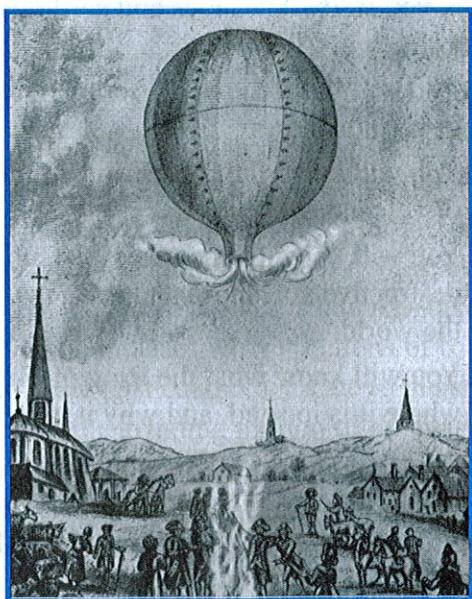


The Great Airships Called Zeppelins

The dream of flight goes back thousands of years. Most people date the first successful flight to the era of the Wright Brothers in the United States, but people were safely traveling long distances in the air before that. In fact, the earliest successful form of human flight was in lighter-than-air craft. The first such flight was in a hot-air balloon, which was flown in France by the Montgolfier Brothers in 1783. Balloons had their problems, however. The greatest of these was, perhaps, the fact that they could not truly be steered. Instead, they went where the wind took them.



Airships Improve Upon Balloons

Airships are related to balloons because they are also lighter-than-air craft. That is, the weight of an airship is less than the weight of the air that it displaces. The great advantage of airships over balloons, however, is that they can be steered. In fact, one of the words that refers to airships is *dirigible*. It comes from a French word meaning “steerable.”

Rigid Airships

There are different types of airships, which are categorized according to how rigid they are. The nonrigid airship is a blimp. There are also semirigid, or partially rigid, airships, as well as rigid airships. Rigid airships are also called zeppelins. The name *zeppelin* comes from the inventor of the rigid airship, Count Ferdinand von Zeppelin.

Zeppelins Fly in Times of War and Peace

In their day, zeppelins were hugely successful! The first successful flight in a zeppelin took place in 1900. It carried five passengers. It covered a total distance of approximately 6 kilometers (3.7 miles) in 17 minutes. By 1909, a German company had created an airline that used airships built by Count Zeppelin. This was a great first in commercial aviation.

When World War I began in 1914, Germany used zeppelins as bombers. They were never very successful as fighter planes, however. There were several reasons why. First, zeppelins were filled with hydrogen. As a result, they were very easy to set on fire. Second, they could not climb quickly into the air to get out of the way of enemy fire. Third, they could not climb much above 3,000 meters (about 10,000 feet) because their crews could not get enough oxygen or stay warm enough at that height.

Zeppelins Take Off

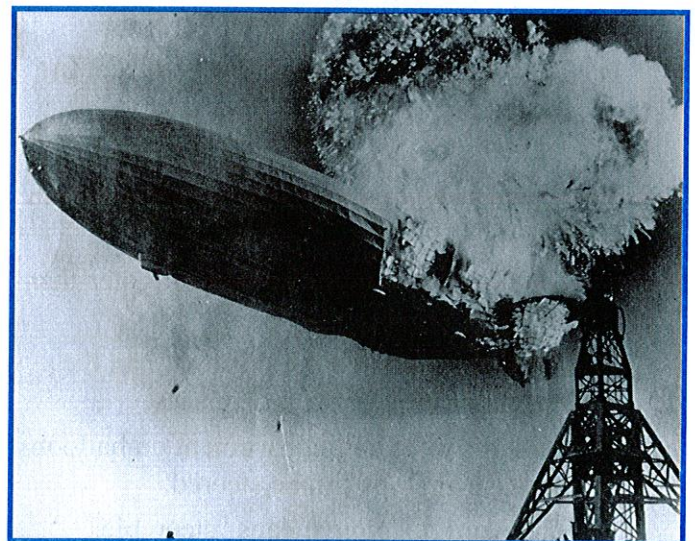
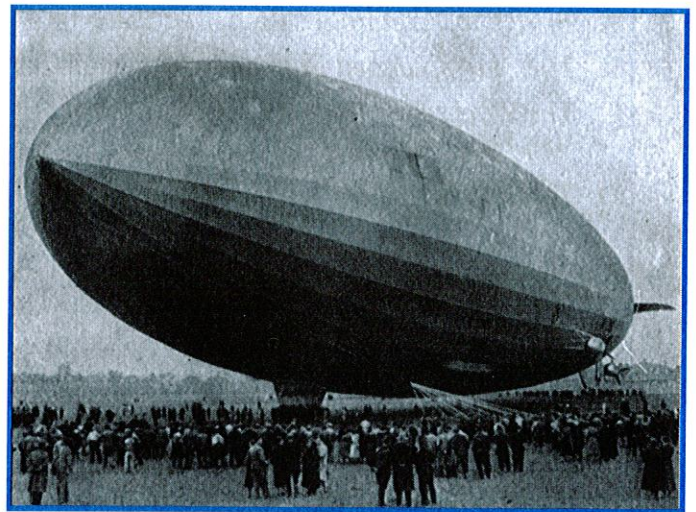
At the end of the war, zeppelins became more popular than ever for passenger flights. The United States military began using zeppelins, too. Among the most famous U.S. zeppelins was the *Los Angeles*. It could hold thirty passengers and also had comfortable sleeping arrangements for them. It made 250 successful flights.

During the 1920s and 1930s, Germany kept improving its zeppelins. Two of them became very famous. One was the *Graf Zeppelin*, which made 590 flights, including 144 flights across oceans. It flew more than one million miles. At the time, it was considered the finest airship ever built.

The Hindenburg

The other famous zeppelin was the *Hindenburg*. By the time it was built in 1936, zeppelins were often the fashionable and preferred method of crossing the ocean for the rich and famous. After all, at a lightning-fast speed of 132 kilometers per hour (about 82 miles per hour), they were much quicker than ocean liners. As an added bonus, the journey by air cost less than the trip by sea. The *Hindenburg* also provided every comfort. It had a dining room, a library, and even a lounge with a grand piano in it! On its first journey in 1936, more than 1,300 passengers, as well as thousands of pounds of mail and cargo, safely traveled from Germany to New Jersey.

On its eleventh roundtrip journey between Germany and the United States, however, tragedy struck the *Hindenburg*. The airship exploded and burned just as it was about to land. The event was both horrifying and eternally memorable for all who were waiting on the ground. This tragedy helped end the age of the airship. Perhaps an even greater reason for the end of airship travel was the success of heavier-than-air craft, whose use quickly followed the first airplane flight of the Wright Brothers in 1903.



45. Which is the **most effective** reading strategy for previewing this selection?
- A reading the title and subheads and studying the illustrations
 - B using the subheads to make a sequence chain
 - C scanning the text for key words that are repeated
 - D highlighting the most important ideas under each subhead

46. What relationship is **most similar** to the one below?

Hindenburg : airship

- A *Bridge to Terabithia* : Katherine Paterson
 - B *The Star-Spangled Banner* : national anthem
 - C *The Witch, the Lion, and the Wardrobe* : English
 - D *Titanic* : tragedy
47. What does the selection suggest about "lighter-than-air" craft?
- A They succeeded only in Germany.
 - B They were best used only at very high altitudes.
 - C They stopped being used as soon as the Wright Brothers made their first successful flight.
 - D They were a stage that came and went in the history of flight.

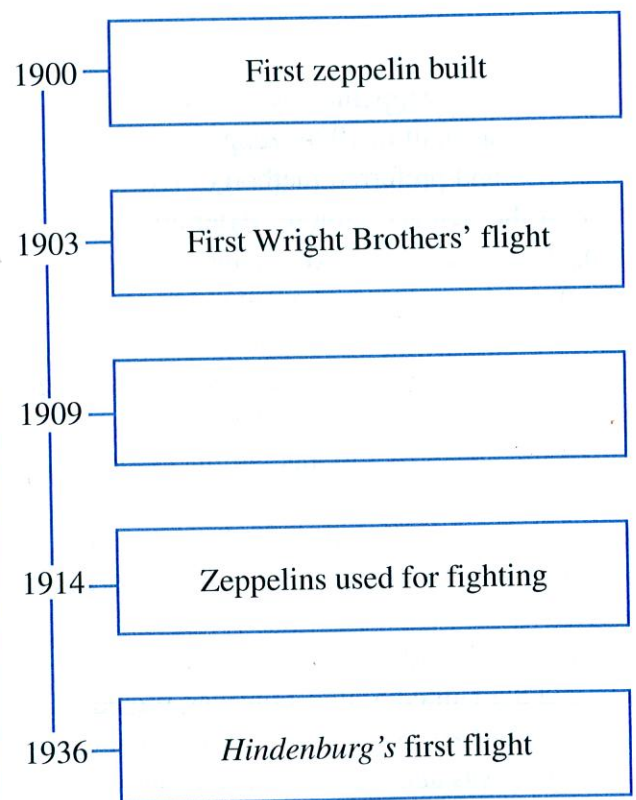
48. What is the **main** point made about airships in paragraph 2?

- A Airships and balloons are both lighter-than-air craft.
- B The weight of an airship is less than the weight of the air that it displaces.
- C Airships were an improvement on balloons because airships can be steered.
- D The word *dirigible* means "steerable."

49. Which states the **most likely** effect of the author's style on the audience for this article?

- A The audience will long to bring back the days of the zeppelins.
- B The audience will be surprised to learn how popular zeppelins were.
- C The audience will be persuaded to consider the importance of zeppelins in the history of flight.
- D The audience will be informed of the place of the zeppelin in the history of flight.

50. Which information goes in the empty box of the time line?



- A *Graf Zeppelin* built
- B First balloon flight
- C *Los Angeles* built
- D First zeppelin airline