".

When we went to Wichita for the award ceremony, I had expected a small museum meeting. I had prepared some remarks expecting a meeting around a table in the museum conference room. We had no idea that it was a major Wichita aviation industry event to honor my father. There were over 300 people there that night. Banquet tables were set up for aviation sponsors including Cessna, Beechcraft, Textron, Lear Jet and Spirit Aviation. A live big band was playing. I had to take a deep breath and deliver a five-minute acceptance speech to that very large audience. The Master of Ceremonies gave an introduction about Dad reviewing his WWII service and Cessna years ending with, *"Frank Martin's efforts brought hundreds of millions of dollars to Kansas, employing thousands of aircraft workers and contributed enormously to the global stature of Kansas aviation."* Among others, a Cessna sales manager congratulated me and said, *"Arnold Palmer sends his regards."* I knew Mr. Palmer was a famous Cessna Citation owner, but I never thought Dad had met him. I was most touched by an elderly man who took my hand and told me, *"I was a janitor in the commercial aircraft plant. Your dad always knew my name and always asked about my family. I had to be here tonight."*

The Longest Flight in History

If a sampling of pilots or other aviation enthusiasts were quizzed on what was the longest endurance flight by an airplane in the history of the world, most might not know the correct answer. They might think of pioneering global military flights in aerial re-fueled bombers or transports. Or, they might guess that it was the epic non-stop, unrefueled, world-circling flight of the Rutan Voyager that is now displayed in the National Air and Space Museum in Washington D.C.

But the actual record holder is far more prosaic and unexpected. The longest flight in history was accomplished in the world's most popular personal airplane, a Cessna 172. From December, 1958 to February 7, 1959, Bob Timm and John Cook flew Cessna November Niner One Seven Two Bravo, without landing, for 64 days, 22 hours, and 19 minutes. The flight covered over 150,000 miles in nearly 1,559 continuous hours of operation on the airplane's 145 horse power Continental engine. It is a flight endurance record, set over sixty years ago, that has never been broken.

The flight was sponsored by the Hacienda Hotel in Las Vegas as a publicity and fund-raising event. Daily refueling was accomplished by lowering a hose to a truck driving beneath the Cessna at 80 miles per hour on a remote stretch of road in the California desert, and refueling took about three minutes. In all, 128 refuelings were required. Food, water and other provisions were attached to the line as it was winched back up. All but the pilot's seat were removed to make space for a foam sleeping mat and small wash basin. Timm and Cook traded four hour shifts at the controls. When the Cessna finally landed after well over two months aloft, it was grimy and oil-streaked. The generator, fuel pump, tachometer, autopilot, cabin heater, landing lights and fuel gauges had all failed, but the engine struggled on, cylinders and spark plugs fouled with carbon deposits.

The publicity stunt faded in popular consciousness and the airplane was sold off to a Canadian who flew it as his personal airplane long after. Years later, Seven-Two Bravo was recovered from a farm in Carrot River, Saskatchewan, returned to Las Vegas and restored to original condition. This world record was accomplished not in an exotic experimental aircraft beyond the reach of average pilots, but rather in the Cessna 172 that so many pilots have known as their own personal airplane. Seven-Two Bravo can thus be a touchstone that connects the everyday prosaic flights of so many to a world record achievement in aviation. It was a record set by average aviators in a common airplane.

Cessna N9172B, the One Seventy-Two that holds the world's flight endurance record of 64 days, 22 hours, 19 minutes. The airplane is on permanent display at the Harry Reid Airport passenger terminal in Las Vegas, Nevada. Fred Martin 2010

The Cessna Three-Ten

At the Rocky Mountain Airport, where I often flew, I have admired a beautifully restored Cessna model Three-Ten based there. This aircraft is a very rare bird now. In the 1960s, the Three-Ten and Three-Twenty were my father's favorite flying machines, and many hours of my childhood were spent in the right seat of these aircraft flying with him across North America, including flights down the middle of the Grand Canyon, along the beaches at Cape Canaveral, or vaulting though vast caverns of Kansas stratocumulus thunderheads.

In flying with him, and on my own, I have marveled at the spheral cynosure of the far horizon that, in flight, we venture toward, and upon which we set our course and bearing. Yet, the farther we fly toward the horizon, the farther it recedes, so, as I discovered, the horizon is something toward which we journey, but also something that journeys with us. Faith and death are like that. For me, this awareness, gained from flying, has become a way to view eternity. Flying aloft by one's own hand does impart lofty perspectives. After all, in any past age of human history, flying would have been regarded as a divinely transcendent act, a privilege reserved for the angels. In his later years my father's Christian faith greatly solidified, as has my own. That brought him to a recognition that the eternal and transient worlds are tightly woven together, separated by a thin veil, and when eventually we do arrive at that far horizon, the veil is parted to reveal the embrace of the divine that has always traveled quietly beside us. My father was able therefore, to arrive at this event horizon with the same confidence that he had shown in so many of his flights throughout the transient world.

Elan and me, on the wing of a Broomfield-based, lovingly restored, vintage Cessna Three-Ten.

Accordingly, when that restored Three-Ten flies over my home near the Rocky Mountain Airport, it imparts a genuine sense of my father's continuing influence that seems more substantial than just sentimental. One day I climbed aboard this airplane and sat in the right seat. I had not been in a Three-Ten since I was a boy, yet, I scanned the panel and it was so familiar it seemed like a homecoming. I took the control yoke in my hands once again, and set my feet on the rudder pedals. I laid a hand on the throttles and felt for other familiar controls. On the right side of the engine control quadrant is a small knob that tensions and locks the throttle settings. I had not thought of it for years, and probably never would have again, but so many times when Dad would reach for that tension lock his hand would bump my left knee and then he would place his hand on my knee in an affectionate gesture he often gave me.

I closed the cabin door and looked out on the wing at the beautifully designed engine nacelle, and the stunning sculpture of the canted-up wing tip fuel tank. Those windswept shapes, masterworks of aeronautical styling and craftsmanship had been the view out my window during epic boyhood adventures. That structure, forged in a struggle between artists and engineers, had carried me over many thousands of miles of my finest boyhood journeys. Just then, as I sat there, absorbed in these reminiscences, I felt that bump on my knee! I was startled! It made me gasp! A sense of elation swept over me. It seemed entirely real; a sensation that was a completely lost memory, and now returned to me in physical experience once again. I sat in that Cessna for a time in emotional epiphany. I couldn't help a few tears running on my face, brought on by that touch on my knee. Those emotions were caused as well, by all the remembered joys and regrets that, in my own flying of personal airplanes, on journeys with and without defined destinations, had been exactly what I was seeking to find again in personal flying.

A late-60's era Three-Ten. I traveled many thousands of miles as a boy, the length and breadth of North America, in the right seat of this Cessna model. Cessna press release photo

About the Author

Fred Martin, was born in Wichita, Kansas, the "Air Capitol of the World." That is an accurate claim; over 260,000 aircraft were built there, more than any place on Earth in history. My father, Frank Martin, was Vice President of Marketing for Cessna Aircraft Company, builder of several of the most popular light airplanes in history. My upbringing was steeped in western pioneer mystique along with adventures of flying at a young age and exposure to much of the unfolding history of General Aviation. I enjoy nostalgia and am proud to have raised high-achieving women in Colorado.

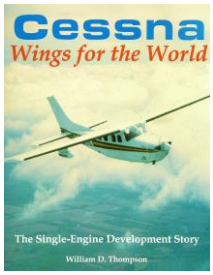
My father always retained a degree of boyish spirit from his upbringing in the remote mountains of southwest Virginia. Cessna management executives would not be seen in public without wearing a business suit. So, this was on a Sunday when few except plant security personnel were on the Cessna factory grounds. He took me there, to lakes surrounding the aircraft manufacturing plant, to catch bullfrogs for the ponds in our Wichita backyard. Eventually they escaped over our fence into the neighbor's swimming pool.

My daughter, Elan

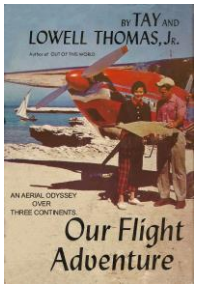
My daughter. Cherie

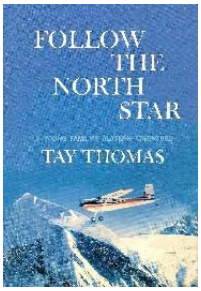
Notes and References

1. Martin, Fred. ***Among Stars Above the Storm.*** 2010.
Second edition 2022. The World War II flights of Frank Martin are described in this book, a personal record of flights over the North Atlantic in B-17 bombers, and in flights across the treacherous Himalayan "Hump" operation, and a love story cast in the midst of a world at war.

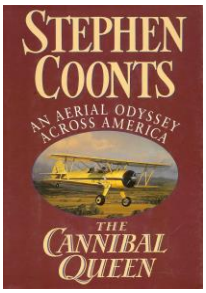


2. Thompson, William D. ***Cessna, Wings for the World.***
Maverick Publications, Inc. P.O. Box 5007; Bend, Oregon 97708.
MaverickBooks.com. 1992
I discovered this book at the Kansas Aviation Museum and treasure Thompson's descriptions and critiques of my father during the development of Cessna airplanes.

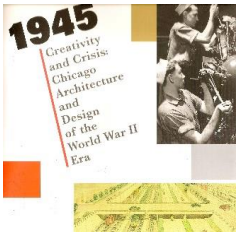




3. Thomas, Tay & Lowell Jr. ***Our Flight to Adventure.***
Doubleday & Company, Inc. Garden City, New York. 1952
Thomas, Tay. ***Follow the North Star.***
Doubleday & Company, Inc. Garden City, New York. 1960
Lowell Thomas was America's most famous newsman and renowned adventurer. He was my father's friend and a guest in our home. His son, Lowell Thomas Jr and wife Tay Thomas, authors of these books, also visited our home.



4. Coonts, Stephen. ***The Cannibal Queen.***
Pocket Books. New York, N.Y. 1992
This is the story of Coonts and his son circumnavigating America in their open-cockpit Stearman. It was much fun to discover that this renowned author of *Flight of the intruder* was sharing a Cessna 172 rental with us -Seven-Charlie-Bravo, "Charlie Brown"- at the Boulder, Colorado airport.



5. ***1945: Creativity and Crisis:***
Chicago Architecture and Design of the World War II Era.
Published by The Art Institute of Chicago. 2005
The Art Institute of Chicago archives much of Richard Ten Eyck's work including designs he did for my childhood home in Wichita.

6. ***Business & Commercial Aviation.*** **October, 1970. Pgs 71-72.**
This article in a major industry journal of the time credited my father as the "man who made Cessna Number one." The article announced Dad's appointment to the Presidency of the Mooney-Aerostar Company. The article also called dad "general aviation's top marketing executive." These accolades may have annoyed Cessna management at the time.