

# MY AVIATION LIFE



**BRAD HURD**

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At the behest of Denise I have decided to put into writing a few of my experiences and feelings I have had during my life as related to aviation. I strongly suspect that she wanted me to do this while my remaining faculties are up to the task.

Of what interest the reader may find in this journal remains to be seen but I hope that some of these stories will at least bring a chuckle.

If you find technical errors please blame it on the above mentioned faculties or lack thereof.

As an old friend said to me last year, " Keep the seat warm, I'm not done yet ".



## MY AVIATION LIFE

DATE	EVENT	PLACE/ REMARKS
1933-34	P-26	Buffalo. My 1st close-up to an airplane.

I lived on my Grandfather's farm with the rest of my family. It was about 17 miles from the Buffalo airport and directly under the route to New York City. The airliners of the day, Ford Tri- Motors, Curtis Condors, Stinson Tri-Motors all flew right over the house on the climb out on the way to New York. I was fascinated. The day my Dad took me to the airport was the day a P-26 came in. The P-26 Peashooter was the first all metal fighter plane the Army Air Corps aquired. A true classic and one I would dearly love to fly.

I don't remember any crowd, but then I was right up against the fence. A four foot fence, but I still couldn't see over. I remember my fingers locked into that chain-link when the pilot taxied up and parked right in front of me. He climbed out on my side and glanced over towards me. The uniform of the day was leather helmet w/ goggles, white scarf, leather jacket, riding pants (as in horses) complete with knee high leather riding boots. I don't remember any spurs but I do remember the event as if it were yesterday. I was hooked.

1937	1st ride	Ft. Lauderdale. American Eagle Rock- great,exciting.
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There was an air show at the dirt field that served as the Ft. Lauderdale airport. It was quite a show. Col. Stoopnagle was there with his Aeronca C-3 and did his takeoff where the wheel fell off. Then there was the act where the "Lady" student, really a guy dressed as a student, takes off when the "instructor" props the engine and the throttle is at full power and the "student" roars into the air. The announcer adds to the excitement while the "student" climbs and dives all over the field and finally lands amid great cheers. The Bat Man was very exciting. A skydiver comes down from a high altitude with material sewed between his legs and from his ankles to a wand held in each hand. He really did look like a bat. He was able to do some loops and make good headway but with a very rapid decent. He then opened his chute to complete the act. Very exciting and I've never seen the act any place else.

After the show they sold rides. I had saved up enough money for one but a major crisis arose when I discovered most of the money, all change, had fallen out of my pocket when I ran through the field to where the Bat Man had landed. Much searching with little success but my Mom came through with the difference. A major contribution with a salary of \$10.00 per WEEK. I remember how little everything looked. The pilot even flew over the house. It was a perfect day and the hook was set deeper.

6/12/1944	1st solo	Douglas,GA Primary Flight School with Army Air Corps.
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That front cockpit, empty for the first time by my instructor, Al Crisler, looked awfully big when I taxied out for that first takeoff. After the landing and his " thumbs up " I knew I had made the right choice. As much as I disliked the military, the flying made it all worthwhile. In fact, all the time I was in the Army I never thought once about Army life while I was flying.

Primary Flight School was also where I had my first crash. I loved to fly inverted. You know, roll the plane over and just glide along upside down. Of course, the PT-17, being a biplane, had the fuel tank in the upper wing so a fuel pump was unnecessary. When you flew inverted the engine quit. No problem because when you rolled back right side up the



engine would start right up, but not this time. Running out of ideas and altitude at the same time, I picked a really nice field and overshot it completely. I could land a DC-3 in that field today. Anyway, the field was disappearing behind me with a sunken road ahead outlined by two fences and then a corn field. Now I had run out of altitude, AIRSPEED and ideas - save one - bounce this sucker over the sunken road. And I did-almost ! I caught the gear on the second fence and over I went, inverted, raw gas everywhere and very scared. As I pulled my seat belt buckle to escape before it burned, I remembered to turn so I fell on my shoulder rather than my head. The farm family was home with no telephone, but they were very nice as I was so upset because of my crash. While it didn't burn, I knew I was done as a pilot. The "washout " rate was about 30% and they needed lots of marching soldiers. An hour or so later AL came looking for me and I gave him an OK sign as he flew over my crash. A couple of hours after that, the tractor-trailer arrived. The wreckage was loaded and we all returned to the field. I explained exactly what happened. They found the carburetor float stuck in the up position which caused the fuel line to remain closed after I came right-side up. Al gave me an hour or two of forced landing practice, then a check ride with the civilian Chief Pilot and a final check with the Army Check Pilot, and I made it. I cannot describe my feeling after that last check ride. My world was saved-again.

One day I was up with Al for some acrobatic training . While we were upside down, I reached out with my foot and released the latch of his vertical seat adjustment. As he fell down ( up?) he thought he was falling out of the plane. His reaction was a quick half-snap-roll recovery. He realized what I had done and the expression on his face in the mirror at the trailing edge of the wing was not a happy one. The communication with the instructor was through a thing called a Goss Port tube. It was a hollow tube through which the instructor talked to the student. The student did not talk to the instructor. In this case, the expression on his face said it all. He dove to the right and started snap rolls to the left and I lost consciousness almost immediately. When I came to, he really rung out that plane until I got very airsick. We flew back to Douglas and taxied to the wash area. While I scrubbed down the plane a circle of Cadets shouted encouragement to me. There was no repeating that act. Al was really a great instructor. He was a duster pilot from the 30's and could do anything with that Stearman.

9-11/44

2nd solo

Gunter Field,AL. AT-6 Great plane,

After Primary Flight school we went on to Basic Flight school. Everyone had AT-6's - except our Squadron; the British with green cowls and tails, French with red trim and the Chinese with yellow - of course. Only our Squadron had the old Vultee Vibrator, the BT-13, a dreadful plane. After a couple of hours of dual training one Monday morning we marched around the hangar and low and behold - a ramp full of brand new AT -6's with only ferry time from the factory ! That was the good part. The bad part: "Gentlemen, you have 10 hours to solo the bird or you're out of here" ! After losing 37 Cadets in Primary, out of 120, with only one killed, we had no illusions about this phase of our training. It was a lot of airplane for guys with only about 75 hrs. total time. It had 600 hp., a very narrow retractable gear and an approach speed almost as fast as the PT-17's cruise! I soloed at 9 1/2 hours. Again, our washout rate was 30% with only one killed.

A little side story - The Cadet's name was Bird and he marched on my left during any formation. On the day he died , by a midair collision with the Commanding Officer, no less, I was out doing some required solo maneuvers so knew nothing of the crash. I returned late and took the bus alone, back to camp. When I walked into the mess hall everyone in my Squadron looked stunned. The rumor was that Hurd had been killed.



Another little side story: My instructor, Lt. Busby ( on the inside of his long billed baseball hat he had written BUSBOY) and I went up for some dual flight training which included spins. On attempting the first recover, without success, Lt. Busby said, "Try it again", which I did without success. "I got it", the Lt. called out. His first attempt was like mine. "Get ready to jump" was the next command I heard. The next try was a success. "I think that's all of those we'll do today. Let's just fly around", he said. We were two very relieved kids.

11/44-3/45 3rd solo Advanced Flight School - Columbus, MS AT-10 1st twin engine.

Well, you didn't actually "solo" the AT-10, as it was a twin engine airplane and no one flew any twin alone in training. You flew "solo" after being signed off by your instructor, with another Cadet. The AT-10 was a Beech design built by the Globe Furniture Co. During the war there were a lot of strange things going on. This plane was built of thin plywood panels glued together to form the fuselage and wings. There was an empty compartment behind the two cockpit seats with a little porthole on either side. You entered the cockpit by stepping in and closing it up with a sliding canopy. The engines, around 220 hp., were Lycomings with constant speed props but NO feathering mechanisms. If you had an engine failure it was impossible to maintain any altitude so, if you were lucky, you drifted to any airport you could find. Another interesting feature of this plane - we were told not to open the canopy above 140 mph. as the fuselage would shortly resemble a sucked-in cigar wrapper! This advice was adhered to without exception. My instructor had been doing his thing for the whole war, or ever since he completed instructor training, and was suffering from "instructor fatigue", something quite common. Remember, this was 1944-45. Anyway, we had always touched the brakes after takeoff in the AT-6 so the wheels would not be spinning in the wheel well, which I thought was reasonable. Not so in the AT-10, at least with this instructor. In fact, he was so insistent about this that if I did touch the brakes after takeoff he would beat on my legs with the microphone, which was built like a small hammer. Doing this just after takeoff resulted in some interesting low altitude maneuvers.

This was Advanced Flight School where the graduates got their wings and 2nd. Lt. commissions or Flight Officer bars. My attitude about the Army and the problems with my instructor made him give me to another instructor after turning in his recommendation for my rank. This probably contributed to my getting a Flight Officer's bar. This was just above the old Flying Sergeant rank. It was supposed to be a slap in the face, and it was, until I found out my pay was about \$ 25.00 per month more than a 2nd. Lt. The bitter with the sweet. I did get my commission later. Anyway, I graduated on March 1, 1945, Class 45A. My Mom and sisters came to the graduation and I was very happy that they made the effort. I found out what an effort it was when we went home. Riding trains over half the South and then through Cleveland on to Buffalo. I had a two week leave and had a great time. Mom had somehow kept my car, a '41 Hollywood Graham, which looked like the famous Cord of the '30's. I drove it back to the base in Mississippi. I traded all my smoking ration stamps for gas stamps and made it back in good shape. The car was a real "magnet" in Columbus and I was having a great time in town while we waited for orders. One night my friend, C.N. Johnson, and I were going back to the base. A local civilian wanted to drag off a light in town. Always willing to oblige, I took him easily. But when I backed off, he swerved in front of me. I ducked to the right, got on the brakes hard, and ended with a great squeal of rubber and smoke parked in front of the hospital. A car pulled up beside me and I looked over to see my Commanding Officer. Johnson hid on the floor unseen. My orders were cut the next day and I was sent to pilot purgatory, or so my C.O. thought. Truax Field, Madison, WI. and the home of the University of Wisconsin.



3/45-12/45

Invasion Training

Truax Field, Madison, WI

After getting settled in at Truax, with about 900 other pilots, we started ground school for B-24's. We were to go in at a very low altitude in the invasion of Japan. Having read about the use of high altitude bombers at very low altitudes I had few illusions about surviving the war. Since the University of Wisconsin is located in Madison and the ratio of coeds to male students was about 6 to 1, it made for a very interesting summer. We kept our flying skills up, for what ever that meant, by flying very tired AT-6's. While the planes were tired, the mechanics did do a good job of keeping them running.

One day three of us flew down to the Glenview Naval Air Station. At a small field out a ways from the main field, they had painted the outline of a small carrier. Three or four F-4U Wildcats were practicing landings. The hydraulic system had been removed so the pilots had to crank up the landing gear. What to do? Well, heck, we'd just fly through the pattern. And that's what we did - in trail. As I flew through their pattern, I could see their heads bobbing up and down as they cranked up the gear to give chase. We headed north towards Billy Mitchell Field, a P-51 fighter base, with the Wildcats closing fast. As we came up to Mitchell we yelled "HELP" and the P-51's pounced on the old Wildcats. The three of us made a right turn out over Lake Michigan then north to the Oshkosh area and back south to our base at Truax Field, about 80 miles to the west of Mitchell Field. On calling in range from the north, the tower asked us if we knew anything about the big "Dog Fight" between the Air Corps -51's and the Navy Wildcats right over Billy Mitchell Field. Of course, it was news to us and, fortunately, no one had gotten any of our numbers.

After we were put "off limits" to the Officers Club by the permanent party Officers, we, all 900 of us, took over an empty enlisted men's club. We threw in \$10 apiece, fixed it up with a very nice bar and restaurant and placed it "off limits" to all permanent party Officers - except the Commanding General, who liked a strong drink (several?) and a good meal. The presence of beautiful coeds from the University didn't hurt. He even loaned us a twin-Beech for a booze run to Chicago every Friday. We had some "big" bands stop on the way from one coast to the other.

To top it off, the General allowed as how the quarters were not of "Officer quality". If we would enroll at the University for afternoon classes, B-24 school was over by noon, we could live in town. At our own expense, of course. I'm not sure, but I think the barracks were empty by the next day. We moved into the almost empty fraternity houses, signed up for a class or two, which were almost all over by 14:00 each day, and started to destroy ourselves. My favorite "drill" was to get a pony of beer at the local brewery, rent a canoe and troll the sorority docks with another pilot from my fraternity house looking for tonight's date. It was a very tough summer!

After the bomb was dropped and the war was over, as well as the biggest party I've ever been too, I was assigned as a Separation Officer. Since I had no points, which you had to have to be discharged, I, as well as most of the other pilots at Truax, worked at discharging the airmen coming back from Europe and the Pacific. We still lived in town but spent all day at the base, just like a regular job. Coeds had to be "home" by 22:00 during the week so I had a "town" girl and a sorority girlfriend for the weekends. I continued to spend all my salary and when discharged in December of 1945 I was broke with no job prospects. What airline wanted a pilot with no "big" plane time; or much total time for that matter?

The GI Bill was a life saver. A college education with all tuition, books and most fees paid by Uncle Sam plus a little cash each month. The total was determined by your total time in service. I think this program was probably one of the best ever offered as the government



got back many times over the costs by the increased income taxes paid by the graduates due to their higher earnings.

Fall 1946 '38 Aeronca Chief

Madison, Wi Single ign., slow, cheap.

I enrolled at the University of Wis. as a full time student on the G.I. Bill, married Beverly Rue, and tried to fly in the Reserves out of O'Hare in Chicago. Not easy. I bought an Aeronca and the first big trip was to Bismarck, Beverly's home town. The most exciting event of the ownership of this plane was on that trip. It didn't have a starter so you had to hand prop it. No big deal unless the throttle was wide open. When I asked Bev to "crack" the throttle, she pushed it all the way in. It started with a roar and I was able to leap out of the way. I did grab the strut as it came by and away we went across the field - Bev screaming, me yelling to pull back the throttle and working my way towards the cabin, taking ever increasing steps due to the rapidly increasing ground speed and, of course, lower position as the strut was attached to the cabin at the bottom of the door. She did hear me yell, "Open the door", as I took one mighty dive for the throttle. I made it or the marriage would not have lasted as long as it did.

1947

N3N

Madison-flew it coast to coast. Great plane.

The N3N was very similar in appearance to the PT-17. Tail dragger, two place tandem biplane used as a Primary trainer by the Navy. That's where it ended. The Navy built this plane in their own factory in Philly and it was a fabric covered, all metal airplane built for training on land or sea with the installation of a large center float and small wing-tip floats. Very strong and heavy. I bought it for \$ 900 and flew it from coast to coast - as it turned out.

Our first trip was back to Bismarck again but without all that excitement. It had a hand starter, an interia type which required lots of cranking from strong line boys. The PT-17 had the same system and we Cadets did the cranking. That's why we had four students to an instructor. One to hopefully learn something and three to crank.

During the summer of 1947 we flew it back to New York. On arrival over Elma and the farm where I used to watch those Ford Tri-motors fly over, I thought it would be great to land there. However, it had been sold and my Grandparents had built a house on a small bit of land they had kept. It looked small but OK for a landing by an experienced pilot like me. I may have had 200 hrs. by then - maybe. Anyway, I dragged it across a field of trees, over the old,fenced cattle run and dropped it into the 600' backyard. Complicating things a little was the fact that Bev was sitting on half the suitcase; the other half hung down over the edge of her seat which prevented my pulling the stick all the way back. With the orchard coming up at an alarming rate I locked up the brakes and skidded all the way into the orchard. Fortunately, the orchard was shaped in a U and we came to a halt in that U without touching a tree. My Grandmother appeared in the kitchen door. She took one look at her only Grandson, his wife with her about to be only Great-grandchild, six months away, sitting in the plane with the engine still running, and rushed back into the house for her "nerve medicine".

Getting out was another story. My Grandfather had the 600' strip mowed very short and we pushed over the old fence with the rotten posts to about a 45 degree angle and waited for a good strong wind towards the orchard. It came up and away I went, figuratively speaking. Just before the fence I pulled back all the way, I was solo with no suitcase on the back seat. The only thing that happened was the tail coming back to the ground. At the same time the prop clanged into the fence the main gear struck a ridge of dirt along the



fence line and I was airborne - sort of. That field of low trees and bushes was not helping my airspeed as I was flying through the tops of them. A glance at the airspeed showed "0", but finally the ol' girl climbed out and flew away with still "0" airspeed. It seems a chunk of mud flew right into the air speed tube.

That summer I worked at a Chevrolet engine plant and barnstormed on the weekends near the family cottage on Silver Lake. This was out of a 1200' strip with wires at one end which made a slip approach into the strip a necessity.

I remember two boys came up to me one Sunday afternoon. Talk about a Mutt and Jeff - one was at least a foot shorter than the other. They explained that they had only \$10.00 between them. The rides were \$10.00 for 10 minutes. I said "OK, but the shorter one has to sit on the tall boy's lap and he gets the helmet and goggles as his head will be above the windshield". Big smiles and away we went.

That was quite a summer. My Maternal Grandmother went for her first airplane ride and loved it. Practically hung out of the plane looking at everything. I found out she had lived over one of the towns we flew over when she was a little girl. She also put a spike heel through the wing fabric. Easy fix, but cracked a rib, hers, not the plane's, getting in. Not a complaint. A wonderful lady. On landing my Grandfather asked for a ride. We did a turn around the area and he never looked left or right. If Harriet could do that fool thing, by God, he could too.

At the end of the summer I was bringing the plane back to a little airport near Buffalo until I could take it back to Madison. I thought I'd give my Paternal Grandparent's house a little buzz job. Unknown to me, they were entertaining Great Aunt Minnie at tea. The living room had a very large window overlooking a small pond. Minnie was facing the picture window and my Grandparents were facing away from the window. Minnie looked out the window, saw me diving right at her, or so she thought, screamed and dove under the coffee table. My Grandparents were not amused.

I sold the plane to a crop dusting outfit in San Jose, CA with the proviso that I deliver it for \$200 extra. It took me over a month due to weather. Most of that time was in a field of mud in MO. after a forced landing when the ceiling got down below the surrounding hills. I finally pulled it to a small dry field. Too small for a runway-type takeoff, so I went around in a circle until I had enough speed to takeoff. Worked great. I recently read about a military experiment in a banked, paved runway built in a circle to save space. Interesting.

On arrival over San Jose it was dark, I was low on fuel and there was no airport in sight. Just then a runway lit up and an aircraft took off. I dove for the runway and just as I touched down the lights went out. There were some boundary lights and I was able to find my way to the base of the control tower where I shut down. A moment later a Navy Lieutenant showed up demanding where in the hell I had come from. After explaining my situation and a request to buy some gas, he barked out an order to an NCO standing by: "Give him 20 gallons Chief, and get him out of here". The Chief did as ordered. I asked him where the San Jose airport was. He said, and I quote: "After you takeoff, follow the highway south to where it splits in a 'Y'. There's hamburger stand there with a red light over it. The airport is just beyond that light. There are no lights but that's the airport". So that's what I did. Flew down the highway to the light, then a gentle decent in a landing attitude to the ground. Pulled out my 2 cell flashlight and taxied around until I found the tie down line. Crazy! Lucky!



1948-50

AT-6,C-47 Colorado Air National Guard. Great flying 1st Off. C-47.

I joined the Colorado Air National Guard in 1948. We had moved to Denver and I was going to the University of Denver. There was no flying in the Air Force Reserves then and the Guard was a great place to fly and pick up some extra money. I flew the AT-6 and some copilot time in the C-47.

We had a recruiting drive and a Sergeant won the drive. His prize - a flight home! His pilot - me. On a Saturday morning we headed off to Stone City, KS. On arrival I thought it would be great to give the locals a little air show. I flew low over town, pulled up and started a nice slow roll. While upside down, there was a loud crash. I looked in my mirror and the Sergeant was laying on the canopy. A quick half snap recovery and he fell, with another loud crash back onto the floor of the cockpit. He was slightly bruised and we both were frightened. It seems, in addition to unfastening his seat belt, he also had loosened his parachute. If he had fallen through the canopy, that would have been IT. On the way home Sunday afternoon, he could barely breathe he had tied himself in so tight.

While still in the Guard I graduated from DU and started a crop spraying business in Akron, CO. I was General Moffat's aide at the time and summer camp was coming up. I could not leave the new business and he needed an aide at summer camp. He would not excuse me from camp but did suggest I retire from the Guard, which I reluctantly did - two days before the unit was frozen and shipped to Japan for the Korean War. Saved again.

1950 Aeronca Champ, P-40 & P-38 Akron,CO Crop spraying, cloud seeding.

In June of 1950 I graduated from the University of Denver with a degree in Business Administration. My Major was in Airline/Airport Management. The owner of the airport in Akron, CO offered me the position of Airport Manager. No salary but anything I could make was mine! What I deal. We almost starved to death! I bought an Aeronca Champ to spray crops and "make my fortune". The Aeronca Champ was used at much lower altitudes for crop spraying but was very weak at Akron, CO., about 5000' field elevation.

I was so broke I had to borrow the whole \$ 1000 it took to buy the plane. The engine was so tired I could pull it through with one finger. One morning a piece of solder stuck in the spray pump impeller. While my flag men waited on the ground, ( a school teacher and a state patrolman on vacation), I climbed out on the right landing gear to try to loosen the impeller. It was mounted between the gear legs. It was difficult to shake the impeller prop and fly the plane sitting on the right wheel while 200' or so above the ground so I had to fly back to the airport and rebuild the pump. Another time I flew out to collect a bill. Landed by the customer's combine, got paid and went through two fences on takeoff. Put a big U bend in the left lift strut, tore a hole in the belly and broke the secondary spar in the left wing. Patched the hole in the belly with an old bed sheet and flew the rest of the season with the bent strut and broken spar. That spar made the left wing tip rub on the aileron very hard, In fact, I had to slam it through when I made a turn.

The P-40 was another \$ 900 purchase; the first and only plane purchased by the Washington County Crop Protective Assoc. This was a group of wheat farmers that I had persuaded to support my attempts to destroy large cumulo nimbus clouds and thunderstorms which developed into hail storms, the biggest enemy of dry land wheat farmers in the West.

On arriving at Teterboro, NJ, I bought the P-40 that was owned by a Colonial Airways Captain. He took my money and left on a flight. No instruction or numbers of any kind. I



talked to a guy who ran a hamburger stand who said he flew P-40's in the war and thought he remembered the numbers. I wrote them down, stuffed them into my chute and blasted off. On lift off I suffered a TOTAL electrical failure. This P-40 had a Curtiss Electric prop and with the failure, the prop went into high pitch. This resulted in about 1200-1400 RPM and 40" MP. The engine really did not like that at all and let me know by backfiring loudly. Of course, I had no radio, gear indication, or any other indication, for that matter.

Teterboro operations shut down while I circled trying to figure out what to do. The tower finally gave me a green light and I landed not knowing what would happen next. And this was my very first flight in a high performance airplane. Since the gear never came up, the landing was uneventful and I taxied back to the ramp to be met by the FAA, of course, and the mechanic that had signed off the plane as being airworthy. He checked the log book, turned to the mechanic and pulled his license on the spot. A few days later I had another mechanic sign off on the plane and I headed for Buffalo on the way to Colorado and my big experiment.

Over Scranton-Wilkes-Barre, PA., between layers of clouds, the engine started to run very rough. I tried everything I could think of with no success. Looking down through the only hole I had seen for some time was the S-W airport. I dove through it, declared an emergency to the tower and lined up on the nearest runway. On short final, this very calm voice from the tower informed me that I was landing on their shortest runway with a 15 mph tailwind. I applied full power and the engine ran very well for the first time in 15 minutes (read that- a lifetime). I pulled up and circled to land at the designated runway. Nice touchdown but on the rollout the right gear decided to retract. Off the runway I skidded in a cloud of dust. End of P-40, at least for me. I think they are now worth about a million bucks.

The P-38 was about the same kind of deal except, since the Assoc. was about out of money and confidence in me, I had to lease the plane for \$ 50/ hr. dry. Every other day I had 200 lbs. of dry ice shipped to Akron. The -38 was an old photo version so there was plenty of room for the dry ice grinder. I'd enter the cloud about 1500' above the freezing level on the sunny side of the clouds or the updraft side. The dry ice was dispensed in long sweeps much like crop spraying. Back and forth inside the cloud. Extremely rough flying. Head slammed side to side against the canopy. I had no hard hat so I used a towel pinned together with a diaper pin. One time I was thrown out of the top of the cloud like a cork bobbing to the surface of a stream. This was a heavy twin-engine fighter plane. About 15-20 minutes later the cloud was almost gone. Maybe rain but no hail.

Most farmers still bought hail insurance and called the cloud dispersal an act of God. Israel thought enough of the work to offer me a one year contract. If I had taken it I would have gone over alone. Not worth it but the -38 was a really wonderful airplane. Last I heard, this type was worth about two million dollars.

1/3/51      Hired by Frontier Airlines      DEN. DC-3 First Officer. One of my best days.

After that fateful summer of 1950 where I crashed the Aeronca, had the P-40 "near death" experience and was unable to convince the investors that the P-38 hail busting idea was worth continuing, I decided that maybe a career in aviation wasn't such a good idea. A complete departure was called for. Beverly agreed wholeheartedly, so I went to work as an Assistant Merchandiser for Montgomery Wards in the lingerie department. Talk about a "complete departure", this was it- and I hated it.

After a couple of months at Wards, I started calling on the two of the major airlines in Denver, United and Frontier. They both required an instrument rating, which I didn't have, before I



could get an interview.

By this time I had resigned from Wards and was working for a plasterer as a day laborer at \$1.25 / hr. I had enough money for 1 hr. of dual instruction. The instructor, at the end of that hour, thought I'd do OK with a few more hours of instruction, to go for my Instrument Rating. When I told him I had just enough money to rent the C-150 for 1 more hour, solo, he just said, "Good Luck".

The FAA does not charge for Rating Rides so I called up an FAA instructor from my days at DU and explained the problem. He agreed to give me a 1 hr. check ride. He signed me off after the ride and I rushed over to United and Frontier before the ink had dried.

That was the start of many days of waiting while I continued to "carry hod". Like many things in life, events come in bunches.

On the same day United made me an offer - "We will hire you for our next class, which is in Feb., and you'll be based in Chicago or New York",. This was the 2nd of Jan. 1951. I thanked them and went over to Frontier. Harvey Barnard, V.P. of Personnel, who had been able to see me sitting in his waiting room many times, said, "I am going to have to hire you to get you out of my office, go down stairs and talk to our Chief Pilot, Ev Aden".

Ev looked over my very thin resume' and said, "Let's go for a ride". I'd never sat in the left seat of a DC-3 (C-47), but that's where he put me. "If you can taxi a DC-3, you can fly it" is an old saying, and somehow I got it out to the takeoff spot.

When we were cleared for takeoff, I was very nervous, I pushed the throttles up very fast. Ev grabbed them and pulled them back just as fast with the remark, "We baby our engines around here". After the ride, which seemed to go OK, we returned to his office. After some discussion of various subjects; family, Army career, objectives, past flying, my education - with the remark that "We only require a high school diploma" which made me think I had just lost four years of seniority, he said, "Ok, report out here tomorrow at 6:00 AM packed for a week charter". "Yes Sir", was my response as I headed for the door. "Wait" Ev called to me, "Don't you want to know what we pay?" "Oh, yeah". His answer: \$ 265 / mo. for 80 hours.

Wow, a pay raise, as Wards paid a little less, and United paid \$ 290 but I'd have to move to Chicago or New York at my own expense. No question there. A decision that probably met about a million dollars difference in my career but one I've never regretted.

The next morning, Jan. 3, 1951, off we went on my first flight with Frontier. A beautiful day but then, that day would have been beautiful no matter what the weather. I was an "airline pilot"! Right! Within 30 minutes I had shown Ev how little I knew. He had me plotting fixes all the way across the Midwest. Maps filled the cockpit and I was giving him fixes and estimates every few minutes. Later in the day the weather turned bad and as we flew long I kept hearing this noise like the stewardess was opening and closing the door to the cockpit. Every time I heard this noise I'd look over my left shoulder waiting to see her come forward. No one. Finally, Ev asked me why I kept turning around. I explained what I thought was making that noise and he just roared. "That's ice coming off the props and hitting the fuselage". That was ICE? Wow! Yessir, I was a real airline pilot - in name only.

A little side story. We flew to Akron, OH with a basketball team for a 4 or 5 day engagement. The next day I asked Ev how much he thought he'd have to spend on expenses on me while we were in Akron. He gave me some figure and I actually asked him if he'd advance me that amount as I wanted to go to Buffalo to tell my family about my



neat new job. I had been employed all of two days and I actually had the nerve to suggest something like that. Looking back I can't believe I could do such a thing. Ev, whether he was stunned by my question or was just a nice and trusting guy, agreed, and away I went, with the warning, "If you're late, don't bother to come back as you'll be through".

I had a great time telling my family about the new job and arrived back in Akron to find a very worried Chief Pilot in the coffee shop the morning of our departure. He was just about to jump all over me when I reminded him that I wasn't late and was sorry if he was upset. So started my 34 years with Frontier and a career that I'd do all over again if I had the chance.

The winter of 1951 was a bitter one. Lots of bad weather with plenty of ice to fly through and land on. My schedule was three days on, three days off. First day was to Albuquerque via Colorado Springs, Pueblo, Alamosa, Monte Vista, Durango, Farmington, Gallup, and ABQ. Day 2: Gallup, Farmington, Cortez, Grand Junction, Price, Provo and into Salt Lake City. Day 3: Provo, Price, Grand Junction, Cortez, Farmington, Durango, Monte Vista, Alamosa, Pueblo, Colorado Springs and Denver. Let's see, that's 26 landings in 3 days! In January that could also be 26 instrument approaches, certainly 20! In those days Frontier flew through mountain passes because many of the mountains were too high for the DC-3 to fly over. At each end of the pass the company would place an "H" marker or transmitter, and we would home in on these transmitters on a published track and then go on to the next one. We used what we called an "Aural Null", which was located by tuning in a solid noise on the given frequency and then manually rotating the loop on the receiver and "look" for the null, or "quiet" spot. It should be on the nose of the plane and the plane on the published track.

Use of the "Automatic" feature on this instrument was discouraged as it would point to a mountain with a high content of magnetic ore instead of the transmitter. These "H" markers were also used at each airport we flew into in the mountains. Frontier owned these markers and developed their own approaches for each airport in this area. There was no Air Traffic Control so we did our own control for enroute, approaches, landings and takeoffs. This was done between each other and it worked very well as we were the only people with enough nerve to fly around these mountains on instruments and at night. Needless to say, we became very proficient in the use of these ADFs, as they were called.

A little side story: One morning four flights arrived over Farmington in instrument conditions and with our usual self clearances working as they should. We held over the Farmington "H" marker with a 1000' vertical separation with the lowest flight making the first approach. When he landed then we would all descend a 1000' and the next flight would commence their approach. This took quite a bit of time as we would never start any decent or approach until the lowest flight had really landed. If he had to make a "missed" approach, and we all had assumed he had landed and started our descents, it could get messy in a hurry.

Anyway, my Captain was circling at our altitude waiting for the "Landed" call from the bottom flight when I noticed a Beech 18 zip under us by about 400-500'. He had not said a word and was making an approach into Farmington using our "H" marker while 4 Frontier flights were doing the same thing at the same time! One frightened call on the radio from our flight, "Bandit", and all 4 Frontier Airlines flights headed for their alternates. Very scary!

Another time I was flying with one of my favorite Captains, Charlie Weed, on the "turnaround" to Grand Junction. This was a great flight as we got home each afternoon and the scenery was spectacular. DEN-COS-PUB-Canyon City (can you believe?). Over the Continental Divide to GUC, MTJ and GJT. Enough time for lunch and back through all those stops. It was a "DAY-VFR" route so 12 landings weren't all that bad. The elk had



come down from the high country and were grazing on the lower buttes between GUC and MTJ so we would fly over them fairly low; low enough that I was able to take some movies through the windshield! Anyway, one day in GJT two guys came up to us in the terminal and asked us if we were flying the "Elk Special". Somehow, they had heard about our "sight seeing" flights. We glanced at each other and admitted that we had seen a few elk along the way. These guys went back to United and canceled their nonstop flight to DEN so they could fly with us through 6 landings to see the elk. I hope we didn't disappoint them.

I flew this GJT flight for years in the DC-3 as a copilot and Captain and the CV-340 and CV-580 as Captain. It was far and away my favorite route.

While I'm thinking about those GJT flights a few more stories come to mind. It seems that a United Captain owned the Ford agency in GUC so naturally, he made some "smoking deals" for his fellow pilots. It was a beautiful day and we had a United pilot on the jump seat. That's a little seat in the cockpit between and just behind the pilots seats. We were descending into GUC, our highest airport we served at 7666'. I was a copilot, but flying from the left seat as we did in those days with the Captain's permission, of course. As we approached GUC I positioned the plane so "W" mountain, which was located southeast of the airport, blocked the view of the runway. We went through the check lists in preparation to land, put down the gear and extended the flaps. That United pilot was jumping all over that "jump" seat and, being United, would never ask what the hell was going on. Around "W" mountain and onto the runway. Great fun!

Another time I was flying with Ed Walker. He had a reputation for chewing up copilots for lunch so, even though I was junior, I could hold this "line of time". Anyway, we hit some hail between GJT and MTJ. It was so bad that Ed put his seat up as high as possible and I ducked under the windshield. Of course, Ed never slowed down and I thought the windshield would come in any second. It didn't and after landing at MTJ, Ed told me, (he never asked for anything), to check the landing light covers to see if they were broken. They weren't and we continued on through GUC and into PUB. We had stopped serving Canyon City by then. The agent came up to the cockpit and suggested that Ed take a look at the elevators. We went out to take a look. The hail had shredded the fabric on the elevators. Strips were hanging to the ground and we had flown it that way for a few hundred miles. Ed went ballistic and was really giving me hell. When he paused for a breath I pointed out I had done as ordered - no more, no less. We spent a quiet afternoon waiting for a replacement plane.

A few Captains were like Ed - old school. The copilot was there only because government regulations called for one. Sit back, son, and I'll show you how it's done, was their attitude; a disastrous, or at least an embarrassing, attitude. I was in my 7th year as a copilot and the flight went through the "new" airport at Pueblo. We ordinarily landed to the east or west, but this day the wind was about 40 mph out of the south. My Captain, not Ed, had stated at the beginning of the day, "I don't want to hear anything out of you unless I call for it". The flight had been very quiet and I had said nothing all day unless ordered to by my Captain. This included all check lists and radio reports. On arrival over Pueblo it was obvious that a landing to the south was required. The Captain came in too low and had to use a great deal of power to make the runway. The -3, as do many planes, had a warning horn that sounded when the throttles are retarded with the landing gear up. Due to his low approach the throttle was above the warning horn activation position. Over the end of the runway he pulled back the throttle, the horn sounded very loud and with a startled look we pulled up and went around for another approach. He had not "called" for the landing check. He looked at me and said, "You'd have let me land gear up". "Not if you'd called for it", was my response.



While I'm on the subject of flight crew relationships, I'd like to spend a few lines on that subject. No ship, be it air or sea, is managed by committee. The final decision and authority is always the Captain's. Whatever the outcome of the event, the Captain is the decision maker. His word is law.

Of course, if the decision is incorrect he will have to answer to a higher authority later at the hearing, wherever it is held, the FAA, in Heaven or Hell.

How each Captain approaches his job and role varies with the individual. His ability as a pilot and leader, his personality and experience has a great deal to do with how he does his job. His relationship with his crew is close physically, after all, the cockpit is a small office no matter how big the plane and many hours are spent in that little "office". It is no place for someone with an inferiority complex; a rare thing with an airline pilot or someone with doubts about his personal ability. Over the years I flew with every type of Captain you can imagine. In fact, one of the Chief Pilots, I had 10 over 34 years, was Ed O'Neil. One day he told me, "Brad, you should be a better pilot than any Captain you fly with". "How's that Ed?" "You should be able to take the best from each one and use it for yourself", was his answer.

Very good advice, but much easier said than done.

3/1/59

Captain Checkout DC-3

2nd or 3rd Best Day of my Life

On March 1, 1959 I had my first Captain trip. Well, sort of. The FAA and the Check Airman came along to see if I could do it OK. The Check Airman was Ed Walker, but by then we had become friends. The route had been extended to Moab, UT. In fact, this was the "proving run". None of us had ever been into this airport and it was something. The runway lay North and South with a cliff, about 1000' high, about 1/4 of a mile to the West paralleling this runway. You landed to the south and took off to the north - no exceptions, period. After landing, the FAA guy took out a sight gauge to determine if the terrain met some kind of standard. He said it was OK. To this day I have no idea what he used to come up with that conclusion. If we had a tailwind on takeoff we'd slide the plane to the right a little to pick up a "riser" from a rock ridge that angled towards the departure area. That was a little of the type of "airline flying" that we did in those days on Frontier.

My really first Captain trip was the next day. There I was, finally, after 8 years as a copilot I was a Captain! My copilot was Archie Schole, a new hire from Pan Am. He had never seen a mountain except from 25,000' flying from LA to Capetown over the North Pole. Archie had been furloughed from Pan Am, along with a few dozen, and Frontier had hired about 8 or 10 DC-7 copilots and Flight Engineers. We had just been awarded the "Seven States Case", which increased Frontier's size about a third and that was why I was a Captain.

It was a nice day along the front range but when we left PUB and headed towards the Continental Divide and GUC, I could tell that the wind was really blowing across the mountain peaks. As we came up to Monarch Pass I "snuggled up" to put the mountain off my right wing about 400'. As I mentioned earlier, the mountain was too high to fly over and, besides, it was covered with clouds. And remember, this was a DAY-VFR route. More on that later.

Arch hadn't said anything since giving PUB our "times", but I could tell he was a little nervous. By the time I was "snuggled up" he had a really good grip on the arm rests of his



seat. The visibility was very good with lots of clear skies and sunshine on the other side. The reason for the "snuggle up" was to give the passengers as smooth a ride as possible by getting under the burble of wind over the peak - not to scare Arch or anyone else, for that matter.

When we came out the other side of the pass, after a fairly smooth ride, Arch looked at me and said, "I'll be God Damned". We flew together for many years and became good friends.

About that DAY-VFR ONLY route to GJT. This meant we had to have a ceiling of at least 1500' above the ground and 3 miles visibility. Who determined those measurements? Enroute, we did. At the station, company employees did. No Weather Bureau people around here! We had the regular route that I mentioned above. Then we had the "long" route, which took us south of the regular course via Saguache and any pass we thought we could find our way to GUC. Then there was the "long, long" route which took us way north over CYS, LAR and points west and south down to GJT passing all the regular stops. The only reason we ever flew that was to get the airmail to GJT and carry whatever passengers we had for GJT.

The airmail was the life blood for Frontier as we hardly ever carried enough passengers to pay our way.

Ev Aden was a real stickler for our knowing the VFR routes. He was giving us a check ride to GJT one day. I was the copilot. Over some little settlement he asked me its name. I called it correctly and then he said, "See the ranch just south of there?". "Yes", I said, and he followed it up with "Who owns it?". Remember, VFR in the mountains in intermittent snow or rain showers when you're below the surrounding terrain is not "your ride in the park" like it would be over the plains. You really had to know where you were. And we didn't have those "H" markers to help. VFR met Visual Flight Rules.

Another day, I was a Captain by then, we were coming back and had just left MTJ for GUC. The visibility was very good but there were lots of clouds. The route to GUC went over the Black Canyon National Monument, or rather it was to the south. I could tell there was no way I could fly over the terrain. However, the old narrow gauge railroad ran from the East end of the gorge and came out at the west end at a little town called Sapinero. I knew I could get through that way so I flew into the canyon at Sapinero and headed for GUC. I could see the sunshine at the other end but, of course, the passengers could not. I called the stewardess up and asked her how they were taking it. She said, "I can't tell because they all have their faces against the windows". The cliffs were only a few hundred feet away on each side of the plane.

One snowy winter day, I was flying into GUC with the USBLM officials that were coming in to sign the contract for the Blue Mesa Dam construction. It was important that they get into GUC so the station was reporting three miles visibility. Right! Being able to look down and know right where you are in conditions like this was really helpful. See Ev Aden's questions above. I lined up on what I thought was the runway. At the last moment I realized it was the ditch along the south side of the runway. A little slide to the right and we were on. Were we ever! The runway was unplowed and well over the wheel axle in depth.

We taxied up to the terminal and Rocky Warren, the airport manager and operator, ran up to my side and called up, "I figured it was either you or George". (The George he referred to was, and still is, my very good friend George Meshko.) He laughed and jumped into his C-180 and using one of my tracks tried to take off. After two attempts he gave up and made it back to his hangar.



My copilot looked over at me and said, "OK, you got in here, now how are you going to get out"? We taxied out to the touchdown spot and started our takeoff using the tracks made when we landed. At the spot where I had turned into the terminal, about 2/3 rds. of the length, I called for 1/4 flap. The old girl staggered into the air and away we went to MTJ. I had some really great mountain pilot instructors in the Captains I had flown with all those years as a copilot. Another trick was to push forward on the wheel at touchdown when the runway was icy and then get on the brakes. The forward nose down position of the plane made it heavier and made the brakes work much better. I learned that trick from Ed Walker.

One dark and stormy night we were landing at the old Kansas City airport down on the river bottom. We were landing to the south on Rny. 18. Tower was giving the wind from the southwest at 15 mph. Jack Howell, my copilot, was flying from the left seat. At touchdown I ask him "How's the breaking action" "There isn't any" was his reply. "Push forward and get on the brakes", I called out. I had never had an occasion to demonstrate this technique so Jack didn't understand what I meant. "I'm going down Runway 17", he responded. "NO, NO there's a -6 running up on it. I got it", I called out as we slid off the east edge of the runway and started knocking down runway lights. Unlocking the tail wheel, full power on the left engine, full right rudder and brake brought us back on the runway with no slowing. I vividly remember the Continental 707 lying broken on the dike at the south end of the airport last winter. As we slid down the runway towards that dike we also kept turning and sliding across the runway. As we slid off the west side of the runway into the mud we had come around until we were facing back up the runway to the north. Full throttles and we roared back onto the runway heading north.

On arrival at the gate I staggered out of the cockpit and into the passenger compartment. No tie tightened, no hat, much less my jacket. All the passengers and stewardess just sat there with their faces as white as mine probably was. I opened the airstair door to be met by an agent who said, "I knew you were in trouble, Skipper, when you went by the terminal backwards". "No shit!", was my response. I called the tower and they said, "Well, you just did a 180".

With mud sliding down the fuselage, Cookie, the night mechanic, looked it over, found nothing wrong so we flew back to Lincoln for the layover. The next morning was bright and clear and when we came back to Kansas City we found many of the runway lights knocked down on the east side by a double track plane. The DC-3 leaves a single track. I didn't even have to write a letter.

On another dark and stormy night going into Chadron, Nebraska, Bev was on the jump seat as she and the kids were going to Bismarck. Things were more relaxed in those days. I had to circle to land. The visibility was poor so I asked the departing flight to park at the runup area at the landing end of the runway with his landing light on and 90 degrees to the runway. I asked my copilot to call the airspeed and altitude above the ground. I opened the side window, this plane is not pressurized, and, keeping my eye on Les's airplane, circled until the lights were one over the other. All the time the copilot is shouting the speed and altitude as it is very noisy in the -3, especially with the window open. Bev never thought my job as a pilot was that great. Too much time off and not much pay but too much pay for what I did. She didn't say much about my "easy" job for a few months.

1951-57

Aerial Prospecting

Callair, Luscome 10A, Super Cub, Beech 18.

As for "other flying" during those years: Our contract with Frontier clearly stated that "no commercial flying will be contemplated by any pilot, with the exception of military flying".



This meant that there was to be no flying for compensation except flying for the Guard or Reserves. We did have to keep within the flight time limits imposed by the FAA. George Meshko and I thought that getting into the Uranium "rush" was a really great idea. If we hit it big we wouldn't need a copilot's pay because we'd be millionaires. So we took in a partner, Bruce Grassfield, a friend but not a Frontier Airlines pilot, as a partner. We each put up \$ 500; no small sum when the pay was about \$ 400 / mo. then. We bought a Callair for \$ 500, a radiation detection gauge for \$ 500 and used the last \$ 500 for operating capital. We thought we'd just fly around until we got a "hot reading", land, stake out a mining claim and smile all the way to the bank. What a dream.

We had just about run out of money with not one "hot reading" when we heard about an outfit in Golden that was starting up to look for uranium. They called themselves Minerals Exploration Research Corporation, MERCO, for short. These were a bunch of guys from the Colorado School of Mines that had great credentials and really big ideas. George and I, (Bruce had gone back into the Air Force), thought it would be a great idea to sell ourselves to MERCO as the "Aviation Department". We had the airplane - the Callair; a great mountain plane, a Giger counter to look for uranium and all that mountain flying experience. All the things MERCO needed and didn't have. I borrowed a neighbors new red convertible and headed out for our meeting with the MERCO officials. First impressions are always the best and we wanted to make a good impression.

Things went very well since none of them knew anything about airplanes and, yes, they planned to do much of their exploration work by air. In addition, they had a wealthy investor, Frank Baumgardner, a great character in his own right. They needed an aircraft to fly the partners around to close deals and put geologists on location. We were offered a 1/2 partnership each and we offered them at least one full time pilot. By flying the same schedule we would be able to do that and we had enough seniority by then, 1957.

We started off with the Callair and then added a 1937 Staggerwing Beech for the "Executive" aircraft. We both had some interesting experiences in those planes.

One day, flying out of GUC, with a young geologist named Scotty in the Callair, he got what he thought was a "hot" reading. "Land, land", he called out. Since the reading was near the top of a butte I decided to land on the butte and save a lot of climbing. The only problem was the butte was too short for a regular landing so I flew at the cliff below the top and just before we hit I pulled up and stalled the Callair just at the edge and plopped down with room to spare. Well, a little room to spare. Scotty's screaming the last few hundred feet was distracting. The "hot" spot turned out to be a basalt and worthless.

When we were ready to leave Scotty asked, "OK, how do we get out of here?" "Easy" was my answer, "we just taxi off the edge, fall until we get flying speed and go on our way" which we did.

The next day didn't end up so good. Scotty and I were looking for uranium down on a road called the "Doleville Cutoff" when he got another "hot" reading. "Land, land", he shouted. So I did, on the road. How did I know sage brush grew over 6 feet high? Caught a wingtip and went from 60 mph to 0 in about 4'. Took off the gear and pitot tube, broke the prop and bent the motor mount and really damaged my ego. That made crash # 3 for me. Scotty scratched his ankle and that was all the personal injuries. Did I mention that George and I had replaced the regular seat belts with military wide belts and shoulder straps?

We got a lowboy and hauled the wreckage back to GUC where Rocky offered us a vacant hangar with the remark, "Keep track of the materials you use and please put back my tools". We loved this guy. George took a month's leave and rebuilt the Callair. We flew it



back on Thanksgiving day, 1957 and almost made two women widows and seven kids fatherless. There was a little strip near George's house and the plan was to buzz the house and Nancy would come out to get us. As I dipped down towards the house the Callair began to shake violently. I glanced back at the horizontal stabilizer. It was shaking so badly it was a blur. The crash had loosened the stabilizer. I gently pulled back to slow down. We'll never know how close it came to coming off.

The Staggerwing was a wonderful plane. When Walter Beech built the first one with a retractable gear it was faster than many of our military planes at that time. Ours cruised just under 200 mph. and could fly over seven hours.

I almost had a really big problem with it but George had the honors. I'd flown it down from Boise, ID IFR to DEN. George took it to Aspen, picked up some MERCO people and headed for Houston. About an hour out of Houston the engine literally blew up. George did a masterful job of putting it down on a maze field. I always thought he was a better light plane pilot than me and he proved it that day.

It seems that the oil tank design had a fatal flaw. The case breather was a standpipe that was installed inside the oil tank with no support brackets. After years of vibrating in that tank it fell over - inside the tank. All the oil, about six gallons, then ran down into the case - end of engine.

When the engine had been replaced, a horrible job that involved a piece of well casing between two trees to lift out the old engine and replace it with the new one during a sand storm and patching up a dozen holes on the leading edge where the maze stalks had gone through, George flew it out to the local airport. I was elected to fly it back to DEN. After circling the field for a few minutes to check everything over I headed out. Cruising along at 10,000' over Texas I smelled smoke. Looking down at the floor boards it wasn't hard to see they were covered with oil. All I could think of was FIRE! I rolled it over and headed for the ground. I had a bad cold and my ears clogged up. I picked what looked like a great landing strip, but on a short final I saw it was covered with piles of sand. An airport all right, but one under construction. I pulled up and grabbed my map for a quick check again. The old field was on the other side of town and I was there in a couple of minutes. I pulled up to the hangar and a mechanic came strolling out looking at my smoking plane covered with oil and a white faced pilot. "Looks like you got a problem, son, but you're in luck 'cause I worked on these all during the war", was his first remark. He opened the cowl, saw the problem was an oil line that had disconnected, gave me his keys to his truck and told me where to get the oil I needed. I was on my way within the hour. He was my Ding Dong Daddy from Dumas.

George and I "checked out" in that Staggerwing one night at old Sky Harbor airport located east of Stapleton Field in DEN. Eddie Maylan was the Check Pilot and another local flying legend. There was a strong crosswind and the Beech had a throw-over control wheel which meant that Eddie could not take over if we screwed up a landing! The man had nerves of steel.

We bought the Beech from Vest Aircraft for \$ 2000. How we got it is a little story in itself. At the time, George and I also had a little used car operation going. I'd buy them, George would fix them, I'd sell them and we'd split the profits. We had a '48 Plymouth Convertible worth about \$ 1100 and about \$ 5.00 in our business checking account. We were sitting in Don Vest's office smoking a couple of his cigars and trying to play the big shot airplane buyers. We had agreed on the price of \$ 2000 with the Plymouth used as a trade-in worth \$1100 which left us about \$ 895 short. Now Don had a reputation for offering a double or nothing with any deal he made. If we won the coin flip we'd keep the Plymouth and the



Staggerwing for free! I was doing the haggling and George was chewing on his cigar with more than a little agitation. When Don made us the double or nothing offer I looked at George and he almost swallowed that cigar. I was tempted, after all we were already down almost \$ 900. What was a couple of thousand more? I declined and signed the contract. As soon as we left Don's office George grabbed my arm and demanded to know how we were going to get the \$ 895. I assured him we could handle it and we did - somehow.

We flew that Beech everywhere. MERCO had a number of offices through the Rocky Mountain area and we flew to all of them. Aspen was a favorite. The one runway was gravel and had a large dip half way down. If there was any wind it came down a valley right at that dip - a direct crosswind. Now the Beech had a braking system called a Johnson Bar which consisted of a rudder bar ( not a pedal ) for each foot. It also had a handle that looked like an old Ford Model "A" hand brake. Maybe that's where he got them. Anyway, to use this system you pulled back on this handle so many clicks to set the amount of brake pressure you thought you might need. After landing you pushed on the left or right rudder bar for braking. This handle came out of the floor just under the throttle which is mounted in the center of the instrument panel.

Imagine this action: You are landing at Aspen with a crosswind. There is no tower so you check the windsock for wind direction and velocity. A guess at best. You decide that you may need variable brake pressure due to the gusty wind so instead of setting the brake pressure by so many clicks you hold the button down on the handle and apply what ever pressure you need at the moment with your right hand. While that's going on you also have your arm wrapped around the control wheel with your left hand on the throttle. Just about the time you run into the dip in the runway you hit that crosswind. A blast with the throttle to keep the plane on the runway and enough brake to keep from running off the end. In addition to all that, the Beech had a very narrow landing gear and would "ground loop" with little encouragement. Talk about busy!

MERCO was expanding, money was pouring in, or so George and I thought, and the President thought we needed to modernize the fleet. The Callair was sold to be replaced by a brand new Super Cub, which George and I bought and leased to MERCO. The Beech was sold and replaced by a TWIN BEECH, A D-18. Man, we were off to the races!

George and I were almost counting our millions. A big office in Golden with a large staff of sharp geologists from the School of Mines, two great airplanes and lots of contracts from any number of "High Rollers". One time I went one whole summer without a day off, what with Frontier 15 days a month and MERCO the rest of the time. George got a leave from Frontier as they were furloughing pilots at that time so it saved someone's job and flew the Twin mostly while I did the survey work with the Cub. Horrible schedule but, hey, we were going to be rich. Really rich. Just look around. There was Charlie Steen, \$ 100 million or so. Those two dentist brothers, I forget their names, millionaires all. Of course, there were literally thousands of guys climbing all over the Rocky Mountains looking for uranium. For the vast majority, a dead end trail.

Then there was Vernon Pick. Mr. Pick struck it BIG. Typical prospector, could make a movie, big rangy guy with a burro, pick and Geiger counter wandering around Western Colorado for months. Very rough country. But he really did strike it rich. Sold his claims to Floyd Odlum, President of the Atlas Corp., married to Jackle Cochran of mid-thirty's airplane racing fame, among other things.

Mr. Odlum was in a bigger hurry to buy than Vernon was to sell so Vernon struck a very good deal: \$ 10 million and, to sweeten things up a bit, Mr. Odlum threw in a PBY-5A.



He had about 40 of them out in California. He had them converted for civilian use and called them the Land-Sea-Air. They were truly a flying yacht. Airstair in the tail, rose wood paneling on the bulkheads, custom couches, custom everything. This plane even had a boat under each wing to go ashore or just go fishing as each one had an outboard motor and fishing tackle for two in each boat. There was a large plastic blister on each side of the PBY. The left one opened up and you stood out on a little platform and, after lowering the boat into the water by using the old torpedo hoists, you threw a little sandbag with a small line fastened to it and pulled the boat over to the platform. Very neat. The right hand blister was one clear piece of plastic with the couch built out into it. Sitting on the couch put you outside the fuselage. Great for takeoffs and landings on the water.

Where do I fit into this? Well, Mr. Pick, while holding a pilot's license, had never flown anything bigger than an Aero Commander. He needed a pilot and the FAA agent in GJT recommended me. Well, this was the late '50's. I had been flying copilot for 7 years and the company was furloughing pilots. When hired, Ev told me I'd be a Captain, if I could 'cut it' of course, in 1 1/2 to 2 years. Vernon offered me the job as Captain of this flying yacht with a pay check that equaled a Captain's pay with Frontier. He planned trips all around the world - all expenses paid. What's to decide? I requested a six months leave from Frontier and Ev gave me one.

At the time you also had to get permission from the Union. Guess what - the pilots turned me down. I guess the guys junior to me thought it was so good that I'd leave anyway and they'd gain a number. You know the pilot's motto - sex, seniority and salary, not necessarily in that order. What the senior guys thought, I'll never know.

So, I resigned from Frontier. Something I thought I'd never do but this was such an exciting job! I moved my vacation around and traded trips to get as many days off as I could before my resignation day was effective. Flew the PBY all over the GJT area and then to Lake Havasu for the water work. Got the Commercial ticket - water/land and really enjoyed the whole thing. Mr. Pick had quite a tough transition but he got through OK. However, he wanted to fly it most of the time in the Captain's seat and wanted to have me keep him out of trouble. I didn't like that too much but he was a really nice guy and we got along quite well.

When I asked him for a contract I hit a wall. "I don't give contracts to any of my employees". was his flat statement. About this time another pilot, a friend of Mrs. Odum (Jackie), appeared on the scene and wanted "my" job. Seems Mr. Odum also owned the Budd Corp. They made some strong air freighters but things were slow so they, the Odum's, wanted to take care of their pilot friend. With no contract and not knowing how much strength this guy had with Mr. Pick, the hand writing, while not too clear, was on the wall. I went back to Frontier, rescinded my resignation with a time stamp and Ev's signature on it with 45 minutes to spare. Two days later two pilots, junior to me, filed a grievance. Thanks a lot guys, I'm back. Tough!

1963 Captain Checkout CV-340

Wonderful plane, quiet, smooth

After 12 years in the DC-3 I was ready for a change. While the -3 was (is) a wonderful airplane, flying it over and through the mountains all those years had really ruined my hearing. In addition to all that noise, the prop tips are about three feet from your ears. The lack of pressurization going up and down thousands of feet over the mountains had caused my ear drums to break more times than I can remember. In fact, one Doctor remarked, "Your ear drums look like prune skins".

Frontier had purchased the CV-340's from United and they were well used. The



maintenance had been good and Frontier's was better. In all the years on the -3 and the Cv-340 I had suffered TWO engine failures. Amazing.

The first thing Frontier did was remove the autopilots . A really nice feature when you make 12-15 landings a day. When someone complained to the VP of Flight, Ed O'Neil was heard to remark, " You're pilots aren't you " ? It also cost an average of \$ 38.00 per month to maintain each one.

They finally worked down to me, or maybe I worked up to them as we were starting to expand a little and some of the guys were retiring. These were the really old guys that had started flying in the '30's. I didn't think much about that. Heck, retirement was over twenty years away ! Tomorrow !

The -340 was wonderful. Pressurized, powerful and very quiet. At cruise you could actually carry on a conversation with each other without shouting. Frontier added water / alcohol injection for additional power for takeoff. And we needed it on those high airports. The Chief said , " Well , we finally got a T category airplane " which meant we had a " modern " airplane. We chopped down the trees off the end of the runway at GUC to get enough clearance for takeoffs. The -3 did a better job!

On takeoff in DEN in the summer we had to play with the cowl flaps and "all prime " , additional fuel into the engine by holding down switches, while keeping the airspeed as high as possible just to keep the cylinder head temperatures out of the red - forget the yellow ! However, we all loved that airplane.

Well, most of us loved them, but some of those Captains that thought the copilot was an unnecessary addition to the cockpit did have some problems checking out in the -340. You really needed that guy in the right seat you'd been dumping on all those years. In fact, a couple of DC-3 Captains didn't make it and stayed on the -3 until they retired.

I flew the -340 all over the system for a few years without too many " incidents ". I had an engine failure one night shortly after takeoff and returned to the field without incident. I had waited until the oil pressure dropped before shutting it down . O'Neil jumped on me for that. He said I should have checked the quantity instead and "feathered " it when it showed a loss. I felt bad about that but better after checking with the shop. They said it was " history " before anything showed.

While I didn't "chase time", that is, bid any new vacancy if you could make a few bucks more no matter what you had to do: commute, move, whatever , I did bid every new airplane that I could fly if it was based in DEN. This meant that about the time I was Senior enough to hold a good schedule, another plane that paid better would come along and I'd go to the bottom of that schedule.

You know, Bismarck in the winter, Phoenix in the summer. Well, one night I was on the way to Bismarck. It was in the dead of winter and we had landed in Rapid City. The wind was blowing so strong that the airstair was floating off the ramp. I parked so the wind blew into the entry as little as possible and had the mail van pull up to the stairs. The passengers would stagger across about 10 feet of ramp and climb into the van. I helped one older woman across that 10 feet without putting on my jacket, just my uniform shirt. As I turned back to the stairs I started to lose my vision and I felt disoriented. I got to the stairs, grabbed the hand rails and stumbled up into the plane. This took all of 45 seconds. I checked my chill factor chart - 75 below !

One morning, on a flight to Phoenix, we landed in Durango. The weather had been fairly



good from Denver but it started to rain while we were at the gate in Durango. I watched the people boarding and, while the ramp was wet, nobody was slipping as they walked up to the airstair. No problems taxing out with braking action normal. The copilot, Chuck Levine was flying. After takeoff the flaps are retracted. At the final retraction the plane shuddered, as in a stall! I quickly ran the flaps back down until the shudder went away. Our next stop, Farmington, was about 12 minutes away. We kept the flaps down and flew there and landed with no problems except to our nerves. It seems that rain striking the cold wing froze on contact coating the whole wing with a layer of clear ice which we couldn't see. After deicing the plane we continued on to Phoenix with no problems.

This was a lesson I never forgot. If you ever have a problem while changing the configuration of the plane in any way, re-configure back to where there wasn't a problem.

1965

Captain Checkout -CV-580

Raw power. Great in mountains.

While the CV-340 was a great improvement over the DC-3 for passengers and crews alike, it had a few shortcomings as noted earlier. Poor performance at the higher airport elevations, which with Frontier was most of them west of Denver. Drift down charts were used with the loss of an engine. These charts showed the crew which way to go as the aircraft would not maintain a safe altitude over the mountains on one engine. That's all you needed, another chart just when you had your hands full with an inflight emergency.

The company was one of the first, if not the first, to convert their fleet of CV-340's to turbo props. We used the Allison conversion which was the most powerful. 4,000 hp. at the prop instead of 2000 hp. with the old P&W R-2800. What an improvement. Not only was the power doubled but the engine weighed less which lowered the empty weight. The maximum operating weight was also raised allowing for more payload. In addition to all those good things, it went a lot faster. So much faster the FAA thought we'd bend the plane if we put in too much control movement too quickly so the controls were stiffened, especially the ailerons. This made it so heavy on the controls that it took a lot of muscle to fly it. I thought of it as an over powered truck. It was a much better performing airplane and greatly appreciated in those high altitude airports. We were still flying some 15 landing trips, at the end of one of those days, especially a day with bad weather making instrument approaches necessary, it was an exhausting experience.

I remember one day on a the trip to Kansas City and back, one of those 15 landing days, the weather was really bad. I was getting into maybe half of the airports with a full instrument approach at each one. On the way home, I was trying to get into the same fields I'd tried a few hours ago. After two more unsuccessful approaches, the dispatcher asked me what I wanted to do, "Come home", was my answer. "Roger, cleared DEN direct", was his answer. I could have given him a big hug.

Another memory: One of our flights had just stopped at the gate in Kansas City when a baggage cart broke loose from the tug and coasted across the ramp. It ran into the left prop before it had stopped turning. The prop hit the hitch, one of those big suckers that weighs at least 20 lbs. The hitch broke off the tug and flew over the terminal building, across the railroad tracks and into a Holiday Inn guest room window just as someone was unlocking the door to the room. About 1/4 of a mile! Guess what it did to that prop? It also warped the cowling of the engine.

I was on a layover and supposed to take the plane back to DEN, but, of course, I had to wait until it was fixed. The company put on a new prop, checked the alignment and signed it off for the ferry flight back to the home base in DEN. This was all done by a maintenance



crew from DEN. We were called out for the flight. After checking the paper work and noting the wavy engine cowling and being assured by the Lead mechanic that it was OK for flight, I said, "OK, let's go". "No, we're going to wait for the jet home", was his answer. "You mean you won't fly on this airplane when you just told me it's OK for flight?" was my question. "That's not it, we're just going home on the jet", the Lead responded. I went in to the office and called Ed O'Neil, VP of Operations and explained the problem. "Put the Lead on the phone", was Ed's order. As the Lead listened, his face grew redder, and redder. Now Ed was a guy who could "chew you out" for twenty minutes without repeating a word, believe me, I know. The Lead finally hung up the phone and said to me, "Let's go". Later I found out that those guys were on "triple time" and the jet didn't leave for 1 1/2 hours after we were to be taking off.

6/ 1968      Captain Checkout B-727

Right up there with my 1st solo- Wonderful!

The story of how Frontier got jets is a story in itself. Central Airlines, based in Dallas, was having serious financial troubles while Frontier was doing OK. The CAB said to Lou Diamond, who was running Frontier then, buy Central and we'll allow you to get jets and give you the routes to fly them. This was before deregulation and you had to apply for everything and it sometimes took years. Lou said OK and bought Central. It was not overnight but we bought B-727-100's at the same time. With Central in the Frontier family and a reasonable smooth transition of seniority lists, at least for the pilots, Lou went back to the CAB for the routes to fly the jets.

In the interim the CAB had changed their membership and, in effect, said, "what jet routes?" Uh-Oh! No new routes, so we had to fly over our old routes; not a good money maker, or go into the charter business. We did both with the charter business doing very well. So well that we ordered some more B-727's.

I'm not sure how it happened but we ended up with 3 -727-200's. Neither United, American or any other US airline had any. Little old Frontier had the first ones. And was that great! I was very junior at that time so I couldn't hold a regular schedule therefore I was called up for some really great last minute charters. But I'm getting ahead of my story.

I was quite senior on the C-580 list and flying a very good schedule. This was in 1968. You know, Phoenix in the winter and Bismarck or Montana in the summer - for a change. Well, with all the jets coming on line my seniority moved me up towards the jets. Bob Nicholson, Director of Operations called me in one day and asked me if I'd be interested in going to B-727 school. Silly question but I knew that a few guys senior to me had not bid them.

Remember - sex, seniority and salary, not necessarily in that order. I was assured that everyone senior to me that was not flying the -727 had declined to bid. This "offer" was the company's way to have a few pilots trained in case they needed them in a hurry. Having been assured that I was "legal" to accept, I did so, along with two other crews. A crew on the 727 consisted of 2 pilots and a flight engineer. Frontier's attitude, or rather Lou Diamond's attitude on the engineers is another story for another time.

Anyway, off I went to the B-727 school. Five weeks later we came up for the "oral" exam. The day of the "oral", the company came to the other two Captains and advised them they would not be needed! This school had been very difficult and so detailed we could have built the damn plane.

Naturally, they were very disappointed. One said OK and went back to the -580 without a whimper. The other one went ballistic. I think he went all the way to Lou Diamond with his



complaint of a waste of his time and the company's money - both valid points but to no avail.

That seniority thing made all the difference in the world to me as far as the 727 went. I had THREE days seniority on one of the Captains cut from the 727 training. Since he was older and if our hire date had been the same he would have been senior and I would never have flown that wonderful airplane. Fate plays some interesting tricks.

My "oral" exam lasted 7 1/2 hrs.! At 16:30 hrs. the FAA guy asked me, "What would you do if you had a 9 light trip?" My answer, "That's not possible, (and this is an example of one foot in mouth is just as good as two) unless you had something weird like a lightning strike". "That's exactly what you had" he said. I couldn't come up with the answer so we adjourned until Monday morning, this being Friday afternoon. On leaving the room my instructor, Joe Pattison, asked me how it went. "Ok, except the last question" was my answer. When I told him the question he said "That S.O.B., come in here". We went back to the classroom. Monday morning I was done and signed off by 09:10.

Since we didn't have flight simulators in those days, at least FAL didn't, all training was done in the aircraft. This put a great deal of pressure on scheduling because the training came in a distant second when the choice was a revenue trip or training. While there was no exact maximum time for a Captain to get his rating, one guy had something like 40 hours and still didn't make it. It generally took 8-10 hours.

This was a really big leap from a 580 to the 727. While there were quite a few jets in operation, B-707, DC-8 and DC-9, to name three, the 727 was by far the most advanced and, I might add, the most unforgiving with an accident rate to prove it.

I had received about 6 hours of flight training when I had a "progress" ride with the FAA on board. One of the maneuvers we had to demonstrate was an approach to a stall with a recovery. This was started at about 25,000'. The entry went OK but on the "shaker", that is an electrical impulse introduced mechanically prior to an actual stall. A T-tail aircraft, like the 727, if allowed to enter a full stall, might not recover. The BAC-111 proved it by going from some 30,000' to the ground with all those on board killed. When I got the "shake" I brought in full throttle and full forward movement on the control wheel. Nothing happened except we were descending at over a mile a minute! How did I know? The vertical speed indicator was at the maximum indication - 6000'.

I had read somewhere, this stuff is never covered in school, that if you could roll the plane over on a wing you might be able to recover. Just as I started to try that, the nose dropped through the horizon and we recovered with about a loss of 10-12,000'. I don't know about anyone else but I was soaking wet. The FAA guy says, "I think the airspeed indicator is about 12 kts. off." The indicator is what activates the shaker. "Let's try that again", he said. The engineer, (of the S.O.B. fame), turned around and gave him a look that could kill. The Frontier instructor pilot's look was about the same. I said, "If we're going to do this again I want another 10,000' of altitude more than we had the first time" He looked at all three of us and decided the indicator should be "written up" in the maintenance log book instead.

You may have heard the saying, "Them's that can- does, them's that can't- check".

I finally came up for my rating ride, but half way through, the company called the plane in for a scheduled flight. I couldn't believe it. We sat around for a week waiting for a plane. On my 78th day, we had 80 days from the "Oral" to complete the flight portion and get the rating, the FAA Designee said he was going on vacation the next day. If I didn't finish the check ride I'd have to start all over. At this point I think the company had spent the better part of



\$ 50,000 on my training. Charlie Weed, my instructor and very good friend, explained the situation to scheduling and they found a plane to finish this thing up. Half way through I had a real hydraulic failure , went through the emergency procedure I was trained for and passed the ride. And to think I thought the CV-340 would be the biggest plane I would ever fly.

The training had been very vigorous and I was really tired. The Chief Pilot, Jug Jella, gave me a few days off so we went up to Grand Lake for a little R & R. A little is right. The next day I was needed for a charter with the Mormon Tabernacle Choir . The training had taken " forever ", now I was needed two days later.

Jug had to give me what was called IOE, or initial operating experience. It was for 25 hrs. with a sliding scale depending on the number of landings. On my first night flight he sat not in the copilot seat, where the check pilot usually sat, but in the observers seat right behind me. No way could he take over if I screwed up.

On the approach into PHX on a very clear night he leaned forward and asked me what I intended to do. A leading question if there ever was one, since I was turning what I thought was my final approach for a landing, and that's what I told him. " Not out of this approach ", was his answer. Of course, he was right. I was so high I had to do a 360 degree turn to get low enough. Needless to say, all my training had been in the daytime. Oh well, live and learn.

Speaking of being high, going into GJT, Grand Junction, from the east is interesting as there are some buttes east of the airport. They rise up when the sun goes down at least a 1000'. Why that happens I have no idea. I suppose it is the same phenomenon that causes a single engine plane to run rough as soon as you start into the high country. Anyway, I was flying into GJT from DEN and was giving those buttes lots of clearance. As I turned final for a landing to the south, I could see I was too high. When I finally brought the power up for the final approach I had an excessive sink rate. You countered this with added power and increasing the body angle of the plane - in that order. Those old -7's engines spooled up really slow, maybe 10-12 seconds. United had proved what a " coffin corner " this situation could be by crashing at Salt Lake City with quite a loss of life. That thought crossed my mind . The engines came to life just in time and the landing turned out to be a greaser instead of a bender. I spent the taxi time to the terminal apologizing to the crew. Never did that again.

On another charter, this one Monterey, CA to Tulsa, on maximum weight takeoff , I finally got the "V 1, Rotate" call as we went through the runway lights at the west end . We also got an advisory from the tower, "Be advised, rising terrain to the west !" Rising terrain, Hell, we're over the ocean, aren't we ? Well, not quite. There are some unmarked high rocks to the west.

To show you how critical fuel could be, on this same charter we flew nonstop to Tulsa. Being new on the aircraft, I started down early so I wouldn't have to circle, about 75 miles too soon. We were so low on fuel the engineer was playing a tune with the fuel pump switches to keep the "fuel low " lights out as we turned final, after respectfully declining the offer of a circle so we could land into the wind instead of the 10 knot tailwind on our runway of choice, ( necessity?).

One of my favorite trips on the 727 was a charter to Nassau, Bahamas. The company had us laying over in Georgia someplace for two nights. We had flown all day so a good night's sleep was needed. I asked the crew, a total of 4 flight attendants and 2 flight deck members, if they'd like to spend the second night at a beach hotel in Ft. Lauderdale instead of the Okefenokee Swamp. Silly question.



They went to bed and I started making a lot of phone calls. Biggest change was replacing the meal service contracted for in GA. with one out of West Palm Beach, at least as good as the original. Frontier always had a wonderful reputation for the best meals in the business. Finally got all that taken care of, got a new release from dispatch and with a very sleepy but excited crew, headed for West Palm Beach. On landing we got a van and headed for Lauderdale. Did I tell you my Mom and my copilot's Dad lived there?

Mom was ready for us when we arrived, and on an invitation to come in for a drink, we all piled out of the van. In about 45 minutes she came up to me and said, "I've never seen anybody who could drink so much so fast as your crew. I'm down to my Vanilla Extract". A prohibition graduate. A quick run to the store fixed that.

I got everyone into a beach hotel as promised. About 2:00 AM the phone rang. It was the Chief Pilot, at that time, Johnny Myers. He was more than angry. "Do you know where you are", he demanded. "Yes, and so do you", I responded. That didn't help. "Do you know Jack Bass is in Georgia?", was his next question. "Who's Jack Bass?", I wanted to know. "He's the Presidential Assistant and he is to go on your charter", John bellowed. I happened to have the schedule into West Palm and gave it to him. Jack arrived and we departed on time for Nassau.

Beautiful day and as we cruised over the ocean at 500' I invited all the crew into the cockpit since we were empty. Looking down at this lovely scene I remarked, "You know, I bet we could get 6 or 7 million bucks for this plane at some Banana Republic". "Let's do it" I heard from the group. "What about all your wives/ husbands and lovers back in Denver?", I asked. In one loud clear voice they shouted, "Keep going".

When we got those 727-200's I spoke of earlier, everyone had to get a little "differences" check. When my turn came, we flew down to Pueblo, as it was the least busy of any airport nearby. The wind was blowing across the runway at about 35-40 knots. Remember the story about the DC-3 dragging into the N/S runway and the Captain who forgot to call for the "gear down"? Well, I didn't have that problem as the N/S was too short for the -72 so I had to land in that crosswind. The "demonstrated" cross wind was 28 knots. This means that if you land and everything turns out OK, you're a hero. If you bend it, you're a goat. Anyway, the wind was so strong my fanny was over the dirt because of the amount of crab I needed to land "on the numbers". During the flare you kick in a lot of rudder and slide it on with a lot of cross control. I loved this airplane. In fact that was my remark to the Check Pilot, Scott Keller.

The 727 was very critical at higher altitudes. In fact, at 41,000' we had a 15K "coffin corner" between the high speed and low speed buffet. We were told if you got this plane out of this "coffin corner" you'd fall at least 20,000' before you could recover. This was another statement I had no interest in checking for validity.

I was never able to hold a regular schedule before the 727's were sold and replaced with the 737. However, the way our system worked, the senior pilots got to fly any new equipment first. Therefore, I was one of the last Frontier pilots to fly the 727 even though I was the last pilot to be rated on the plane. And so, on my last trip on the 727, thinking I'd never fly one again, I actually shed a tear as I walked away.

1970

Capt check B737

Good solid plane . Not exciting like -72

Frontier management thought the new B-737 would fit our routes better than the 727 so



that's what they bought. Of course, it had two engines instead of three which helped and it was supposed to have only two guys up front instead of three. Frontier got caught in a union squabble about the number of pilots necessary to fly an airliner.

Until the DC-9 came along, all airliners required three men on the flight deck. This was physically necessary to run the airplane. We didn't have all the new stuff then and the Flight Engineer was a busy fellow on the B-707, DC-8 and of course, the B-727. The DC-9 was a lot smaller and newer jet and needed only two pilots. Without going into too much detail, the members of ALPA, the strong pilots union, were able to push through an amendment to our by-laws required three pilots on the B-737, but not the DC-9. This was grossly unfair for the Boeing Company, as well as the airlines that wanted the B-737 instead of the DC-9. It was a dirty knock down drag out fight and Frontier was in the middle of it.

I was a union contract negotiator at the time and we fought it to a successful conclusion. However, there was a lot of blood shed before it was over. I remember the long night of negotiations with no contract. The next morning the new planes were loaded with passengers and the newly trained pilots stepped up one at a time and announced that they would not fly the planes without a contract. The ALPA President, Charlie Ruby, was standing outside the door, as he would not enter or be allowed to enter the property.

As each pilot stepped forward and made his statement he was terminated, as in fired. I was standing there seeing my buddies getting fired because I, we, the negotiators, could not get a contract. I could feel sweat running down my back. This was not an approved strike with all the protections available under the law. About the time of the 4th or 5th termination, the company was looking for someone to break and fly a trip.

The current Chief Pilot, Andy Hoshock, drove up and asked me what was going on. "They're being fired, Andy", I told him. He walked into the room, picked up the phone and called Ed O'Neil, VP of Operations and said, "I'm with the pilots, Ed". Now there was a "Chief of the Pilots, not a Chief Pilot". I could have hugged him. I heard later that Joyce Darby, a very senior Flight Attendant and the # 1 on the loaded 737 sitting at the gate, got on the PA and said, "This flight's not going anyplace today, folks, so you all might as well get off".

Another long day and night before we agreed on a contract. It was about 4:00 AM and the company guy said, "It's agreed then, we have a contract." "Yes" was my response, "Just as soon as we get it in writing." "We can't do that. All the secretaries are home", he complained. "Well, we'll just have to write it out longhand", I said and that's what we did. It was done in time for the first flight of the day with our new 737's. A final note: As we left the building we tripped the burglar alarm. Someone had set it out of habit and none of us knew the code. The police arrived in seconds and after a little explaining we all went home for some much needed rest. By the way, the terminated pilots were reinstated without penalty.

Of course, this problem of the 3rd man on the 737 only, continued to be a very big problem with all operators of the B-737. As a negotiator and Captain I played two roles: I wanted the industry to be forced into installing the TCAS, which stands for Traffic Collision Avoidance System, in every airliner. The technology existed then, but everyone, FAA, ATA, and the individual airlines were dragging their feet.

I thought it was a no brainer. All the pilots were for it but then we're the ones that always arrive at the scene of the accident first. If the 3rd. man was forced on to the planes, economics would make the TCAS appealing. They could get rid of that hated 3rd man and the related cost. It was not to be for many years. Frontier was able to get rid of the 3rd man by buying off the pilots with a new contract that gave the salary of the 3rd man to the



remaining flight deck members. The company saved the 3rd man "perks", about an additional third of his pay. I had some very heated discussions with J.J. O'Donnell, the new head of ALPA, about this issue and finally realized that it was all politics. I resigned from the negotiating committee and returned to the line.

The second item on my agenda with the 3rd man was simple. As long as he was there I would assign him duties and utilize the extra eyes. Now near misses (near hits?) were not common but very frightening, never the less. I consider a "near miss" as so close you can see their face(s). I have had 5 in my 60 years of flying. The last one just a couple of years ago. I've lost count of all the "close calls"

Most Captains would just let these guys sit there like a lump. Neither the company or the FAA liked my attitude, but, since I was exercising my Captain's authority, they couldn't do too much.

I remember one incident. The flight was from LAS to DEN. The FAA came on board and announced he was giving us a check ride. His official position in the cockpit was the most forward observers seat. The 737 had two observer's seats. The center one was fairly comfortable and about an inch or two forward of the second observer's seat, a seat designed by a sadist. Thirty minutes in that seat seemed like three hours.

While I had no love affair with the FAA, I didn't deliberately pick a fight with any of them, like some unnamed friends of mine. My 2nd. Officer (3rd man) put his coffee cup into the holder on the right side of his regular seat and climbed into the torture chamber behind me. I had trained all these 2nd. Officers in certain duties and he responded, as required, to the check list. The FAA Inspector objected to this and I answered, "Under my Captain's authority, FAR # so & so, I have trained and assigned my 2nd. Officers certain duties in the interest of SAFETY". And that word, Safety, was the key word. How could this Inspector object to my increasing safety? He didn't want to go there so he shut up. The Check ride was off to a tense start.

The flight to DEN was about an hour, from push back to parked at the gate. It was not a smooth flight and my 2nd. Officer must have had half a dozen cups of coffee and as many sacks of peanuts. Every time there was some turbulence he'd hold his coffee right over the Inspector's most important part of his anatomy. The coffee was very hot. When we got to Denver that Inspector was so mad he stormed off the plane. The three of us were hysterical.

I flew the 737 from 1970 until 1983, accrued over 8000 hours and had many adventures in it.

Here are a few: A night flight into Salt Lake City. On arrival we found it very clear, not a cloud in the sky. However, the airport was covered with a dense ground fog which is common there in the winter. The airport had a contract with a company to lay out dry ice to cut a swath in the fog. Remember my attempt with the thunderstorms and use of dry ice years ago? Well, the "fog killer" took off and, while I circled, laid down a swath. It looked like he had scooped it out with a shovel. However, there was enough of a breeze that the scooped out section that was over the runway drifted down wind before I could land. I suggested that he do it again only about 500' upwind. He did that and I arrived just when that trough drifted right over the runway and we were on. On but not stopped! It was a skating rink. The fog had frozen and dropped right on the runway and covered it with ice. Talk about slippery! Here we were, sliding down the runway with braking action "zero" at 120 knots. The 737, because of the location of the engines under each wing responded very well to differential reversing and that what got us stopped - still on the runway.



I've seen lots of attempts to clear fog from runways including old jets engines bolted to each side of the touch down area in Paris, to the use of jet engines on aircraft to do the same, which brings me to another story: Salt Lake again with the same dense ground fog, but this time I'm trying to takeoff. Many airports have an instrument called a RVR, runway visibility range, which electronically measures the visibility on a certain runway. It was the morning of the 24th of December and I had a full load going everywhere. Some with connections to Europe from DEN. The visibility was less than 600', our takeoff minimum.

Remembering how good that jet heat worked in Paris, ( I was on the jump seat with Air France), I thought I'd just taxi down the runway and as I went by the RVR I'd just slow down, turn a little and I'd burn that fog off the RVR, continue to the end, get my necessary visibility and takeoff. I got a taxi clearance from ground control and, since the airport was shut down I could go anywhere I wanted, I taxied down and in fact did blow off the ground fog. I turned around at the end, in front of a United flight that had been sitting there for some time waiting for an improvement. I was feeling pretty proud of myself and just as we received takeoff clearance, United called to me and said, " Say Frontier, looks like you've got a really low tire on # 1". Damn, I had forgotten or didn't think that I could have overheated the blow out plugs in the wheels.

These plugs were made of lead and put into the wheels so in the event the tires became very hot the plugs would melt avoiding a catastrophic blow out. With a tough decision to make, I headed back to the gate. Three of the tires blew out before I could get there and the sun came out 30 minutes later. Very humiliating.

There was a letter in the "Must Read " book calling attention to an "Error in Judgment" recently displayed by an unnamed Captain. I was not identified by name but, of course, everyone knew who displayed that " Error in Judgment".

Later, I asked Bill Wayne, Frontier's COO, why he didn't penalize me. He said, " Because I knew you were trying to keep the flight going ". Nice guy.

One of my more humorous memories: We were descending into DEN on a very nice day from the west. All of a sudden a Lockheed JetStar, a 4 engine corporate plane, zips under us at no more than 200'. To say we were startled would be an understatement. When we landed in DEN I could see where he had parked across the airport. I called over and asked for the Captain of the JetStar. When he came on the phone I identified myself as the Captain of the Frontier flight he had just "buzzed". He said, " I hope I didn't scare you too much". " Not too much ", was my answer , "but that FAA Inspector giving me a check ride was really upset!", and I hung up the phone. I bet that guy was worried sick waiting for " that letter ".

It was in the early 1970's and I was still " junior " on the plane, so we junior guys had to stay qualified on the next plane down which was the CV-580, just in case the company needed a pilot for something special or they ran out of pilots.

Well, one summer there was this great schedule that went " around the world " on each Friday and ended up in Missoula, MT. late that night. The layover lasted until Sunday afternoon with a departure for Denver about 17:00. There was no flight into MSO on Saturday so there was no way we could be called out. A friend of mine, Jim McGee, and I bid off the 737 to fly this wonderful trip. Since it was only for the summer we knew we could get back on the -737 after Labor Day.

I bought a 6 man rubber raft and we, the stew, Jim and I, got in some serious fishing and



beer drinking every Saturday. Floating down one of the rivers in the area, fishing, smoking cigars, drinking beer and telling lies. All in all, a great summer.

I just remembered a funny story. There was only one "Line of Time" for the trip and another pilot 737 Captain, Bill Lasiter, really wanted to fly this trip. I was senior enough to be # 1. We bid each month for the schedule we wanted to fly and they were awarded by seniority. Remember that line about sex, seniority and salary? The bidding closed at 13:00 on a certain day towards the end of each month. I'd arrive about 12:55 and there was Bill waiting. He just knew I had forgotten to bid. One time I walked in at 12:58 and Bill's face fell. I walked up to the bid sheet, fumbled around for a pen and said, "Damn, I forgot my pen, can I borrow yours, Bill?" Then I made my mark- # 1, handed him back his pen with a sweet smile, a "Thank you" and walk out with a few words behind me that I won't repeat.

When I was junior on the -737 I had this schedule we called a "stand-up overnight". We had way too many of these. Anyway, this one flew to Great Falls, Mt. and got in around midnight and left around 7:00 or 8:00 the next morning. If you were on time, that gave you about 4 hours of sleep. Since this flight was one of the last out of Denver, any delays would slide to the last flights which generally had fewer passengers. So, at the most, four hours was about it for sleep and many times it was a lot less. And we flew this trip four or five days in a row! It was legal, according to the Federal Air Regulations (FAR's) because it allowed you plenty of time to sleep at home in DEN, during the day!

As you can imagine, that didn't work too well because about the time you'd get adjusted to that schedule the series would be over and you went back to a regular life.

One night, as we were descending into Great Falls, we started the auxiliary power unit (APU) as required on the "Decent" check list. This APU is a turbine, electrical generator that is used to run many things while on the ground and in the air under certain circumstances, like an engine failure just prior to landing. You're busy enough if you lose an engine, so having this generator already running when you're close to the ground makes good sense. Many airlines don't include this procedure to save a few gallons of fuel. Penny wise and pound foolish. I digress. This was the 3rd or 4th night on this sucker and both of us weren't the liveliest pilots in the air. The damn thing caught on fire on the start and did what it was supposed to do; shut itself down and alert the pilots to the problem by sounding a very loud bell and a very bright flashing red light. After it did its thing and we checked to see that everything was OK, the copilot turned to me and said, "Sure beats a cup of coffee for waking up". It sure did, but I'll take the coffee.

Once you were comfortable with the plane it was a very easy, forgiving plane to fly. After the 727, the 737 was a pussycat. In fact, I thought it was easier to fly than a Cub I owned at the time. The 727 was the most demanding airplane I ever flew, but on the other hand, if you flew it "by the book" it would do just like the "book" said it would. The only other airplane I flew that was like that was the B-757, but that story comes later.

An example of how gentle and forgiving the 737 is: One day we were going into the "new" Kansas City airport. It is a really nice one but it has only two runways. There was no weather, but we were being vectored by approach control for spacing in preparation for landing. I was at the assigned altitude when approach said, "Frontier, we're changing the runway, can you land straight in on Runway 9?" We were really high for a straight in, but what the heck, "Sure", was my answer. "Roger, Frontier, cleared to land Runway 9". The copilot looked at me and said, "No Way". There is only one way to get the 737 down in a short distance across the ground. You have to slow down to go down. Instead of putting the nose down to start my decent, I pulled the nose up. Of course, we gained altitude until we couldn't even see the runway over the nose. I called for the gear and extended the



flaps at the maximum allowed speeds and put up the speed brakes. A procedure not recommended or approved, for that matter, because with the flaps extended along with the speed brakes the plane is VERY sensitive on the ailerons. So sensitive that you have to really concentrate not to use ANY ailerons. However, in this configuration the plane comes down like a brick - but smooth. The last 3/4 of a mile was on profile. If I'd tried that in the 727 I think we'd have made a big hole in Kansas.

For awhile I was "dual qualified" in the B-727 & the -737. It wasn't as much of a problem as being "dual (or triple) qualified" in the DC-3, CV-340 / -580, but there could be problems. For instance, I came into Dallas one night in a 727 and I was to take out a -737. There had been quite a bit of icing on the approach. The 727 hardly ever needed wing heat, but the -737 would pick up wing ice with little excuse. The inbound Captain was also "dual qualified" and forgot that the 737 was so ice prone. When we switched planes, I discovered the 737's wing had about an inch of ice on the leading edge. It took us about an hour to tap that ice off before we could take off.

On the other hand, the 737 was so stable and uncritical that I have taken off with 3-4 inches of light snow on the wing at the beginning of the takeoff roll. As we went faster it would blow off with no problems. Of course, I always checked personally to see if any snow was sticking before we tried that trick. Try it today and "your ass would be grass"!

When Mt. St. Helens blew up we were in Kalispell on a layover. Because of the volcanic ash, we were trapped there for 3 or 4 days. Only emergency vehicles were moving and they changed all their filters every 100 miles. We spent a lot of time in the Hot Tub with a bucket of beer delivered there about every hour. When we did get the OK to fly out, I watched when the inbound flight landed. When he went into reverse there was a huge cloud of ash that blew up and into the engines. I called the company and said I'd take it to Billings, where we had a maintenance base, but no further until all the filters had been changed, which was done. The fleet lost a windshield or two, but no engines.

That stuff is so corrosive that a B-747 lost all 4 engines over the Pacific when they flew into a volcanic cloud at night and didn't know what they were flying into. They were able to do an in-flight restart and land safely, but all the engines were ruined. Scary.

1982      Captain Check out in the MD-80

Very nice, quiet plane

After flying the B-737 for all these years the company decided to get a few of the quieter MD-80's because some of the airports we served required strict noise abatement procedures. Orange County, John Wayne International, was the strictest. In fact, they set up nine or ten decibel recorders in various spots off the end of the runway. The desirable readings were automatically recorded and sent to each airline for their respective departing flight. At one time it got so bad that the airport authority threatened to cancel the landing rights for those carriers that were the loudest.

This led to some really crazy procedures to get a low decibel reading. One I remember went like this: As you taxied out, you made an announcement to the effect that, "Due to the noise abatement requirements at John Wayne International, our takeoff departure will be a little steeper than normal with a power reduction at a 1,000'. Of course, there will be no compromise with safety". So we ran up to full power with the brakes locked, then released them and shot forward. At the V1-Rotate call we went to the maximum body angle and did this little weave back and forth avoiding the sound recorders as much as possible. At 1,000' we brought the power back to a reduced setting and made our way to the beach. We then resumed a normal departure since we were out over the ocean.



The company requested suggestions as our decibel readings were not as low as they wanted. In fact, if they were too high you would have a note in your box to see the Chief Pilot ASAP.

My written suggestion: Climb to that 1,000' mark and then retard the throttles all the way, nose the plane down and glide to the beach. On arrival, at about 300', resume a normal departure. The Chief Pilot: "You can't be serious". Me: "Just as serious as this ridiculous procedure we're using now".

To make it even more ridiculous, there was a flight school at John Wayne. The trainers used the short runway that was parallel to the air carrier runway. They are supposed to make a left turn of 15-20 degrees right after takeoff to stay out of our way. Airliners aren't too maneuverable right after takeoff. This particular morning there was a strong wind from the left, our takeoff runway was Westerly, a trainer had been cleared for takeoff ahead of us. I had him in sight as we rolled down the runway. As we rotated, I heard the tower tell him to turn left. No response, in fact he was drifting into our flight path. By this time the tower was yelling "TURN LEFT!" I increased the body angle to the maximum and started a right turn as he disappeared from view. Right in front of me! All I could think of was - Not another San Diego. That was where a B-727 and a Cessna 150 trainer collided with all on board both planes dying. Of course, we missed him or I wouldn't be writing this. I looked at my copilot and his eyes were actually bugged out. Both of us were soaking wet. It was another example of airline flying - long periods of boredom interrupted by moments of stark terror. In fact, it was so close it made the LA Times. I heard that traffic stopped on the freeway to watch the "midair collision".

It will always be a lousy idea to have a training school and airliners operating out of the same airport. I had to write a report about that incident. I made some derogatory remarks about the procedures as well as "if we keep this up we're going to kill lot of people".

This was an official report that went to the FAA and the NTSB. The company was not happy and told me so. They wanted me to "tone it down". I told them I would remove anything that was untruthful. The pilot of the trainer was not penalized in any way. If I had done that I would have lost my license.

Another problem at Orange County was the reduced takeoff weight to increase our altitude as soon as we could after takeoff. The load factor was very good so the fuel load was reduced to meet the decreased takeoff weights. Most of the time that was no problem, but one morning, with the copilot flying, we arrived southwest of Denver to find some unexpected weather. We held at a fix about 50 miles away with assurances that an approach would be coming "any minute". When we finally got our clearance, the fuel was so low I made the remark to the copilot, "We ARE landing out of this approach". We pulled up to the gate with 3,000 lbs. of fuel remaining. Not enough to go anyplace!. I called Ed O'Neil from the gate and explained the problem. Never one to delay or pass the buck, Ed got the VP of Sales on the line and the three of us discussed the problem. After hearing my story, I asked the VP of Sales, "What do you want, revenue or schedule, because if we have any weather in Denver I will stop in Las Vegas for fuel if we have a full load of passengers. I will never do this again." "Revenue" was his answer, so that's what he got. It meant about an hour's late arrival in Denver under those circumstances. I always liked Ed's approach to a problem - direct.

On an MD-80 flight one day, with the copilot flying, I was doing the paper work. There was quite a bit of that stuff in those days. Now most of it is sent to the company automatically. Anyway, I felt like the plane was slowing down. I glanced at the airspeed and it confirmed



that fact. Now in the MD-80, as with most turbo-jets, if you let the airspeed get too low you just fall out of the sky. I hadn't been watching as close as I should have and the copilot was new. We needed to get our speed back NOW and the only way to do that was start down. You know, even to the ground! Always keep flying the plane as long as you can!

I called Air Traffic Control and asked for a lower altitude so we could get that speed back. He said, "Standby". "Negative, we're starting down now. Request a heading", I called back. I must have sounded a little nervous as he gave me a heading - right now!

I never really understood why some pilots found the job boring.

The MD-80 was the quietest jet I ever flew. Douglas really did a nice job in the cockpit window fairing and soundproofing. Of course, locating the engines about 140' back from the cockpit didn't hurt.

This was the first plane I ever flew that had the Auto-land feature on the auto-pilot. It would actually land the plane without you touching a thing, after you set it up properly. When I say everything that's correct. Full flight controls, power and even auto brakes on landing. You had to turn off the system before you could taxi off the runway!

I tried this system out when the weather was good and it worked great. However, I never could bring myself to use it when the weather was really bad and you had to fly the plane down to minimums - 200' ceiling, 1/2 mile visibility. Just a little old fashioned, I guess.

2/14/85 Retirement

One of the saddest days of my life.

After a little over three years on the MD-80, the end of my airline career was fast approaching. As most of you know, when an airline pilot reaches the age of 60, he is THROUGH! It doesn't make any difference how healthy he is or how much he still wants to fly, even when he can "breeze" through any check ride and physical exam. That's it!

In fact, if you're on a trip and turn 60 during the trip the company must fly another Captain out to fly the remainder of that trip.

More than one pilot friend actually suggested I use up some of my two years of accrued sick leave as you couldn't take any of it into retirement. "When am I ever going to fly anything like this again?", was my answer.

For the last two weeks of my career I was #1, so I could get any trip I bid. From a practical matter, I had been able to fly about anything posted for the last year or so. For that last flight I bid a trip I knew would not be full so I could bring as many of my family that could make it. I think the first three rows were filled by my kids, their spouses and some of my Grandkids. It was quite a flight. Actually, it started the night before when we flew to infamous Orange County (John Wayne International- only in CA.). My son, Brad, was the only family on that leg. He sat up on the jump seat in the cockpit.

Now most retiring pilots have a wife, child or significant other on that jump seat sometime during the last flight. What are they going to do, pull your license and ground you? Hell, you're done anyway or so I thought.

The big difference was that I had written permission from the FAA and the Company to have my daughter, Chris, and my son, Brad, occupy that seat. I have never heard of any retiring pilot doing that. They were both journalists and wrote articles about the flight. Maybe



the good PR tipped the scales in my favor. I never asked, but I sure was thankful and said so.

The next day the rest of the family boarded the flight when it came through Denver on the way to Springfield, MO. and then back to Denver.

On final landing in Denver I took so long getting to the gate that the Chief Pilot came down to the plane and, as I sat there collecting my emotions, asked, "Where have you been, we're all waiting for you at the gate?"

What a reception! With the Chief Pilot, Bob Prang, carrying my latest child's, Brian, age 6 weeks, diaper bag, we all trooped down to the VIP room where the company gave me a really nice party complete with Champagne and cake. There was a large picture of the MD-80 and around the border many of the crew members had signed their names. I was very touched.

Bob's custom was to carry the retiring Captain's flight bag from the plane. When he spoke to the group he said, "We'll, I've carried a lot of flight bags down that concourse but I've never carried a diaper bag". It brought a big laugh.

And so it was over, 34 years, 1 month and 10 days or roughly a little under 27,000 flying hours. My airline career was over.

1-3/86      Aztec & DC-3      Virgin Islands-Aztec-5 days, DC-3 that winter. Great fun.

In 1978 I had purchased a 37' sloop located in the Virgin Islands and put it on a lease back arrangement which allowed me to use it a few weeks a year. The company had gone bankrupt and my son, Jeff, had taken over the boat to charter it out. He had gone on to a bigger boat about the time of my retirement, so it made a very nice "winter home".

After going through an emotional adjustment that lasted too long, we thought a winter on the boat would be just the ticket. I went down ahead and after a couple of weeks the boat was ready. There was a small operator at St. Thomas that had run an add in Trade-A-Plane looking for pilots. I answered it and started flying a Piper Aztec. This is a small twin engine plane with four seats. This outfit had been in business for years and was very busy. I lasted about a week. It wasn't the pay, \$10.00 per landing. It wasn't the number of landings. It was the operating philosophy. We had a problem getting to one of the island destinations because of a "tropical depression"; read that very stormy. The airline, which will remain unnamed, was authorized "Day VFR Only" which meant NO instrument flying. We, I was still getting checked out, finally got to our destination, picked up our load (of fish) and returned to St. Thomas. The next day the owner remarked to me, "I understand you had some trouble getting through yesterday. What you have to do, Brad, is drop down on the water and fly 'till you see the green". Meaning the green of the island or mountainside of the island as this is a volcanic chain and some of these islands go up very steeply. That procedure was also below the height of many of the sailboat masts - there are hundreds of sailboats in this area. "Well Paul, I don't think I want to do that kind of flying. Thanks anyway". End of my first flying job after retirement.

I'd heard that a DC-3 operator might need a pilot so I walked down the hall to Virgin Island International to see the Chief Pilot, Jim Masters. After a short conversation he invited me to fly on his next trip, leaving in a few minutes to St. Croix. I sat on the jump seat going over, about 20 minutes, and flew the left seat back. The copilot was a hard working ex air traffic controller. A really nice girl. When we got back to St. Thomas, Jim told me to come in the



next morning for an oral exam and, if successful, he'd give me a check ride to San Juan and I'd start flying . Which is what I did. Very casual and just the way I like it.

Jim and I flew alternate weeks on and off. We both lived on boats, so it worked very well. On my week off, we'd sail over to the British Virgins, which is much nicer, and then back for my week on. It was an "on call" operation. Not flying was no sacrifice, as we just spent time on the boat or beach.

I had a pager, and when there was a flight, I'd go to the field and fly the trip. If I was flying at night I'd flash the lights on the boat on the last landing and Denise would know I'd be "home" in a few minutes.

That winter went by way too quickly. The left engine on the DC-3 had a lot of time but I was reassured that another one was on the way. Things were really "financially with this operation, as most of them in this area are. I'd get paid every Friday afternoon and take the check to a special officer at the bank. She'd call upstairs for the OK. I'd then cash the check and take the cash down the street to another bank for deposit.

On Easter weekend, Joe, the President of the company said. "Brad, I'm going sailing for the weekend, I'll see you Monday ". "Joe, I'm going to need some checks for the gas, landing fees and so forth this weekend ", I said. "You know where the check book is, Brad, just sign my name for what you need ", was his response. "Joe, I can't do that ", I said. "Don't worry about it, I've got a friendly banker ", Joe remarked. I loved this job!

However, the day finally came and there wasn't enough time left on that engine to fly another round to San Juan. "Joe, I really need that engine ", I said. "Brad, there is no engine ", was his answer. So there went job # 2 as we sailed "off into the sunset".

6/86

DC-3

Spraying grasshoppers in WY. Great job but too short.

That summer we were back in Colorado. It was late on a Thursday night when the phone rang. A guy up in Buffalo, Wyoming, called me and wanted to know if I could fly a DC-3 for him on a grasshopper spraying job. I told him I was available and he said it would be in about a week and he'd call me back. The next day he called back and asked me if could I fly up tomorrow. I said I'd be there but then he said, "Oh, could you bring a copilot ? " I told him I'd try, but it was really short notice.

My retired United friend, Bill Bates's daughter, Carla, had just earned her Commercial license with a twin-engine rating so she was a natural. While she had never even sat in a DC-3, she was eager to go. I called Howard Barker, the owner, and advised him we'd be in Sheridan around midnight, Saturday. I also advised him that my copilot was a GIRL. "I don't know about that, ain't never had a GIRL pilot before ". After assuring him it was my (his?) only choice on such short notice, he said OK. He picked us up in Sheridan and we drove to Buffalo. We had about three hours sleep before the wake-up call.

When Carla and I walked into the coffee shop you could have heard a pin drop. This was a very "macho" kind of job. While female pilots were quite scarce in those days, it was unheard of in this environment.

At the airport, with Carla standing beside me, Howard said, "Now Brad, there is about \$ 12,000 worth of chemical spray here and if you have any engine problem, I don't want you to dump this load until just before you think you're going to die ". I looked over at Carla and her eyes were the size of silver dollars.



A little explanation here. The planes were so over loaded that they would not continue in flight with a loss of an engine. If the engine failure occurred at takeoff the time before the termination of the flight was greatly reduced. To prove that point, there was the tail of a Martin 202 along side the runway that had crashed on takeoff the week before and all that was left was the tail after the fire. No survivors.

"OK Howard", was my answer, but after he left I pointed to the "T" handle that opened the dump valve and told Carla, "If I yell dump, you grab that handle and put it on the windshield or we will die!". "OK Brad". was all she said.

Steve, the mechanic assigned to my plane to explain how the plumbing worked for the spraying, took the jump seat and away we went.

We flew a four plane formation at about 100' above the ground which gave us a swath of one mile on each pass. The government had pickup trucks a mile or so apart with rotating lights so it was easy flying, except when we started the first runs as the planes flew very sluggish due to the overweight.

Carla was a quick study and on the second day I had her flying every phase but the takeoffs.

To date, my aviation career had been either military or airline, so I had never been around pilots that were not neat, clean and in uniform. Not on this operation. One of the Captain's, Bill, had a full beard and was missing many of his front teeth. One morning, while on a spray run, he called to me, "Hey, Brad, pull up long side and take a look. I ain't got no airspeed". Since we had been airborne for at least 20 minutes I couldn't help but wonder what had taken him so long to make that rather basic discovery. I pulled up along side his plane and checked the pitot tubes located under the nose. They're about two feet long, straight down from the nose with a six inch "L" shape at the end that face forward into the airstream. No wonder he had no airspeed. The pitot tubes were covered with a couple of beer cans!

When it came time for the turn for the next swath, Bill rolled it into a 60 degree bank at that 100' altitude. With no airspeed and so overweight, I thought that was a bit much. When Carla started to do the same, I suggested that 45 degrees would work just as well and we would catch up if it was necessary.

Back on the ground I remarked that his operation was a "bit risky", everything considered. His answer, "Hell Brad, you don't need no airspeed on a job like this" and spits out a mouthful of tobacco juice. His copilot took quite awhile to regain his composure.

As an unrelated observation to my aviation career. We had a rainy day so were grounded. Much of the day was spent in the Buffalo Bar which had the required pool table, dart and shuffle boards. Carla beat all the pilots and mechanics at all three games. Every single guy in our group fell in love with her.

When the job was over, we ferried the planes back to Belle Glade, FL. Carla's Dad came up to fly back with us. Carla was to make her first takeoff in a DC-3. All the guys were lined up along the runway to see the event. She really had made a hit with these guys. As the tail came up, she didn't correct for the tendency to turn left. With the plane heading directly toward Carla's Line of Lovers, they broke and ran. I gave the right rudder a strong shove to straighten things out and two thumbs up as we roared by.



It was a dark and stormy night as we tried to find our way into Springfield, MO. We had to stay "visual" because the plane was not equipped for instrument flight. Carla was flying and weaving between the clouds by using flashes of lightning. Her Dad leaned forward and said, "Welcome to the real world, Carla". I loved that remark.

On the layover that night in Springfield, a squall came through and broke the rudder and aileron cables. It took almost two weeks to fix the plane before we could take it home!

When we finally got going, Steve, the mechanic, came along with us. I retired to the back and he and Carla had the cockpit to themselves. Carla wanted to know how to get to Belle Glade. "Just fly south until you see the Gulf, turn left and keep going", was my answer. In lots of ways this was more fun than the very structured flying with the airline.

8/87-3/88                      B-737                      Frankfurt, Germany "Quick" response to terrorist  
attack with Special Forces team w/CIA

For over a year nothing much happened in my aviation life but one day, while visiting my Dad in Buffalo, I got a phone call from a company in Florida inviting me down for an interview to fly a B-737. It was in Ft' Lauderdale, so I flew down for a quick visit with my sister, Sally, and the interview. I must have made a favorable impression, because I was setup for another interview with - the CIA! I went home and waited for the call.

When the call came through for the interview, a round trip ticket and very explicit instructions on where and when this interview was to be held was sent to me.

I learned a little about how Washington people think. On arrival at the designated hotel, the desk told me they were full but they had made a reservation down the road at another hotel. I told them I had to stay at their hotel and no other. When they asked me why, I said, "I'm not at liberty to say". I also gave the guy a very dark look. They gave me the bridal suite. Even the interviewing "spooks" got a laugh when I told them that story.

I was hired and, after getting re-qualified in the B-737 at the United Training Center in Denver, reported for duty in Frankfurt, West Germany. This was in 1987 and there was a very active East Germany just a few miles to the East. I'll get to that part later.

The flight crews consisted of four pilots and one mechanic, plus the CIA representative, Fred. The mission - we were the quick response team in the event any aircraft was hijacked in Europe or the Middle East. Attached to this aircraft was a Special Forces team of about eight men. These teams rotated every month or six weeks, but the leader, a Major Moe (I never knew his last name), stayed. This team had some very sophisticated equipment to use to take over a hijacked plane if they were called by any government where the plane had landed. But we had to be invited by the government before we could respond. Furthermore we could not fly over some countries on the way to help out!

The schedule was interesting. One month on and one month off. When you were on you flew the first two weeks as copilot and the last two weeks as Captain. Fred, our Station Chief, was a private pilot and flew on every flight, about two to four a week. These flights were not to rescue some plane that had been hijacked, but rather training flights or transporting State Department Diplomatic Couriers. These guys hated to fly with us because they generally flew First Class and made any trip a two day affair, even if it was a one hour flight. We always did the round trip in half a day.



This was the "cover" for our job, but this "cover" was a joke. I was told by the CIA that I was employed by the State Department, if anyone asked. That was no problem for me and when Denise came over with Brian after a couple of weeks, that's what I told her. One night, after I had come back to the apartment, she said, "How come you didn't tell me you were working for the CIA?". "Because I was told not to. By the way, how did you find out?". "The other wives", she replied. So much for security.

With East Germany so close, there was the possibility of them overriding the Air Traffic Controller by using a more powerful transmitter to vector you over East Germany. In fact, the threat was so real that we had these instructions: If you ever hear the call "Brass Monkey, Brass Monkey" from any Controller, go to a heading of 260 degrees and maximum power because they have launched fighters to shoot you down!

The Company bought me one round trip ticket home each month. I would charge the price of this ticket, turn in the receipt, then cancel the ticket, get a refund and the three of us would ride back and forth on passes which I had as a retiree. They knew about this but since it didn't cost them any more than planned we were able to stay together the whole tour.

I had a difficult time with one pilot, Larry. He wanted to be in charge no matter what seat he was in. There is only one aircraft commander and he sits in the left seat. Gus, one of the other pilots and I got along OK. While he knew every nut and bolt in the 737, he couldn't fly an instrument to save his butt, so I ended up acting as a PAR controller from the right seat. The PAR approach was run by the military and instead of controlling the instrument approach from the cockpit you received heading and altitude information from a controller on the ground. The two systems were used as we flew into military (PAR) airports as well as civilian (ILS) fields. Gus was really good with those PAR's, while I couldn't find my fanny using that system. When Gus flew an ILS I'd act like a PAR Controller. It worked well. Dave, my best friend over there, had a world of experience and was a joy to work with. I only lasted six months on that job.

I'm the only one left out of the four pilots and mechanic. Larry, the self appointed Chief Pilot, died of cancer. Gus, the self appointed Maintenance Chief, had a heart attack. Dave, a wonderful guy, also had cancer and Jim, the real mechanic, died of assorted ailments.

This operation was dreamed up by George Bush, the elder, while Vice President. The back up team consisted of a B-707 based at Andrews in Washington and was to be used if long term negotiations were necessary. I heard this whole thing cost \$ 2,500,000 per year. Do you ever wonder how the government spends all those billions of dollars?

Another year or so went by with not too much flying and I was really bored. I answered an add in Trade-A-Plane for a DC-3 Captain's job. It read something like: Needed - Experienced DC-3 Captain for international flights, Some risk involved but legal. Good pay. Call etc.

Who couldn't be attracted to an add like that? Off I went to McAllen, TX for an interview. It seems that Mexico had an import duty in the area of 300% on electronic equipment, TV's, calculators, computers, stuff like that. The Mexican buyers would order a plane load and we would file a flight plan out of a border city and cancel the flight plan just after takeoff. There was a customs form with a Bill of Lading. All very legal - on the US side.

These flights would head out at night, fly out the time and look for a signal light on the ground. On receiving the signal they would land between the lights where the runway was supposed to be. Runway, beach, road, whatever. This outfit paid \$ 800 per successful flight.



That meant-deliver the goods. There were a number of companies doing this and they paid \$ 1200 per flight. When I asked why, I was told the difference of \$ 400 was to have protection in case of problems. You know, flat tire, engine won't start. Anything that left you on the ground when the Federal Troops arrived, and I was assured they would arrive, more often than not, too soon.

The Chief Pilot told me he had been "detained" twice. The first time he stayed in a hotel until the plane was repaired. The second time he stayed in the local Police Chief's home!

Compared to a Mexican jail, \$ 400 was a cheap price to pay for protection.

Absolutely no drugs were involved. That was an entirely different type of operation. Lots more money all around and a much bigger chance of getting "hurt"!

Anyway, it sounded like my kind of deal and I "signed on". I was scheduled to go as copilot on my first flight to get the feel of the operation. Well, after waiting for over a week, I called the boss. There had been a big earthquake in Mexico City with a great deal of damage as well as loss of life. Everything was on hold and, in fact, never got started up again. I never got to do any of those interesting flights. Glad I didn't spend any of that "easy" money before I earned it.

8/ 8/ 89

B-757

Hired by America West as Simulator instructor.

I had heard that America West Airlines was looking for some simulator instructors. Denise wanted to spend more time with her Mother who lived in Phoenix and was ill. After a successful interview I started school. It was as though I had never worked for any airline. Not just a refresher course but weeks of company history with talks from the founders of the airline, FAA regulations, the whole nine yards. After many weeks of this I was about one week into the B-737 refresher course when I heard that they needed a few B-757 simulator instructors.

Wow! One of the newest Queens of the Air. Of course, I volunteered and was accepted. About the second or third week of training I realized I'd taken a big bite. After finishing ground school and the FAA oral exam, which was not as bad as the 727, we were sent to Atlanta for simulator training. America West Airlines didn't have one at that time so all training was with Delta Airlines equipment. Delta has a wonderful training center and we lived at the Hilton. Lots of hard work but very nice living conditions.

Towards the end of my training I got a call from Phoenix. It seemed that the instructor had missed the flight to Atlanta and would I mind running the simulator. for the introductory session, as the students, my classmates, were already in Atlanta. We stumbled around awhile but got the job done.

When the magic day came I watched the other student, Check Airman and FAA Inspector lock themselves in the simulator and "blast off". Two hours later, the motion was off and I waited to board for the simulator portion of my rating ride.

When the Check Airman walked by me, he told me to set it up. The FAA guy said nothing. I entered the simulator as the other trainee was putting his things away. This is a guy I have know for over thirty years at Frontier and a very good pilot. "How'd it go?", I asked. "I busted it", was all he said as he walked by me. Naturally, I went into a bit of shock. And as I set up for my ride, I couldn't help but remember when I was about to get my oral exam in



the MD-80.

There were four of us scheduled that morning for the oral exam. It was done by seniority so I was # 2. We were going over a few last things with our instructor in the classroom. After about twenty minutes, someone came in and said, "OK, Brad, you're next". "But it's only been twenty minutes", I said. "He busted", was the response. I had trained with him for the whole course. He had forgotten more than I knew about this plane. I had flown copilot with him when he was a very new Captain. An excellent pilot by any measurement. I was a dead duck.

When I walked into the exam room it was obvious that I showed a lot of stress. Here I was. 57 years old with thousands of hours of pilot in command acting like some new hire copilot.

After the handshake and introductory formalities he said, "I see you flew the PBY-5A". It seems he was an old Navy pilot and had flown and loved the PBY so the first 20 minutes of my MD-80 oral was spent talking about the PBY. After that the oral was a breeze. Later, at lunch with my old friend, I asked him what had happened. He said, "After the first question I couldn't remember my name". These things can happen. I had heard about this but, fortunately, it hasn't happened to me. I have enough problems just getting through these things without having a complete "brain fart".

Back to the B-757 simulator part of the rating ride. It was a solid two hours of everything you can do in a simulator, or at least, I thought so, until I became an instructor. Actually, they were pretty easy on me.

At the debrief in the Waffle House, the FAA guy was telling me all the things I had done wrong. Finally the company Check Airman said, "Well, Brad did quite a few things right". The FAA guy, an old Pan Am Captain that I got to know well later, looked up, grinned and said, "I didn't write those down".

11/25/89      B-757                      Rating Ride                      Best airliner I ever flew.

After the simulator check ride, I returned to Phoenix for the flight portion. I understand that simulator instructors only get a "simulator only" type rating now but this was 1989 and we got the full treatment. I was paired with an upgrading Captain. The crew consisted of the two applicants, the company Check Airman and the FAA Inspector.

On examining my license the FAA Inspector said, "You've failed". "I haven't even sat down yet", was my response. "You don't think I'm going to write all this down on your temporary license, do you?". It seems he hadn't had anyone that had as many endorsements on his license as mine showed. It didn't indicate anything special except that I'd been at this for a long, long time. He was just kidding.

The line Captain went first and I was really impressed with both his and the airplane's performance. All went well for him and then it was my turn. As it turned out, it was to be my only experience in actually taking off and landing the plane while I was with America West Airlines. The ride was a real blast. The finest airliner I had flown without a doubt.

Two things that stand out on that ride; when I had to make a single engine missed approach, a requirement on any rating ride, and the final landing back in PHX. On the "miss", I rotated to about 20 degrees up and said to the Check Airman, "I feel like I could go to the Moon in this plane", the performance was so good. The other remark was when we taxied up to the hangar at PHX. "You know, I've finally found a worthy replacement to the 727".



I instructed in the 757 simulator at Atlanta until America West Airlines got their own simulator in PHX. I enjoyed the work and upgraded to Check Airman, which allowed me to train the pilots up to the rating ride. It was interesting work and, at times, challenging.

The only other time I ever flew the actual plane was on a return flight from Florida. I had gone down there to say " Goodbye " to Dave, my very good friend from the CIA days. He was dying of cancer and had only a few days left. The Captain invited me to fly it for awhile enroute to LAS. Of course, I didn't refuse. In fact, if he hadn't moved out of the seat really fast I'd have been on his lap.

Shortly after my return trip from Florida and the news of Dave's death, I got a call from Florida and that brought on the next chapter of My Aviation Life.

6-11/93

B-727

Angola. Capt for Trans-Afrik Airlines. Great, crazy flying. Civil War. Got shot up twice. Did two tours .

It seems that the Chief Pilot for a freight outfit in Angola was in Florida and needed a 727 Captain, so he called up his old friend, Dave. When he got the sad news , Dave's widow Ellie, suggested he call me. Ray called me with the opening question, " How'd you like to fly Captain on a 727? " . " When and where " was my answer. " Next month in Angola ", he said.

America West Airlines was giving CCL's, Company Convenience Leaves, to just about anyone who asked. America West Airlines was struggling in bankruptcy and the schedules were cut way back. I thought a leave would be an easy thing to get. I'd fly a few months and come back when the situation at America West Airlines had improved. For some reason, they would not grant me that leave. I went all the way up to the VP of Operations with no luck.

Here I was, 68 years old, very frustrated, reluctantly forced into retirement, doing the old, " Them's that can does, them's that can't, check ". Well, I knew I still " could ", so I resigned from America West Airlines and went off to Angola.

On the first morning on the job, the conversation with Ray went something like this, " Ray, you know it's been awhile since I've flown the 727 so the most conservative view will prevail ", I said. I hadn't told him, nor had he asked, but it had been 23 years since I had flown a 727. " What do you mean? ", Ray asked. " Well, if you don't like the way I fly, or I'm uncomfortable, you'll stick with me until we're both happy ", was my explanation. Ray was going on my first flight as a check ride to see if I could actually fly the thing. After all, the only thing he had was Ellie's reference and my resume. He agreed and off we went.

There were very few navigation aids in Angola then. Their civil war had been going on since the early 1970's and most everything was destroyed or badly damaged, and I mean everything- roads, railroads, infrastructure, their society as a whole. On arrival over Lucappa, I planned a normal approach and was on downwind and asked Ray how it looked. " You're a little far out ", was his answer. " It looks pretty good to me ", I came back. " Well, the bad guys are out here and we fly a tight pattern at most of these places ", he said.

Bad guys had guns and they used them a lot in Angola. I snapped a quick base leg and put that plane down - now. When we got back to the capital, Luanda, Ray said, " Looks good to me, see ya ", and that's the last time he ever flew with me.



Flying in Angola was very, very different than any flying I had ever done. We had three, and later, four B-727-100's with one crew per plane. We flew everyday, all day and into the night. My lowest monthly time was about 150 hours, the highest was 176 hours. This was "hard time". That is, the plane is moving. No duty times, no contract rig times - hard, actual time.

We flew cargo. Everything that would go through the large cargo door except goods that could be used in combat. Of course, we never knew what was in all those sealed boxes. Just how much they weighed. Oh yeah, no gasoline!. One guy put a can of gas inside a cardboard box. I'd never have caught it but it leaked.

The third day on the job a small mob of people tried to get on the plane. Bob, the ground load master hit one guy on the side of his head so hard that he bled all over the door sill before falling to the ground. I was wiping it up with a rag using my shoe to do the job. AIDS was a big thing there, even then. The big boss drives up in his new Jeep, looks the scene over and asks, "How's it going, Captain?". "I'm still in cultural shock", was my answer. A smile, a wave and he was off. Just another day.

Another time some guy was trying to steal something from a cargo pallet that was still on the ground. Chris, another ground loadmaster picked up an old artillery shell casing lying on the ground and hit him with it, killing him. That was too much for the authorities, so Chris was arrested and confined to a jail cell at the airport. The company paid \$ 75,000 to get him out and sent him home to South Africa.

The flying was just as wild. In daylight, we'd fly up to the destination airport at some 30,000', dump out the gear and extend the speed brakes, roll it into a 45 degree bank and start down in a very tight spiral. It made it very difficult for anyone to take an accurate shot at us during this maneuver. I understand they call it the "Corkscrew approach" in Iraq today. I know it worked because I was never hit during one of those approaches. I can't say the same for the normal part of the approach, that is, the very last part of the approach just before touch down.

At night it was different. We made a normal approach with no spiral approach as we flew with all navigation lights out. We had a primitive, by today's standards, GPS, and used it for all night and instrument approaches. Sometimes you could see the bad guys making sound shots with their RPG's ( rifle propelled grenades) based on our noise. These things would go off thousands of feet below us. However, sometimes they'd sit off the end of the runway and wait for our approach. At 100-200' I'd call "Lights" and as soon as the landing lights came on, here would come the AK47 fire, complete with tracers.

I suggested that the mechanics install spark plugs in the ends of the fuel dump tubes. We could layout a mile of fuel vapor and just before we turned on the lights, fire up that jet fuel. I'm sure it would be a distraction. It was pointed out that the fire could go the other way and really spoil our day, ( night?).

There were wrecked and abandoned planes, helicopters, trucks and all kinds of munitions at just about every airport we flew into. At one place the bad guys were so close the troops that controlled the airport parked a pair of tanks on either side of the touch down zone. An accurate approach and touch down was encouraged.

Just after landing at Malanje there was an explosion and a column of dirt shot up into the air about 300' from the plane. "What the Hell was that", I asked. "That was a mortar shot, Brad", was the calm response from the 2nd. Officer. He had been in Angola a long time.



At another field, the government would launch a pair of Swiss turboprop trainers, complete with six rockets per plane. When we'd come in for our landing, they would buzz down either side and fire the rockets along the sides of the runway. It tended to distract anyone that wanted to do us harm.

When I refer to the "Bad Guys", I'm referring to anyone that shot at us. Since we flew cargo to both the "rebels" and the government troops, for the UN as well as civilian companies, on the same day, it really made no difference to us who they were. If someone is shooting at you, they're "BAD GUYS".

One of the planes, Charlie Lima, was "making metal" in engine #2, and #1 was compressor stalling about 20,000'. The Sam missiles we heard they had would go that high. I refused to fly that plane for what I thought were very good reasons. We always flew at full gross weight out of Luanda and I had doubts about the plane's ability to continue on two, tired engines at that weight. In fact, on my initial takeoff brief, it went something like, "In the event of an engine failure, I'll try to get it down to the lagoon and we'll walk up to camp for a late breakfast". The lagoon was down the hill from the camp and was 8-10' deep and about 5 miles from the airport. A perfect spot for a ditching.

One morning, as I was taxiing out for a takeoff at Dundo, one of the 727's, Charlie Lima, was landing. #2 engine was smoking so bad I could see it as he came over the fence. I mentioned it to the Captain. After unloading, during the start, #2 shook the plane so bad the instrument panel was a blur. So they took off using only #1 and #3 engines! I know, Frontier used to do that but these were old, tired engines and one was already running badly. When that engine started "making metal" and we objected, the Company just raised the hourly rate 50%. When I observed that the widows would really love that extra money all I got was a grin. I know we were there for the money but, hey - -.

You'll love the way that engine was overhauled. They removed it with a fork lift and laid it on some old tires on the ramp. They'd just roll it back and forth repairing it as they went. And since the plane was down anyway, they looked at the #1 to see why it was stalling. They found some sheet metal that had moved and repaired it. It took about a week, so we had some time off. You know, 4 crews and 3 planes. As I watched this repair, I couldn't help but think of how the FAA would react. If the inspector didn't have a heart attack, he'd be lucky.

When the plane was back flying, Britto, the non-pilot operations chief, said, "Well Brad, are you ready to fly Charlie Lima?". "If you don't mind, I'll wait a week or so to see how it goes", was my answer.

That time off was really nice. Luanda was a very old city settled by the Portuguese in the 1400's. A beautiful harbor with a huge old fort overlooking it. The causeway around the harbor was about six lanes with a beautiful beach. A number of embassies were functioning but, of course, we had no contact with any of that. A very nice lunch at a very nice French restaurant was about \$ 50.00 each, which we paid for with Kuanzas, the Angolan currency. We had to spend it because it was no good outside the country.

The Portuguese had been expelled and the Blacks had taken over the country. It was a mess. Trash and garbage everywhere. There was no employment except at the mines which were hundreds of miles inland and the oil business which was run by Whites. There was a great deal of goods coming into the country as the diamond mines and the oil production kept things going. The whole country was on the edge of anarchy.

Interestingly enough, I felt safe among the civilians but the police or army people made me



feel very insecure. If they weren't fighting the Rebels they were shooting at each other. I heard they were paid \$ 6.00 per MONTH and two meals a day.

Since the chance of someone taking a pot shot at us on takeoff varied from airport to airport, it thought it prudent to develop a procedure that improved our safety as much as possible. I called it my "Clacker One or my Clacker Two departure". One meant a left turn and Two meant a right turn. I varied the turns so I wouldn't set a habit. The clacker was an electronic sound, very loud, that came on when you approach the maximum speed for that particular density altitude.

On lift off, I'd hold the plane at about 20-30' above the ground and clean it up as soon as possible. At the sound of the clacker, I'd roll the plane into a 45 degree bank and pull it up to about a 20 degree body angle. It was good for about 15,000' before I had to slow the climb rate. A "corkscrew departure" that worked. Maybe that freighter that got shot up so badly trying to leave Baghdad should have tried a departure like this.

One day I was just about to turn final at Malanje, the place where I got shot up. Bill, the Captain already there, called me and said, "\$ 100 says you can't make the first turnoff ". "\$1,000 says you can't" was my answer. "You're on", he called back.

Now Bill was a real cowboy with that 727. Exceeded the speed limits for all settings. Gear extension, flap extension, you name it. Copilots hated to fly with him. He also had another bad reputation, which I won't go into, except to mention it involved very young girls.

Anyway, I took it as a serious wager so I drew up a list of things he could and couldn't do to win. The turnoff was 1700' from the end of the runway. We landed as heavy as possible with as much payload as possible. He could practice as much as he wanted to but must declare to the crew when he was going to "go for it". He could not make more than a 90 degree turn after landing to get on the taxiway. A couple of other things, but item 7 read "Must depart Milnje without maintenance". You know, blown tires, stuff like that. I put up the \$ 1000 and signed the wager contract. Bill never signed it. When the company heard about the bet, they let it be known that he would be terminated if he attempted it. Who knows, maybe he told the company to take off the pressure.

I did two tours with TransAfrick. From June 1993 through November 1993. The second tour was a little more intense. Intense enough to get shot up twice. Shot up as in bullets into the aircraft. The first time I was too relaxed. It was a beautiful day and I let down normally, state side normally, and we got hit in the "A" hydraulic system, just before I dropped the landing gear. Good thing it was before rather than after as we didn't have enough fuel to go home with the gear down. Anyway, with the "A" system out, we went back to Luanda, declared an emergency, called for the crash truck etc. Did the emergency gear extension and made a "normal" landing. No crash truck, no nothing. Finally made it back to the company ramp and parked it. That was when we discovered we had been shot up. Until then I just thought we'd had a hydraulic failure. In fact, I picked up the AK47 slug that took out the hydraulic line and still have it among my mementoes. Nobody from the company even met us. We returned to the compound and "had a few".

Sometime during the the 4th or 5th drink, I got a call from Britto, the operations chief, wanting a written report, right now. I explained he had his chance when we arrived but it was a little late in the day for any report and he'd have to wait until morning.

The second time we got hit, I had made an approach into an airport in very heavy rain and poor visibility. I wasn't lined up as good as I wanted, so I went around for another try. During the circle, at about 300', I made the remark to the crew, "Well, at least no one will be



out in this downpour taking a shot at us ". WRONG! We got hit about eight times. Fortunately, none of the hits got anything vital. I couldn't beleive it. What luck. They patched the holes with "500 mph tape"!

We had no oxygen for anyone in these planes except the 4 crew members that rode up front . We did carry passengers though. The person or company renting the plane could fly with us, and of course, the highjackers always had preference. I'll get to that a little later. The tanker, Alpha Zulu my favorite, had six seats and a large carpeted area. I referred to the seat area as the First Class section and the carpet as the coach section. This was in addition to the 17,500 liters of Diesel or Jet fuel we hauled. If there was a loss in pressurization I had about 4 minutes to get down to 13-14,000' before passengers died.

The rest of the fleet had no seats aft of the flight deck so people just sat on the floor!

One morning we were flying along at some 30,000', and the BIG RED cargo door light came on. Steve, my copilot, grabbed his filthy oxygen mask and put it on. He then looked over at me. I'm just sitting there flying the plane. He pulled off the mask, leaving a very dark ring around his face, and asked me why I didn't use mine. " Steve, if there was a real danger, the door would be gone by now as well as the tail and it really wouldn't make any difference if we had the masks on or not ", I replied. He threw the mask down and went into a black faced sulk.

Every once in a while two or more armed guys would run up waving their guns and demanding to go somewhere, generally Luanda, the capital. I've always believed in the "big club" theory . That is, the guy with the biggest club was in charge. The theory is still valid but after 9/11 I think I'd use my "hidden club" before I'd add to some architectural design. These guys were generally drunk, no matter what the hour, so we insisted they give us their guns or their ammo. before we'd take them with us. Surprisingly, they would agree and we'd take them. We also carried any number of "passengers" when we returned to Luanda. Sometimes they were refugees and sometimes "paying" passengers, which was a subject for discharge when discovered by the company.

I remember one time we brought in about 30 women and children from a city under siege with a great shortage of all basic necessities. We were met by the husbands, fathers or other family members in Luanda with many hugs, hands shakes and profound thanks. In addition to being very touching, it confirmed to me that communications still existed, no matter what.

A number of young boys, six or seven, aged 14-15, lived at the airport in Luanda. When I say "lived", that's about all they did. There was no work for them, so they begged for any food they could get. They slept in old aircraft tires that were thrown out into the field or just on the ground. Once, I tried to share my lunch with them. They just swarmed over me and down I went. They didn't want to hurt me, they were just so damn hungry. From then on, I dropped the food from the cockpit window, as well as my water bottle.

These boys knew they could not come on the aircraft without an invitation, or suffer great bodily harm. I noticed one little boy, about 8 years old, had a scabbed cut on his face. I took him up to the cockpit and rubbed in some ointment on the scab to help the healing. The next time I saw him there was a fresh scab on the old wound. I repeated the treatment and a few days later there was a fresh scab. It seems he was so starved for any adult contact that he scraped off the old scab in the hopes I would give him a new "treatment".

Another time at a distant airport up in the high country, we were getting our cargo unloaded and I heard some small arms fire. Looking over towards a barracks, I saw a man running,



just as a few more rounds sounded off, and down he went. A few minutes later, two soldiers carried him up to the boarding gate by my plane and dumped him on the ground. He had been shot in the leg and was bleeding quite a bit. I went over to the missionary passengers and asked for a Doctor. A woman said she was a nurse and I explained the problem.

Everyone there had ignored the small arms fire since it was so common. She went over to the wounded man, noted the bullet had gone through the leg without hitting a bone, took out a plain sewing needle and thread and sewed up the two bullet holes. No anesthetic, no dressing, just that needle and thread. Rinsed her bloody hands off in a mud puddle and went back to the airplane. I was astounded. I got my drinking water and insisted she let me rinse off her hands. Amazing country! And all this misery because of politics.

I know I have gone on at some length about my African adventures, but it was a very emotional experience for me well outside the flying.

I did two tours with TransAfrick but three months at a time was just too long to be away from my family. Mid-November I advised the company I would not be coming back for another three months tour. I did offer to come back once every four months at a reduced rate but they declined. So ended a very interesting chapter in My Aviation Life.

Nothing much happened, aviation-wise for a couple of years, save a few flights in light aircraft generally to help someone out. Helped a friend take a C-206 to Alaska, stuff like that.

3/3-11/95    B-727-200    Arriva Air -A startup freight operation that never got started.

In March, 1995 I was involved with a startup freight operation and was hired as Director of Training. Shortly thereafter, I was made Chief Pilot. There was no pay but lots of promises.

It really did look good and I think, to this day, it could have been a success. They even leased a B-727-200 and after many delays we flew it from Miami, FL to Gateway, here in the Valley.

The plane, while signed off as airworthy, turned out to have many illegal parts installed. On the one and only flight I made, we were over East Texas and when I returned to the flight deck after resolving a "physiological problem", the Flight Engineer, hired for this flight, informed me that the "A" system was a "little low". One look at the gauge and I told him to turn the pump off "Now". "Let's wait until we get the light", was his answer. "Now", I came back. If we had lost all "A" system, we'd have had to land in Dallas. As it was, things worked out OK - for that one and only flight.

The whole operation turned out to be a scam. I left on December 1, 1995

1996            B-737            Jet Tech @ Simulator instructor.

Due to my contact with Jet Tech, a small training school for serious pilots interested in an airline career, I did some simulator training in their B-737 simulator.

It kept me current in the 737 and I was able to do a few test hops and ferry flights to various parts of the world.

An example: Another Jet Tech instructor and I went all the way to Okinawa, via Taiwan, just



to fly a B-737 back to Tinan, located at the South end of Taiwan., a 1 1/2 hour ferry flight. The positioning time was about 35 hours.

Talk about air pollution! You have no idea how bad it can be. Mel flew the first half of our little flight and I flew the last. When we crossed Taipei, it was a beautiful clear day. On arrival into Tinan from 3000' down we couldn't see a thing. No weather. Clear, sunny skies. Just pollution! We had to make a full instrument approach to minimums! Visibility was less than a block in town. We left that afternoon for home.

1-2/ 97

Airbus 320

America West Airlines again. Did not like the plane.

In January I was invited by an old friend, Billy Walker, to come back to America West as a simulator instructor but this time on the A-320. Billy was the head of training at America West Airlines for the A-320 and loved the plane. It is a "fly- by- wire" plane, which means, in layman language, the pilot doesn't really fly the plane. He/ She puts electrical impulses into a computer by semi-conventional controls. ( A side-stick is used instead of a wheel which is easy to get used to), and the computer converts these impulses to move the controls as desired; that is, as the computer desires. The computer decides whether or not the pilot inputs are correct, and if the computer decides they are not correct, it rejects them.

I had a real problem with this concept. In addition, most of the flight panel displays were different. I still don't know if it was the concept I had a problem with or my inability to absorb all the new technical knowledge. Probably a little of both. I lasted two months.

3-4/97

B-757

Jakarta, Beijing

Corporate plane

While at Sun-N-Fun in FL. with my friend George Meshko, after flying down in my C-172, I got a call from a company in New Orleans. It seemed they needed an extra pilot for a trip to Jakarta. I took the Cessna to Ft. Lauderdale, jumped on Southwest to New Orleans and arrived about three hours before departure. Denise had Fed X'ed my uniform so I was all ready.

What a plane! About 20 seats plus a Master Stateroom fit for a King. The crews quarters consisted of a First Class type compartment and another compartment with two bunks. The bunks had individual heating, cooling, music and lights. A galley just for the crew and a printed menu for our crew meals!

The crew consisted of four pilots and a mechanic. Four hours on and four hours off. With unlimited fuel we could have flown forever. As it was, there was some 15 1/2 hours of fuel so we made only one fuel stop from New Orleans to Jakarta! Wonderful city.

I called a Captain I had taught the 737 to in Kuala Lumpur a couple of years before, and invited him to lunch. He wanted to include his family so, sure, that would be great. It took us two days to get together because of some riots. After Angola, it was nothing. I was looking forward to a quiet little restaurant with lots of local atmosphere. When I asked him where we should go he said, " Well, the kids like Pizza Hut ". Some atmosphere!

After five days, we flew back to New Orleans. On arrival, the Chief Pilot asked me if I'd like to go to China. " When? ", was my response. " Next month ", he said, so that's what I did. New Orleans, Anchorage, Beijing. Four days later, on to Tomika, Indonesia. Then to Hawaii and home. Great trip, but the last one. They sold the plane and, I heard, closed the aviation department. Ah, the joys of corporate flying.



11/00--2001 CV-580&5800

IFL, freight only based at Gateway. CV -5800 is a great plane. Glass panel, very good upgrades. Duty time: 24/ 7/ 30 days/ mo. Lasted 6 months.

I heard about a new, for this area, freighter operation based at Gateway Airport. IFL, Air Cargo, with a home base in Pontiac, MI was a fairly large freight operation using CV-580's. It seemed a natural to me as well as the company, so I was hired as a Captain. The training was in Pontiac and lasted about three weeks.

After completing the ground school, my first ride was in the right seat for about 30 mins. I had forgotten what a truck it was on the controls and said so to the Chief Pilot on the first rotation. My next ride was in the left seat, and I did a horrible job with the second landing. One of the worst in my life. I wouldn't doubt it if he'd thought I'd never flown the plane before. We were both frightened severely.

After a few approaches and better landings, he signed me off and I went back to Gateway for IOE, Initial Operating Experience. Every operation is different, and school didn't cover that. After a number of flights, the company brought down a CV-5800. This is a stretch version of the -580 and a really great conversion. Lengthened 14 1/2', a little more power, a Glass Panel and a much better autopilot. All the goodies that the MD-80 has, except the auto throttles. It was just about a perfect freighter, and it should be for \$ 2.5 M, with you furnishing the plane. I was signed off on the 5800.

The big problem was two fold: While I was signed off as Captain on the 580 & 5800 with the "satisfactory" paperwork to prove it, the Director of Operations had resigned with the Chief Pilot running things. For reasons never explained to either the Gateway Chief Pilot or me, he would not release me for Captain flights. Maybe it went back to that horrible landing. If that was the case, why did he sign off on my check rides?

The other problem were the hours: on call 24/ 7, thirty days a month. When the cell phone went off we had thirty minutes to get to the airport. This meant we could not go anywhere, anytime, that was over thirty minutes away from Gateway. This was a very tight rule. A friend of mine passed away. I called the CP at Gateway, with whom I had a good relationship, and told him I wanted to go to the funeral. When he asked me how long it would take I told him about two hours. He said he'd advise the company not to call me for a trip for the next two hours. That was not a life I wanted.

When I submitted my resignation after six months, he looked at me and said, "I wish I could do this". While I never felt mistreated by the company and the pay was acceptable, the company culture was so different. There was such an abundance of pilots that they are able to demand, and get, duty hours that no other airline that I know of, or any other business, for that matter, would expect.

1997 - Present B-727-737 Various ferry flights around the world with some test flights.

I even passed a DC-3 Check Ride a few years ago. Can't fly as Captain anymore because of the simulator costs to remain current. Also, insurance companies have a lot to say, and they say I'm too old, even though I can pass a First Class physical exam.



The title of this period just about covers it. I have enjoyed some of these flights. The test hops are fairly "boiler plate", but the ferry trips can be interesting.

Had a B-727 trip to Majorca, Spain a few years ago. The acceptance check went OK, so we started out from Harrisburg, PA for Goose Bay, our first stop. On the climb out, the Flight Engineer couldn't keep the plane pressurized. We went on oxygen and I found out the microphone in the mask was inop. Between talking to the traffic controller and the F.E., I was busier than usual. I never realized how little the F.O. on the 727 has to do, except when there is a problem. I suggested he check the cargo door for leaks. He did and found a crack of daylight around the new cargo door seal. I soaked a towel in my drinking water and he jammed it into the crack. At 65 degrees below it didn't take long to freeze. End of problem. Since it was March that rag stayed frozen until we descended into Majorca!

Another time there was a three plane flight from Sofia, Bulgaria to San Jose, Costa Rico. The lawyers screwed up, so we spent a week in Sofia. Very interesting, but too long. I ended up with a Captain, recently retired from Boeing, with every type rating Boeing made.

He was also very much into the "bells and whistles" of the latest stuff Boeing installed. However, he had never flown overseas, and that was why I ended up with him. The weather was very good so I didn't worry too much when he programmed all the approaches and departures into the computer. All, but the departure out of Sofia, were incorrect. I couldn't believe it. When we finally got to Fortaleza, Brazil, ( Sofia to Brazil in one very long day ), we found a perfect night with unlimited visibility. All we had to do was fly a regular VFR approach and land. Oh no, full instrument approach via computer, which took over five minutes. He set the minimum altitude wrong and the plane descended to minimums, about 10-12 miles too soon. There was no safety issue, so I said nothing. When he asked me if I could see the airport I answered, " Not any more, but I really like all the bells and whistles on this thing " I hope I never see him again.

And I probably won't, as the phone rings less and less.

My last really fun trip was in September 2003. Bob Rowe and I took an old B-737-200 from Mohave to Nimes, France. This plane had sat out in the desert for over a year. Somebody had paid \$ 661,000 for it FOB Mohave. That's less than a new Bonanza, a lot less! It was on the way to Africa for a passenger operation. A company in Nimes was going to refurbish the interior plus a new paint job. After an uneventful and enjoyable flight we arrived on Saturday noon to find every thing shut down. France, you know.

After finding the gentleman responsible for receiving the plane, we enjoyed a very nice evening with him and his family, followed by a leisurely trip by car back to Paris. Even made a stop at his family's vineyard in the Beaujolais district.

I have never had problems in France, except trying to understand the controllers with a very heavy accent. I think the problems are with the governments, not the people.

As for the smaller stuff. I've owned a C-172 for a number of years and five years ago I bought a Varieze which " only needed a paint job " and I'd be up and away. Right! I should have bought a flying one that needed nothing but a pilot.

The work on my Varieze is coming along very slowly. I fly my Cessna 172 to keep my " hand in it ". I'm really looking forward to flying my EZ. I hope it's as much fun as I've been told but it will have to be VERY good to beat the jets.



What a life it's been . I wouldn't trade it for any other.

Since this is the first draft, I may add stories from time to time as I think I've forgotten a few.

As I finish this journal on 5 June 2004, it is a very sad day. Last Sunday my very good and close friend, John Matlock, checked me out in the latest love of his life, his 1944 Stearman PT-17.

The 60th anniversary, June 12th., of my first solo flight was fast approaching and John was actually going to let me fly his plane - solo! Now that's a friend ! After four landings he gave me a "thumbs up" and said "You take it around and I'll watch ". "Thanks, but I'll wait until the 12th.", was my answer. I guess I should have taken him up on his offer .

He crashed and was killed the next morning !

Aviation is, and of itself, not a dangerous activity. In fact, it is a much safer means of travel, based on passenger miles, than automobile travel.

However, it is extremely unforgiving if the limitations of the pilot or the aircraft are exceeded.

As I said earlier, Keep the seat warm, I'm not done yet!