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“Supersonic Aircraft: Balancing Fast, Affordable, and Green”

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Abstract

There has been a renewed interest worldwide focusing on identifying technological advances, which can allow production and operation of new commercial supersonic aircraft. There is a lot of advancement since the Concorde was developed however many challenges still exist. A supersonic business jet (SBJ) is seen as a technological stepping-stone in the overall challenge of advancing the speed of commercial aircraft. This paper outlines some of the key technological, economic, and environmental challenges facing such an aircraft. Quality of life and health impact environmental issues include sonic boom, aircraft community noise, and aircraft emissions. The authors maintain that a successful supersonic aircraft will depend on our ability to deal with these issues. We suggest that working within an international arena to address these issues is necessary to ensure that all stakeholders' concerns are considered. Ultimately, successfully addressing concerns regarding sonic boom is a necessary condition for regulatory authorities to reconsider the current ban on supersonic fight over land, *the* key constrain to the business case for future supersonic transports.

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