

What improvements to aviation technology were needed to make commercial aviation successful or more efficient?

Questions/Key Points	Notes
<p>Commercial aviation began with air mail.</p>	<ul style="list-style-type: none"> ● Air mail <ul style="list-style-type: none"> ○ Earliest airmail flights were with lighter-than-air aircraft, see 1.2 <ul style="list-style-type: none"> ■ Pigeons were used to transport messages in ancient societies ○ https://about.usps.com/who-we-are/postal-history/airmail.pdf ○ https://www.jstor.org/stable/23907342 ○ https://www.jstor.org/stable/27787101 ○ https://www.jstor.org/stable/1015744 - page 4, map of airmail routes in May 1927 ○ https://www.historynet.com/airmail-service-it-began-with-army-air-service-pilots.htm ○ First authorized fixed-wing airmail flight: Sept 23, 1911, Earle Ovington, flight from Garden City Estates to Mineola, NY ○ John Wise - Used the balloon <i>Jupiter</i> to make some airmail flights during the 19th century but it wasn't official yet ○ May 1918, first regularly scheduled airmail route, once daily except Sunday, NY -> PHL -> DC and back <ul style="list-style-type: none"> ■ Began using Army Air Service pilots and airplanes, in August, post office took complete control ○ Service began using Curtiss JN-4H planes ("Jenny"), also Standard Aircraft Corporation, DeHavilland ○ Transcontinental airmail - saw the first regularly scheduled night flights <ul style="list-style-type: none"> ■ Used large beacon towers with lights, regularly spaced emergency landing airfields ○ Charles Lindbergh was an airmail pilot ● European beginnings <ul style="list-style-type: none"> ○ https://www.airships.net/delag-passenger-zeppelins/ ○ https://www.jstor.org/stable/1504037 ○ First "airline" - Deutsche Luftschiffahrts-Aktiengesellschaft, "DELAG" <ul style="list-style-type: none"> ■ Used zeppelins (lighter-than-air airships) ○ DELAG was a branch of the Zeppelin Company which made the Hindenburg ○ Started in 1909 ○ Operated passenger air service until 1935; was taken over by Deutsche Zeppelin-Reederei; entire airship passenger industry ended after the Hindenburg disaster ○ Also operated first transatlantic passenger air services in 1928 ○ Airship flights were very luxurious but also expensive; NY -> Frankfurt was \$400 (worth about \$6,000 today) ○ https://www.britannica.com/technology/history-of-flight/The-first-airlines ○ KLM - started in 1919, now the oldest continuously operating airline in the world ○ Most major airlines were started between WWI and WWII ● First airline in America <ul style="list-style-type: none"> ○ https://www.jstor.org/stable/30146185 ○ https://airandspace.si.edu/exhibitions/america-by-air/online/early_years/earl
<p>First passenger air services were in airships/dirigibles. Were people unaware of the dangers of hydrogen balloons? Surely they knew that the gas was extremely flammable...</p> <p>The first airline in America came about</p>	

How did commercial and civil aviation begin?

What improvements to aviation technology were needed to make commercial aviation successful or more efficient?

because of the geographical advantages of an air route between Tampa and St. Petersburg.

How did the aviation industry, in its infancy, survive through the great depression? To what extent did Charles Lindbergh actually influence the aviation industry as a whole? Was it that big of a deal?

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- St. Petersburg-Tampa Airboat Line; first airline with regularly scheduled flights using heavier-than-air aircraft
- Established in 1913; operated flights b/w St. Petersburg and Tampa between January and March 1914
- Used Benoist XIV Flying Boats
- Airline industry during the great depression
 - Commercial airmail service continued throughout the depression, except for a brief military takeover (see ref above, 23907342)
 - <https://www.jstor.org/stable/3105486>
 - <https://www.jstor.org/stable/2114930>
 - Fame of Charles Lindbergh, along with increased availability of aircraft, led many to start airlines/air travel companies (among many other factors). Known as the “Lindbergh boom”
 - During great depression - because there was still demand for aircraft, most other manufacturing companies went bankrupt but companies involved with air transport stayed alive through the depression
 - Demand in the air transport industry still dropped by a lot during the depression, at a rate similar to the growth of the industry during the Lindbergh boom

Summary

At the end of the Great War, there was a large surplus of aircraft, which made room for people to capitalize on them. Commercial aviation began with air mail, where further advances in technology made room for airplanes to begin carrying paying passengers.