



The Learning Project

by Lincoln Stoller

Clarence See, Mechanic, Engineer, Test Pilot

Interviewed at his home in Whitney Point, New York, August 18, 2007

Born: 1922, Baldwinsville, New York

“Eleven different schools... and there's not one that I've enjoyed. Their memory chafes like a slipping rope against the flesh of childhood... Ten years of school were like that — mining for knowledge, burying life — studying in grade school so I could pass examinations to get into high school — studying in high school so I could pass examinations to get into college — studying in college so... but there I broke the chain. Why should I continue studying to pass examinations to get into a life I don't want to lead — a life of factories, and drawing boards, and desks? In the first half of my sophomore year I left college to learn to fly...

“Looking ahead at the unbroken horizon and limitless expanse of water, I'm struck by my arrogance in attempting such a flight. I'm giving up a continent, and heading out to sea in the most fragile vehicle ever devised by man. Why should I be so certain that a swinging compass needle will lead me to land and safety? Why have I dared stake my life on the belief that by drawing a line on paper and measuring its azimuth and length, I can find my way through shifting air to Europe?”

— Charles A. Lindbergh, “The Spirit of St. Louis” (Charles Scribner's Sons, 1953. p.404, p.197.) Lindbergh made the first nonstop, solo trans-Atlantic flight in 1927.

CS:

My grandfather was a farmer. He was an inspiration to me my whole life, even though he passed away when I was quite young. Living there on the farm I spent all my time with him.

He was a master barn builder. A farmer would lose his barn due to lightening, or wet hay, or something, and my grandfather — in winter time when all he had to do was milk the cows — would cut the framework for a new barn for them.

Course I was too young to be in on the barn raising, but my old cousin went to help with the last barn raising that my grandfather did. He told me the story that all he carried was his auger, a bucket full of wooden pegs, and a mallet to drive them with. He didn't even take a saw with him! (laughs) In two days the whole framework was up, ready for the siding, and my grandfather was done; he would be finished. That last barn that Grandpa built is still standing.

Grandpa was a good mechanic as far as his hands and so forth. But he made his money raising tobacco. He ran this farm for a captain in the civil war, and was non-resident, he just spent a month or so on the farm in the summer time.

My grandfather had built the house that I was born in between the time that he was 19 and 21. He just got the house done, and Captain Petit came and stayed there for a month or so that summer.

When he got ready to leave he said to my grandfather, “Why don't you buy this farm from me?” My grandfather says, “I'd love to buy it but I haven't got any money.” He says, “You don't need any money.” Captain Petit says, “I know you can make the farm pay for itself.” So they arrived



at a price and my grandfather saddled up a horse and went across the fields and proposed to my grandmother that same evening! (laughs)

He was quite a guy. Tobacco was really great money in the mid 1920's. Then they began to raise tobacco in the South and the demand for the Northern tobacco dropped off. The farm was 130 acres and you couldn't fill a 5-gallon pail with the stones on the whole farm; nice loam. You could raise anything on that farm.

I worked there all my years growing up, worked for my uncle during the summer and in the wintertime when he needed me on the weekends. So it was home, and I planed on owning it someday, but my uncle passed away suddenly and I wasn't in a position to buy it from my aunt.

LS:

How did you first get interested in flying?

CS:

Probably one of the things that got me interested in flying was that part of the farm that was on the river flats. They were nice long fields, 3,000 foot long. They would bring students over there from the old Syracuse Amboy Airport, and they'd practice approaches and forced landings. When they'd pull up on a missed approach I'd see the Standards and Wacos going by. I landed in all the fields that I dreamed of landing in as a kid, later on in life. (laughs)

LS:

By accident?

CS:

Yes, at times! (laughs) I was test pilot for Franklin Engine and I knew these fields, so if I had something I wasn't quite sure of I'd keep those fields in range.

One of the first exciting things that happened to me in aviation was in 1928 when Lindbergh took "The Spirit" on a tour all over the country. (The name of Lindbergh's plane was "The Spirit of St. Louis." — Ed.) Kraus Heinz in Syracuse, who up until probably the mid-50's made all the airport lighting that was used in the country, built two huge flood lights — they were I guess 10 foot in diameter, these huge reflectors of course — and the old Amboy Airport had one on each side of the runway.

I was just a kid but I can still see just as vividly as if it was last evening: The Spirit of St. Louis in a forward slip, coming in to the light, come right down until the wingtip was about a foot above the ground, and then it comes level, and he comes in for a 3-point landing. He got out and so forth, and that was it, and my parents took me home.

LS:

How did you get started in flying?

CS:

Syracuse had an apprentice training school. If you wanted to become a welder you could become a welder while you were taking the high school courses. Draftsman, machine shop,



and so forth; this was all high school. And in conjunction with all this they had an aviation school and a mechanics school at the airport.

You spent two semesters involved in other shops, the welding shop, the machine shop, drafting, and after two semesters, if you were still in the class, they started bussing you to the airport.

Course I lived in the country and my Dad who, at that time, was working for Allied Chemical, he went right by the airport. So my bicycle resided in the rumble seat of the Model A, and I'd jump off at Armstrong Road and pedal to the airport. Only time that I'd ride the bus was in wintertime, when riding the bicycle was impractical, and I'd catch a ride into Syracuse and then catch the bus.

LS:

So what happened after high school, did you go to work for the Franklin Engine Company?

CS:

No, I got my ratings. It was apprentice training school, and you asked me how I had learned to fly, I got acquainted with everyone on the airport, private owners of the airplanes. And Paul Wilcox made me lead boy amongst the students. I guess there was probably 30, and he give me 7 or 8 students, and I was kind of foreman over them. He'd let me bring other people's airplanes into the school to work on, he knew what was going on, and in return they'd give me flying time in their airplanes.

I soloed in a J-2 Cub, but I put a lot of time in other airplanes that were unofficial: Kenner Birds, and Kenner Standards, and the old bi-planes. I had my A&P (Airframe and Power Plant Mechanic Certification) written and passed, and my Private (Private Pilot's License) passed before my 18th birthday. About two or three months later I had my Commercial (Commercial Pilot's License) passed, and had enough flying time, because I was getting flying time from half a dozen different private owners at the airport.

A fellow named Otto Enderto was the head of the FAA (Federal Aviation Administration) office in Rochester. He was a bootlegger up until the time he went to work for the FAA. I guess I would have been 10 or 11 years old, because prohibition was 1932 or 33. And I'd hear this airplane way up high, just at dusk and the sun was just below the horizon and it got real quiet, and you could see the sun flash off the prop every once in a while. Onondaga Lake was just a mile from where I lived and I used to pedal my bicycle over to the Hunters' Club where all the seaplanes were, and I knew what was based there, it was this Fairchild Razorback seaplane. It had a J67 Wright engine on it.

In later years I got to know Otto quite well, got talking to him about it, he says, "That was me. I'd always be in gliding range of Onondaga Lake at sunset, and I'd pull the throttle back and land when I had just enough light to touch down." The bootleggers would mostly pick it up on their truck, right there off the dock. Prohibition was over by the time I was old enough to fly.

I passed my Commercial and Flight Instructors rating in one flight. All the universities had CPT (Civilian Pilot Training) courses, and the war was coming. All the contractors at the airports needed flight instructors, so everyone was trying to get their time for an instructor's rating, so they could go flying for a living.



I was riding with these guys when they were practicing for their Flight Instructors rating. I'm practicing for my Commercial and riding with them got me doing this stuff that you did for a flight instructor's rating. I knew how to do it. We got down and Otto says, "Get your books out and get ready to take your Flight Instructor's written (test), you've just passed your Flight Instructor's practical (test)."

LS:

What about your Commercial test?

CS:

He just did them together! He says, "I'll write you your Commercial along with your Flight Instructor's Rating next time I come down from Syracuse. It will save a lot of paper work." (laughs)

So I studied, and like always he come to Syracuse on a Tuesday, and when the Fairchild taxied up, and I come out to meet him. We walked in and he says, "We're in trouble." I says, "What do you mean, 'In trouble?'" He says they come out with a multiple choice test; up to this time everything was long hand. You passed more on who you were and what your background was, and the inspectors didn't bother to read it all. But with multiple choice, all they had to do was use the overlay and they'd have it graded.

He says, "I'll lock you in Harry Ward's office. Take all your books so you can pass the son of a bitch; I couldn't pass it! But on one condition," he says, "you run a ground school for all the rest of the guys on the airport so that they're ready to take it when I come back." I passed it. Hell, I don't think I opened a book more than a couple of times, and I passed it all right.

I think I got my seaplane rating on my Private. This fellow had a C2 Aeronca. He bought a pair of floats for it and I put them on, and overhauled the engine, with the kids in the school. We got it all set and then, with kids on each side, we picked the airplane up, and carried it across the ramp, and set it on the grass.

In those days you always run the engine 3 or 4 hours before you flew it after you'd had the cylinders off. So I sat running the engine, eating my lunch, and a hell of a thunderstorm come up and, boy, did it rain! I was worried about it hailing and raising heck with the airplane. But I sat there with the thing running, in the thunderstorm, until it got through. Holy Cats, the grass out in front of me was under several inches water.

The fellow had always wondered how he was going to get the C2 over to the lake. Well, I had the time on the engine, and the water was still out there on the field. So I ran it up to full throttle and the damn thing started to slide. I said, "Boy, here's a way to get your airplane in the lake!" (laughs) It was so easy: it started sliding and I just let it go. I'd taken half a dozen rides in seaplanes, but I'd never flown one by myself. So that's how I made a landing in the lake before I'd ever made a take-off! (laughs)

LS:

Were you a good student? It sounds like you had no trouble passing those courses.



CS:

Oh no. I never had a problem. I graduated from high school when I was 16. In high school I studied just to get passing grades for sports. I played hockey mostly. I probably would have played some Pro hockey if the war hadn't come along. I played with an amateur team for one year. I played three championship hockey teams and I liked hockey.

I can watch a hockey game on TV, and somebody gets checked into the boards and I can still feel it, "Oh gee, this is how it feels!" Surprising in hockey, the only time I ever got knocked out was when I caught a puck right above my eyes. I got my glove up to bat it down and missed it, and it got me. The next thing I knew people were dragging me off the ice! (laughs) Other than closing my eyes up for a couple of days it didn't hurt me too much.

LS:

What do you do at Franklin?

CS:

I had the flight test hangar, that was my bailiwick. I did the engine installations, worked up the cooling, worked up everything. There was a lot of airplanes out there, that's how I got to know the Pipers really well.

LS:

So this was a mechanics job, not an engineering job?

CS:

Well, it was an engineering job in that I worked everything out. One summer I had 32 people working for me. The youngest one was 10 years older than I was, and that was quite an education for a kid!

LS:

How did you handle that?

CS:

This one fellow was a good mechanic, but he liked to have a drink with his lunch, and I warned him. He was late getting back from lunch one day, and I could smell liquor on his breath. I told Carl Roman, the chief engineer, what I was going to do, and he said, "You do what you have to do." I told him he was done, and he said, "I'll go back to the plant." And I says, "Go ahead." And he goes back to the plant and finds out he doesn't have a job! I had no more problems with the rest of the group after that! (laughs)

LS:

Did you ever fly for a living?

CS:

Yeah, everything I worked on I flew. Sometimes I had seven or eight airplanes going at one time. I was sometimes flying 10, 12 hours in the day. Start flying at 6 o'clock in the morning and get through at dark. That was a fun job, believe me! I still flew sometimes for Franklin way up to



the 70's. Then I flew for a steel company for 22 years. I was flying a model 18 Beach, an 8-place airplane.

LS:

So you were flying people around.

CS:

Yeah. Back in 50's I went to work for Brace-Mueller-Huntley in '49, and Mr. Brace he was on the board that controlled who got materials from World War II. And of course he had to live in Washington. So I was in and out of Washington often after the war, just overnight often. And we'd usually leave like 2:30 in the afternoon, get home in time for dinner.

We'd get to Washington and I'd head for the Smithsonian in the morning. And I'd be there in the morning and I got to know that they unlocked the door at 10 o'clock, and I'd be there at 10 o'clock to get in before there was any crowd in there.

I guess I'd been to the Smithsonian two or three times, but this one morning I got in a conversation with the custodian about The Spirit, hanging just inside the door, and he says, "Let me show you something." He went over and here was this screen over in the corner and a chair sitting there. He says, "That's Colonel Lindbergh's chair." He says, "When he's in town, he'll come to the service entrance and I'll let him in, and he'll sit there and look at The Spirit for 10 or 15 minutes, until it gets time to open, and then he'll get up and leave. And every time he gets up to walk with me to the door he'll look up at it and say, "I still can't believe I made it."

We'll, I'm there years later, waiting for them to open, and the door unlocks and, My God, who steps out but Colonel Lindbergh! I said, "Good morning Colonel!" And he draws back — that somebody recognized him kind of set him up — and I say, "You remember landing in the floodlights at the Amboy Airport in Syracuse, New York in 1928?" "Yes!" he says. I said, "Well, I saw you land there." He says, "Let's sit down!"

We sat down on the steps of the Smithsonian for about 20 minutes until somebody recognized him, and then he left. (laughs) He was fine with me, because I was familiar with something that he had done, and mentioned it to him. I described watching him land and he says, "Landing the old Spirit without being able to see out the front, that was a little bit of a trick!"

LS:

My whole project is about different ways of learning. It's hard to tell how people learn today. So if you were going to tell young people, your grand kids or something, and you were to advise them how to learn, what would you tell them?

CS:

Get a good basic education in what they're interested in.

Getting my mechanic's license was a means to an end. I always wanted to fly but without a lot of money, being a mechanic was a way to learn to fly and not cost anything. I always liked it. I enjoy working with my hands and so forth.

I'm still going to school. I just ordered three DVD's from this Learning Company down in Virginia, they're college lectures; I've had several of them, I've just got kind of fascinated. I



have a lot of Jewish friends, and I've always wanted to get the Old Testament and the New Testament cleared in my mind. I just bought the history of the English Language. I watch them in the TV. They've got graphics; it's easier to learn if you've got graphics, as you well know. There are math courses, and so forth.

Up until recently — I guess the fact that Betty's getting very, very forgetful — that's probably what's caught up with me. I felt like a 16-year old every morning that I got up, up until last year.

LS:

So you started to feel old just recently?

CS:

Yeah, yeah. I've always managed to work even though it was hot, but this summer it just got a little too much for me. It's a whole like easier to sit inside and read.