



## **The Sky's the Limit Volume II: Pilots Help Our Nation**

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## Introduction

The Sky's the Limit is a series of books featuring people who have made contributions to the field of aviation. A variety of backgrounds and perspectives are represented as the reader learns about such people as Anne Morrow Lindbergh, an aviation writer and pilot, Angelo De Ponti, an aviation businessman, and Franklin Chang-Diaz, an astronaut and rocket scientist. Each book includes activities related to aviation and the principles of flight. The activities range from making a compass to completing a word-find exercise.

The series begins with the early days of flight in the United States and continues through the space program. The books are not intended to be a complete history of aviation. Rather, they draw from a variety of disciplines to inspire young readers in the areas of math, science, reading, writing, art, and engineering.

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## Benjamin O. Davis, Jr.

Benjamin O. Davis, Jr. was born in Washington, D.C., on December 18, 1912. His father, an officer in the U.S. Army, taught him to do his best, respect himself and others, and learn to be self-disciplined. Ben's parents believed that learning was very important both at home and at school. At home, Ben and his sisters, Olivia and Lenora, were required to spend time each night reading. When it came to school work, Ben's parents encouraged him to do his best. School was a good experience for Ben. He liked his classmates, he liked his teachers, and thanks to his parents he was well prepared to handle schoolwork.

When Ben was 14 years old, Charles Lindbergh made his famous flight across the Atlantic Ocean. Ben and his family listened eagerly to the reports of the flight on the radio. The excitement of this important event captured Ben's imagination, and gave him a picture in his mind of what flying might be like. Someday, Ben would discover for himself the joy of flying.



In high school, Ben was a hardworking student. His efforts earned him the honor of graduating at the top of his class. In 1932, he began college at the West Point Military Academy.



When he graduated, he wanted to be a pilot in the army. But at that time, the army did not allow African Americans to become pilots. Some people believed blacks were not capable of learning to fly an airplane. Even though this belief was irrational, the U.S. Military had made a rule that blacks would not be accepted into the pilot training program.

But things were about to change. The military needed more pilots to help with the fighting in World War II. Respected leaders began speaking out, saying that blacks should be allowed to be pilots in the U.S. Military. So, the military decided to try an experiment. A group of black men selected for their excellent abilities would receive pilot training at the army air field in Tuskegee, Alabama. After training, this group would be sent as a unit to fight in the war. The military would be watching closely to see how they performed. Ben was one of the men chosen to receive pilot training in Tuskegee. After graduating, he was selected to be the commander of this first black unit known as the Ninety-ninth Fighter Squadron, or the Tuskegee Airmen. With Ben as their leader, the Tuskegee Airmen went to Africa to fight in the war.

The Tuskegee Airmen were such excellent pilots that the U.S. Military changed its policy and allowed all qualified men, regardless of color, to receive pilot's training. The Tuskegee Airmen proved that there is no connection between a person's skin color and his or her abilities. In fact, under the superb leadership of Benjamin Davis, the Tuskegee Airmen earned the highest reputation, amongst both Allied and enemy pilots, for their outstanding achievements as fighter escort pilots. While under the protection of Ben's fighter escort unit, not one bomber plane was ever lost to the enemy.

Ben continued to serve as a leader in the military for many years. Throughout his career, he was faced with difficult tasks, which he handled by always trying to do his best, working hard, being self-disciplined, and being respectful to himself and to others. Because of his good qualities as one of the air force's most successful leaders, Ben helped our military and our country in many positive ways.

## Air Force Chain of Command

The pictures on this page show the insignias of rank in the U.S. Air Force. These insignias come in fabric or metal and are worn on the uniform and hat.

The difference between an officer and an enlisted person is that an officer is required to have a college degree. An enlisted person may also have a college degree but is not required.

### ENLISTED(dark blue)

- Airman Basic (E-1)** no stripes
- Airman (E-2)** one stripe with star
- Airman First Class (E-3)** two stripes with star
- Senior Airman (E-4)** three stripes with star
- Sergeant (E-4)** three stripes with star
- Staff Sergeant (E-5)** four stripes with star
- Technical Sergeant (E-6)** five stripes with star
- Master Sergeant (E-7)** six stripes with star
- First Sergeant (E-7)** six stripes with star and diamond
- Senior Master Sergeant (E-8)** seven stripes
- First Sergeant (E-8)** seven stripes with diamond
- Chief Master Sergeant (E-9)** eight stripes
- First Sergeant (E-9)** eight stripes with diamond
- Chief Master Sergeant of the Air Force** eight stripes with gold leaf surrounding star

(There is only one in the Air Force.)



### OFFICERS(silver)

- Second Lieutenant (O-1)** gold bar
- First Lieutenant (O-2)** silver bar
- Captain (O-3)** double silver bar
- Major (O-4)** gold leaf
- Lieutenant Colonel (O-5)** silver leaf
- Colonel (O-6)** silver eagle
- Brigadier General (O-7)** one silver star
- Major General (O-8)** two silver stars
- Lieutenant General (O-9)** three silver stars
- General (O-10)** four silver stars



Here's a helpful way to keep the generals in order.

- Be (Brigadier)\***
- My (Major) \*\***
- Little (Lieutenant) \*\*\***
- General (General) \*\*\*\***

## Phoebe Fairgrove Omlie

Phoebe Fairgrave Omlie was born in 1902 in Des Moines, Iowa. When she was 15, her family moved to St. Paul, Minnesota. While she was in high school, she decided she wanted to become a parachutist. Air shows featuring daring stunt pilots, wing walkers, and parachute jumpers were very popular. After going to an air show, Phoebe was sure she wanted to give parachute jumping a try. She went to the airport ready for her first jump. There she discovered that she could barely lift the heavy parachute pack. The manager at the airport told her that she would have to build up her muscles before she would be allowed to make a parachute jump. So, she set to work lifting weights, exercising, and working out on a regular schedule.



When she became stronger, she went back to the airport. This time she was allowed to go up in the plane, and make her first jump with a parachute. The small, lightweight Phoebe floated down to a gentle landing. With continued exercise and plenty of practice, Phoebe became a very good parachutist. She performed in air shows at state fairs and set altitude records for jumping from a higher point than anyone else. Before long, she was well known throughout the country.



Then one day, the pilot asked Phoebe if she would like to fly the plane. Phoebe said, "Yes!" Flying the plane felt natural to her. She decided to sign up for flying lessons and later earned her pilot's license. As a pilot, she participated in airplane races and usually came in first! Now, she was famous for her great skills as a pilot too.

In the 1930's, there weren't very many women pilots in the United States.

Phoebe thought it would be a good idea if all the women pilots formed a club to help encourage each other

and to teach the public about the fine abilities of women pilots. She and three other women planned and organized the first meeting of the club. Ninety-nine women showed up so it was decided to name the club the Ninety-nines. The club was a huge success. Today, the Ninety-nines have thousands of members in clubs located all over the world.



Franklin Roosevelt, a candidate in the presidential election at that time, asked Phoebe if she would fly him from town to town so he could do his campaigning. Phoebe said she would. The campaign route took them to many towns all across the country. When Roosevelt won the election and became president, he asked Phoebe to come to Washington to develop programs for pilots that could be used nationwide. In Washington D.C., Phoebe developed a plan called airmarking to help pilots find their way. The plan involved thousands of towns, each painting the name of their town on the top of a building. The letters were 12 feet high and could be seen by pilots from as far up as 3,000 feet. This program was very helpful and is still being used today.



Phoebe also developed a pilot's training course. She believed that the best way to make traveling by plane safe was through good pilot training programs. She traveled all around the country, helping to get the new training programs started. These programs teach people of all ages how to become safe pilots. Phoebe's work in the areas of safety and pilot training has been a benefit to all of us.

## Where Does Wind Come From?

Pilots are very interested in wind speed and wind direction. Try this experiment to learn more about wind. You will need a lamp and some talcum powder (baby powder).

- 1). First, carefully remove the shade from a lamp and turn the lamp on.
- 2). Be careful not to burn yourself on the light bulb or to bump the lamp accidentally. When the light bulb is hot (after a few minutes) sprinkle a small amount of powder just above the bulb. What happens?



How does it work? The air around the light bulb is warming up. Warm air rises. The powder gets carried upward, riding on the warm rising air. In nature, wind begins when the earth is heated up by the sun. As the earth warms up, the air above it heats up. The warm air rises because it is lighter than cool air. As the warm air rises, cool air moves into the space where the warm air was. And that is how wind is made!

## Elizabeth Wall Strohfus

Elizabeth Wall Strohfus was born in Faribault, Minnesota, on November 15, 1919. When Elizabeth was little, she could often be found way up in the top of a tree. She liked to be up high, where she could get a better look at things. Some people are afraid of heights, not Elizabeth. Her mother would call her for supper, and Elizabeth would reluctantly climb down from her perch. She liked the feel of the big sturdy branches moving slowly in the breeze as she hung on tightly. The leaves rustled all around her. Sometimes, she would climb up on top of the roof of her house. From there, she could see the whole neighborhood. Houses and people looked small from where she sat.



As a child, Elizabeth was very good at gymnastics. She could imitate everything she saw professional gymnasts do. Flips, jumps, and rolls were all easy for the flexible and compact Elizabeth.

When Elizabeth was 21, she had her first ride in an airplane. She enjoyed it so much that she wanted to take flying lessons. So, every day on her lunch hour, she rode her bike from the court house where she worked, to the airport for a flying lesson. When the lesson was over, she hopped on her bike and went back to work. Then, when she finished working at the end of the day, she got on her bike again and headed to the airport for more flying. One day, a letter from the United States government was delivered to the airport. It asked for all experienced women pilots to join our country's fight in World War II. All of the male pilots were needed for combat flying, so women were being asked for the first time to fly for the military. This was to be an experiment by our government to see if it was possible for women to fly the huge military planes. It would take a lot of physical and mental strength to do this job. Could women pilots handle it?



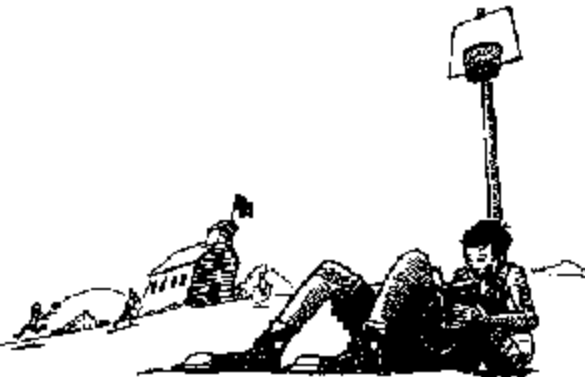
Elizabeth was accepted into this program, called the Women's Army Service Pilots (WASP). As a WASP she learned to fly many different planes. One of the jobs of a WASP was delivering new planes from the factory to places where the military needed them for fighting the war. They also trained other pilots, and pulled targets behind their planes so soldiers on the ground could practice their aim. When a plane from the war needed repairing, it was the WASP who went to get it and fly it to a repair station. From 1942 to 1944, the WASP served our country by filling an urgent need for pilots. When the war ended the women pilots were told to go home.



The government did not declare the WASP to be a part of the U.S. Military as had been promised. The WASP were forgotten. Then, in 1978, our military started talking about allowing women into the pilot training program for the first time. The WASP spoke up and said, "Hey, we were the first women military pilots 36 years ago, and we want to be recognized." Our government agreed, and the WASP are now officially recognized as being the first female pilots in our country's military history.

## Bennie L. Davis

Bennie L. Davis was born on May 12, 1928 in McAlester, Oklahoma. His mother, an American Indian, and his father of Welsh and English ancestry enjoyed life in the small town of McAlester. There was always something to do. Bennie, who always had plenty of energy, was very active in sports. He especially liked to play football, basketball, and softball.



When he wasn't playing at one of his favorite sports, he was reading.

When Bennie was a boy, airplanes were a fascinating new invention. Bennie read about the adventures of famous pilots such as Charles Lindbergh and Wiley Post, two of the early pioneers in aviation. If Bennie wanted to see an airplane up close, he could go to the small airport with a grass runway that was near his house. This was a great opportunity for a curious child. When Bennie was 10, he had his first ride in an airplane. For \$1.00, the pilot took him up and showed him what the little town of McAlester looked like from a bird's-eye view. It was exciting to be that high in the sky. But young Bennie never dreamed he would become a pilot.

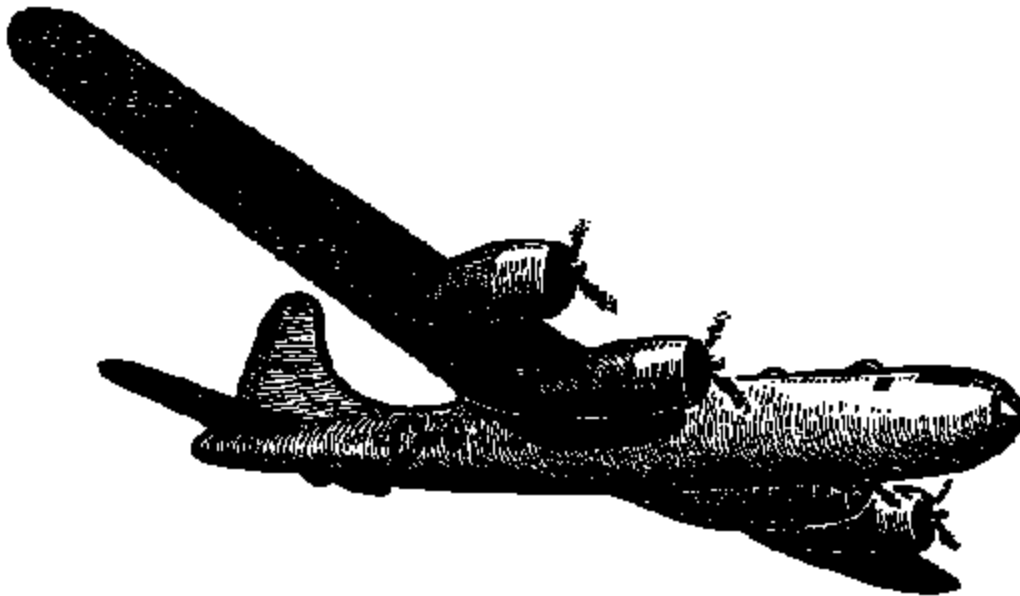
In high school, Bennie was a good student and a good athlete. He enjoyed learning, and he liked the fun and challenge of playing football. He had plenty of energy for both schoolwork and sports.





After high school, Bennie began college at the West Point Military Academy. He continued to be an excellent student and was a member of the winning wrestling team. After graduating from West Point, he considered becoming a pilot for the first time. He joined the U.S. Air Force and began pilot training.

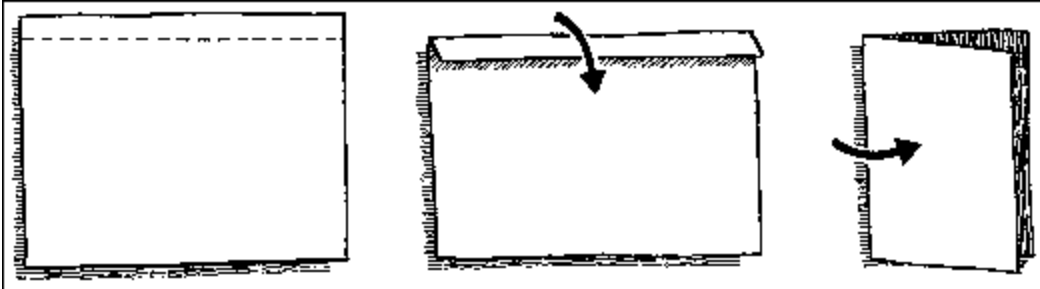
In the air force, Bennie did many things. He was a fighter pilot, a flight instructor, and a commander of air troops. He taught air force pilots how to fly the very specialized jets equipped for fighting. As a commander, he planned and flew dangerous missions, fighting the enemy in the sky. Because of his leadership abilities and knowledge, he was asked to be the commander in charge of all air force nuclear weapons. This included planes carrying bombs and missiles (bombers), planes carrying fuel for other planes (tankers), and planes used for gathering information about the location of troops and targets (reconnaissance).



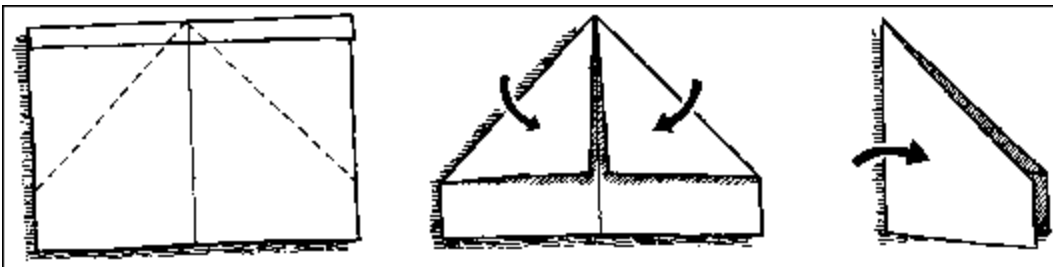
Next Bennie was asked to be a member of the military team that works directly with the President of the United States. This team, called the Joint Chiefs of Staff, is made up of representatives from all four branches of the U.S. Military: army, navy, air force, and marines. The president and the secretary of defense work directly with this team when making plans and decisions about our country's defense. It was a great honor to be a part of this team. During his career in the air force, Bennie faced challenges with energy and enthusiasm. His leadership helped to strengthen our country's military and make it a successful and effective power.

### Easy Flier

**Step One:** Use paper the long way, fold over top edge, then fold in half.



**Step Two:** Open flat again, and fold corners to center, then fold in half.



**Step Three:** Fold wings down along dotted line, bring wings back up into flying position, then fold up wing tips.

