III.

rville reached Kitty Hawk at midday, December 11, a Friday, and spent that afternoon with Wilbur unpacking "the goods." Saturday the wind was too light to make a start on level ground. Sunday, as always a day off, they passed the time much as they might have at home, reading and visiting with neighbors, in this case, Adam Etheridge from the Life-Saving Station, who with his wife and children came by to say hello and see the new machine so many were talking about.

On the afternoon of Monday the 14th, all final repairs attended to, the brothers were ready. With the help of John T. Daniels, a robust man who looked as though he could lift a house, and two other men from the station, they hauled the 605-pound Flyer the quarter mile over to the Big Hill to the face of the slope where they had positioned the 60-foot launching track.

When the engine was started up with a roar, several small boys who had been tagging along were so startled they took off over the hill as fast as they could go.

Everything was set. There was no debate or extended discussion over which of them should go first. They simply flipped a coin. Wilbur won and worked his way between the propellers and in among the truss wires to stretch flat on his stomach beside the engine, his hips in the padded wing-warping cradle, whereby he could control the wing-warping wires by shifting his body, and head up, looking forward out through the horizontal rudder or elevator that controlled the up or down pitch of the craft.

Orville took hold of an upright bar at the end of the right wings, ready to help balance the whole affair when it started forward on the track.

Then off they went, Orville running as fast as he could, holding on until no longer able to keep up.

But at the end of the track, Wilbur made a mistake. Pulling too hard on the rudder, he sent the Flyer surging upward at too steep an angle. To compensate, he nosed it downward, but again too abruptly and the machine hit the sand a hundred feet from the end of the track.

The brothers were elated. Motor, launching device, everything had

proven reliable. Damage was minor. Wilbur's error in judgment, from lack of experience with this kind of apparatus, had been the only cause of trouble, as he told the others and explained in a letter to Katharine and the Bishop.

The repairs took two days. Not until late the afternoon of the 16th was the machine ready. While they were setting it up on the track in front of the building, seeing to final adjustments, a stranger wandered by and after looking the machine over, asked what it was.

When we told him it was a flying machine, he asked whether we intended to fly it [Orville would write later]. We said we did, as soon as we had a suitable wind. He looked at it several minutes longer and then, wishing to be courteous, remarked that it looked as if it would fly, if it had a "suitable wind."

The brothers were much amused, certain that by "suitable wind," the man had in mind something on the order of the recent 75-mile-an-hour gale.

Only five men showed up the morning of Thursday the 17th, after the brothers hung a white bedsheet on the side of the shed, the signal to the men at the Life-Saving Station that their help was needed. Many, as Orville later explained, were apparently unwilling to face the "rigors of a cold December wind in order to see, as they no doubt thought, another flying machine not fly."

Those who did turn out felt differently. "We had seen the glider fly without an engine," remembered John T. Daniels, "and when these boys put an engine in it, we knew that they knew exactly what they were doing."

Adam Etheridge and Will Dough had come with Daniels from the Life-Saving Station. W. C. Brinkley was a dairy farmer from Manteo, and the fifth, Johnny Moore, was a boy of about eighteen who had happened by and was curious to know about the strange-looking machine.

Daniels, known to be "a joker," told him it was a "duck-snarer" and explained how any minute Orville would be going up and out over the bay,

104

where there were ducks by the hundreds, and how he would drop a giant net and catch every one. The boy decided to stay and watch.

Bill Tate, to his subsequent regret, was away at the time in Elizabeth City.

The day was freezing cold. Skims of ice covered several nearby ponds. A gusty wind was blowing hard out of the north. "The wind usually blows," Wilbur had reminded his Chicago audience in June. It was blowing at nearly a gale force of 20 to 27 miles per hour, far from ideal. The difficulty in a high wind was not in making headway in it but maintaining balance.

Reflecting on the moment long afterward, Orville would express utter amazement over "our audacity in attempting flights in a new and untried machine under such circumstances."

Working together they and the men hauled the Flyer to the launching track, four 15-foot-long two-by-fours sheathed with a metal strip, and laid down this time on a flat, level stretch about 100 feet west of the camp, the track running north-northeast straight into the freezing wind.

With everything in place and ready to go, Wilbur and Orville walked off a short way from the others and stood close talking low for some time under an immense overcast sky. Dressed in their dark caps and dark winter jackets beneath which they wore their customary white shirts, starched white collars, and dark ties, they could as well have been back in Dayton on a winter morning chatting on a street corner.

The other five watched and waited together in silence. They had become "a serious lot," John T. Daniels remembered. "Nobody felt like talking."

Because Wilbur had won the toss three days before, it was now Orville's turn. The two shook hands as if saying goodbye. Then Wilbur went over to the others and told them not to look so glum, but to cheer Orville on his way.

"We tried," Daniels said, "but it was mighty weak shouting with no heart in it."

In the time since 1900, when Wilbur had gone off on his first trip to Kitty Hawk bringing a camera as part of his equipment, the brothers had become increasingly interested in photography as essential to their flying experiments. They had even begun selling photographic equipment at the

bicycle shop. In 1902 they had made what for them was a major investment of \$55.55 in as fine an American-made camera to be had, a large Gundlach Korona V, which used 5 x 7-inch glass plates and had a pneumatic shutter. Early that morning of December 17, Orville had positioned the Korona on its wooden tripod about 30 feet from the end of the starting rail and assigned Daniels to squeeze the rubber bulb to trip the shutter as the Flyer passed that point.

Orville now positioned himself on his stomach at the controls, as Wilbur had, while Wilbur stood to the right at the tip of the lower wing ready to help keep the machine in balance as it started down the track. Minutes passed while the engine warmed up. As they would later emphasize neither had had any "previous acquaintance" with the conduct of the machine and its controlling mechanisms.

At exactly 10:35, Orville slipped the rope restraining the Flyer and it headed forward, but not very fast, because of the fierce headwind, and Wilbur, his left hand on the wing, had no trouble keeping up.

At the end of the track the Flyer lifted into the air and Daniels, who had never operated a camera until now, snapped the shutter to take what would be one of the most historic photographs of the century.

The course of the flight, in Orville's words, was "extremely erratic." The Flyer rose, dipped down, rose again, bounced and dipped again like a bucking bronco when one wing struck the sand. The distance flown had been 120 feet, less than half the length of a football field. The total time airborne was approximately 12 seconds.

"Were you scared?" Orville would be asked. "Scared?" he said with a smile. "There wasn't time."

"It was only a flight of twelve seconds," he would also stress later, "and it was an uncertain, wavy, creeping sort of a flight at best, but it was a real flight at last."

The machine was picked up and carried back to the starting point, after which they all took a short break to warm up inside the camp.

At about eleven o'clock, the wind having eased off somewhat, Wilbur took a turn and "went off like a bird" for 175 feet. Orville went again, fly-

106

ing 200 feet. Then, near noon, on the fourth test, Wilbur flew a little over half a mile through the air and a distance of 852 feet over the ground in 59 seconds.

It had taken four years. They had endured violent storms, accidents, one disappointment after another, public indifference or ridicule, and clouds of demon mosquitoes. To get to and from their remote sand dune testing ground they had made five round-trips from Dayton (counting Orville's return home to see about stronger propeller shafts), a total of seven thousand miles by train, all to fly little more than half a mile. No matter. They had done it.

There was talk of going again, of even attempting a flight down the beach to the weather station. But a sudden gust caught the Flyer and tossed it along the sand "just like you've seen an umbrella turned inside out and loose in the wind," remembered John T. Daniels.

Daniels had been standing holding an upright of one of the wings and suddenly found himself caught in the wires and the machine "blowing across the beach, heading for the ocean, landing first on one end and then on the other, rolling over and over, and me getting more tangled up in it all the time"—all 600-plus pounds of the machine, plus Daniels, who weighed over 200 pounds, swept up by the wind as though they weighed nothing at all.

When the machine stopped momentarily, Daniels succeeded in breaking loose. ("His escape was miraculous," Orville later wrote, "as he was in the engine and chains.") "I wasn't hurt much. I got a good many bruises and scratches and was so scared I couldn't walk straight for a few minutes," Daniels would say. The brothers "ran up to me, pulled my legs and arms, felt of my ribs and told me there were no bones broken. They looked scared, too." From that day on Daniels could proudly claim to have survived the first ever airplane accident.

The Flyer was a total wreck, nearly all the ribs of the wings broken, the chain guides badly bent, uprights splintered. Any thought of another flight had vanished.

Daniels and the others said their goodbyes and walked back to the Life-Saving Station. For their part Wilbur and Orville fixed and ate some lunch, then washed the dishes before walking four miles to the Kitty Hawk weather station to send a telegram home.

The day in Dayton had been cloudy and freezing cold with snow on the ground. It was past dark when Carrie Kayler, preparing supper in the kitchen at 7 Hawthorn Street, stopped to answer the doorbell. The Western Union man handed her a telegram, which she signed for and carried upstairs to the Bishop.

A few minutes later he came down looking pleased, but with no excitement in his voice, told her, "Well, they've made a flight."

The telegram read:

SUCCESS FOUR FLIGHTS THURSDAY MORNING ALL
AGAINST TWENTY ONE MILE WIND STARTED FROM
LEVEL WITH ENGINE POWER ALONE AVERAGE SPEED
THROUGH AIR THIRTY ONE MILES LONGEST 57
SECONDS INFORM PRESS HOME FOR CHRISTMAS.

OREVELLE WRIGHT

(Mistakes in the transmission had caused 59 seconds to become 57 and Orville's name to be misspelled.)

Katharine came in from school, looked at the telegram, and told Carrie to delay supper while she went to tell Lorin.

Success it most certainly was. And more. What had transpired that day in 1903, in the stiff winds and cold of the Outer Banks in less than two hours time, was one of the turning points in history, the beginning of change for the world far greater than any of those present could possibly have imagined. With their homemade machine, Wilbur and Orville Wright had shown without a doubt that man could fly and if the world did not yet know it, they did.

Their flights that morning were the first ever in which a piloted machine took off under its own power into the air in full flight, sailed forward with no loss of speed, and landed at a point as high as that from which it started.

Being the kind of men they were, neither ever said the stunning con-

108

trast between their success and Samuel Langley's full-scale failure just days before made what they had done on their own all the more remarkable. Not incidentally, the Langley project had cost nearly \$70,000, the greater part of it public money, whereas the brothers' total expenses for everything from 1900 to 1903, including materials and travel to and from Kitty Hawk, came to a little less than \$1,000, a sum paid entirely from the modest profits of their bicycle business.

Of those who had been eyewitnesses at Kill Devil Hills the morning of the 17th, John T. Daniels was much the most effusive about what he had felt. "I like to think about it now," he would say in an interview years later. "I like to think about that first airplane the way it sailed off in the air . . . as pretty as any bird you ever laid your eyes on. I don't think I ever saw a prettier sight in my life."

But it would never have happened, Daniels also stressed, had it not been for the two "workingest boys" he ever knew.

It wasn't luck that made them fly; it was hard work and common sense; they put their whole heart and soul and all their energy into an idea and they had the faith.

As they crated up the damaged Flyer to ship home, the brothers were "absolutely sure" in their own minds that they had mastered the problem of mechanical flying. But they also understood as no one else could have how much they had still to do, how many improvements were needed, how much more they themselves needed to learn about flying so different a machine, and that this would come only with a great deal more experience.

The Flyer would go into storage in Dayton. It would never be flown again.