

1. Record Nr.	UNINA9910554871403321
Autore	Torenbeek Egbert
Titolo	Essentials of supersonic commercial aircraft conceptual design // Egbert Torenbeek
Pubbl/distr/stampa	Hoboken, New Jersey : , : Wiley, , 2020 ©2020
ISBN	1-119-66704-6 1-119-66703-8 1-119-66706-2 9781119667063
Descrizione fisica	1 online resource (181 pages)
Collana	Aerospace series
Disciplina	629.133349
Soggetti	Supersonic transport planes - Design and construction
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Sommario/riassunto	"Since the birth of Concorde there has been a wealth of scientific publications on topics such as the development of supersonic cruise vehicles, aerodynamics, propulsion, structural design and flight physics, in particular analysis of the sonic boom. However, since the demise of Concorde more than half a century ago, there are no designers left with the experience and knowledge required for developing a new initial design proposal. Conceptual Design of Supersonic Commercial Aircraft addresses this need and is a must-have guide to conceptual supersonic aircraft design, providing a state-of-the-art overview, expert analysis and discussion. It examines the challenges of high-speed flight, covers aerodynamic phenomena in supersonic flow and aerodynamic drag in cruising flight, and discusses the advantages and disadvantages of oblique wing aircraft. The development of supersonic technology since the end of the twentieth century has primarily advanced in the field of transonic and supersonic aerodynamics. For example, many studies have been made in the field of configurations with oblique wings, promising improvements of the flight efficiency up to 20% as well as large gains in reducing the sonic

boom, take-off noise and low speed performance improvements. From this point of a view, a new generation of supersonic passenger aircraft could have a commercial future a decade from now"-- Provided by publisher

---