'An enjoyable, fast-paced tale' *The Economist*

DOUBLE PULITZER PRIZE WINNER

DAVID McCULLOUGH

THE WRIGHT BROTHERS

The Dramatic Story behind the Legend

CHAPTER EIGHT

Triumph at Le Mans Gentlemen,

I'm going to fly. WILBUR WRIGHT I. "I am on my way to Kitty Hawk to get a camp in shape for a little practice before undertaking the official trials at Washington and in France," Wilbur wrote to Octave Chanute from Elizabeth City on April 8, 1908. The decision to proceed for the first time with large public demonstrations of their Flyer—as important and difficult a step as the brothers had yet faced—had finally been made, and "a little practice" was indeed called for. Neither had flown a plane for two and a half years, not since the fall of 1905. Though he had been forewarned that the camp at Kill Devil Hills was in shambles, what Wilbur found was worse than he had imagined. Of the original building, only the sides still stood. The new building was gone, carried off by violent storms or vandals who figured the brothers were never coming back. The water pump was gone. The floors of both buildings had disappeared under more than a foot of sand and debris. Walking among the ruins he kept turning up pieces and parts of the 1901, 1902, and 1903 machines. It was an altogether discouraging prospect to face, and particularly, one might imagine, for somebody who had so recently resided at the Hôtel Meurice. He arranged to room temporarily at the Kill Devil Hills Life-Saving Station and, with the help of two local carpenters, began building anew. High winds, driving rain, and a severe attack of diarrhea made things no easier. "Conditions are almost intolerable," he wrote in his diary. Nor did the fact that so many of those he and Orville worked with in earlier years had either died or moved away. Bill Tate was tied up with work of his own; John T. Daniels had transferred to the Nags Head Life-Saving Station; Dan Tate had

died. A Dayton mechanic the brothers had hired to help, Charlie Furnas, appeared on the scene and by Saturday, April 25, the day Orville arrived, bringing the crated parts of the Flyer, the camp was close to ready. Spent afternoon cleaning out trash and making the building habitable [Wilbur recorded in his diary]. I slept in a good bed of regular camp pattern. Orville slept on some boards thrown across the ceiling joist. Furnas slept on the floor. Each pronounced his own method a success. The morning of Monday, April 27, was spent uncrating boxes, brushing off wings, and setting up a workbench. That afternoon they repaired a few ribs broken in transit and began sewing the lower sections together. Mounting the engine and chain guides, and work on the launching track occupied another several days. The big change this time was that the Flyer had been modified to carry two operators. They were to ride sitting up side by side, primarily to provide better control over the wing warping. It also meant no more stretching flat on their stomachs straining their necks to see ahead. The wind resistance would be greater but the advantages counted more. In the three weeks since Wilbur arrived on the Outer Banks not a single reporter had appeared. Then the Norfolk Virginian-Pilot ran a wholly fabricated story picked up by newspapers everywhere that the Wright brothers, back again at Kitty Hawk, had already made a 10-mile flight out to sea against a wind of 15 miles an hour. In no time the rush of the press was on to the Outer Banks. In the lead was a young freelance reporter for the New York Herald, D. Bruce Salley, who could now be seen crouching among the scrub pine on a distant hill, spying on the camp with field glasses. Test flights got started on May 6. Orville went first and flew just over 1,000 feet. Two days later, taking turns, he and Wilbur both were making flight after flight until interrupted by Salley, who came rushing into camp unable to contain his excitement over what he had seen. Once he left, Wilbur took off again and flew more than 2,000 feet. A

stream of reporters kept arriving. The advance of the press on their lives, a factor the brothers would have to contend with for years to come, had begun in force. The reporters to be seen hanging about on the hills with field glasses and telescopes represented the New York Times, the New York American Weekly, the New York World, Collier's, Technical World, the Paris Herald, and the London Daily Mail. A writer named Byron Newton, sent by the Paris Herald, did full justice to the wild and unimaginably remote setting he and the others found themselves confronted by after landing at Manteo on Roanoke Island: The Wrights we found were some twelve or fourteen miles distant from that point, among the great sand dunes on the coast near Kitty Hawk life saving station. Their place was on the narrow stretch of marsh and jungle that lies between the Atlantic and the mainland. . . . I have never viewed or traversed a more forbidding section of country. To reach this stretch of land we had to cross Roanoke Sound in an open boat and then walk about six miles, at times climbing over great mountains of gleaming white sand . . . and other times we were forced to pick our way through swamps and jungle infested with poison snakes, mosquitoes, wild hogs, and turkeys, with the air heavy with fever breeding vapors. Kill Devil Hills and Kitty Hawk seemed "the end of the world," wrote the correspondent for Collier's Weekly, Arthur Ruhl, who then stressed that this end of the world had in fact become "the center of the world because it was the touchable embodiment of an Idea, which, presently, is to make the world something different than it has ever been before." It was not newspaper reporters, he said, but the world's curiosity that had ridden, climbed, waded, and tramped all those miles and now lay hiding there, hungry and peering across the intervening sands. "There was something weird, almost uncanny about the whole thing," wrote another correspondent. "Here on this lonely beach was being performed the greatest act of the ages, but there were

no spectators and no applause save the booming of the surf and the startled cries of the sea birds." Wilbur and Orville wondered why the reporters remained at such a distance. Only later were they told that it had been said the brothers kept rifles and shotguns at the ready to guard their machine. Asked what he and Wilbur would have done had the correspondents come into camp and sat there to watch, Orville replied, "We couldn't have delayed our work. There was too much to do and our time was short." Describing what the scene looked like from where they were posted, another of the correspondents wrote of "dazzling white sand dunes, almost monumental, to the right, and to the left in the distance more sand dunes, and a glimpse of the sea, and the Carolina sun, pouring down out of a clear blue sky, immersed everything in a shimmer and glare." The two brothers, moving their machine about near the shed, looked like "two black dots." The engine, when it started up, sounded like that of "a reaper working a distant field." The propellers "flashed and whirled," and the next thing the plane swept by "fast as an express train." "[We were] all seasoned campaigners in the field of unexpected events," wrote the Paris Herald correspondent, Byron Newton, "but for all that, this spectacle of men flying was so startling, so bewildering to the senses in that year 1908, that we all stood like so many marble men." A photographer for Collier's Weekly, James Hare, snapped what would be the first photograph ever published of a Wright Flyer in the air. Early the morning of May 14 the onlookers were treated to a sight never before seen anywhere—two men in a motor-powered flying machine—when Wilbur took Charlie Furnas up for a short ride. To the newsmen from their distant vantage point, it appeared Wilbur and Orville had taken flight together and so some of their dispatches reported. But the brothers, ever conscious of the risks involved, had already decided they must never fly together. That way, if one were to be killed, the other

could still carry on with the work. Days as hot as summer had returned to the Outer Banks, and that afternoon, when Wilbur went up alone, the heat was nearly unbearable. Flying at something over 50 miles per hour, he made one big circle and was starting into another when, still unfamiliar with the new control levers, he made a mistake with the rudder and suddenly plunged to the ground about a mile from camp. “I was watching with the field glass,” Orville would recount. “The machine turned on end—the front end—with the tail in the air. There was a big splash of sand—such a cloud that I couldn’t see from where I was exactly what had happened. . . . It was probably thirty seconds before Will appeared.” He had been violently thrown against the underside of the top wing and had to be pulled from the wreckage. There was a cut across his nose, and though hit hard and bruised on both shoulders, an arm, and one hand, he was not seriously injured. No bones were broken. The plane, however, was a total wreck, and thus as Wilbur announced, the tests had come to an end. Two days later he was on his way again. It was agreed he would go to France to proceed with the required demonstrations there, and that Orville would do the same in Washington. During little more than a week of test flights at Kill Devil Hills, he and Orville had been the subjects of far more attention and praise in the press than they had ever known. They had become a popular sensation. Still no major public performance had yet been made. The rabbit had still to be pulled from the hat for all to see. Passage was arranged for him on the Touraine, Wilbur reported to Katharine from New York. “I hate like anything to go away without first coming home.” “Write often,” she told him in response. “Don’t come home without getting me several pairs of gloves—number six—black and white, short and long. . . . Don’t get them unless they are cheap.” II. The voyage to Le Havre proved uneventful—“smooth but foggy much of the time” was about all Wilbur had to say of the crossing. He reached

Paris on May 29, and for the next week he and Hart Berg were on the move, touring possible sites for the public demonstrations, including Fontainebleau and Vitry, but found nothing suitable. The French press, aware of Wilbur's return, had a "tendency" to be hostile, he reported to Orville. But to almost anyone else it would have seemed considerably more than a "tendency." The popular L'Illustration, as an example, ran a heavily retouched photograph of the Flyer taken at Kitty Hawk, saying, "Its appearance seems quite dubious and one finds in it every element of a 'fabrication,' not especially well done moreover." Further, there was a resurgence of popular enthusiasm over French aviators and their daring feats. Earlier in the year Henri Farman had flown for nearly two minutes, and that spring at the end of May, Farman made news when he took a passenger up for a ride. As Wilbur reported to Orville, Farman and Delagrange were also putting on demonstrations elsewhere in Europe and with much success. As for themselves, Wilbur wrote, "The first thing is to get some practice and make some demonstrations, then let the future be what it may." Hart Berg assured a correspondent for L'Auto that within two months the Wright plane would fly before the people. The period of secret trials was over, Berg said. The French public would be the first to see with their own eyes. But where? On June 8, he and Wilbur went by train to Le Mans, a quiet, ancient town of some 65,000 people on the Sarthe River in the department of the Sarthe, 125 miles southwest of Paris. A prominent automobile manufacturer, ballooning enthusiast, and leading local citizen named Léon Bollée, hearing of Wilbur's need for a suitable field, had sent a message to Berg suggesting Le Mans, where there was plenty of flat, open space. Bollée met Wilbur and Berg at the station in one of the largest and handsomest of his automobile line and took them off on a tour. As it turned out, no one could have been more genial or helpful or generous with his time than Léon Bollée. Short and

dark bearded, he was extremely fat, weighing 240 pounds. The physical contrast with Wilbur was more pronounced even than between Wilbur and Hart Berg. Like Wilbur, Bollée had not attended a university, but instead joined his father's bell foundry business and eventually began building automobiles with much success. ("Léon Bollée automobiles are constructed using only top quality materials in the vast and beautiful factories of Le Mans," read a recent advertisement.) His English was reasonably good and Wilbur liked him at once. As things turned out Bollée would do more to help Wilbur than anyone, and never asked for anything in return. Of possible sites, the Hunaudières horse racetrack, about five miles out from town, seemed to Wilbur most suitable. The course was entirely enclosed by trees and the ground was rough. Still, as he would report to Orville, he thought it would serve their purpose. Bollée said he would see what could be arranged. He also offered Wilbur full use of a large room at his factory in which to assemble the Flyer, in addition to the help of some of his workers. Three days later, back in Paris, Wilbur received word from Bollée that the Hunaudières racetrack was available, and the day after Wilbur was busy getting ready, buying overalls, work shoes, and a straw hat. One evening in the elegant Louis XVI salon of Berg's apartment, Wilbur sat for an interview with a young French aviation journalist, François Peyrey, who knew it was the first interview Wilbur had agreed to do in France. Berg had made the arrangements. They talked of the experiments at Kitty Hawk, of motors and patents, and why Le Mans had been the choice for the demonstrations. But it was Wilbur himself, about whom Peyrey had had his doubts, who became the subject of greatest fascination. "Mr. Hart O. Berg warmed up for the interview by offering me a cup of coffee and laid out a box of cigars," Peyrey would write. "I felt my doubts fly away one by one in the blue smoke. Through curls of smoke I examined Wilbur Wright, his thin, serious face, lit by the strangely

gentle, intelligent and radiant eyes. . . . I had to admit: no, this man is not a bluffer." The interview marked an important beginning. In the months to come, François Peyrey was to provide some of the most insightful, firsthand observations about Wilbur ever published. Wilbur arrived back in Le Mans close to midnight, June 16, and settled in at the Hôtel du Dauphin in a room overlooking the main square, the Place de la République. Eager to get started on the reassembly of the Flyer, he began opening the crates at the Bollée factory first thing the following day and could hardly believe what he saw. At Kitty Hawk two months before, he had found the old camp a shambles. Now he was looking at the Flyer in shambles and could barely control his fury. A dozen or more ribs were broken, one wing ruined, the cloth torn in countless places. Everything was a tangled mess. Radiators were smashed, propeller axles broken, coils badly turned up, essential wires, seats, nuts, and bolts, all missing. In a letter written that same day he exploded at Orville as he rarely had, charging him with the worst example of packing he had ever seen. "I am sure that with a scoop shovel I could have put things in within two or three minutes and made fully as good a job of it. I never saw such evidences of idiocy." It was going to take much longer than he had figured to get everything ready to go, and there was no Orville or Charlie Taylor to help. He set immediately to work, putting things in order and making repairs. "Worked all today and a few hours yesterday replacing broken ribs in the surfaces," he recorded in his diary June 18. Had to take one wing entirely down to fix it. Found many things not as well as in the old machine. Rear wire not inside of cloth right; little washers on this wire not on the proper side of ribs; no blocks to hold end ribs of sections from slipping back; no steel ferrules on front lower spar under heavy uprights; not play enough in rear hinges joining sections; no cloth wrapping around spar where screw frames fasten on. The mechanics at the Bollée factory did as best

they could to help, but were of little use at first. “I have had an awful job sewing the section together,” he informed Orville in another letter. “I was the only one strong enough in the fingers to pull the wires together tight, so I had all the sewing to do myself. . . . My hands were about raw when I was not half done.” “In putting things together,” he added, “I notice many evidences that your mind was on something else while you worked last summer.” But then Wilbur learned that the chaos and damage had not been caused at Dayton, but at Le Havre by careless French customs inspectors, and he apologized to Orville at once. Orville, knowing the stress his brother was under, made no issue of the matter. Wilbur labored on steadily, installing uprights and wires, and fixing the old engine after finding work he had had done on it by French mechanics “so bad,” he had to give a full day to it. “I have to do practically all the work myself, as it is almost impossible to explain what I want in words to men who only one fourth understand English.” True to the Wright rules of life, he did not work on Sundays, but instead wrote letters or went sightseeing. He was living most comfortably at the Hôtel du Dauphin, where, according to the Motor Car Journal, one found “nothing of luxe —simply plain, bountiful fare cooked and served by the patron-chef,” which proved exactly to Wilbur’s liking. And Le Mans, he was pleased to say, was an “old fashioned town, almost as much out of the world as Kitty Hawk.” He loved the sound of the chimes—Bollée bells—from the church across the square and was happy to provide those at home with a lengthy description of the town’s crowning edifice, the colossal Cathédrale Saint-Julien. Set on a hill first settled by the Romans above the Sarthe River, it rose high over a thick cluster of medieval buildings and houses that constituted the oldest part of town. There was no steeple. Instead, the cathedral’s singular exterior distinction was its prominent double buttresses. But beyond that was the rare combination of both the Romanesque and

Gothic styles all in one building and best seen within. That part built in the Romanesque manner dated back nearly nine hundred years, to the eleventh century, while the larger, more spectacular segment had risen out of the fourteenth and fifteenth centuries, and it was this, so plainly in evidence, that so moved Wilbur. As he wrote to Katharine, "The arches forming the openings between the aisles and the choir keep increasing in height so that a person standing against the outside wall of the outer aisle can see way up to the top of the choir and take in the magnificent stained glass windows of the clerestory." One saw not only the light and brilliant color of the ancient windows, but all the light and color that the windows threw onto the upper reaches of the arches some 108 feet above the cathedral floor. If at the time he felt or reflected on any connection between the upward aspiration of this stunning human creation and his own unrelenting efforts in that direction, he made no mention. But it seems most unlikely that he would not have. Attending a Sunday service at the cathedral some days later, Wilbur found the only part he could understand or participate in was the collection. Still, the great structure, he told Katharine, "impresses me more and more as one of the finest specimens of architecture I have seen." Meanwhile, just outside the cathedral, as he added, a farmer's market filled the public square and, to cap it all, a traveling circus had set up camp. He wrote of the comforts of the hotel, praising the food especially. The meals were better than any he had had since coming to Europe—better in that they were both plentiful and not overly fancy. He described a lunch that included sliced tomatoes, cucumbers, roast tongue with mushrooms, lamb chops with new potatoes, "some sort of cake," and almonds. He had never been so comfortable away from home, he said, implying perhaps that a place like the Meurice had been far too luxurious for comfort. No one at the hotel understood a word of his English, but all did their best to serve

him well. A first encounter with alphabet soup provided opportunity for a touch of the wit he knew Katharine especially would appreciate: I was a little astonished and disturbed the other evening, when I sat down to dinner to find my soup which was a sort of noodle soup, turning into all sorts of curious forms and even letters of the alphabet. I began to think I had the "jim jams." On close investigation I found that the dough had been run through forms so as to make the different letters of the alphabet and figures, too! It was like looking into the "hell box" of a printing office, and was all the more amusing because every mouthful of soup you take out, brought up a new combination. Progress at the Bollée factory was hardly improving, however. "I have to do all the work myself as there are no drawings to show anyone how things go together, and explanations take more time than doing things myself. I have a man but he is not a first class mechanic; he has no invention or initiative, and his vocabulary is limited. When I say to him, "Hand me the screwdriver," he is liable to stand and gawk or more often rush off as though he really understood me, and it is only after I have waited a long time and finally got it myself that I realize that he does not understand the special meaning of the word "hand" as I used it. Most of my time has been spent on things I should not have to do at all. . . . So far I have the main surfaces [of the wing] together and wired with new wires in a number of places. The skids are on and the engine is mounted and adjusted ready to run with the jump spark magneto in place. I have yet to put on the transmission and screws [propellers] which should be a small job. But I have the front rudder and framing and wiring yet to do and also the rear rudder. Those who worked with him at the factory marveled at his meticulous craftsmanship, how he would make his own parts when needed, even a needle if necessary, and how at the sound of the factory whistle he would start or stop working just as they did, as though he were one of them. On the

evening of July 4, at about six o'clock, Wilbur, contrary to his usual work pattern, was still on the job. Only Léon Bollée remained on hand to keep him company. Having by then mounted the engine, Wilbur was standing close by, his sleeves rolled up, giving it a speed test, when suddenly a radiator hose broke loose and he was hit by a jet of boiling water. His bare left forearm took the worst of it, but he was scalded as well across his chest. Bollée eased him to the floor and ran for help. "Fortunately we had picric acid in the factory's pharmacy," he would report to Hart Berg, "so that in less than a minute after the accident he was swathed in bandages soaked in picric acid." Bad as it was, the press, as usual, made the accident sound still worse, and for the family at home Wilbur, as usual, made light of it, spending much of a letter, written three days later, describing how the local physician went about tending the wounds as would a horse doctor. Nonetheless, Wilbur insisted, all was practically healed, the pain gone, when in fact it would be a month before he could use his left arm and the stress he was under had been greatly compounded. Yet despite everything, by the first days of August he was seeing to the finishing touches on a machine reconstructed from the smashed and broken remains of the original, an airplane that was thus different from those he and Orville had built at home and one he had never yet flown. Testing it, even under ideal conditions, could be highly dangerous. Besides it had been three months since his last flight and that had ended in a crash. It was nearly dark, the evening of August 6, when Wilbur, Léon Bollée, and Hart Berg folded back the front framing of the Flyer, set a couple of wheels under the skids, hitched the whole affair to Bollée's stately automobile, and hauled it down the road to the Hunaudières racetrack five miles to the south. There it was put away in a shed, and to Wilbur's delight the press was never the wiser. For all the hovering, all the surveillance by reporters, none had taken notice. To keep guard over the plane Wilbur

would sleep beside it that night and the nights to follow. The shed was much like those at Kitty Hawk, except here there was a privy and an outdoor hose for bathing. In addition, a small nearby restaurant served "very good meals," and at a farmhouse not more than a hundred feet from the shed, he could get milk and enjoy visits with a small boy of five or six who spoke some English and had all the appearance of "a truthful little chap." Neither his left arm nor the Flyer was in a condition he would have liked, and a first public demonstration that failed in almost any way would be a serious setback. Reporters on the scene were becoming increasingly impatient and, to Wilbur, increasingly annoying. A correspondent for the London Daily Mail, Joseph Brandreth, would write, "We voted him 'mule-headed,' 'eccentric,' 'unnecessarily surly,' in his manner toward us, for it was impossible to discover from such a Sphinx what he intended to do or when he intended to do it." "I did not ask you to come here," Wilbur told them. "I shall go out when I'm ready. No, I shall not try and mislead you newspaper men, but if you are not here I shall not wait for you." When the exasperation with the press became acute, the genial Berg would appear out of the shed and tell them some amusing story that would almost always put everyone in good humor again. Bollée talked happily to reporters about Wilbur and his ways, describing how he would not let anyone touch his machine or handle so much as a piece of wire. He even refused to allow mechanics to pour oil into the engine, Bollée said, so sure was he that "they don't do it the correct way." Their nickname for him was Vieille Burette, "Old Oilcan." Somehow the Daily Mail reporter, Brandreth, managed to get a peek at how the American eccentric was living: In a corner of the shed was his "room." This consisted of a low packing case from which the top had been removed. Resting on the edges of the case was a narrow truckle bed. Nailed to the side of the shed was a piece of looking glass and close by a camp washstand. This together

with a cabin trunk, a small petrol cooking stove—he cooks his own breakfast—and a camp stool, comprised the whole furniture. He takes his baths from a hosepipe attached to a well sixty feet away. He sleeps practically under the wings of his aeroplane. And early in the day he starts to work, whistling the while. III. Saturday, August 8—the eighth day of the eighth month of the eighth year of the new century—was as fine as could be hoped for. The sky overhead was a great blue vault with not a cloud. A northwest breeze was a little gentler than Wilbur would have wished, but he was up to go. Word of the preparations at the racetrack had spread rapidly, and by the looks of the day it seemed certain the show could now begin. Those who gathered were nearly all from Le Mans and though not impressive in numbers, they looked appropriately festive as they began filling the little wooden grandstand, quite as if turning out for the horse races—gentlemen sporting straw boaters and Panama hats, ladies in full summer skirts, their oversized summer hats covered by veils as further protection against the sun. Here and there in the trees encircling the track could be seen perched a number of youngsters from the town. The spirit was of a summer outing, the whole scene as different, as far removed from Kitty Hawk, North Carolina, as could be imagined. Some couples carried baskets with picnic lunches. As the hours passed, waiting for something to happen, nearly all kept on happily chattering. Here and there among the crowd could be seen several notables not from Le Mans. There were two Russian officers in uniform and Ernest Archdeacon of the Aéro-Club de France, noted for his skeptical opinion of the Wrights, and, of greatest interest to the others gathered, the celebrated French aviator-hero Louis Blériot. What Blériot may have been thinking as he sat waiting is unknown, but Archdeacon was busy proclaiming his confidence that Wilbur Wright would fail and was happy to explain to those close by in the grandstand all that was “wrong” with the Wright

plane. Archdeacon's open scorn of the Wright brothers had been made especially clear at an Aéro-Club dinner in Paris in October 1907 when he declared: The famous Wright brothers may today claim all they wish. If it is true— and I doubt it more and more—that they were the first to fly through the air, they will not have the glory before History. They would only have had to eschew these incomprehensible affectations of mystery and to carry out their experiments in broad daylight, like Santos-Dumont and Farman, and before official judges, surrounded by thousands of spectators. On hand, too, and in substantial numbers as expected, were the representatives of the press, reporters and correspondents from Paris, London, and New York, all waiting for what could well be one of the biggest stories of the time. Wilbur, who had been up early as usual, showed no sign of nervous tension or excitement. Such "quiet self-confidence" was reassuring, said Hart Berg afterward: One thing that, to me at least, made his appearance all the more dramatic, was that he was not dressed as if about to do something daring or unusual. He, of course, had no special pilot's helmet or jacket, since no such garb yet existed, but appeared in the ordinary gray suit he usually wore, and a cap. And he had on, as he nearly always did when not in overalls, a high, starched collar. Inside the shed he proceeded to work on preparations, checking everything with total concentration. As would be said by one observer from the press, "Neither the impatience of waiting crowds, nor the sneers of rivals, nor the pressure of financial conditions not always easy, could induce him to hurry over any difficulty before he had done everything in his power to understand and overcome it." For the spectators the only signs of what might be about to take place were the launching track and the tall, four-legged catapult set in place at the center of the field, the track placed at right angles to the grandstand, pointing directly at the trees at the opposite end of the field. About noon Hart

Berg walked out onto the field to announce over a loudspeaker that no photographs would be permitted. After much show of despair, the press photographers, who had been waiting day and night, held a brief meeting, after which they gave their word that if Mr. Wright agreed to allow photographs on Monday, they would take none until then. To be sure that no photographs were taken by amateurs, one press photographer would patrol the field on a bicycle. It was nearly three in the afternoon by the time Wilbur opened the shed doors and the gleaming white Flyer was rolled into the sunshine, where he continued to fuss with it. He then walked the full length and width of the field, made sure the starting rail was headed exactly into the wind, checked the catapult to see if all was in order, and supervised the raising of the iron weight, never hurrying in the least. With Berg, Bollée, and several others helping, the aircraft, mounted temporarily on two sets of wheels, was gently rolled to the middle of the field, and positioned on the starting rail. Finally, at six-thirty, with dusk settling, Wilbur turned his cap backward, and to Berg, Bollée, and the others said quietly, "Gentlemen, I'm going to fly." He took the seat on the left. Two men started the engine, each pulling down a blade on the two propellers. Not satisfied with something he heard as the motor was warmed up, Wilbur called to a mechanic who was standing at the back of the machine to ask if some small, last-minute adjustment had been made on the motor. The man said it had. According to an eyewitness, "Wilbur sat silent for a moment. Then, slowly leaving his pilot's seat, he walked around the machine just to make sure, with his own eyes, that this particular adjustment had, without the slightest shadow of a doubt, been well and truly made." Back again in his seat, Wilbur released the trigger, the weight dropped, and down the rail and into the air he swept. Cheers went up as he sailed away toward a row of tall poplars, where, at what seemed the last minute, the left wing dropped sharply,

he banked off to the left, turned in a graceful curve, and came flying back toward the grandstand. Those in the crowd who had brought field glasses had seen how he twisted the wings as he turned and rounded corners as naturally as though he were on a bicycle. Very near the point where he had started, he made another perfect turn to fly full circle once again, all at about 30 to 35 feet, before coming down to a gentle landing within 50 feet from where he had taken off. In all he was in the air not quite 2 minutes and covered a distance of 2 miles. The crowd was ecstatic, cheering, shouting, hardly able to believe what they had seen. As said in the Paris Herald, it was "not the extent but the nature of the flight which was so startling." There were shouts of "C'est l'homme qui a conquis l'air!" "This man has conquered the air," and "Il n'est pas bluffeur!" "He is not a bluffer." One of the French pilots present, Paul Zens, who had been waiting since morning, told a reporter, "I would have waited ten times as long to have seen what I have seen today." "We are children compared to the Wrights," said another pilot, René Gasnier, and Louis Blériot declared outright, "I consider that for us in France, and everywhere, a new era in mechanical flight has commenced." Then, catching his breath, Blériot said he was not yet sufficiently calm to express all that he felt, except to say, "C'est merveilleux!" Spectators waving hats and arms raced onto the field, everyone wanting to shake the hero's hand. Hart Berg, knowing how Wilbur felt about such things, did all he could to keep the men from kissing Wilbur on both cheeks. "The enthusiasm," reported Le Figaro, "was indescribable." Even Wilbur lost his customary composure, "overwhelmed by the success and unbounded joy which his friends Hart O. Berg and Léon Bollée shared." Then, "very calmly," his face beaming with a smile, he put his hands in his pockets and walked off whistling. That night, while the normally sleepy town of Le Mans celebrated, the hero retired early to his shed. That summer Saturday in

Le Mans, France, not quite eight years into the new twentieth century, one American pioneer had at last presented to the world the miracle he and his brother had created on their own and in less than two minutes demonstrated for all who were present and to an extent no one yet had anywhere on earth, that a new age had begun. In less than twenty-four hours it was headline news everywhere—"WRIGHT FLEW" (Le Matin); "MR. WILBUR WRIGHT MAKES HIS FIRST FLIGHT: FRENCH EXPERTS AMAZED BY ITS SMOOTHNESS" (Paris Herald); "MARVELOUS PERFORMANCE, EUROPEAN SKEPTICISM DISSIPATED" (London Daily Mail); "A TRIUMPH OF AVIATION" (Echo de Paris); "WRIGHT BY FLIGHT PROVES HIS MIGHT" (Chicago Tribune); "WRIGHT'S AEROPLANE ASCENDS LIKE A BIRD" (Dayton Journal). "It was not merely a success," said Le Figaro, "but a triumph . . . a decisive victory for aviation, the news of which will revolutionize scientific circles throughout the world." "The mystery which seemed inextricable and inexplicable is now cleared away," declared Le Matin. Wright flew with an ease and facility such that one cannot doubt those enigmatic experiments that took place in America; no more than one can doubt that this man is capable of remaining an hour in the air. It is the most extraordinary vision of a flying machine that we have seen. . . . Wilbur Wright, wrote Joseph Brandreth of the London Daily Mail, had made "the most marvelous aeroplane flight ever witnessed on this side of the Atlantic." The length of the flight was not what mattered, but that he had complete control and, by all signs, could have stayed in the air almost indefinitely. Leaders of French aviation joined in the chorus of acclaim. "Not one of the former detractors of the Wrights dare question today the previous experiments of the men who were truly the first to fly," announced the greatly respected publication L'Aérophile. Even the stridently skeptical Ernest Archdeacon, who had run on with so many negative comments while waiting in the grandstand, stepped forth at

once to say he had been wrong. “For a long time, for too long a time, the Wright brothers have been accused in Europe of bluff. . . . They are today hallowed in France, and I feel an intense pleasure in counting myself among the first to make amends for the flagrant injustice.” An exuberant Hart Berg wanted Wilbur to keep flying the next day, but Wilbur would have no part of it. As was explained in the French press, “Today, because it is Sunday, M. Wright, a good American, would not think of breaking the Sabbath.” The crowd that came to Hunaudières would have to be content with looking at the closed hangar. On Monday, August 10, when the demonstrations resumed, more than two thousand people came to watch, including a number of Americans this time. Nearby inns and cafés were reaping “a harvest of money.” Those who had made the effort to attend were to be even more dazzled by what they saw than those who had been there two days before. It was another perfect summer day, but as the hours passed, with nothing happening, the heat became intense. Still no one left. Sitting among the crowd was a French army captain in uniform carrying a camera. Previously told he was to take no photographs, he had given his word he would not. But shortly afterward he began using the camera and was spotted by Wilbur, who, “ablaze with anger,” climbed directly into the grandstand and demanded both the camera and the plates. At first the captain hesitated, offering excuses, but as reported in the papers, “Mr. Wright set his mouth firm, folded his arms and waited.” The captain handed over the camera and plates and left the field. Perhaps it was the heat, or the stress he was under, or a combination of both that caused Wilbur to do what he did. Quite upset afterward, he said he was not in the habit of making trouble, but it had been too much for him when he saw the man deliberately break his word. Wilbur’s performance that afternoon was surpassing. On one flight, heading too close to some trees, he had to turn sharply. As the correspondent for

the Daily Mail reported, “In a flight lasting 32 seconds, he took a complete turn within a radius of thirty yards and alighted with the ease of a bird in the midst of the field.” It was “the most magnificent turning movement that has ever been performed by an aviator.” That evening, the light fading, Wilbur flew again, this time making two giant figure eights in front of the crowd in the grandstand and landing exactly at his point of departure. An aircraft flying a figure eight had never been seen in Europe before. Blériot had been so impressed by what he had seen on Saturday that he had returned to watch again. Present also this time was the pioneer French aviator Léon Delagrange, who, after hearing of Wilbur’s performance on Saturday, had halted his own demonstrations in Italy to hurry back. Both men were as amazed as anyone by Wilbur’s figure eight. “Well, we are beaten! We just don’t exist!” Delagrange exclaimed. As a thrilled Léon Bollée declared, “Now all have seen for themselves.” With the mounting popular excitement over the news from Le Mans came increasing curiosity about the man making the news. The Wright machine had been shown to be a reality. But what of the American flying it? Of what sort was he? Correspondents and others on the scene did their best to provide some clues, if not answers. In a memorable portrait written for the Daily Mail, Joseph Brandreth seemed a touch uncertain whether he liked Wilbur. (Nor, it is known from a letter he wrote to Katharine, did Wilbur much like him.) Brandreth was struck most by how greatly Wilbur resembled a bird, an odd bird. The head especially suggested that of a bird, “and the features, dominated by a long prominent nose that heightened the bird-like effect, were long and bony.” From their first meeting, Brandreth wrote, he had judged Wilbur Wright to be a fanatic. A writer for Le Figaro, Franz Reichel, fascinated with the flecks of gold in Wilbur’s eyes, came to much the same conclusion. “The flecks of gold,” wrote Reichel, “ignite a passionate flame because Wilbur Wright is a

zealot. He and his brother made the conquest of the sky their existence. They needed this ambition and profound, almost religious, faith in order to deliberately accept their exile to the country of the dunes, far away from all. . . . Wilbur is phlegmatic but only in appearance. He is driven by a will of iron which animates him and drives him in his work. Without wanting to diminish the value of French aviators, Reichel wrote that while Wilbur Wright was flying, they were only beginning to "flutter about." Léon Delagrange, who before becoming an aviator had been a sculptor and painter, could not help puzzling over what went on behind Wilbur's masklike countenance, and, being French, found it hard to comprehend or warm to someone who seemed so devoid of the elemental human emotions and desires. "Even if this man sometimes deigns to smile, one can say with certainty that he has never known the douceur [sweetness] of tears. Has he a heart? Has he loved? Has he suffered? An enigma, a mystery." That said, Delagrange openly declared in the article he wrote for L'Illustration, "Wilbur Wright is the best example of strength of character that I have ever seen. In spite of the sarcastic remarks and the mockery, in spite of the traps set up from everywhere all these years, he has not faltered. He is sure of himself, of his genius, and he kept his secret. He had the desire to participate today to prove to the world he had not lied. To François Peyrey, who had seen more of Wilbur than had others and knew more, he was "un timide"—shy, a simple man, but also a "man of genius" who could work alongside the men of the Bollée factory, just as he could work entirely alone, who could cook his own meals and do whatever else was necessary under most any conditions and quiet by nature. He went his way always in his own way, never showing off, never ever playing to the crowd. "The impatience of a hundred thousand persons would not accelerate the rhythm of his stride." Further, Peyrey, unlike others, had discovered how exceptionally cultured Wilbur was, how, "in rare

moments of relaxation," he talked with authority of literature, art, history, music, science, architecture, or painting. To Peyrey, the devotion of this preacher's son to his calling was very like that of a gifted man dedicating his life to a religious mission. At the close of one long day at Le Mans, Peyrey had caught Wilbur gazing off into the distance as if in a daydream. It reminded him, Peyrey wrote, "of those monks in Asia Minor lost in monasteries perched on inaccessible mountain peaks. . . . What was he thinking of this evening while the sun was dying in the apricot sky?" On Thursday, August 13, Wilbur flew again, this time circling the field several times. It was his longest flight yet at Le Mans and before the biggest crowd, which cheered every round he made. So loud was the cheering that he flew to nearly 100 feet in the air, in part to lessen the distracting effect of the noise. He was trying to master the use of the control levers and after one turn he found himself flying too low. To compensate he made a "blunder," as he would later explain to Orville. He pushed the left lever forward instead of back and the left wing hit the ground. It was, he acknowledged, "a pretty bad smash-up." He himself, however, had been uninjured. The admiration of the crowd diminished not at all. Those who knew the most about the art of flying were more impressed than ever. One French aircraft designer told a reporter for the New York Herald, "Mr. Wright is as superb in his accidents as he is in his flights." Wilbur could scarcely believe the change that had come over nearly everyone —the press, the public, the French aviators and aircraft builders. "All question as to who originated the flying machine has disappeared," he wrote Katharine. The popular "furor" could be irksome at times, to be sure. "I cannot even take a bath without having a hundred or two people peeking at me. Fortunately everyone seems to be filled with a spirit of friendliness." A new song, "Il Vole" ("He Flies"), had become a popular hit. Also, much to Wilbur's liking, a stray dog had

been added to his camp life by Hart Berg and christened “Flyer.” Much of the feeling back in Dayton was expressed in a wholehearted hometown tribute published in the Dayton Herald. All were extremely proud of the brothers, declared the paper, and not because that was the fashion of the moment, but because of “their grit, because of their persistence, because of their loyalty to conviction, because of their indefatigable industry, because of their hopefulness and above all, because of their sterling American quality of compelling success.” A letter from Katharine assured Wilbur that the whole family was thrilled by the news from Le Mans, but that thrilled and proud as they were, their minds were greatly on edge over young Milton, Lorin’s fifteen-year-old son, who had been stricken by typhoid fever and was in a struggle for his life. “How many, many times have we wished for Jullum, since Milton has been sick,” she wrote. “Of course we were ‘de-lighted’ over your flight . . . but we can’t half enjoy anything now. . . . If we weren’t so poor—we’d cable congratulations!” A week later she could happily report that Milton was out of danger and the Dayton papers were still going wild over the news from Le Mans. They were even proposing a big “welcome home.” With the demonstrations at a standstill momentarily until repairs were made, Wilbur had more time to appreciate those around him and enjoy the attention they were giving him. A local manufacturer of canned goods was providing “all kinds of the finest sardines, anchovies, asparagus, etc., etc., you ever saw,” he reported to his father. The people of Le Mans are exceedingly friendly and proud of the fame it [the experiments] is giving their town. I am in receipt of bouquets, baskets of fruit, etc., almost without number. The men down at Bollée’s shop have taken up a collection to buy me a testimonial of their appreciation. They say that I, too, am a workman. When the French army offered Wilbur a larger field for his demonstrations, he accepted and so the Flyer, its damages fully

repaired, was moved seven miles east to Camp d'Auvours. "The new grounds are much larger and much safer than the old," he reported home. "I can go four miles in a straight line without crossing anything worse than bushes." He resumed flying at d'Auvours on August 21 and the crowds arriving by special trains grew larger by the day, the "excitement almost beyond comprehension." Though Camp d'Auvours was "lost in the middle of the woods," as said and less convenient to town than the racecourse of Hunaudières, the crowds came in numbers greater than ever. "They flock from miles," their "curiosity too strong," reported Le Figaro, only to find that Wilbur, for some reason or other, was not flying that day. "Never mind," was the response. "We'll come back." It was almost as though the less he flew the greater the curiosity of the crowd. The public is of an untiring and admirable patience. It waits for hours on end to see nothing . . . but the famous launching pylon. . . . When it is late and they know that Wright won't fly . . . these good people gather at the foot of the pylon, measure it with their eyes, touch it, because they know what they will have to do tomorrow: come back. Brother Orville was much on Wilbur's mind, for by then Orville had gone to Washington to begin preparing for the flights he was to make at Fort Myer, Virginia. Earlier, in midsummer, as Wilbur had been about to proceed with his demonstrations for the French, he had received a letter from his father urging him to "avoid all unnecessary personal risk." Now Wilbur sent off much the same kind of warning to Orville, as older brother but also as one who had now experienced a number of turns onstage before enormous crowds and an evereager, ever-demanding press. I tell them plainly that I intend for the present to experiment only under the most favorable conditions. . . . I advise you most earnestly to stick to calms, till after you are sure of yourself. Don't go out even for all the officers of the government unless you would go equally if they were absent. Do not let yourself be forced into

doing anything before you are ready. Be very cautious and proceed slowly in attempting flights in the middle of the day when wind gusts are frequent. . . . Do not let people talk to you all day and all night. It will wear you out, before you are ready for real business. Courtesy has limits. If necessary appoint some hour in the daytime and refuse absolutely to receive visitors even for a minute at other times. Do not receive anyone after 8 o'clock at night. Then, after some technical discussion about the rudder, he wrote again. "I can only say be extraordinarily cautious." On the evening of August 25 in Le Mans, a celebration banquet in Wilbur's honor took place at the Hôtel du Dauphin. This time he was happy to join in the festivities.