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## **Flying Lessons**

In the days when Gilbert Cox was a young man, newly wed, he had dreamed of flying ever since school days in Mexia, Texas, when he and a lot of other kids hurried out of school at the last bell to watch the airplanes take off and land on the little dirt airstrip landing at what they might have called the local “airport” at the edge of town. At the time, he was about fifteen, and like many other boys his age, fell in love with the exciting idea of flying.

In the early 1920s and 1930s, flying was still a novelty; pilots were idolized like movie stars, and air shows drew huge crowds fascinated by the emerging technology of flight. Only in the movies did he get to see a large air show where pilots flew upside down and did loop-the-loops, but he was entranced with thoughts of learning to fly. He had heard it said that when you flew upside down, you didn’t feel as if you had turned over. Rather, you felt as if the Earth had changed places with the sky and was hanging over you. He wanted to feel that experience.

Soon after he turned sixteen, he went to work in the oil field with his dad, who had to sign a release for him to work because of his young age. Dad worked with his father on oil and gas well drilling rigs in Oklahoma and the Texas Panhandle as a “bo-weevil” for a year or so before moving to Pampa with his parents about 1928 or so, where a big oil play was taking place at Borger in Gray County.

For pastime on his days off, he sometimes went out to the little dirt airstrip at Pampa to watch the trainer planes take off and land. After a few paychecks from his job, he could resist no longer and paid \$5.00 to a flying instructor to fly him over the town and around the countryside close by. From the first time he went up, he was hooked. He dreamed about it a lot.

He was twenty-one on January 19, 1930 when he married Frances “Frankie” Altman, his sister’s best friend, in the middle of the Great Depression. In addition to working in the oil field, he was working part-time selling Atwater-Kent radios. As the depression deepened and things got worse, he decided to join his dad who had already gone ahead to look over the newly discovered East Texas oil field where his dad had a job with Gulf Oil firing boilers at Kilgore, Texas.

Even after moving to East Texas, the dream of flying was still there and always in the back of his mind. When he became acquainted with a man who ran a little flying school between Longview and Gladewater where he was drilling a well, Gilbert began to take flying lessons on his days off, with visions of becoming a pilot. His first flying lesson began on a dirt landing strip at Willow Springs, deep in the piney woods of East Texas. He told me he trained in a McDonald Bass two-seater airplane. To make it lightweight, the airframe was covered with sturdy cotton canvas that was glued together with heavy-

duty glue. The instrument panel was simple – an oil pressure gauge to monitor the engine performance, a fuel gauge to show the resources available, and a compass to give direction.

The setting for his “flying days” was in the wild and woolly boom era of the East Texas oil field in 1931-1932, and that spring, he and Frankie moved out beside the little airfield and set up housekeeping in a tent near the edge of the woods. Gilbert built a room about eight by ten feet, walled up on four sides about four feet up, and put down a plank floor. They put up a tent for the roof and sides and it was fairly cozy and private. Their furniture consisted of a bed, a table and two chairs, and a small, kerosene two-burner stove. A coal oil lamp was used for lighting. Wooden orange and apple crates served as kitchen cabinets. Their suitcases and Frankie’s little trunk that she used for a “hope chest” stood in one corner. Gilbert built a little shelf just outside the doorway for a place to wash up. It held a water bucket, dipper, wash pan, and two bars of soap – Lifeboy and Lava.

As a student pilot he took one lesson a week at \$10 per hour, and started earning hours toward soloing and then his pilot’s license. Flying made him feel like part of a pretty exclusive fraternity in those days. A few times they flew over to Shreveport or Marshall and back to Gladewater.

But his joy at learning to fly was tempered a little by his wife, his mother, and other family members who didn’t quite share his passion. His immediate family feared a tragedy and begged him to give up lessons. Because his family members felt as they did, it took some of the pleasure out of flying.

On weekends, however, they all went out to the little dirt airstrip on Saturday and Sunday afternoons to watch him fly. His parents and his sister had their picture made standing beside the plane – Eula Mae had her photo snapped while sitting in the cockpit with a big smile on her face as she waved to the photographer, who was probably her sister-in-law, Frankie. Frankie had a little box Kodak, called a “Brownie,” and she took a lot of family photos with it. *(I lost this little Brownie camera in 1963 when we went to California on the train and I left it laying on the seat. As soon as I got off the train, I realized I had failed to pick it up and hurried back on board and right to our seats, but someone had already picked it up and I lost all the pictures I had taken at the Royal Gorge and in Salt Lake City).*

They all witnessed the biggest smile when Gilbert and his instructor took off and circled around as they waved to those on the ground below. He was very excited about flying, but it made Frankie nervous. His mother cried about it. His dad asked him why he was doing such a risky thing. And Gilbert couldn’t tell them about some hair-raising experience of the day because nobody in his family wanted to hear about it. It made them too anxious.

Finally, his family won out and flying lessons ended when Magnolia Oil moved their drilling crew to a new well on another location, too far away to continue his training. Though he lacked about two or three hours soloing, that was the end of his flying experience...but buried deep in his thoughts, the dream was always there!

On February 20, 1977, daddy told me a little bit about taking flying lessons:

It was just little planes – four miles out of Longview, going towards Gladewater. It was after me and your mother married. Greggton is what it is now. They changed the name of it to Greggton. Fly's Flying Service...that was the name of it. The instructor's name was Al Fly. He gave me lessons for \$10 an hour. At that time, you could get a private license with 20 hours, which would have been about \$200.

Mother also remembered that he didn't like but three or four lessons when he quit, because his mother kept after him all the time.

Daddy went on with his story:

She rode me pretty hard, and I got the dickens scared out of me a time or two. We had some things to happen. One of them...at that time, they had just been using radial engines...not too long, probably three or four years. Do you understand what a radial engine is? Well, an in-line engine is where all the cylinders are in line in the block...but radial engines are where all the cylinders are opposed to each other...in a circle. And when radial engines came out, why it made a big difference. It increased the speed because it decreased the weight. Also, there wasn't any cooling liquids to worry about...freezing up...or running out of water or anything. It was an air-cooled engine. It had big cooling fans around the pistons...cylinders, and the propellers...well, it just had a lot of advantages.

But one day we were coming in for a landing, and I'm talking about we were down real low...I had done committed myself to land. Tops was maybe 300 or 400 foot high. When all at once, it commenced to vibrating and felt like it was going to shake the wings off. You could just see the wings bucking out there. Besides that...it is just like a car when you have a flat tire. It was shaking all over. Well, we had to work by signs. All the instruments and everything.

I was in the rear cockpit. He was in the front cockpit. It was a bi-plane...airplane. And we worked by signs on account of the noise. When he wanted it, well, he would give a sign like this...held his arms up like this for me to take it. But all the instruments were in the rear cockpit. So when all that vibration started, well, I had done throttled back for about half a throttle. And it was in a briar patch. We had to come in over a barbed wire fence.

Well, I had undershot just a little bit. Besides, we were really losing altitude, too fast for landing. In fact, to be honest with you, I was...we were doing what was called "shooting landing." We would come in and

make the approach to the field, get your drive angle, and come in right at the rear end of the field to you and get down just like you were going to land, and then take off again, and come around and do it again. Practice landing is what it was called. But there wasn't time to do anything that time. We were in a position to where we had to land...*had* to land just immediately, too! And without any signs or anything, I felt him...the stick was connected together...and the rudder controls, too. And I felt him get on the stick in the front cockpit, and then I felt his feet on the rudder control and I knew he was with me. Two can't handle it. It's just that system. But the vibration was so bad until I throttled back a little more on the throttle, and when I did, I felt him jab it ahead. And of course, it snatched it out of my hands, so I got off of every thing.

It was all happening that fast. A lot less time than it takes me to tell it. And anyway, he gunned it, and when he did, well, boy, I mean it, it really did shake that time. And I knew he was scared, because he cut the switch. And he knew how to handle it because he was a World War I flyer. And I expect we had already used up a third of the field in the time it took. All he did...when he gunned it there...that second was to get us over that barbed wire fence. And then he cut the switch and we landed.

To make a long story short, when he cut that switch, well, he slide-slipped it, which is a maneuver you can use when you are losing altitude. And then shut us off and we rolled right up in front of the place where we were going to park. And he turned to me and said I was letting the oil pressure go down. Well, I knew...that was the first thing I had looked at. And just as soon as the vibration started, I had looked at the oil pressure gauge. And, it was right up on 80 pounds!

So when he started accusing me of letting the oil pressure go down, I got pretty hot with him. And he had a mechanic by the name of Harold Grantham, so he called him down there. And he was running, coming down there then. And when he got there, we were having a pretty good fuss so he told Harold to spin the prop for him a minute. Harold turned the prop and it caught and the engine was hot, and the minute it started revving up, the oil pressure jumped right to 80 pounds...and he shut the engine off, because the vibration then...you could hear it. It was just hammering all to pieces.

So we pulled the motor out of it. Didn't have much to do. Had a four wheel trailer, mind you, to stand on, and we put saw-horses on that...to take that motor loose from the frame and lower it down on that four wheel trailer to take it to Dallas to get it repaired. And when they got into it, on those radial engines, there's only one throw on the crank shaft. And all of the connecting rods, are connected to that one...what's called the main throw. On an in-line engine, well, there's a main bearing and a

throw for every piston, you see. But when they got it torn down, well that main throw had broken...the crankshaft had broken right in front of us, and it had broken at – right at a 45 degree angle, so when the engine would fire, it would speed the prop up. Then before it could fire again on the next cylinder, the prop would slow down and the crankshaft would catch it and knock it again, and every time...it was a five cylinder engine...and every time it fired, it was just hammering itself to pieces. But at any rate, they gave him a free overhaul. Yes sir, I'm talking about from stem to stern!

Jerri, I will tell you another one that happened. I made a hard landing and almost ground looped. That's when your wing tip drags the ground. And if it does, it will flip you over. Anyway, it blew the tire out. Well, the depression was on and business was bad and we didn't have another tire. And we had to wait and get one out of Dallas. We decided we could fix that one and we took a piece of tin. It was a clincher type tire. And we took a piece of tin and put it around that tire and that old can, and bent it into them grooves where it was a clincher, and flew it that way. Well, it held all right. So, they had three – two beer joints over at Shreveport, and me and him decided we would go to Shreveport and get some beer and come back. And when we took off at Shreveport, that piece of can flew off and knocked a hole in the fabric on the wing, triangle-shaped. Just a big triangle shape. Of course, it was just sitting there flapping. It wasn't very big, but nevertheless, it was dangerous. Because if the wind would get in there and it tore big, you would just lose your control services. Well, he couldn't see it because he was in the back cockpit, but I was in the front cockpit. And I could look down there and see it, and there was no way for me to tell him what was going on.

We didn't have radios then. And it was almost sundown when we got back, but all the way back, I kept raising up and looking down under that wing, and he knew something was wrong. And several times he would waggle the wing so that I could look back to see what it was. And there was no way I could talk to him, and I didn't know what kind of sign to give him. We didn't have a "bad order" sign that I knew anything about. But there is one. But he wouldn't have known what it was, even if I had known what it was and give it to him.

Anyway, we landed, and climbed out. Well, I had the beer up there with me...and I handed him a beer down and it was almost dark, and he looked up under there, and we had done had a few beers at Shreveport, and he put his hand up under there. So he got mad at me again, and thought I had thrown out a beer bottle and knocked a hole in his airplane.

Then I asked him if the plane was covered with canvas or something, and he told me it sure was, and I also asked him what year that was, and when or what days he took his lessons on. I also asked him how fast he flew and how high.

Sure, it was covered with linen. And then you dope it, and it makes that linen draw up and get real tight. They didn't have metal then, like they have now. The wings were covered with linen. And then you put airplane dope on it. You have a dope that goes on there first too...a real clear-looking dope that shrinks it real tight and rigid...and then you paint it after you get it all doped. But you also have a regulation that you have to have a licensed mechanic do it too. But we patched that one up ourselves – real neat – so when inspectors come around...they didn't have many in those days.

That was in 1931 and 1932. And then they moved the pilot's license up to 50 hours and my folks were all raising sand with me so I quit it. But I sure wish I hadn't. I had books that I had to study...airplane rigging, and meteorology, and navigation. There is a lot to it. Not so much now like there was then. At that time, you didn't have any navigational aids like they have now. No navigator. No radios. You flew the eye and compass. That was the "railroad track."

I just took lessons when I wanted to. When he was getting in hard shape, he would always want me to take a lesson. There is three different forms of navigation...called piloting...dead reckoning, and great circle. Great circle is constellation flying where you use the stars to navigate by...for a fix. And dead reckoning is where you figure your speed...not by air-indicator speed, but your off-the-ground speed, and you have to do it this way. Elapsed time from the known point of given departure...From a known given point of departure, you have to figure your wind draft and your wind speed, because if you are flying obviously at 170 miles per hour and you have a 20-mile per hour wind, you are making 190 miles per hour. Whereas, if you were going the other way, you would be making 150. If you are quartering the wind, you have a constant side drift.

We only made about 100 miles per hour in that little plane, and how high we flew depended on several little things. Depended on what we were going to do and how far we were going...most of the time it was 3,000 feet. From 3,000 to 4,000 feet. And the reason for that is, at that time, well, with 3,000 foot of altitude, you've got approximately 30 square miles that you can land in if you got into trouble...to pick out a place. In other words, if your glide angle will let you go that far. Of course, if you are committed, you are going to have to land wherever you pick it out. So you have to keep your flying speed up. But he taught me what...like a

stall...and that happened in March...a spin! Boy! I didn't know what I was letting myself in for.

We had climbed up to about 3,500 feet and then I turned with the wind, and just pulled the stick plumb back in my belly and left the motor wide open and then we just climbed at an angle until the plane lost its flying speed. Well, he had told me to brace myself and get my head back against the headrest. And I did all that, but when that plane stalled, well the heavy end of that motor, of course, makes it turn and go down. Well, when it started down, when it gets to the vertical...when you are going straight down toward the earth, instead of stopping there, it always swings back, and then snaps back to a vertical, and boy, it would pop your head and it will knock...it popped me so hard I saw stars.

Besides that we were going to spin and I was helpless. The controls were plumb limp in my hands. It didn't answer to nothing. And I felt him on the stick with me...when I would move it...I was trying to bring it out of it. But when I'd move it, well it didn't answer, because we had lost our flying speed. So I knew what to do. I was trying to keep my wits about me. So I just let her go, just like we were going to go right into the earth, til we fell about 700 or 800 foot, and we had enough speed up then, that I began to feel the rudder pedals tighten up. Well, what I did...I kicked left rudder when I went into the stall which made us fall off to the left, but the motor turns to the right, so we had motor tork to help wind it up, and man it was really spinning. I could see the Magnolia camp and all the warehouses down there one second, and the next second, I was flipping out over the Sabine River and the next second, there it was back down there under me again, and coming right on up. (*Laughter.*) But I got it out of it. Yeah, it was scary though.

Well, during World War I, it is no telling how many men lost their lives because they didn't know how to get it out of a spin. And you know who the man was that learned how to do it? Eddie Rickenbacker. Yes sir! And he said, he thought his end had come, because they always knew when they went into a spin—then—that they were fixing to die. And so he thought, “well, I'll just hasten the process and he just opened the throttle, and when he opened the throttle, that increased his speed, and when he increased the speed, that increased the pressure on the controls system, and he pulled out of it. And when he landed, he told them all what had happened. That was over in France. And then they couldn't hardly believe him, and he took it up and did it again. He was a dare-devil and he was really a flyer, that Eddie Rickenbacker.

But you know they've got it down now where an airplane pilot is just about like a locomotive engineer *used to be*. Same thing nearly. Got them on the extra board. He told all about what he had to go through.

That's the reason I was worried about Jennifer and that job she is talking about, because you get kicked around.

Now then, they are training locomotive engineers with simulators. And I still know this. It may work to a certain degree. It will give them some of the basics all right...a lot quicker than it would out on the road, running it maybe, because you don't have enough time to discuss things that happen out there, as they happen. Whereas, you would have time for discussion in a school with an instructor. But they put the students in that mock-up of a locomotive cab and—which is exactly...with all the same controls and everything. Then on a screen, they run a picture of that railroad and the way it looks...all the towns they go through...just like the railroad was out in front of you...coming to meet you...on that film. (*Nowadays this is called virtual reality films. JB*). And then you are supposed to react and do the proper...breaking or easing off on your throttle and everything, according to the contour of the land, but in actual practice, all the learning came from the seat of your pants.

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To be continued....

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