

1. Record Nr.	UNISALENTO991003221749707536
Autore	Yun, Liang
Titolo	Theory and design of air cushion craft [e-book] / Liang Yun, Alan Bliault
Pubbl/distr/stampa	London : Arnold New York : Wiley, 2000
ISBN	9780340676509 0340676507
Descrizione fisica	xii, 632 p. : ill. ; 25 cm
Altri autori (Persone)	Bliault, Alanauthor
Disciplina	629.3
Soggetti	Ground-effect machines Electronic books.
Lingua di pubblicazione	Inglese
Formato	Risorsa elettronica
Livello bibliografico	Monografia
Nota di bibliografia	Includes bibliographical references (p. [612]-616) and index
Nota di contenuto	Introduction to hovercraft * Air cushion theory * Steady drag forces * Stability * Trim and water surface deformation under the cushion * Manoeuvrability * Design and analysis of ACV and SES skirts * Motions in waves * Model experiments and scaling laws * Design methodology and performance estimation * Determination of principal dimensions of ACV*SES * Lift system design * Skirt design * Structural design * Propulsion system design * Power unit selection
Sommario/riassunto	This definitive text describes the theory and design both of Air Cushion Vehicles (ACV) and Surface Effect Ships (SES). It begins by introducing hovercraft types and their development and application throughout the world in the last three decades, before going on to discuss the theoretical aspects of ACV and SES craft covering their hovering performance, dynamic trim over calm water, resistance, stability, manoeuvrability, skirt configuration and analysis of forces acting on the skirts, ACV and SES seakeeping, and the methodology of scaling aerodynamic and hydrodynamic forces acting on the ACV/SES from model test data. The latter chapters describe a design methodology, including design criteria and standard methods for estimating craft performance, lift system design, skirt design, hull structure, propulsion systems and power unit selection. Much technical information, data,

and references to further work on hovercraft and SES design is provided. The book will be a useful reference to engineers, technicians, teachers, students (both undergraduate and postgraduate), operators etc. who are involved in ACV/SES research, design, construction and operation. Guides the reader on how to perform machinery and systems selection within ACV and SES overall design For teachers, students (both at under- and post-graduate level), engineers and technicians involved in ACV/SES

---