The Spirit of St. Louis

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Chapter One: The St. Louis-Chicago Mail

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Glowing patches of mist showed me where cities lay on the earth's surface. With these patches as guides, I had little trouble locating the outskirts of Chicago and the general area of Maywood. But a blanket of fog, about 800 feet thick, covered the field. Mechanics told me afterward that they played a searchlight upward and burned two barrels of gasoline on the ground in an effort to attract my attention. I saw no sign of their activities.

After circling for a half hour I headed west, hoping to pick up one of the beacons on the transcontinental route. They were fogged in too. By then I had discovered that the failure of my flare to drop was caused by slack in the release cable, and that the flare might still function if I pulled on the cable instead of on the release lever. I turned southwest, toward the edge of the fog, intending to follow my original plan of landing on some farmer's field by flarelight. At 8:20 my engine spit a few times and cut out almost completely. At first I thought the carburetor jets had clogged, because there should have been plenty of fuel in my main tank. But I followed the emergency procedure of turning on the reserve. Then, since I was only 1500 feet high, I shoved the flashlight into my pocket and got ready to jump; but power surged into the engine again. Obviously nothing was wrong with the carburetor -- the main tank had run dry. That left me with reserve fuel for only twenty minutes of flight -- not enough time to reach the edge of the fog.

I decided to jump when the reserve tank ran dry, and I had started to climb for altitude when a light appeared on the ground -- just a blink, but that meant a break in the fog. I circled down to 1200 feet and pulled out the flare-release cable. This time the flare functioned, but it showed only a solid layer of mist. I waited until the flare sank out of sight on its parachute, and began climbing again. Ahead, I saw the glow from a small city. I banked away, toward open country.

I was 5000 feet high when my engine cut the second time. I unbuckled my safety belt, dove over the right side of the fuselage, and after two or three seconds of fall pulled the rip cord. The parachute opened right away. I was playing my flashlight down toward the top of the fog bank when I was startled to hear the sound of an airplane in the distance. It was coming toward me. In a few seconds I saw my DH, dimly, less than a quarter mile away and about on a level with me. It was circling in my direction, left wing down. Since I thought it was completely out of gasoline, I had neglected to cut the switches before I jumped. When the nose dropped, due to the loss of the weight of my body in the tail,

some additional fuel apparently drained forward into the carburetor, sending the plane off on a solo flight of its own.

My concern was out of proportion to the danger. In spite of the sky's tremendous space, it seemed crowded with traffic. I shoved my flashlight into my pocket and caught hold of the parachute risers so I could slip the canopy one way or the other in case the plane kept pointing toward me. But it was fully a hundred yards away when it passed, leaving me on the outside of its circle. The engine noise receded, and then increased until the DH appeared again, still at my elevation. The rate of descent of plane and parachute were approximately equal. I counted five spirals, each a little farther away than the last. Then I sank into the fog bank.

Knowing the ground to be less than a thousand feet below, I reached for the flashlight. It was gone. In my excitement when I saw the plane coming toward me, I hadn't pushed it far enough into my pocket. I held my feet together, guarded my face with my hands, and waited. I heard the DH pass once again. Then I saw the outline of the ground, braced myself for impact, and hit -- in a cornfield. By the time I got back on my feet, the chute had collapsed and was lying on top of the corn tassels. I rolled it up, tucked it under my arm, and started walking between two rows of corn. The stalks were higher than my head. The leaves crinkled as I brushed past them. I climbed over a fence, into a stubble field. There I found wagon tracks and followed them. Ground visibility was about a hundred yards.

The wagon tracks took me to a farmyard. First, the big barn loomed up in haze. Then a lighted window beyond it showed that someone was still up. I was heading for the house when I saw an automobile move slowly along the road and stop, playing its spotlight from one side to the other. I walked over to the car. Several' people were in it.

"Did you hear that airplane?" one of them called out as I approached.

"I'm the pilot," I said.

"An airplane just dove into the ground," the man went on paying no attention to my answer. "Must be right near here. God, it made a racket!" He kept searching with his spotlight, but the beam didn't show much in the haze.

"I'm the pilot," I said again. "I was flying it." My words got through that time. The spotlight stopped moving.

"*You're the pilot?* Good God, how --- "

"I jumped with a parachute," I said, showing him the white bundle.

"You aren't hurt?"

"Not a bit. But I've got to find the wreck and get the mail sacks."

"It must be right near by. Get in and we'll drive along the road' a piece. Good God, what went wrong? You must have had some experience! You're sure you aren't hurt?"

We spent a quarter hour searching, unsuccessfully. Then I accompanied the farmer to his house. My plane, he said, had flown over his roof only a few seconds before it struck the

ground. I asked to use his telephone. The party line was jammed with voices, all talking about the airplane that had crashed. I broke in with the statement that I was the pilot, and asked the telephone operator to put in emergency calls for St. Louis and Chicago. Then I asked her if anyone had reported the exact location of the wreck. A number of people had heard the plane pass overhead just before it hit, she replied, but nothing more definite had come in.

I'd hardly hung up and turned away when the bell rang -- three longs and a short.

"That's our signal," the farmer said.

My plane had been located, the operator told me, about two miles from the house I was in. We drove to the site of crash. The DH was wound up in a ball-shaped mass. It had narrowly missed a farmhouse, hooked one wing on a grain shock a quarter mile beyond, skidded along the ground for eighty yards, ripped through a fence, and come to rest on the edge of a cornfield. Splinters of wood and bits of torn fabric were strewn all around. The mail compartment was broken open and one sack had been thrown out; but the mail was undamaged -- I took it to the nearest post office to be entrained.

The Illinois River angles in from the west. Lights are blinking on in the city of Peoria -- long lines of them for streets; single spots for house and office windows. I glance at the watch on my instrument board -- 6:35. Good! I've made up ten minutes since leaving St. Louis. I nose down toward the flying field, letting the air-speed needle climb to 120 miles an hour. The green mail truck is at its usual place in the fence corner. The driver, standing by its side, lifts his arm in greeting as my plane approaches. And for this admiring audience of one, I dive down below the treetops and chandelle up around the field, climbing steeply until trembling wings warn me to level off. Then, engine throttled, I sideslip down to a landing, almost brushing through high branches on the leeward border.

The pasture is none too large for a De Haviland, even in daytime. We'll have to be doubly careful at night. If a pilot glides down a little fast, he'll overshoot. To make matters worse, a small gully spoils the eastern portion of the field for landing, so we often have to come in with a cross wind.

I taxi up to the mail truck, blast the tail around with the engine, and pull back my throttle until the propeller is just ticking over. The driver, in brown whipcord uniform and visored cap, comes up smiling with the mail sack draped over one arm. It's a registered sack, fastened at the top with a big brass padlock. Good! The weight of that lock is worth nearly two dollars to us, and there was registered mail from Springfield and St. Louis too. Those locks add an appreciable sum to our monthly revenue.

I toss the sack down onto aluminum-faced floor boards and pass out two equally empty sacks from St. Louis and Springfield. A few dozen letters in, a few dozen letters out, that's the Peoria air mail.

"No fuel today?"

"No, plenty of fuel," I answer. "I've had a good tail wind."

It's a relief to both of us, for twenty minutes of hard labor are required to roll a barrel of gasoline over from our cache in the fence corner, pump thirty or forty gallons into the DH's tank, and start the engine again. That is, it takes twenty minutes if the engine starts easily; an indefinite time if it doesn't.

Leaving the engine idling, we walk over to inspect the lighting equipment which has been improvised for the night landings of winter. Since the Robertson Aircraft Corporation keeps no mechanics at intermediate stops between St. Louis and Chicago, all the assistance we have comes from the mail truck drivers. They help us with refueling and starting, keep the wind sock untangled, and hold on to a wing when taxiing is difficult. For whatever the pilot can't do alone, he has to call upon them. It's not part of their work; they get nothing for it, but they're always ready to give us a hand. Now we'll have to depend on them to arrange the lights for our night landings.

Electric floodlights cost too much, so our Corporation bought flares instead. The first shipment has just arrived. The driver unlocks a plank box near the gasoline barrels and takes out a long, cylindrical flare. On one end there's a spike that can be stuck into the ground to hold it upright, like a piece of Fourth-of-July fireworks. We selected a type that would burn for nearly two minutes -- long enough if lighted at the right moment, and much less expensive than the larger ones.

I show the driver where it should be placed with different directions of wind -- always on the leeward end of the landing strip, with a curved sheet of tin behind it for a reflector and to keep the intense light from blinding the pilot as he glides down. A flare is not to be set off, I tell him, unless he sees the plane's navigation lights blink several times. On moonlit nights we can economize by not using one at all.

I'm an hour and ten minutes behind schedule, taking off. The trees at the far end of the field have merged into a solid clump in thickening dusk, have lost their individual identity. The moon, just past full, is rising in the east. I didn't notice it before I landed, but now it seems to be competing with me for domination of the sky -- just the two of us, climbing, and all the world beneath.

I welcome the approach of night as twilight fades into brilliant moonlight. The day has been crystal clear and almost cloudless; perfect for flying. It's been almost too perfect for flying the mail, for there's no ability required in holding your course over familiar country with a sharp horizon in every quarter. You simply sit, touching stick and rudder lightly, dreaming of the earth below, of experiences past, of adventures that may come. There's nothing else to do, nothing to match yourself against. There hasn't been even an occasional cloud near enough to burrow through. Skill is no asset. The spirit of conquest is gone from the air. On such an evening you might better be training students. It's an evening for beginners, not for pilots of the mail -- no tricks of wind, no false horizons. Its hours were shaped for beauty, not for contest.

The last tint of pink disappears from the western sky, leaving to the moon complete mastery of night. Its light floods through woods and fields; reflects up from bends of rivers; shines on the silver wings of my biplane, turning them a greenish hue. It makes the

earth seem more like a planet; and me a part of the heavens above it, as though I too had a right to an orbit in the sky. I look down toward the ground, at the faintly lighted farmhouse windows and the distant glow of cities, wondering what acts of life are covered by the weird semidarkness in which only outlines can be seen. Around those points of light are homes and men -- family gatherings, parties, doctors at births and deathbeds, hope and despair, youth and age. That line of six glowing dots -- is it a barroom, church, or dance hall? And all those myriad lights, all the turmoil and works of men, seem to hang so precariously on the great sphere hurtling through the heavens, a phosphorescent moss on its surface, vulnerable to the brush of a hand. I feel aloof and unattached, in the solitude of space. Why return to that moss; why submerge myself in brick-walled human problems when all the crystal universe is mine? Like the moon, I can fly on forever through space, past the mail field at Chicago, beyond the state of Illinois, over mountains, over oceans, independent of the world below.

Suppose I really could stay up here and keep on flying; suppose gasoline didn't weigh so much and I could put enough in the tanks to last for days. Suppose, like the man on the magic carpet, I could fly anywhere I wanted to -- anywhere in the world -- to the North Pole or to China or to some jungle island if I wished. How much fuel *could* a plane carry if its fuselage were filled with tanks? But Fonck tried that out in his big Sikorsky biplane, only a few days ago, and crashed -- crashed into flames on a New York field, taking off for a nonstop flight to Paris. Why does fuel have to be so heavy? If gasoline weighed only a pound per gallon instead of six, there'd be no limit to the places one could fly -- if the engine kept on running.

If the engine kept on running! The schooled habit of periodic instrument readings brings me back to the mechanics of human flight. One can't be following a satellite's orbit and watching these dials at the same time. I return abruptly to earthly problems of temperature, oil pressure, and r.p.m. I contended for a moment, but the moon has won. Independent of the world? Only as long as the engine runs smoothly and the fuel holds out. I have fuel enough for another two hours at most. But long before that I'll have to be down at Chicago; my DH safely in the hangar; the mail sorted, resacked, and most of it in the cockpit of an eastbound transcontinental plane, headed for the Alleghenies and New York City.

I'm annoyed at the thought of landing. It's a roundabout method anyway, this flying the mail to Chicago to get it east. Why shouldn't we carry it direct to New York from St. Louis? True, there aren't enough letters in that wilted sack to pay for a direct service, but the mail will grow in volume as aircraft improve and people learn to use them. The more time we save, the more letters we'll get. If we flew direct, we could wait until the business day closed before collecting St. Louis mail, and still land at New York City before offices opened the next morning. Such a service would really be worth the cost of extra postage. We might even be able to fly from St. Louis to New York nonstop, eventually. Not with these salvaged Army DHs -- they can't reach Chicago against a headwind without refueling -- but with new planes and new engines ---

The lights of a small city emerge behind my right wing -- Streator. Ottawa is ahead and a few miles to the left. I make a mental note of my position, glance at the instruments, and let the plane bore its way on toward Chicago.

Those new Lairds the Northwest pilots are flying, for instance -- they have only half the power of our DHs, but they're faster and they carry a bigger load. And there's that Wright-Bellanca. It has taken off with an incredible weight on some of its test flights. With three planes like the Bellanca we could easily carry the mail nonstop between St. Louis and New York, and on clear nights possibly two or three passengers besides.

But the cost -- it would take ten or fifteen thousand dollars to buy just one Wright-Bellanca. Who could afford to invest so much money in a single airplane, to say nothing of the three that would be needed for a mail route? Our Corporation has a hard enough time to keep going with the DHs, and they cost only a few hundred dollars apiece.

I grow conscious of the limits of my biplane, of the inefficiency of its wings, struts, and wires. They bind me to earth and to the field ahead at Chicago. A Bellanca would cruise at least fifteen miles an hour faster, burn only half the amount of gasoline, and carry double the pay load of a DH. What a future aviation has when such planes can be built; yet how few people realize it! Businessmen think of aviation in terms of barnstorming, flying circuses, crashes, and high costs per flying hour. Somehow they must be made to understand the possibilities of flight. If they could see the real picture, it wouldn't be difficult to finance an airline between St. Louis and New York, even at the price of three Bellancas. Then commercial pilots wouldn't have to fly old army warplanes or make night landings with flares instead of floodlights.

If only I had the Bellanca, I'd show St. Louis businessmen what modern aircraft could do; I'd take them to New York in eight or nine hours. They'd see how swiftly and safely passengers could fly. There are all kinds of records I could break for demonstration -- distance, altitude with load, nonstop flights across the country. In a Bellanca filled with fuel tanks I could fly on all night, like the moon. How far *could* it go if it carried nothing but gasoline? With the engine throttled down it could stay aloft for days. It's fast, too. Judging from the accounts I've read, it's the most efficient plane ever built. It could break the world's endurance record, and the transcontinental, and set a dozen marks for range and speed and weight. Possibly -- my mind is startled at its thought -- I could fly nonstop between New York and Paris.

New York to Paris -- it sounds like a dream. And yet -- if one could carry fuel enough (and the Bellanca might) -- if the engine didn't stop (and those new Wright Whirlwinds seldom do stop; they aren't like our old Liberties) -- if one just held to the right course long enough, one should arrive in Europe. The flying couldn't be more dangerous or the weather worse than the night mail in winter. With fuel enough, a pilot would never have to land in fog; if he got caught, he could simply keep on going until he found clear weather. Navigation? -- over the Atlantic and at night, boring through dark and unknown skies, toward a continent I've never seen? The very thought makes me rise to contend again with the moon -- sweeping over oceans and continents, looking down on farms and cities, letting the planet turn below.

Why shouldn't I fly from New York to Paris? I'm almost twenty-five. I have more than four years of aviation behind me, and close to two thousand hours in the air. I've barnstormed over half of the forty-eight states. I've flown my mail through the worst of nights. I know the wind currents of the Rocky Mountains and the storms of the

Mississippi Valley as few pilots know them. During my year at Brooks and Kelly as a flying cadet, I learned the basic elements of navigation. I'm a Captain in the 110th Observation Squadron of Missouri's National Guard. Why am I not qualified for such a flight?

Not so long ago, when I was a student in college, just flying an airplane seemed a dream. But that dream turned into reality. Then, as a two-hundred-hour pilot barnstorming through the country for a living, the wings of the Army Air Service seemed almost beyond reach. But I won them. Finally, to be a pilot of the night mail appeared the summit of ambition for a flyer; yet here I am, in the cockpit of a mail plane boring through the night. Why wouldn't a flight across the ocean prove as possible as all these things have been? As I attempted them, I can --- I will attempt that too. I'll organize a flight to Paris!

I sit contemplating my decision. The magnitude of the undertaking overwhelms me for a time. This idea which has come upon me, this vision born of a night and altitude and moonlight, how am I to translate it into an actual airplane flying over the Atlantic Ocean to Europe and to France?

The important thing is to start; to lay a plan, and then follow it step by step no matter how small or large each one by itself may seem. I haven't enough money to buy a Wright-Bellanca. Could any other plane make the flight -- the Fokker, or the new Travel Air? They might not cost as much. Maybe I could raise the money in St. Louis. I can put up some myself. Other people might be willing to take part when they realize all the things that could be done with a Bellanca. Then there's the Orteig prize of $25,000 for the first man to fly from New York to Paris nonstop -- that's more than enough to pay for a plane and all the expenses of the flight. And the plane would still be almost as good as new after I landed in Europe. In fact, a successful trip to Paris wouldn't cost anything at all. It might even end up a profitable venture.

There must be men of means with enough vision to take the risk involved. The problem is to find them, and to get them to listen to my plan. Maybe the Wright Aeronautical Corporation itself would back the project. What could be a better advertisement for their plane and engine than a nonstop flight across the ocean? New York to Paris nonstop! If airplanes can do that, there's no limit to aviation's future.

The Chicago beacon flashes in the distance. In ten minutes I must land.