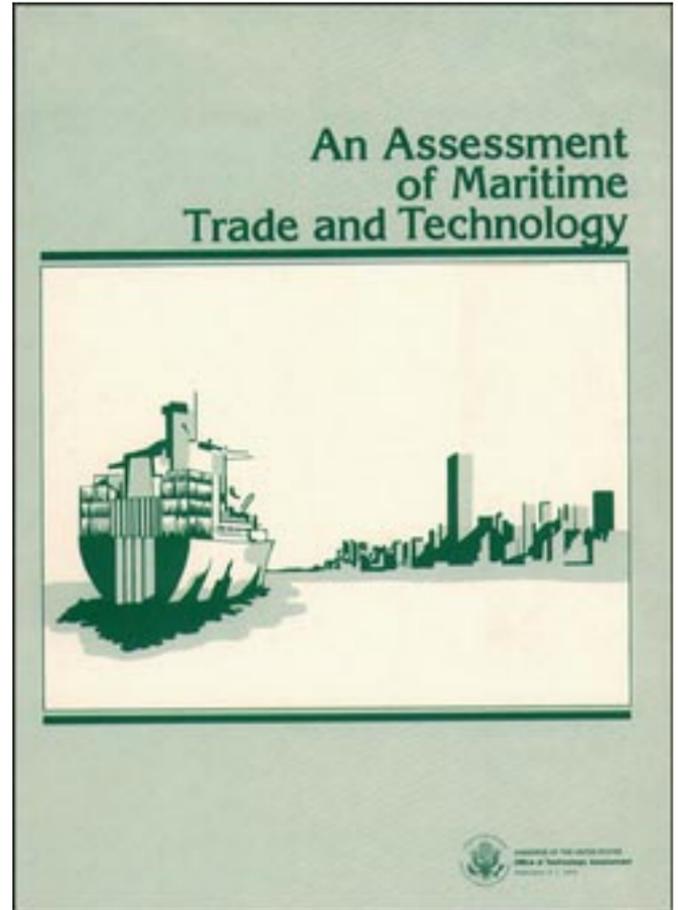


*An Assessment of Maritime Trade and
Technology*

October 1983

NTIS order #PB85-239887



Recommended Citation:

An Assessment of Maritime Technology and Trade (Washington, D.C.: U.S. Congress, Office of Technology Assessment, OTA-O-220, October 1983).

Library of Congress Catalog Card Number 83-600606

For sale by the Superintendent of Documents,
U.S. Government Printing Office, Washington, D.C. 20402

Foreword

World trade now totaling nearly \$2 trillion—a fourfold increase in the past two decades—has become a dominant factor in the economic performance of both industrialized and developing countries. The international shipping industry exists to serve that trade. In the past two decades its capacity has grown almost 250 percent, as well as changed in character in response to new trading conditions and cargo demand. However, both trade and shipping volume reached a plateau in recent years, and the industry’s concerns about meeting demands for growth have been replaced by concerns about managing overcapacity and improving efficiency. Prospects for merchant shipping and shipbuilding therefore must be evaluated in terms of these changing trade patterns.

Because of their concerns about the viability and productivity of U.S. maritime industries as well as the future U.S. position in world trade, the House Committees on Merchant Marine and Fisheries and on Ways and Means jointly requested OTA to prepare this assessment. The committees asked OTA to undertake an analysis and forecast of long-term trends in global seaborne trade and maritime technology in relation to the U.S. maritime industry.

This assessment of Maritime Trade and Technology traces prevailing conditions and dominant trends that are important to the way the Federal Government assumes its responsibility for developing and implementing policy. The report contains analyses of the world outlook for trade, shipping, and shipbuilding. It identifies the extent of U. S. participation in these enterprises. It analyses the U.S. shipping and shipbuilding industries and identifies certain weak and strong attributes. It discusses trends in technology as well as in the policies of the United States and of our major trading partners.

OTA received valuable assistance in the preparation of this assessment from its advisory panel, which represented a cross section of U, S. maritime industry, labor, and user interests. The panel provided critiques and advice throughout the assessment and particularly during a detailed review of this final report. Other contributors to the assessment were contractors and individual consultants who provided valuable analyses of specific topics that were integrated into the overall report. OTA sincerely appreciates the quality of work and dedication of all contributors.

OTA has found that, although there are both healthy and troubled segments of the U.S. maritime industries, all sectors are becoming increasingly dependent on Federal policy decisions. And, with increasing competition in world trade as well as shipping services to carry that trade, intervention by all governments is more and more prevalent.



JOHN H. GIBBONS
Director

Advisory Panel Members

Leslie Kanuk, *Chairman*
Professor of Marketing, Baruch College

Vera Alexander
Director, Division of Marine Science
University of Alaska

Richard F. Brunner
Senior Operating Officer
Avondale Shipyards, Inc.

Paul J. Burnsky
President
Metal Trades Department, AFL/CIO

H. Clayton Cook, Jr.
Partner
Cadwalader, Wickersham, & Taft

J. P. Elverdin
President
Navies Corp.

Peter J. Finnerty
Vice President
Sea-Land Industries

Jack Goldstein
Vice President and Economist
Overseas Shipholding Group, Inc.

R. J. Lowen
President
Masters, Mates and Pilots of America

C. M. Lynch
President
ARGO Marine, Inc.

David L. Pearson
Chief of Engineering
General Dynamics Corp.

Eugene K. Pentimonti
Vice President
American President Lines

Paul F. Richardson
Paul F. Richardson Associates, Inc.

John P. Scally
Manager of Export Transportation
General Electric Co.

Lawrence A. Smith
President
Lockheed Shipbuilding Co.

Contributors to This Report

A & P Appledore, Ltd.
Newcastle-upon-Tyne
United Kingdom

Gary Baham
The Baham Corp.
Columbia, Md.

Deborah Cichon
Arlington, Va.

E. G. Frankel, Inc.
Boston, Mass.

Jacques Gorlin
Rashish Associates, Inc.
Washington, D.C.

John Leeper
Simat International, Ltd.
Washington, D.C.

Manalytics, Inc.
San Francisco, Calif.

Robert Taggart
Fairfax, Va.

Wharton Econometrics, Inc.
Philadelphia, Pa.

OTA Maritime Trade and Technology Assessment Staff

John Andelin, *Assistant Director, OTA
Science, Information, and Natural Resources Division*

Robert W. Niblock, *Oceans and Environment Program Manager*

Project Staff

Peter A. Johnson, *Project Director*

Dale T. Brown, * *Policy Analyst*

Patricia A. Catherwood, " *Policy Analyst*

Nan Harlee, " *Policy Analyst*

Administrative Staff

Kathleen A. Beil Kay Senn Jacquelynne R. Mulder

Contributing Staff

John Burns

OTA Publishing Staff

John C. Holmes, *Publishing Officer*

John Bergling Kathie S. Boss Debra M. Datcher Joe Henson

Glenda Lawing Linda A. Leahy Cheryl M. Manning