



1900: Kitty Hawk

Having visited the Wrights in Dayton, you make your report to the members of the Society. Everyone is extremely interested in the craft being built in the back of the shop; the members excitedly discuss the possibilities of human flight. Mr. Pierpont's cousin says that the Wrights' sister Katharine told her that they are going to a place called "Kitty Hawk" in September. This sparsely populated North Carolina spot has high sandy hills, few trees, and almost continuous winds from the ocean: ideal conditions to test a glider.

The Society is anxious to send you there to learn of the experiments, but not in an obvious way. It is decided that you will apply for a temporary position with the U.S. Lifesaving Service, which has a station near Kitty Hawk. Several Society members help you to secure a job as a lookout while you also maintain your position and salary with the Society. The adventure and the money are too good to pass up.

You arrive in Elizabeth City, North Carolina, in August and catch a ride on the mail boat out to the Lifesaving Station near Kitty Hawk. If a shipwreck occurs, your crew's job is to brave the surf and rescue stranded sailors.



Crew of the U.S. Lifesaving Service at Kitty Hawk, 1900.

On September 13, Wilbur Wright arrives in Kitty Hawk and stays with William Tate, the local postmaster. Soon, Orville arrives and they set up a tent camp about a one-half mile from the Tates. You receive word that the brothers' kite has arrived, so you decide to visit their camp.



You introduce yourself to the Wrights as a lookout from the Lifesaving Station. Wilbur recognizes you from your visit to their shop in Dayton, and you tell him you are a college student from Cincinnati and were in Dayton visiting friends.

The brothers remember your interest in flight and proudly show you their creation. This is the same large craft that you saw in their shop. It has two wings about 17 feet long and 5 feet deep, one set about 4 feet above the other. Both wings are made of a tightly woven white material stretched over a light wooden frame. Wire bracing keeps the structure tight. A square structure that looks like a small wing made of the same white material is sticking out a few feet in the front. You note that the wings are arched. When you ask about the

open space you see in the lower wing, Orville informs you that the pilot rides there, lying on his stomach, so it is indeed a glider. Due to light winds, they are testing the glider with chains to simulate the weight of a pilot. You ask permission to stay and watch, and they ask whether you'd be willing to help!



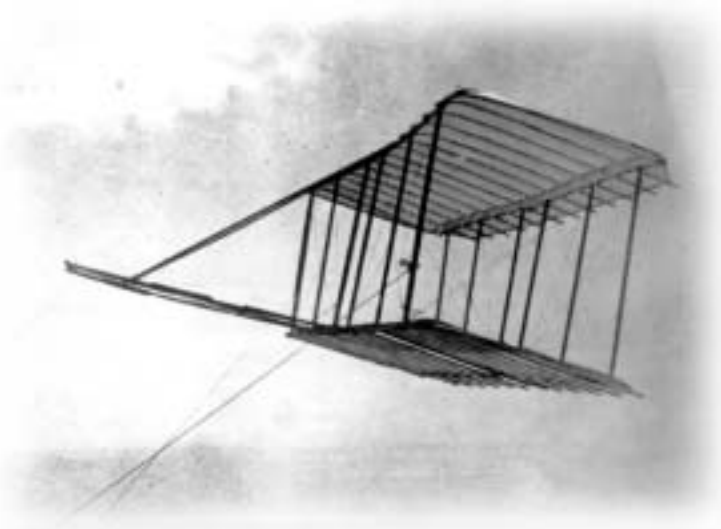
As strong breezes blow, the glider, which must weigh nearly 100 pounds with the chains, just floats in the air. You and Orville struggle to hold onto cables that act as kite strings; Wilbur is behind the glider pulling on another set of wires. As he pulls on one wire, the wings twist and the glider tilts and drifts to the side. When he pulls the other wire, the glider turns in the opposite direction. This is just like the kite the kids in Dayton had described to you. The control was truly wonderful! You want to stay all day, but your shift as a lookout is coming up. The brothers thank you for your help and invite you back.



Wilbur Wright at first camp at Kitty Hawk, 1900.

You visit the camp a few more times, and you notice that the curvature of the small front wing is sometimes different, and this seems to cause the glider to fly at a different angle. You always see the brothers flying the glider as a kite, but the other men at the station tell you that one day they had seen Wilbur actually piloting the glider. On that particularly windy day, they say, he had glided for 10 to 20 seconds and covered 300 to 400 feet before suffering a minor crash landing.

Soon after, the Wrights pack up and return to Dayton, leaving their crashed glider in the sand; Postmaster Tate's wife washes the fine sateen fabric of the wings and makes dresses for her daughters. You take leave of the Lifesaving Station and return to Cincinnati to report to the Scientific Society.



The Wrights' 1900 Glider.



October 1900: 10-year-old Tommy Tate, son of Kitty Hawk postmaster William Tate, standing in front of the 1900 Glider with his drum fish. Tommy flew as a lightweight pilot on some of the Wright Brothers' glider flights.

Activity 4—Build a Model of the 1900 Glider

The Society asks you to make a model of the Wright's 1900 aircraft as a part of your report. Turn to page 41 and follow the instructions to make your model.



Activity 6—What Would You Design?

Orville told you that he and Wilbur are determined to create a flyable machine, and that to do this they are going to have to get more lift out of their craft so it can support a pilot. When you report this to the Cincinnati Scientific Society, the members start to debate about what they think is the best way to accomplish this. It is decided to have a contest to see who can produce the best design to improve upon the Wright Glider.

1. If you were to enter this contest, what specific changes would you make to give the 1900 Glider more lift?

2. How do you think each change would improve the original design?

3. This is a drawing of the 1900 Glider. It had a wingspan of 17 feet and a wing area of 165 square feet. On another sheet of paper, draw a sketch of your proposed glider, showing a top view and a front view. Be sure to put dimensions on your sketch. How long, wide, and high will your glider be?

