

# GHGR 2.5 Week Summarizing & Synthesis

# GHGR 2.5.2 - Pausing to Paraphrase as You Read

- I can practice pausing while reading to identify the most important ideas.
- I can practice retelling the main idea in my own words.
- \* Pausing to stop every so often to restate in your own words what you read is a good strategy.
- \* When good readers restate what they read, they sum up information by including only the most important ideas.

## Balloon Adventures

Brave balloonists have conquered many challenges. Frenchman Jean-Pierre Blanchard crossed the English Channel in a balloon in 1785. In 1978, the *Double Eagle II*, with a crew of three Americans—Ben Abruzzo, Maxie Anderson, and Larry Newman—made the first successful balloon flight across the Atlantic Ocean. In 1999, Bertrand Piccard from Switzerland and Brian Jones from Great Britain successfully piloted the Breitling *Orbiter 3* nonstop around the globe. By 2002, one great challenge remained—the first solo nonstop balloon flight around the world.

On June 19, 2002, in Northam, Australia, American Steve Fossett launched his sixth around-the-world attempt. His balloon, the *Spirit of Freedom*, is a giant combination helium and hot-air balloon.




French aviator Jean-Pierre Blanchard ballooned across the English Channel in 1785.

Steve Fossett launched his attempt. His balloon, the *Spirit of Freedom*, is a giant combination helium and hot-air balloon.



Steve Fossett inside the *Spirit of Freedom* flight capsule

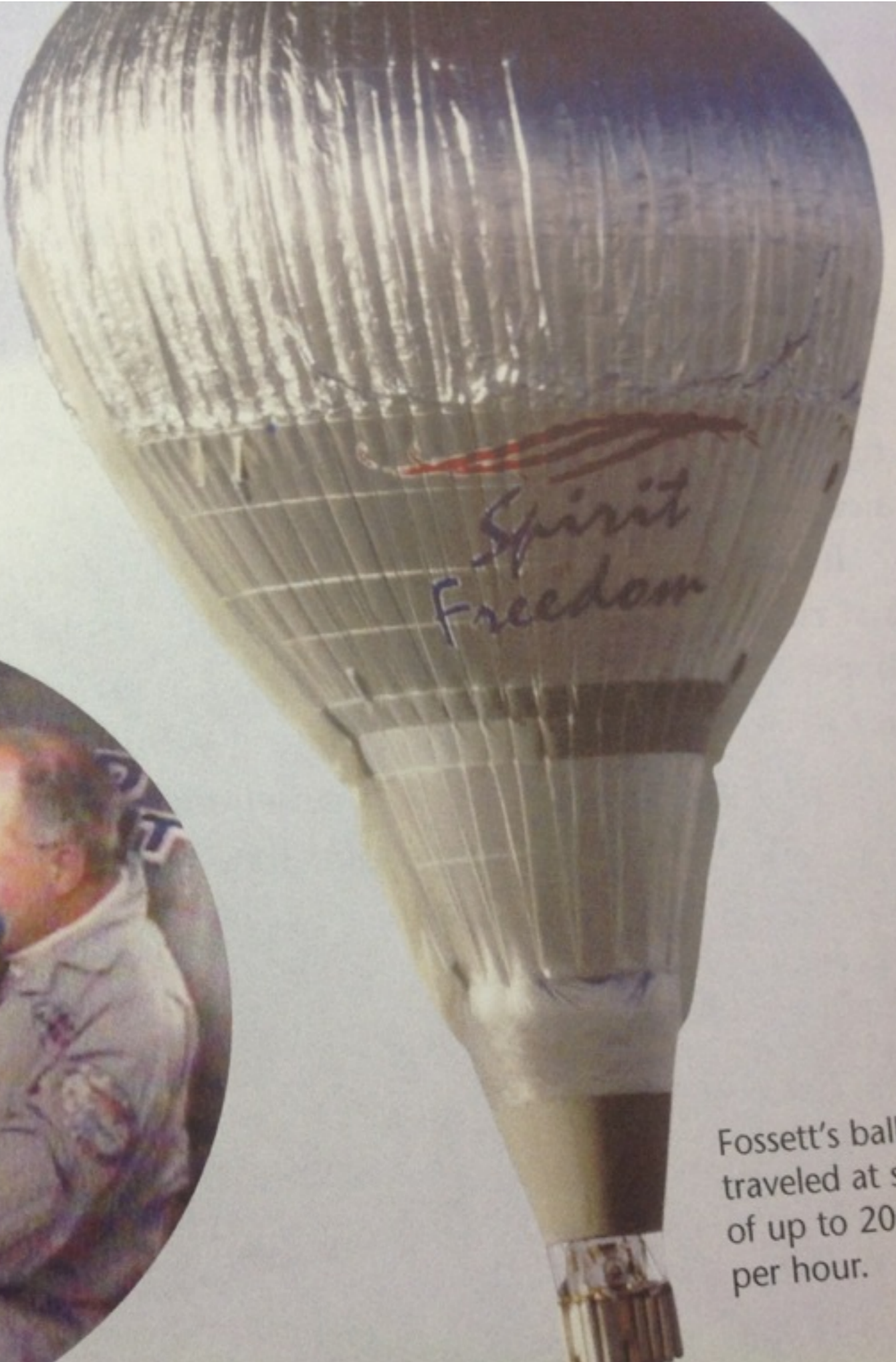
A detailed illustration of a hot air balloon's burner and basket assembly. The burner is a complex metal structure with multiple fuel valves and a central burner head. It is suspended by ropes from a large, dark, cylindrical basket. The background shows a light blue sky with other hot air balloons in the distance.

The helium gives the balloon its buoyancy, and the hot-air burners allow a high degree of control over ascent and descent.

The journey was sometimes a perilous one. Once, heavy winds pulled the balloon downward. As Fossett fought the winds, the balloon rose and fell like a yo-yo. However, 14 days after liftoff, the *Spirit of Freedom* touched down safely in Australia after circling the globe.

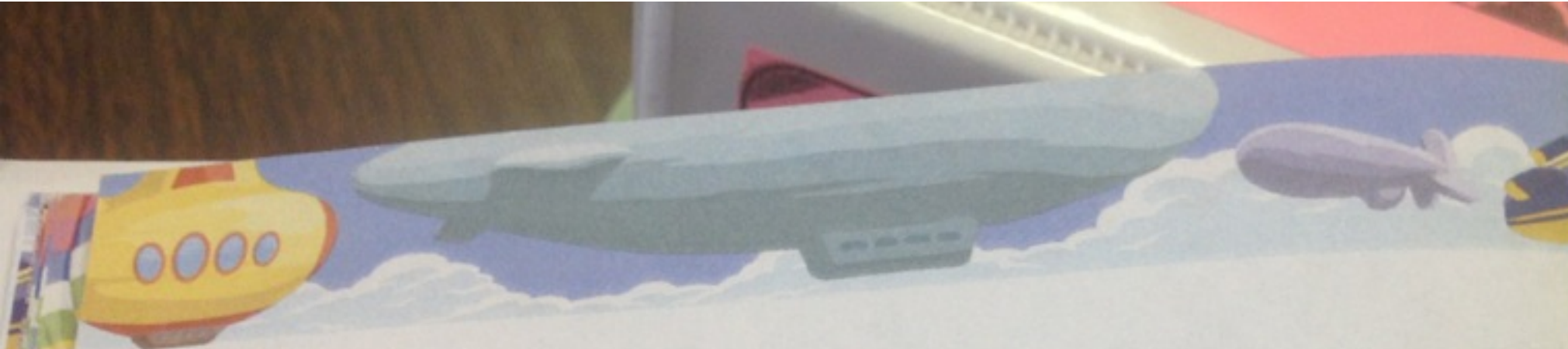
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Fossett used an oxygen mask to help him breathe at the high altitude.



Fossett's balloon traveled at speeds of up to 200 miles per hour.

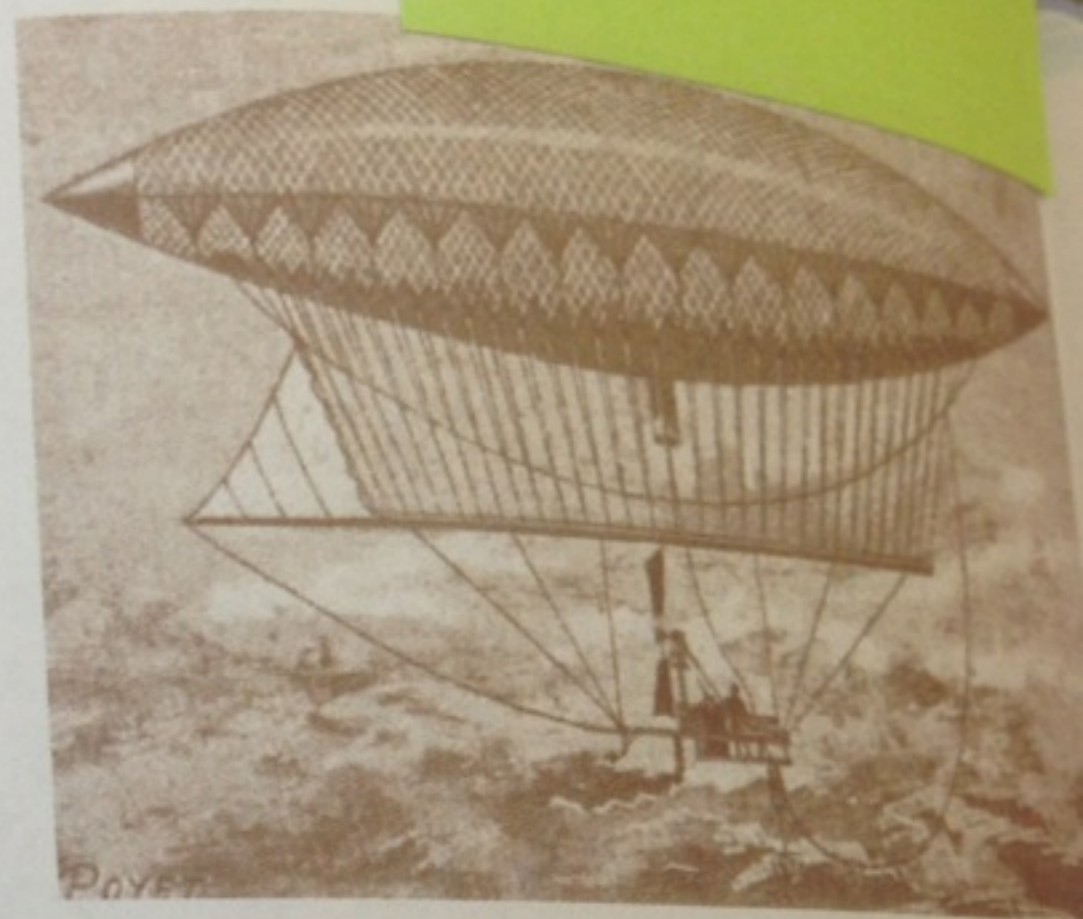
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# Airships

Although early balloonists learned to take advantage of varying wind directions, maneuvering hot-air balloons was still a challenge. In 1852, Frenchman Henri Giffard built the first flying craft that could be steered easily. It was an airship with a flexible frame, called a **blimp**. The age of the airship had begun.

Like hot-air balloons, airships get their buoyancy from a huge envelope filled with lighter-than-air gas. However,



Airships are also known as dirigibles, a French word meaning "capable of being steered or directed."

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Like hot-air balloons, airships get their buoyancy from  
a huge envelope filled with lighter-than-air gas. However,  
airships have long, thin shapes to increase their stability and  
reduce drag. They also have engines that provide thrust in  
the air. The movable panels on the airships' tails are called  
rudders. Engine thrust and rudders enable pilots to steer  
airships through the skies.

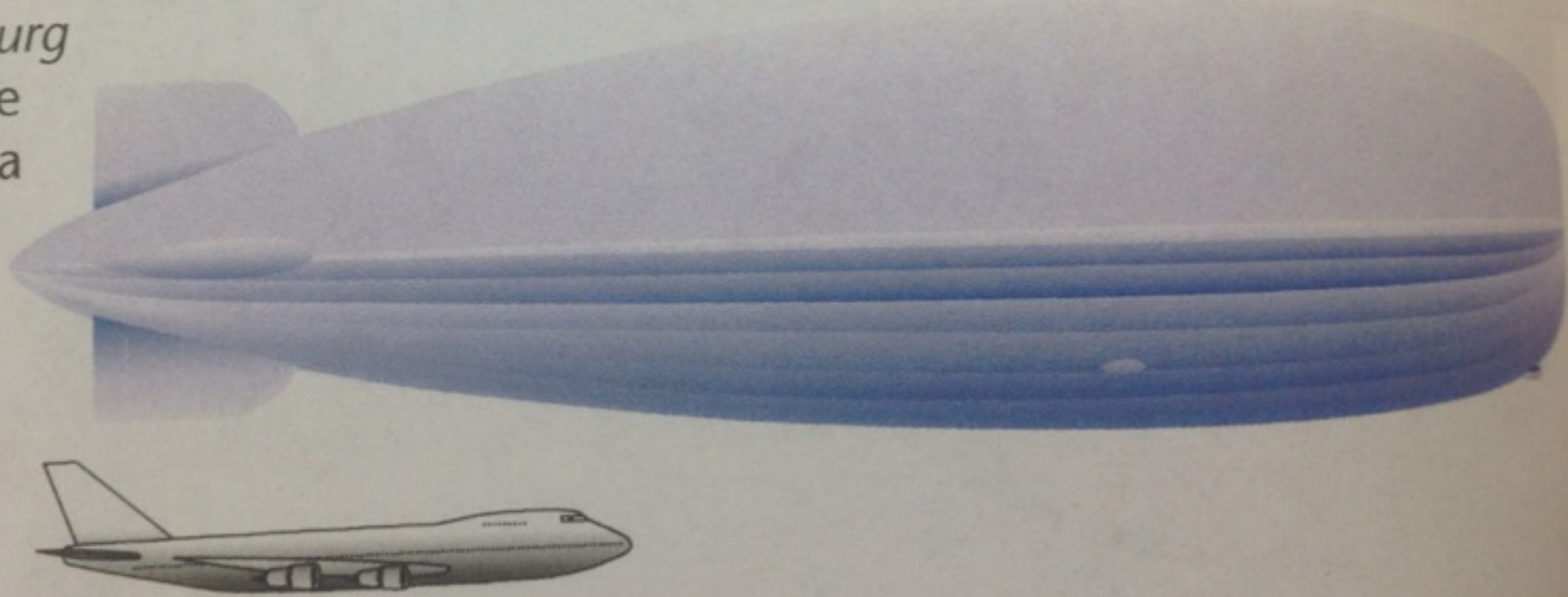
In 1900, German Count Ferdinand von Zeppelin built the  
first rigid airship with a stiff frame that could maintain its  
shape. His airships, called Zeppelins, were used for military  
patrols and scientific surveys. During World War I, German  
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The airship *Hindenburg* was more than three times the length of a modern jumbo jet.

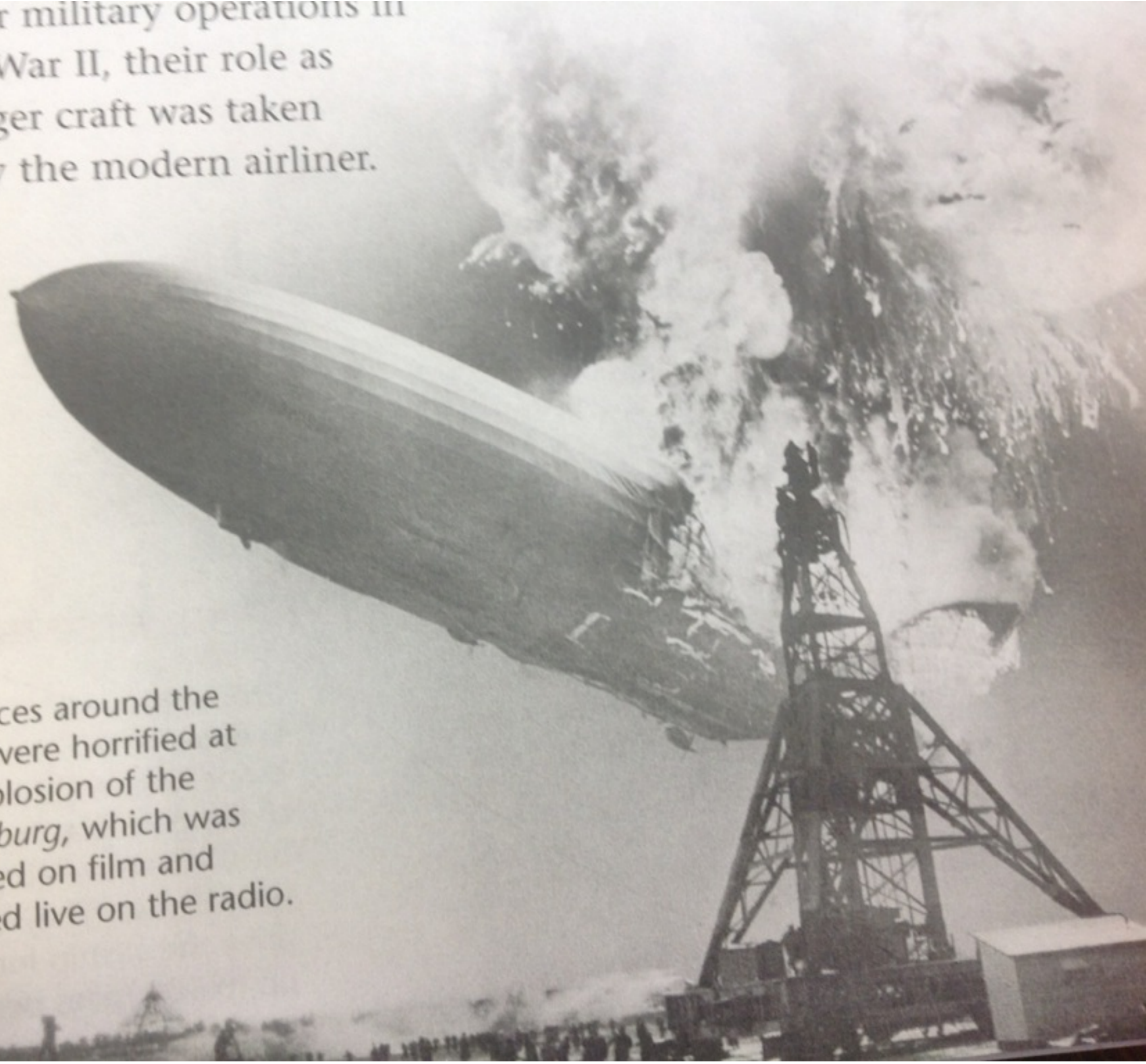


Airships weren't used only for military purposes. They ferried passengers across the oceans in luxury, with sleeping cabins, restaurants, and even libraries. The magnificent machines of the 1920s and 1930s were the biggest aircraft to have taken to the skies.

In the 1930s, however, the age of the airship came crashing to the ground. There were a number of accidents, including the crash of the British ship *R101* and the American ship *Akron*. The fast-burning hydrogen gas that filled airships made them vulnerable to fire. In 1937, when the world's longest airship, the *Hindenburg*, burst into a flaming inferno, 35 passengers were killed. As a result, the public lost confidence in airship safety. Although airships were still used for military operations in World War II, their role as passenger craft was taken over by the modern airliner.

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Audiences around the world were horrified at the explosion of the *Hindenburg*, which was recorded on film and reported live on the radio.





Airships were used to film the 2008 Olympics.

## Airships Today

Airships are making a comeback. New technologies and materials

## Airships Today

Airships are making a comeback. New technologies and materials have solved the safety problems of earlier designs. Helium, a safe gas, is used in place of quick-burning hydrogen, which caused many early airships to burn. Light, tough, and fireproof materials have replaced steel, wood, and cotton.

Today, modern airships carry cameras over sporting events, such as the Olympic Games; act as aerial cranes; or transport freight. Their high visibility means that they are frequently used to advertise company brand names.

Airships are not as fast as airplanes, but they can fly all day using much less fuel. They make less pollution and noise than many other aircraft. Perhaps a new age of airships will emerge, and passengers will begin to fly regularly on these gentle giants.



Passenger airships may be slower than

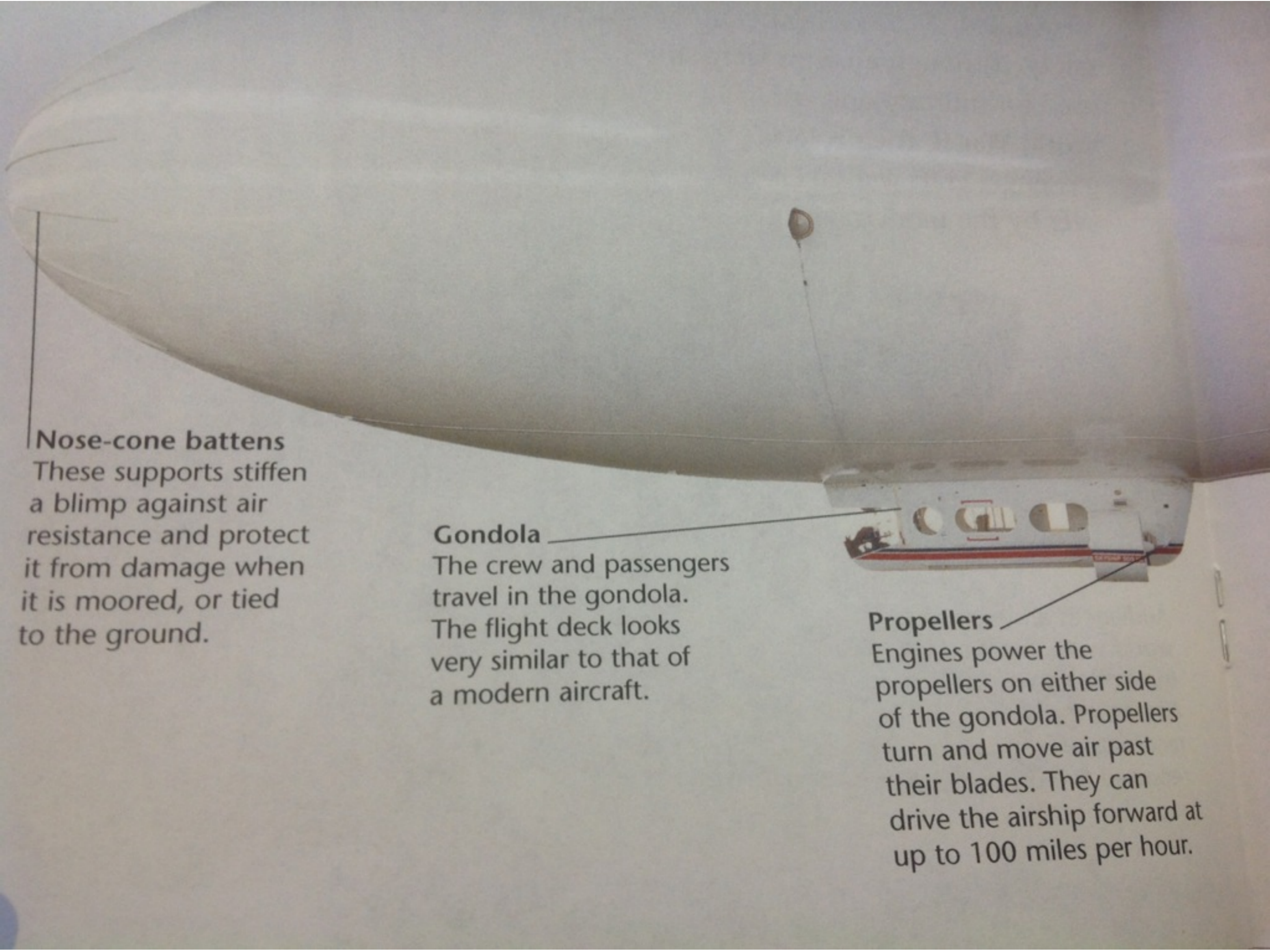
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# Airship Construction

The key difference between an airship and a balloon is the pilot's ability to steer an airship and move it ahead in any direction. This is made possible by the thrust from the engine, steering mechanisms, and the aerodynamic sausage-shaped envelope.



**Nose-cone battens**

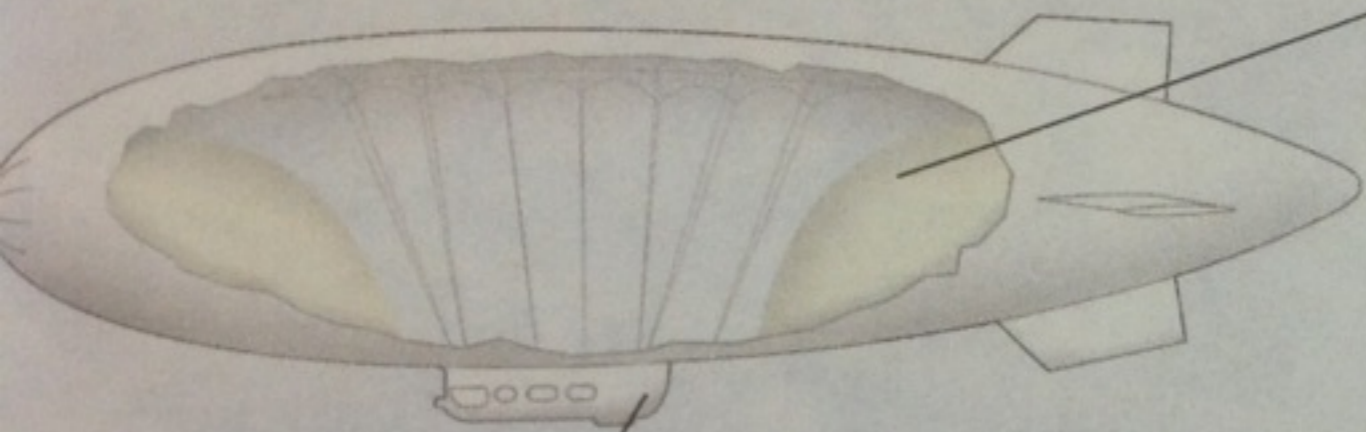
These supports stiffen a blimp against air resistance and protect it from damage when it is moored, or tied to the ground.

**Gondola**

The crew and passengers travel in the gondola. The flight deck looks very similar to that of a modern aircraft.

**Propellers**

Engines power the propellers on either side of the gondola. Propellers turn and move air past their blades. They can drive the airship forward at up to 100 miles per hour.



**Ballonets**

The ballonets are air bags inside both ends of the main helium envelope. They can be filled with or emptied of air to make the blimp descend or ascend.

**Ballast tank**

Water is carried as ballast in a tank. It can be released to reduce weight for a rapid ascent.



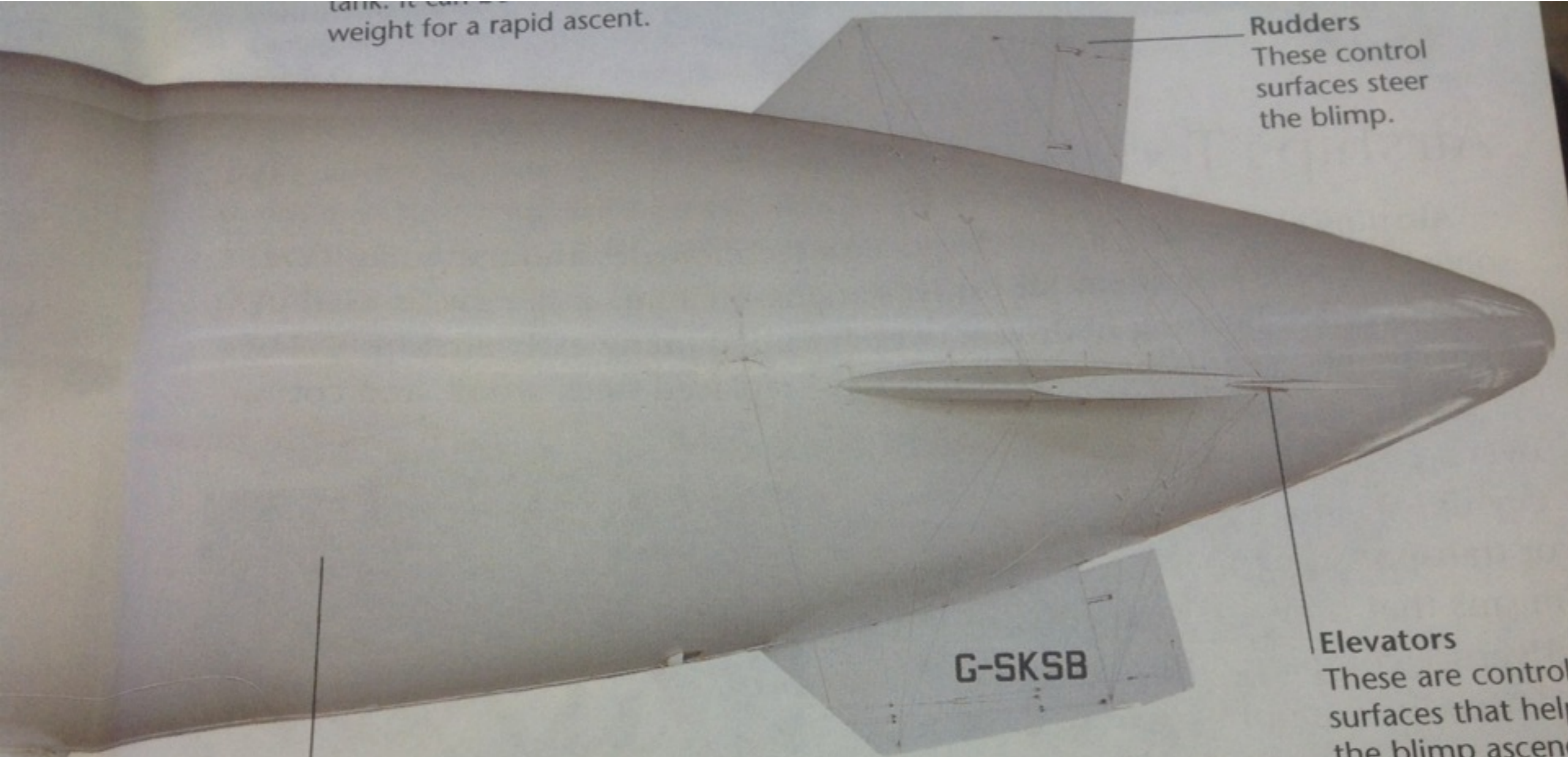
**Rudders**

These control surfaces steer the blimp.



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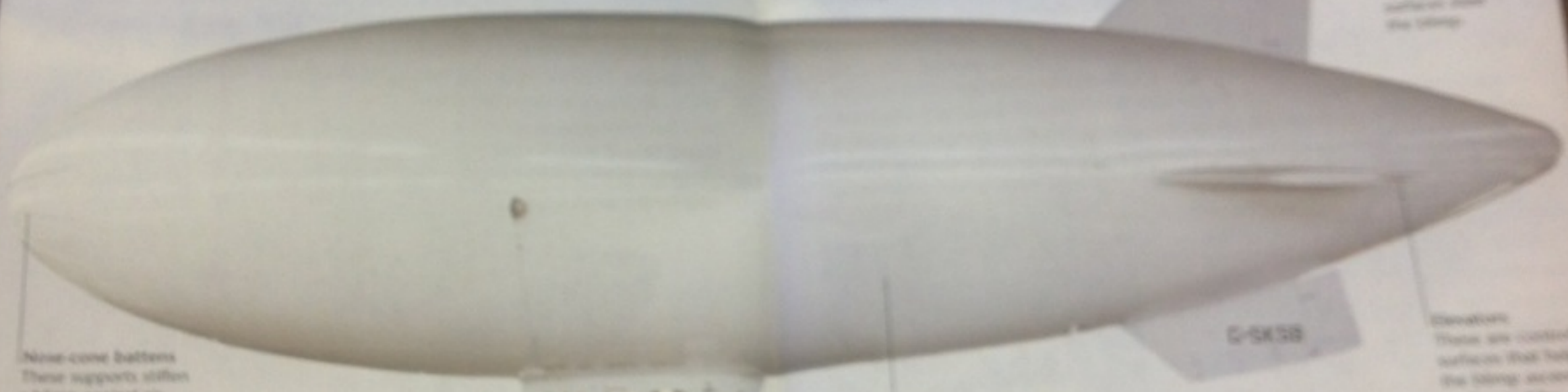


**Elevators**  
These are control  
surfaces that help  
the blimp ascend  
or descend by  
changing angles.

**Envelope**  
This is the large bag that holds  
the gas. Modern envelopes are  
made of specially designed  
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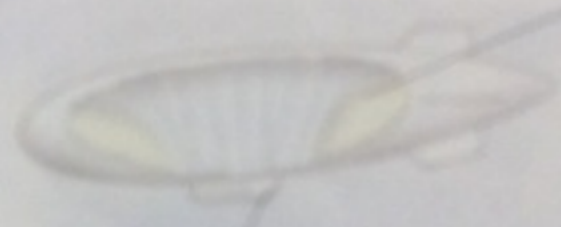


**Nose-cone battens**  
These supports stiffen a blimp against air resistance and protect it from damage when it is moored, or tied to the ground.

**Gondola**  
The crew and passengers travel in the gondola. The flight deck looks very similar to that of a modern aircraft.

**Propellers**  
Engines power the propellers on either side of the gondola. Propellers turn and move air past their blades. They can drive the airship forward at up to 100 miles per hour.

**Envelope**  
This is the large bag that holds the gas. Modern envelopes are made of specially designed synthetic fabrics.



**Balloon tank**  
When it is inflated as a balloon in a tank, it can be released to reduce weight for a rigid airship.

**Balloons**  
The balloons are all kept inside both ends of the main balloon envelope. They can be filled with or emptied of air to make the ship descend or ascend.

**Rudders**  
These control surfaces steer the ship.

**Elevators**  
These are control surfaces that help the ship ascend or descend by changing angle.

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# Airships

- JP Blanchard was first to fly hot air balloon across the English Channel in 1785, in 1978 three Americans flew across the Atlantic Ocean, in 1999 two guys flew around the globe, in 2002 Steve Fossett tried for 6th time to fly around the world solo
- it took 2 weeks, he had to wear an oxygen mask, speeds of up to 200 mph

# Airships - cont.

- 1st steerable airships called blimps
- rudders to help steer like a boat
- fins, engines, envelope (big air bag), frame
- Count Zeppelin (german) 1900 - airships used for World War 1

read pp. 56-60 and  
summarize the text

- write 7 or 8 factoids from today's reading

## GHGR 2.5.3 - Distinguishing Between Main Ideas and Details to Create a Summary

- I can recognize main ideas in a selection.
- I can identify supporting details in a selection.
- I can distinguish between main ideas and details.

**\* Turn headings into questions.**

**\* As you read, try to answer each question, focusing on main ideas, instead of details.**

**\*Then use main ideas to summarize the text in your own words.**

**\*This way you are checking your understanding of the text.**

# Hopi

- What is the land of the Hopi?
- The Pueblo people lived in Old Oraibi. Pueblo meant the villages they lived in and what they were called by the Spanish.
- Who were the farmers of the desert? How did they farm?
- They were called the Hopi, and they used irrigation to water their crops, built dams, used dry farming, involved EVERYONE in the village, and used special types of corn that had long roots.

Read pp. 61-64 turning headings into questions and answering them.

- What are some examples of masks on stage?
- Why do we use masks on stage?



# GHGR 2.5.4 - Combining Related Information

- I can recognize related information in a text.
- I can combine related ideas to summarize a text.

**\*To summarize information in a text, you need to look for ways KEY IDEAS are related and can be grouped (synthesized).**

**\*Looking for related information helps you to create a summary.**

**\*A summary is the "inner voice" that good readers use as they think about a text.**

**Related Ideas**

**Summary**

Read pp. 65-66 and complete the chart

**Related Ideas**

**Summary**

| <b>Related Ideas</b> | <b>Summary</b> |
|----------------------|----------------|
|                      |                |

# GHGR 2.5.5

- When I pause to think about what I'm reading, first I...
- What I often do next is...
- This is important to do as a reader because...
- I decide what details are important by...
- I figure out what the main idea is of a selection by...
- I summarize my reading selection by....