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Sommario/riassunto	In recent years there has been a renaissance in the field of aircraft flight performance with a number of developments centreing mostly on environmental performance, sustainability, digitisation, large data sets, integration with flight monitoring systems, and novel power plants - just to name a few. The aviation industry is now acutely aware of the climate emergency, and aircraft performance is now intrinsically linked to emissions. The availability of increasingly large amounts of digital data from on-board computers (flight data recorder, FADEC), data transmission to ground stations, internet streaming of flight data, and various web applications have created a wealth of performance data that would have been inconceivable just a few years ago. With advances in these two directions, as well as new engine technology (high by-pass turbofan engines, counter-rotating open rotors), this second edition of Advanced Aircraft Flight Performance features significant updates throughout, along with three new chapters. About one-third of the material now deals with environmental performance. The second part of this book is devoted to a wide spectrum of environmental aspects of flight. Exhaust gases have long time spans and aircraft condensation

trails are there to remind us that aviation is having a measurable impact on our skies. There is hope that sustainable aviation fuels could help reduce the overall emissions. The book also contains advanced material across several disciplines, including data-driven modelling, airframe-propulsion integration, thermo-structural performance, and flight mechanics. This textbook can be used as a guideline for teaching aircraft performance, aircraft noise, and environmental performance at a senior university level.
