

How did aviation develop so quickly after the initial successes of the Wright brothers?

Questions/Key Points	Notes
<p>It had only been 16 years after the Wright brothers made the first flight, so how were airplanes so advanced at this point?</p>	<ul style="list-style-type: none"> ● Crossing the Atlantic <ul style="list-style-type: none"> ○ Curtiss NC-4 <ul style="list-style-type: none"> ■ https://www.jstor.org/stable/44523606 ■ https://archive.org/details/triumphofncs00westrich/page/186/mode/2up ■ First transatlantic flight ■ In 1918, Curtiss collaborated with navy to build a flying boat ■ In 1919, four planes (one of them was a NC-4) flew from Rockaway to the Azores (in stages) <ul style="list-style-type: none"> ● Started May 8th ■ Curtiss died in 1930 from appendicitis ○ Early skepticism of transatlantic flying: <ul style="list-style-type: none"> ■ https://www.jstor.org/stable/26014463 ■ “Having noticed in your current issue a note telling of the second attempt of Messrs. Curtiss and Wanamaker to cross the Atlantic in a single flight in a huge triplane of the former’s design and construction, I am writing you in order to show why the project is an impossibility at the present stage of development of aviation” ○ Alcock and Brown <ul style="list-style-type: none"> ■ https://www.jstor.org/stable/44523608 (also ref. NC-4) ■ First nonstop transatlantic flight ■ June 14-15, flew in a Vickers Vimy from St. Johns to Clifden, Ireland
<p>Why is Charles Lindbergh the only one ever talked about in terms of transatlantic flights?</p>	<ul style="list-style-type: none"> ○ Charles Lindbergh <ul style="list-style-type: none"> ■ https://search.proquest.com/docview/104099455/E34875E2DE5F40C2PQ/1?accountid=1013 ■ https://search.proquest.com/docview/104171597/E34875E2DE5F40C2PQ/2?accountid=1013 ■ https://search.proquest.com/docview/104170507/E34875E2DE5F40C2PQ/5?accountid=1013 ■ https://www.britannica.com/biography/Charles-Lindbergh ■ First solo nonstop transatlantic flight ■ Was previously an air mail pilot ■ May 20-21, first solo nonstop transatlantic flight from New York to Paris in “The Spirit of St. Louis” <ul style="list-style-type: none"> ● Custom built airplane with one seat and extra fuel tanks ■ 3600 miles in 33 ½ hours ■ Received a lot of attention
<p>The first transcontinental flight and the first aerial circumnavigation were both done by the Army</p>	<ul style="list-style-type: none"> ● Fokker F.IV <ul style="list-style-type: none"> ○ https://youtu.be/XkxM3J6x7EM ○ https://pioneersofflight.si.edu/content/first-nonstop-transcontinental-flight#:~:text=Oakley%20G.,just%20under%2027%20hours%20later. ○ Also known as Army Air Service T-2, was used to make the first nonstop transcontinental flight in the US, from New York to San Diego ○ May 2, 1923 ○ Part of an army effort to improve aircraft and engines to fly longer distances

<p>Air Service.</p> <p>Had it not been for the military, would aviation have developed so quickly?</p>	<ul style="list-style-type: none"> ● Circumnavigation <ul style="list-style-type: none"> ○ https://pioneersofflight.si.edu/content/first-flight-around-world#:~:text=On%20April%206%2C%201924%2C%20eight,and%20covering%20about%2027%2C550%20miles ○ 1924 April, first aerial circumnavigation of the world, by the US Army Air Service ○ Took 175 days, 74 stops ○ https://search.proquest.com/docview/111010932/pageviewPDF/CD8D2637B85747DDPQ/1?accountid=1013 ○ 1986 December, first nonstop aerial circumnavigation ○ Richard G. Rutan, Jeana Yeager ○ Done in experimental NASA aircraft “Voyager” ○ From Edwards AFB ○ Took 9 days ● Supersonic Flight <ul style="list-style-type: none"> ○ Bell X-1 <ul style="list-style-type: none"> ■ https://airandspace.si.edu/collection-objects/bell-x-1-glamorous-glenis/nasm_A19510007000 ■ https://www.nasa.gov/centers/armstrong/history/experimental_aircraft/X-1.html ■ 1947, October 14 - Chuck Yeager breaks the speed of sound in a Bell X-1 ■ Collaborative effort between National Advisory Committee for Aeronautics, Bell Aircraft Corporation, and Air Force ■ First supersonic flight ■ Powered by a rocket engine ■ Was launched from a B-29 at 23,000 ft
<p style="text-align: center;">Summary</p> <p>Just 16 years after the Wright brothers’ first powered flight, airplanes were already advanced enough to cross the Atlantic Ocean. This seems like a remarkably short amount of time for such a large achievement. Military incentives were the driving force behind the development of aviation, as nations needed to compete with each other to gain military advantages. World War I and World War II heightened this need for innovation, which led to the rapid development of flight technology.</p>	