

JANE'S

**SURFACE SKIMMER
SYSTEMS**

1967-68

FIRST EDITION

**A WORLD WIDE SURVEY OF AIR CUSHION CRAFT AND VEHICLES
OF AIR-RIDING MATERIALS HANDLING EQUIPMENT
AND OF HYDROFOIL CRAFT**

EDITED AND COMPILED BY

ROY McLEAVY

SAMPSON LOW, MARSTON & CO. LTD.



JANE'S SURFACE SKIMMER SYSTEMS

FIRST EDITION

COMPILED AND EDITED BY
ROY McLEAVY

1967 - 68



Copyright © 1967 by
Jane's Surface Skimmer Systems Publishing Co. Ltd.

LONDON
SAMPSON LOW, MARSTON & COMPANY, LTD.

INTRODUCTION

What's new in surface skimmers? This latest addition to the JANE'S series is the first attempt to answer this, and a host of more specific questions relating to individual vehicles and concepts, through the medium of a single volume.

The need for an annual "state-of-the-art" report on the world's ACVs, hydrofoils, and air lubricated materials handling systems has been felt by the transport industry for some time. In offering SURFACE SKIMMER SYSTEMS to all connected with the planning, construction and operation of transport systems the world over, the publishers hope to fill this gap. They are encouraged by the enthusiasm with which the project has been greeted by correspondents in practically every continent.

Our purpose is to describe and illustrate every new commercial and military air cushion vehicle, whether amphibious, seagoing or tracked; every air-lubricated pallet and conveyor system; and every hydrofoil type. In short, all forms of craft or load carriers which skim across land or sea at interface level will be subject for treatment, together with the intricate machinery and systems that set them in motion.

With this aim of providing a useful and reliable yardstick of scientific progress, we cordially invite all those concerned with skimmer systems in every land to make full use of its facilities for publicising new ideas to our wide international audience.

The first volume is largely the outcome of a survey conducted during June and July 1967, based on questionnaires sent to all known manufacturing companies, research groups and operators.

In this first edition we have not been able to describe every development. But it can be fairly said that most of the details of most of the current concepts are included in the pages that follow.

Regrettably some of the older types, now primarily of historical interest, have been omitted from this first volume through lack of space, and a few of the newer types are also missing. In the latter case, this is because we lacked the necessary background information and it is hoped to rectify this when the next edition comes around.

It will be found that SURFACE SKIMMER SYSTEMS has—and will continue to have—a definite nautical bias. ACVs and hydrofoils were conceived as means of speeding up sea transportation, which for years has lagged behind land and air transport. One of our primary aims therefore is to assist the shipping industry in keeping abreast of the new marine vehicle concepts and their applications. At the same time we have every reason to expect that our coverage of the land transportation techniques will expand year by year. Tracked ACVs for densely populated countries, and rugged overland vehicles of simple construction for underdeveloped countries are likely to increase, and there is every sign that application of the new, sophisticated techniques of materials handling, employing either cushions or films of air, will also be growing.

We live in a changing world in which technology plays an ever increasing and important part. We hope that JANE'S SURFACE SKIMMER SYSTEMS, like its companion volumes, will play a useful part as a medium for the interchange of ideas, leading to greater efficiency economy and safety in the fields to which it is dedicated.

CONTENTS

	<i>Page</i>
INTRODUCTION	xiii
AIR CUSHION SECTION	
Progress Report	1
Preface by The Right Honourable Anthony Wedgwood Benn, Minister of Technology	3
Manufacturers and Designers	4
Air cushion-assisted load carriers	51
Track-guided systems	52
Air cushion applicators, conveyors and pallets	57
ACV Operators	68
HYDROFOIL SECTION	
Progress Report	70
Designers and Manufacturers	72
Operators	119
EQUIPMENT SECTION	
Power Plants	121
INDEX	134
ADDENDA	135
ACKNOWLEDGEMENTS	136

JANE'S All the World's AIRCRAFT

Edited by

JOHN W. R. TAYLOR, F.R.Hist.S., A.R.Ae.S.

First published in 1909

Specifications and illustrations are given of aeroplanes—civil and military, from "home-builts" to supersonic, helicopters and VTOL/STOL aircraft, gliders and sailplanes, aero-engines, rockets and spacecraft, and guided missiles, in current production throughout the world.

Completely revised every year, the data is based on information received from official sources, manufacturers and correspondents.

JANE'S WORLD RAILWAYS

Edited by

HENRY SAMPSON

First Published in 1951

Contains details of over 1,400 railways in 116 countries and of the world's principal locomotive and rolling stock manufacturers. A statistical summary, specially prepared for World Railways, is included for most of the countries mentioned which shows their economic background, while new features are sections on mechanised track maintenance and signalling and train control equipment.

JANE'S FIGHTING SHIPS

Edited by

R. V. B. BLACKMAN, C.Eng., M.I.Mar.E., M.R.I.N.A.

First Published in 1897

Complete descriptions, photographs, and in many cases diagrams, are given for every ship in every navy in the world.

The details are completely revised every year and are based on information received from official sources and from reliable correspondents throughout the world.

**These books are acknowledged everywhere as the
standard works of reference on their subjects**

Descriptive prospectuses available from

SAMPSON LOW, Potter Row, Great Missenden, Bucks., England