1. Record Nr. UNINA9910829890103321

Autore	Louis Gilles
Titolo	Dynamics of aircraft flight / / Gilles Louis
Pubbl/distr/stampa	London : , : ISTE Ltd, , [2022] ©2022
ISBN	1-119-98827-6 1-119-98828-4 1-119-98826-8
Descrizione fisica	1 online resource (204 pages)
Disciplina	629.1323
Soggetti	Flight Aeronautics
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Nota di bibliografia	Includes bibliographical references and index.
Sommario/riassunto	Performance calculations can be classified into three main types: lift, thrust and slope. Firstly, since the lift profile is known and unmodifiable from the time an aircraft is designed, the mass at a given speed or the speed at a given mass must be determined. Then, once the thrust of the engines and the mass are known, the slope must be calculated. Finally, once the slope is known (for example, level flight) as well as the mass, it is necessary to deduce the thrust; this is the position of the throttle control lever that ensures balance. The corresponding consumption must then be defined. Performance specifications for customer aircraft, such as manoeuvrability, fuel consumption, maintenance, safety and testability, have become ever more demanding with each generation of equipment. Major technical advances have been required: wing profiles, engines, materials to reduce mass, etc. This book presents a theoretical approach to flight mechanics that makes it possible to grasp the subject and links it with the empirical approach of manufacturers.