

## **B' Ομάδα Θεμάτων**

### **Writing Activity Three: The History of Aviation, Part V**

#### **Lead-in**

*Answer the following questions.*

- What were some of the technological advances that took place during the period between the two World Wars?
- Can you name some of the most famous pilots of this era and their achievements?

#### **Focused Reading**

*Read the text below about technology and advances in aviation's "Golden Age" and answer the following questions.*

1. What motivated the construction of faster aircraft in the U.S.A.?
2. Were there any female pilots during that period?
3. What happened to the Hindenburg airship? Could have it been prevented?
4. What were the consequences of the Hindenburg disaster?
5. What kind of gases were used in airships?
6. When was instrument flight developed and by whom?

### **AVIATION IN THE 20<sup>th</sup> CENTURY - Technology and Performance**

#### **Advances in Aviation's "Golden Age" (1918-1939)**

The years between World War I and World War II saw great advancements in aircraft technology. Airplanes evolved from low-powered biplanes made from wood and fabric to sleek, high-powered monoplanes made of aluminum.

After WWI experienced fighter pilots were eager to show off their new skills. Many American pilots became barnstormers, flying into small towns across the country and showing off their flying abilities, as well as taking paying passengers for rides. Eventually the barnstormers grouped into more organized displays. Air shows sprang up around the country, with air races, acrobatic stunts, and feats of air superiority. The air races drove engine and airframe development. With pilots competing for cash prizes, there was an incentive to go

faster. Amelia Earhart was perhaps the most famous of those on the barnstorming/air show circuit. She was also the first female pilot to achieve records such as crossing of the Atlantic and Pacific Oceans.

Other prizes, for distance and speed records, also drove development forwards. For example Charles Lindbergh took the Orteig Prize of \$ 25,000 for the first solo non-stop crossing of the Atlantic.

Australian Charles Kingsford Smith was the first to fly across the larger Pacific Ocean in the Southern Cross. His crew left Oakland, California to make the first trans-Pacific flight to Australia. On arrival, Kingsford Smith was met by a huge crowd of 25,000 at Eagle Farm Airport in his hometown of Brisbane. Accompanying him were Australian aviator Charles Ulm as the relief pilot, and the Americans James Warner and Captain Harry Lyon (who were the radio operator, navigator and engineer). With Ulm, Kingsford Smith later continued his journey being the first in 1929 to circumnavigate the world, crossing the equator twice.

The first lighter-than-air crossings of the Atlantic were made by airship in July 1919 by His Majesty's Airship R34 and crew when they flew from East Lothian, Scotland to Long Island, New York and then back to Pulham, England. By 1929, airship technology had advanced to the point that the first round-the-world flight was completed by the Graf Zeppelin in September and in October, the same aircraft inaugurated the first commercial transatlantic service. However the age of the dirigible ended in 1937 with the terrible fire aboard the Zeppelin Hindenburg. After the now famous footage of the hydrogen-filled Hindenburg burning and crashing on the Lakehurst, New Jersey, landing field, people stopped using airships, despite the fact that most people on board survived. The Hindenburg, combined with the Winged Foot Express disaster that occurred on July 21, 1919, in Chicago, Illinois, in which 12 civilians died, started the demise of the airship. Flammable gas dirigibles did not burn and crash often, but when they did crash they caused a disproportionate amount of destruction to the crash zone compared with the airplanes of the time. It was more shock value than the number of fatalities that caused the retirement of the world's airships. This may not have been the case had helium been available to the Zeppelin company. The United States, holder of the world's only reserves of helium at the time, was loathe to supply it to the company, which was based in Germany.

Meanwhile in Germany, who was restricted by the Treaty of Versailles in its development of powered aircraft, instead developed gliding as a sport, especially at the Wasserkuppe, during the 1920s. In its various forms, this activity now has over 400,000 participants.



In 1929 Jimmy Doolittle developed instrument flight. 1929 also saw the first flight of by far the largest plane ever built until then: the Dornier Do X with a wing span of 48 m.

In the 1930s development of the jet engine began in Germany and in England. In England Frank Whittle patented a design for a jet engine in 1930 and towards the end of the decade began developing an engine. In Germany Hans von Ohain patented his version of a jet engine in 1936 and began developing a similar engine. The two men were unaware of each other's work, and both Germany and Britain would go on to develop jet aircraft by the end of World War II.

### ***Express your opinion***

*Write extensive answers to the following questions.*

1. Can competition become a strong incentive for progress? Justify your answer.
2. Is there a relationship between politics and science? Justify your answer.
3. Should politics interfere with science? Justify your answer.