

To what extent is it feasible to reintroduce commercial supersonic air travel by the year 2040?

Abstract

My dissertation researched the different factors that would affect the feasibility of the reintroduction of commercial supersonic passenger aircraft, with a deadline of 2040. I think this topic is important in the field of aviation, as the last supersonic airliner was designed over 70 years ago, and there is potential for modern technology to revolutionise modern air travel. A wide range of secondary sources were used in this dissertation, including journal reports, research papers, newspaper articles, books and documentaries. The dissertation was split into 4 thematic chapters, covering economics, sustainability, sonic booms and safety. The main case study used was Boom Supersonic's Overture aircraft, a modern supersonic aircraft. Their recent success in testing the XB-1 supersonic test aircraft is a testament to their progress as a new and privately owned company. The history of Concorde was studied, which allowed me to understand its shortcomings. My research found that it was highly likely that Boom Supersonic (the case study used) would be able to reintroduce commercial supersonic flights by the year 2040, however, the largest hurdle that remains is if they can meet strict regulation regarding sonic booms, with their 'boomless cruise' technology in addition to noise pollution reduction.