

PRIMARY SOURCE *from Orville Wright's Diary*

On December 17, 1903, Orville and Wilbur Wright made the first airplane flight at Kitty Hawk, North Carolina. As you read this excerpt from Orville's diary, think

When we got up, a wind of between 20 and 25 miles was blowing from the north. We got the machine out early and put out the signal for the men at the station. Before we were quite ready, John T. Daniels, W. S. Dough, A. D. Etheridge, W. C. Brinkley of Manteo, and Johnny Moore of Nag's Head arrived. After running the engine and propellers a few minutes to get them in working order, I got on the machine at 10:35 for the first trial. The wind according to our anemometer [instrument for indicating and measuring wind force and velocity] at this time was blowing a little over 20 miles (corrected) 27 miles according to the Government anemometer at Kitty Hawk. On slipping the rope the machine started off increasing in speed to probably 7 or 8 miles. The machine lifted from the truck just as it was entering on the fourth rail. Mr. Daniels took a picture just as it left the trucks. [The trucks were a primitive sort of wheel assembly, which enabled the plane to take off along a track made from two-by-fours. When the plane took off, it left the truck on the ground and hence flew without any landing gear.]

I found the control of the front rudder quite difficult on account of its being balanced too near the center and thus had a tendency to turn itself when started so that the rudder was turned too far on one side and then too far on the other. As a result the machine would rise suddenly to about 10 feet and then as suddenly, on turning the rudder, dart for the ground. A sudden dart when out about 100 feet from the end of the track ended the flight. Time about 12 seconds (not known exactly as watch was not promptly stopped). The flight lever for throwing off the engine was broken, and the skid under the rudder cracked.

After repairs, at 20 minutes after 11 o'clock Will [Orville's brother Wilbur] made the second trial. The course was about like mine, up and down but a little longer . . . over the ground though about the same in time. Distance not measured but about 175 feet. Wind speed not quite so strong.

With the aid of the station men present, we picked the machine up and carried it back to the starting ways. At about 20 minutes till 12 o'clock I

made the third trial. When out about the same distance as Will's, I met with a strong gust from the left which raised the left wing and sidled the machine off to the right in a lively manner. I immediately turned the rudder to bring the machine down and then worked the end control. Much to our surprise, on reaching the ground the left wing struck first, showing the lateral control of this machine much more effective than on any of our former ones. At the time of its sidling it had raised to a height of probably 12 to 14 feet.

At just 12 o'clock Will started on the fourth and last trip. The machine started off with its ups and downs as it had before, but by the time he had gone three or four hundred feet he had it under much better control, and was traveling on a fairly even course. It proceeded in this manner till it reached a small hummock out about 800 feet from the starting ways, when it began its pitching again and suddenly darted into the ground. The front rudder frame was badly broken up, but the main frame suffered none at all. The distance over the ground was 852 feet in 59 seconds. . . .

After removing the front rudder, we carried the machine back to camp. We set the machine down a few feet west of the building, and while standing about discussing the last flight, a sudden gust of wind struck the machine and started to turn it over. All rushed to stop it. Will, who was near the end, ran to the front, but too late to do any good. Mr. Daniels and myself seized spars at the rear, but to no purpose. The machine gradually turned over on us.

from Richard B. Morris and James Woodress, eds., *Voices from America's Past*, Vol. 2, *Backwoods Democracy to World Power* (New York: Dutton, 1963), 293–295.

Discussion Questions

1. How many trial runs did the Wright brothers make on December 17?
2. What was the longest powered flight the Wright brothers made on this day?
3. What kinds of difficulties did the Wright brothers encounter during these trials?