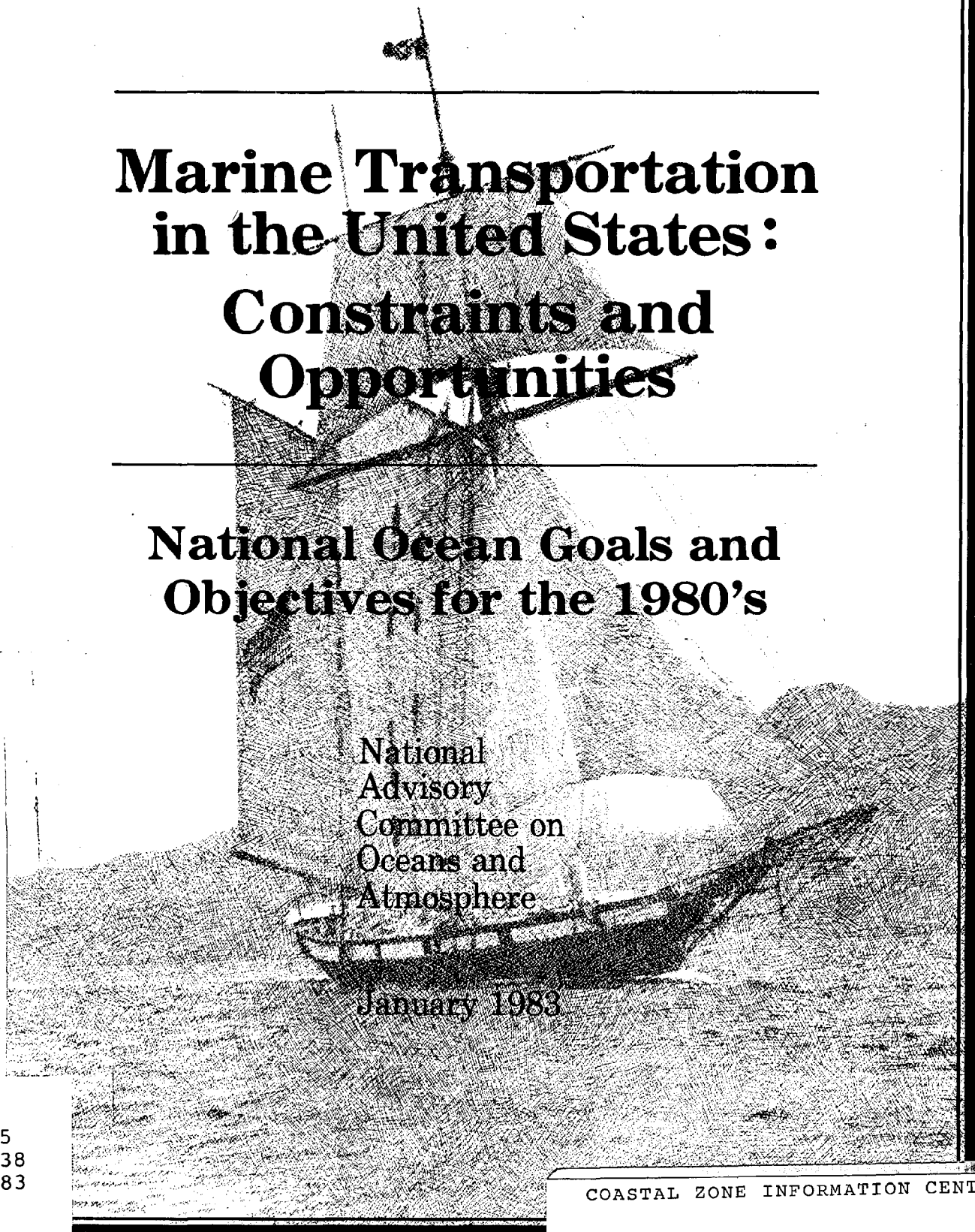
Marine Transportation in the United States: Constraints and Opportunities

National Ocean Goals and Objectives for the 1980's



National Advisory Committee on Oceans and Atmosphere

January 1983

NATIONAL ADVISORY COMMITTEE ON OCEANS AND ATMOSPHERE (NACOA)

MEMBERS

John A. Knauss, Chairman
Vice President for Marine Programs
Graduate School of Oceanography
University of Rhode Island
Kingston, Rhode Island

S. Fred Singer, Vice Chairman
Professor
Department of Environmental Sciences
University of Virginia
Charlottesville, Virginia

FitzGerald Bemiss
President, FitzGerald & Company
Richmond, Virginia

Paul Bock
Professor, Department of Civil Engineering
University of Connecticut
Storrs, Connecticut

Carl Franklin Brady, Sr.
President
ERA Helicopters, Inc.
Anchorage, Alaska

Sylvia A. Earle
Curator of Phycology
California Academy of Science
San Francisco, California

Edward N. Gladish
Manager, Land Services
Champlin Petroleum Company
Long Beach, California

Burt H. Keenan
Chairman of the Board and
Chief Executive Officer
Offshore Logistics, Inc.
Lafayette, Louisiana

Jay G. Lanzillo
Purchasing Vice President
Channel Fish Company
Chelsea, Massachusetts

Michael R. Naess
President
Westminister Ventures, Inc.
Houston, Texas

Vernon E. Scheid
Professor of Mineral Economics
Department of Mining Engineering
Mackay School of Mines
University of Nevada
Reno, Nevada

Sharron L. Stewart
Commissioner
Texas Deep Water Port Authority
Lake Jackson, Texas

George G. Tapper
President
Tapper and Company
Port St. Joe, Florida

Jack R. Van Lopik
Dean, Center for Wetland Resources
Louisiana State University
Baton Rouge, Louisiana

James M. Waddell, Jr.
Senator, South Carolina State Legislature
Beaufort, South Carolina

Don Walsh
Director
Institute for Marine and Coastal Studies
University of Southern California
Los Angeles, California

Warren M. Washington
Senior Scientist
National Center for Atmospheric Research
Boulder, Colorado

Robert M. White
President, University Corporation for
Atmospheric Research
Washington, D.C.

EXECUTIVE DIRECTOR: Steven N. Anastasion

STAFF: James A. Almazan, Rose M. Bird, Diane F. Buckley, Michael P. De Luca, Linda K. Glover, Stephanie Y. Hughes, Victoria J. Jones, William J. Lounsbery, Stephen P. Risotto, and Alice L. Roberson

Property of CSC Library

Marine Transportation in the United States: Constraints and Opportunities

National Ocean Goals and Objectives for the 1980's

National Advisory Committee on Oceans and Atmosphere

January 1983
Washington, D.C.

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

NATIONAL ADVISORY COMMITTEE
ON
OCEANS AND ATMOSPHERE
3300 Whitehaven Street, N.W.
Washington, D.C. 20235

January 25, 1982

The President
The White House
Washington, DC 20500

Dear Mr. President:

I have the honor of submitting to you the report of the National Advisory Committee on Oceans and Atmosphere (NACOA), "Marine Transportation in the United States: Constraints and Opportunities."

NACOA believes the oceans hold unfilled promise of alleviating some of the critical problems facing our Nation. A major national commitment to the oceans over the next decade will bring to fruition many of these promises. NACOA's continuing activity in developing national ocean goals and objectives is intended to provide direction for such a commitment. Our report, "Ocean Services for the Nation," was forwarded to you in January 1981, our report "Fisheries for the Future," in July 1982.

This report focusses on the critical issues surrounding a less than adequate state of our Nation's maritime transportation system. The Committee hopes our effort will assist you in developing new policies and direction for this vital sector of our national economy and security.

Respectfully yours,

John A. Knauss

John A. Knauss
Chairman

It is necessary for the national defense and the development of its foreign and domestic commerce that the United States shall have a merchant marine (a) sufficient to carry its domestic water-borne commerce and a substantial portion of the water-borne export and import foreign commerce of the United States and to provide shipping service essential for maintaining the flow of such domestic and foreign water-borne commerce at all times; (b) capable of serving as a naval and military auxiliary in times of war or national emergency; (c) owned and operated under the U.S. flag by citizens of the United States insofar as may be practicable; (d) composed of the best-equipped, safest, and most suitable types of vessels, constructed in the United States and manned with a trained and efficient citizen personnel, and (e) supplemented by efficient facilities for ship building and ship repair. It is hereby declared to be the policy of the United States to foster the development and encourage the maintenance of such a merchant marine.

Merchant Marine Act of 1936,
Public Law 49-1985

TABLE OF CONTENTS

FOREWORD IX

EXECUTIVE SUMMARY XI

CHAPTER 1: INTRODUCTION 1

The NACOA Report 7

CHAPTER 2: THE GROWTH AND CHANGING NATURE OF WORLD TRADE: IMPLICATIONS FOR MARINE TRANSPORTATION 9

The Shape of World Shipping 11
The United Nations Conference on Trade and Development Code of Conduct for Liner Conferences 12
National Subsidies 15
Policy Implications for the United States 15

CHAPTER 3: U.S. GOVERNMENT POLICIES AND REGULATIONS: HELP OR HINDRANCE 17

The Rules 19
Federal Subsidies 19
Federal Maritime Policies 21
National Security Issues 22
Future Prospects 23

CHAPTER 4: U.S. MARINE TRANSPORTATION SYSTEM 25

Characteristics of the Industry 27
U.S.-Flag Fleet 27
Flags of Convenience 28
The Shippers 30
Domestic ("Jones Act") Shipping 31
Tug and Barge Operations 34
Offshore Oil and Gas Operations 34

CHAPTER 5: THE LAND-SEA INTERFACE IN MARINE TRANSPORTATION 37

The Hub of Maritime Commerce 39
Ports, Harbors, and Terminals 41
The Federal Role in Port Development 44
Shipyards 45

CHAPTER 6: THE CROSSCUTTING AREAS 51

The Intersect 53
National Defense Requirements 53
Personnel 55
The U.S. Coast Guard 56
Other Regulatory Activities 58
Tugs and Salvage 59
Science, Technology, and Education Support 60

CHAPTER 7: SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS 63

Summary 65
Conclusions 65
Recommendations 66

REFERENCES AND SOURCES OF DATA 69

GLOSSARY 71

APPENDICES 73

A. Marine Transportation Panel 75
B. Significant Contributors 76
C. Federal Agency Observers 77
D. Meeting Dates, Speakers, and Presentation Topics 78
E. Organizations Represented at the Panel Sessions 82
F. List of Acronyms 83
G. "A Program for the Development of an Effective Maritime Strategy" (by Presidential Candidate Ronald Reagan, September 15, 1980) 84
H. "Statement by Presidential Candidate Ronald Reagan on Shipbuilding" (August 19, 1980) 87

FOREWORD

On May 18, 1979, 41 Members of the House of Representatives and 12 Senators cosigned a letter to the President requesting that he designate the decade of the 1980s as, "The Decade of Ocean Resource Use and Management." In November 1979, the Assistant to the President for Domestic Affairs and Policy wrote to the National Advisory Committee on Oceans and Atmosphere (NACOA) that "well-defined goals are necessary to making the Decade meaningful." NACOA agreed to define such national ocean goals and objectives in several critical areas, including marine transportation, the subject of this report.

The NACOA Panel on Marine Transportation, consisting of NACOA members Don Walsh (Chairman), Jack Van Lopik, and Michael Naess, held its first meeting on September 12, 1980. Five subsequent meetings were held in November 1980; January, February, and May of 1981; and January of 1982, at which times speakers from government, maritime industry, and academe made 33 presentations focusing on key issues dealing with the U.S. marine transportation system. A total of 43 government, industry, labor, and academic groups were represented. Appendix D lists the meeting dates and corresponding speakers and presentation topics. The membership of the Panel and the participation of others interested in the topical issues comprised considerable expertise from marine transportation constituencies and represented a fairly comprehensive cross section of the industry (Appendices B, C, and E).

From the outset, it was our intent to conduct an "audit" where representatives of each key constituency in the U.S. marine transportation area could present their views on perceived constraints and opportunities for this industry. The NACOA Panel on Marine Transportation and those contributing to its work permitted expert interactions with each speaker by eliciting suggestions and ideas for possible remedies for each of the problem areas. From the Panel's consideration and assessment of the many viewpoints and items presented come the conclusions and recommendations found in our final chapter.

NACOA offers its report on marine transportation as a contribution to the contemporary dialogue on this issue among the various sectors of our society, and as one key part of the Committee's larger effort to define national ocean goals and objectives.

The NACOA Panel on Marine Transportation is indebted to the generous contributions of the many people who prepared presentations for our meetings as well as those who participated in the discussions. We have listed in Appendix B the names of those who offered valuable insights to the NACOA review and to the formulation of the record. In addition, we wish to acknowledge the dedicated staff assistance of LCDR Richard Wigger, U.S. Coast Guard, Robert Gary, NACOA, and Steve Risotto, NACOA.

It must be noted here that the report does not necessarily reflect the views of any of the individuals who participated with us or who provided information. The contents of the report and the recommendations made are the responsibility solely of the National Advisory Committee on Oceans and Atmosphere.

EXECUTIVE SUMMARY

The National Advisory Committee on Oceans and Atmosphere (NACOA) is concerned about the deteriorating situation found in many parts of the U.S. marine transportation system. In brief, the following summarizes some of the major problems and existing conditions:

- In 1950, the U.S. merchant marine ranked first in the world (by deadweight tonnage); by 1980, we ranked eighth, despite significant government subsidy programs designed to cover differential operating and construction costs between the U.S. merchant marine and its foreign competition.
- Although the United States is the major trading nation in the world, foreign-flag vessels carry over 96 percent of our exports and imports (on a tonnage basis). In fact, foreign-flag ships of only seven nations transport 75 percent of our international waterborne commerce.
- The five major maritime shipping nations, the Soviet Union, Greece, Japan, Norway, and the United Kingdom, carry from 50 to 32 percent of their foreign trade in their own flag vessels. The United States carries only 4 percent.
- Employment in the U.S. maritime industry has dropped drastically in the past 10 years. Seagoing employment has plunged 65 percent from 1965 to the present. In the shipyards, employment of skilled workers devoted to merchant ship construction has dropped by 71 percent in only the past seven years. Most of this decrease in maritime employment is caused by the competitive disadvantage of U.S. ship operators and shipbuilders.
- Senior U.S. military planners seriously doubt whether the United States has sufficient sealift capability (which must come largely from the commercial sector) to meet our military assistance treaty commitments throughout the world.
- The 27 U.S. shipyards that comprise the active base of major U.S. shipbuilding capability are in serious trouble, and unless the government takes vigorous offsetting actions, some yards will be forced to close in the next couple of years.
- The U.S. Navy's expanded shipbuilding program to construct 150 new vessels will assist the ailing industry, but 75 percent of the work will go to just four yards and, only 15 of the 27 yards are now equipped to build military vessels (warships). The remaining 12 commercial yards predict that their order books will go to zero in the next 3 to 4 years, if current trends continue.
- Although the growth of world trade has leveled off owing to the poor state of the world economy and the present oil glut, it is clear that world trade will expand in the future. The diverse, but effective, assistance programs of foreign governments greatly aid foreign ship operators and their shipyards in competing with the United States. These direct and indirect government subsidies keep foreign-flag industries in "good track position" for the time when world trade will move into a more vigorous growth mode. The United States does not now have such effective programs.
- Merchant marine and shipping acts dating to the early part of this century identify and attempt to remedy many of the problems facing the U.S. marine transportation system. Yet, these acts have not effectively maintained an American merchant marine capable of meeting our national security needs.

There are recent indications of potential improvement as a result of actions taken or being considered by Congress, the Reagan Administration, and the industry. Some of these are:

- Drastic reduction of the domestic regulatory framework that is unequally imposed on U.S. ship operators in competition with foreign-flag operators.
- Recognition and removal of subsidy programs that do not work and the consideration of new, more effective programs.
- An increased Navy shipbuilding program that will provide work and upgrade part of the shipbuilding base.
- Increased military development and use of chartered commercial vessels for military sealift requirements. This also will stimulate new vessel construction and older vessel conversion for these charters.
- A move towards Congressional consideration of a national cargo reservation formula that will help the United States match the practices of many other foreign states that reserve percentages of their imports and exports for their flag vessels.
- A close relationship between maritime labor and industry to develop better work practices leading

to cost savings, a better competitive position, and more growth (and thus more jobs) for the U.S. merchant marine.
- Special, limited incentives to assist the U.S.-flag operator in international trade to replace and upgrade his ship assets through foreign construction and acquisition.

National Security: The Basic Determinant

A basic question that requires policy reaffirmation at the highest levels is whether or not a U.S.-flag merchant marine is vital to our national security* interests. From a pure "free-market economics" point of view, it might seem highly desirable to let foreign treasuries and companies subsidize both the carriage of U.S. maritime trade and the cost of vessels built overseas. These would then become subsidies to the U.S. economy.

However, our review points to the weaknesses of our current marine transportation system. We lack control over a substantial portion of our maritime imports and exports. Military advisors warn us of the inability of our merchant marine to meet treaty obligations and wartime needs. And as our shipbuilding base disappears so does our emergency or wartime construction surge capability.

If national security is key, then the time has come for the U.S. merchant marine to again emerge as a strong force in our trade. This implies a regulatory structure and operating environment competitive with that of foreign-flag operators and their respective shipbuilding bases. The Merchant Marine Act of 1936, President Reagan's 1980 pre-election statements on our maritime industry, and many other Congressional and Presidential statements point to the importance of a viable U.S. merchant marine to our national security. But, in the case of the Act, these goals have not been achieved in nearly a half century of effort. Although some of the statements recommended by President Reagan are being implemented, it is perhaps too soon to tell how effectively the Administration's directions will be translated into actions benefitting the U.S. marine transportation system.

NACOA's Recommendations:

In this report, our aim has been to assess the adequacy of U.S. marine transportation in terms of:

- National security
- World trade and its implications on marine transportation
- U.S. domestic marine shipping trades
- Ports, workers, and terminals
- U.S. policies and regulations
- Foreign government policies for marine transportation.

NACOA has observed that:

(a) Congress and the Administration have affirmed for the past 60 years that a U.S.-flag marine transportation industry, with the supporting industrial base, is essential to our Nation's national security in peace and in times of emergency.

(b) Legislation and Federal Government regulation, programs, and subsidy supports have not had the desired impact on the U.S. marine transportation industry.

It is our view that certain actions should be initiated or expedited if the U.S. merchant marine is to develop and fill the major security and economic role that agrees with proclaimed U.S. policy.

NACOA's recommendations, which derive from its broad overview of the major elements of this industry, are the following:

1. ***The Construction Differential Subsidy program should be eliminated by Congress through amendments to the Merchant Marine Act of 1936.***
2. ***The Maritime Administration should initiate discussions with the liner operators to encourage early termination of Operating Differential Subsidy contracts and eventual elimination of the program.***

Simple removal of subsidy assistance without a simultaneous offset of new remedies and incentives could be a crippling blow to the industry. In our view, it is important that these subsidy reductions be phased out at a rate commensurate with the achievement of benefits from other actions. Because such remedies and incentives for industry promotion can only become effective over a period of time, coordination of the recommended reductions in subsidy with the following actions is essential:

3. ***The Maritime Administration should promptly provide competitive incentives for U.S. shipyards to bridge the gap between termination of the Construction Differential Subsidy and other measures that would offer increased work for U.S. yards.***
4. ***Congress should enact legislation to: (a) authorize closed liner shipping conferences and empower these conferences to collectively set intermodal transportation rates; and (b) permit shippers who***

* The term national security as used in this report includes not only national defense but also control over a significant part of the transportation system that keeps our economy functioning.

consign cargoes to establish "shippers councils" to negotiate collectively with the liner conferences.

5. *Given the recent involvement of the U.S. shipbuilding industry in the task of rebuilding our naval fleet and given the absence of Construction Differential Subsidy funds, the Maritime Administration should relax restrictions governing the current Operating Differential Subsidy (ODS) program as follows:*
   (a) U.S. shipowners should be permitted to qualify for ODS with respect to foreign-built vessels registered under the U.S. flag provided they otherwise meet the criteria for qualifications,

   and

   (b) U.S. shipowners should not be disqualified from ODS, when they would otherwise qualify, simply by reason of operating other vessels in foreign-flag shipping activities.

This does not contradict our recommendation to terminate the ODS program; it simply recognizes that, in the interim, some immediate adjustments need to be made to the ODS program to make it work more effectively while means are found to reduce and eventually terminate the program.

6. *U.S. ship depreciation allowances and schedules should be made competitive with those provided by foreign governments for their merchant fleets.*
7. *Congress and the Administration (a) should support continuing Federal investment in major port developments in the interest of national security and (b) Congress should pass legislation that would greatly streamline the planning and permitting process for port improvement developments.*
8. *U.S. Coast Guard regulations relating to design and standards of construction of U.S.-flag vessels should be made consistent with the accepted standards established by the world's leading classification societies.*
9. *The Department of Defense (a) should be encouraged to continue to shift to the private sector the ownership of and/or the contract management for the major share of its noncombatant (sealift and service support) ship capacity; and (b) should be urged to continue to offer charters of sufficiently long duration to encourage operators to build or buy vessels through utilizing their own investment funds.*
10. *The current review of regulations affecting the U.S. maritime industry by the Presidential Task Force on Regulatory Relief should be expedited.*
11. *Congress should take the lead in formulating national cargo policy within an expanded system of bilateral agreements.*
12. *The Department of State should expedite the development of an effective response to the Code of Liner Operations of the U.N. Conference on Trade and Development (UNCTAD).*
13. *The Title XI and Capital Construction Fund programs should be preserved by the Maritime Administration with their benefits remaining applicable solely to vessels of U.S. registry constructed in U.S. shipyards.*
14. *The Maritime Administration should increase the level of its support for research and development and coordinate its efforts with those of the industry.*

We recognize that some of the recommendations in this report imply costs to U.S. taxpayers. However, with the stated U.S. policy that a strong merchant fleet and shipbuilding industry are of high priority for national security, the costs for achieving a strong U.S. maritime industry should be considered along with those of the Department of Defense.

Chapter 1
Introduction

The NACOA Report 7

CHAPTER 1

INTRODUCTION

As the world's largest trading nation, the United States recorded $8 billion for ocean shipping services in its balance of payments in 1980. Of this amount, 54 percent of our exports and 68 percent of our imports, by value, required maritime shipping. Marine transportation carries about 99 percent of U.S. import-export cargo tonnage, but U.S.-flag ships carry only 4 percent by tonnage; 27 percent of our general cargo (liner operations), and about 2 percent of our bulk cargo trades. Simply stated, foreign-flag vessels transport 96 percent of American trade.

What are the net losses to our economy in paying for foreign carriage of our trade? The answer to the question is not easily developed nor resolved. Not only do the revenues and multiplier effects of U.S.-flag ships have to be considered but so do those of U.S. shipyards that would build and repair U.S-flag vessels to a greater degree if our fleet were larger. American ports and harbors also might gain added economic benefits through increased purchases of domestic goods and services by U.S. operators. However, if transportation costs for U.S.-flag vessels are higher than foreign-flag vessels, a requirement to use U.S.-flag vessels extracts a cost from other parts of our economy.

Our economic well-being and thus our national security are dependent upon marine transportation for about 90 percent of the vital strategic materials required to support our economy. We must question how much we wish to rely upon foreign carriage of these products vital to our national security. Although a massive international conspiracy to deny the United States raw material imports is most unlikely, many troublesome aspects surround a lack of control over some significant volume of this trade. Many analysts who have studied the balance of international maritime trade believe national flag carriage of 40 to 50 percent (tonnage) of a maritime nation's trade is a healthy level. Whether 40 or 50 percent or a lesser figure is the appropriate balance, clearly a 4-percent level is much too small from a national security point of view.

Table 1 is a stark comparison of U.S. performance with that of 11 other major merchant fleets. It should not be surprising that as recently as 1977 the Soviets and their growing state-owned merchant fleet carried more of *our* trade than we did.

Much "ideological mythology" surrounds the question of what is wrong with the U.S. merchant marine. Suggested causes include: 1) Costly labor practices; 2) inefficient operators; 3) poor quality workmanship; 4) bad management by shipping companies; 5) irrational and uneven interpretation of the laws by Federal agencies; 6) overregulation; 7) predatory practices by foreigners; and 8) Federal subsidies that may have discouraged efficiency. A bit of truth exists in each of these statements. The U.S. marine transportation system requires constructive and prompt action to arrest the

Table 1.—Percentage of a Country's Imports and Exports Carried by its own Merchant Fleet of the Major Maritime Shipping Nations, 1979

Nation	Rank by Deadweight Tons in 1979	Number of Ships[1]	Deadweight Tonnage[1]	Percentage of Trade Carried
Liberia[2]	1	2,380	158,702	—
Greece	2	2,876	63,542	48
Japan	3	1,751	61,192	39
United Kingdom	4	1,110	41,937	32
Norway	5	632	39,494	37
Panama[2]	6	2,347	35,257	—
Soviet Union	7	2,512	21,590	50
United States[3]	8	569	20,540	4
France	9	359	19,884	24
Italy	10	624	18,489	25
Spain[4]	11	506	12,656	46
Federal Republic of Germany	12	502	12,485	16

[1] Includes only oceangoing vessels of 1,000 gross registered tons and over.

[2] Liberia and Panama are the two major flag of convenience nations.

[3] Includes only privately owned vessels. Does not include the U.S. Government-owned fleet, which in 1979 consisted of 296 vessels of 3,049,000 dwt.

[4] Value for Spain's percentage of trade carried is for 1976.

Sources: Maritime Administration. 1979. Merchant Fleets of the World. Office of Trade Studies and Statistics, Washington, D.C.

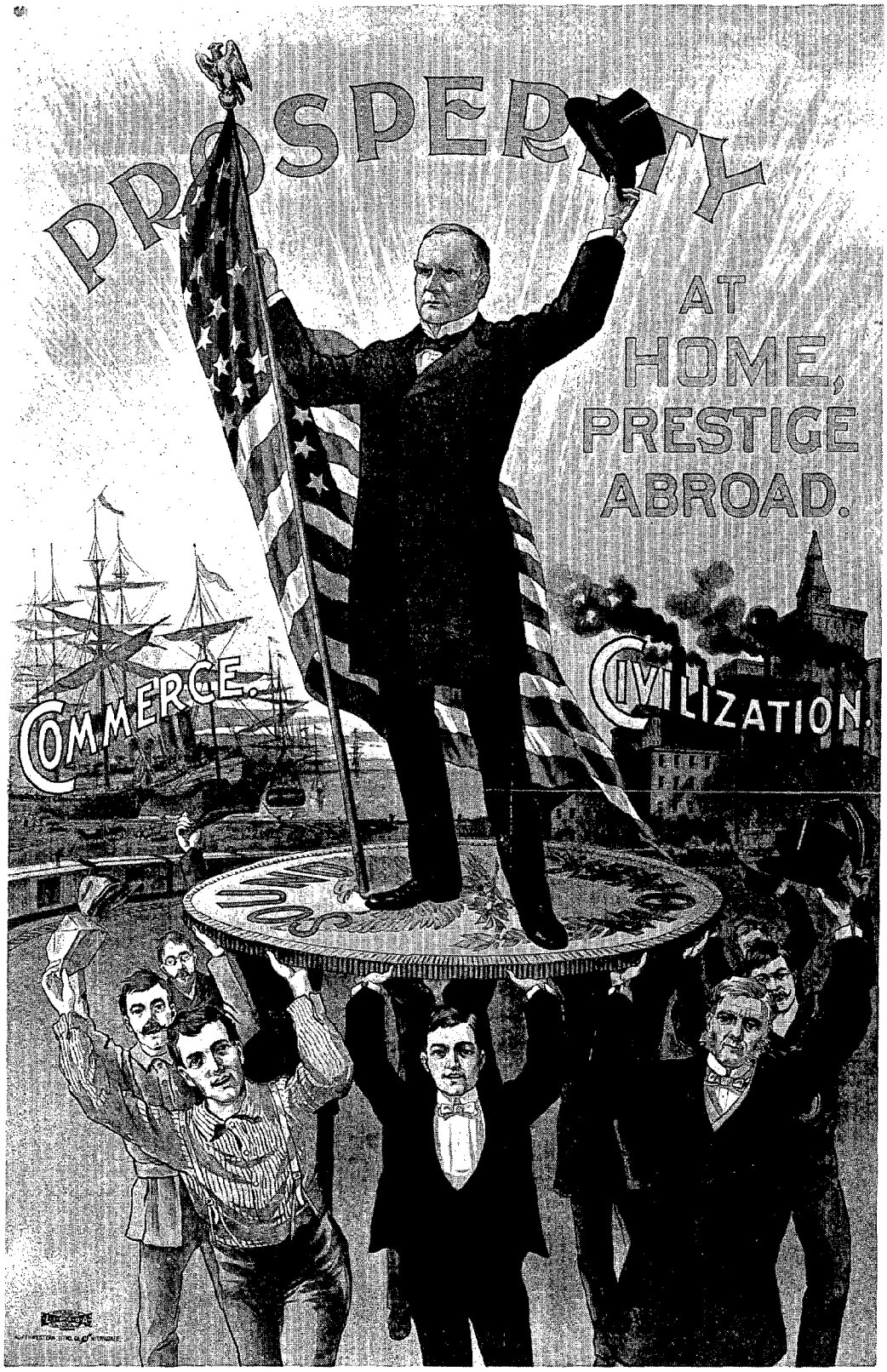
Maritime Administration. 1981. Maritime Subsidies. Office of International Activities, Washington, D.C., p. 148.

Transportation Institute. 1982. Office of Government Relations, Washington, D.C.

present downward spiral. Many of the current difficulties will be influenced by such contemporary forces as the state of our economy, increasing maritime nationalism by foreign states, and the fundamental economic policy directions of the Reagan Administration.

Marine transportation is changing rapidly both within our country and overseas. Since we began our NACOA review in late 1980, several key events have occurred in the United States:

- The Omnibus Maritime and Regulatory Reform, Revitalization, and Reorganization Act of 1979 was the subject of extensive hearings; however, it failed to pass out of the House of Representatives.
- The Senate's Ocean Shipping Act of 1980 failed to pass the House of Representatives.
- The Shipping Act of 1981 failed to pass the Senate.
- Presidential Candidate Ronald Reagan issued two statements on the U.S. maritime industry, one giving an eight-point program for its revitalization, and the other dealing with its shipbuilding base. (See Appendices G and H.)
- In August 1981, the Maritime Administration was transferred from the U.S. Department of Commerce to the U.S. Department of Transportation.
- Former Secretary of Transportation Drew Lewis, as the Reagan Administration's maritime spokesman, in December 1981, announced the Administration's intention to propose sweeping reforms of the unequal antitrust regulations that apply to U.S. shipping operations in U.S. foreign trades.
- Vice President George Bush began a Presidential Task Force on Regulatory Relief, which will presumably lead to some regulatory relief in the U.S. marine transportation system.
- The Economic Recovery Tax Act of 1981 created a general tax relief environment that leads to more favorable tax treatment of the U.S. marine transportation industry. For example, the depreciation period for a ship has dropped from 14.5 years to 5 years.
- Defense spending increases will stimulate improved commercial shipping activity where such shipping can be chartered to the U.S. Department of Defense (DOD). This is also in line with President Reagan's policy to get the government out of areas where the private sector can be more efficient.
- The U.S. Navy's shipbuilding program will be greatly increased. This should help modernize and maintain a significant segment of the U.S. shipbuilding industry.
- The Reagan Administration announced a strong commitment to the establishment of user fees. Congress has generally opposed the user fee initiatives.
- Secretary of the Interior James Watt has accelerated leasing schedules for the U.S. outer continental shelf area, which could increase opportunities for the U.S. offshore service industry. Several coastal States are now bringing suit in court against these actions.
- The Construction Differential Subsidy (CDS) program has been zero-funded since fiscal year 1982. The Maritime Administration is not executing new contracts under the Operating Differential Subsidy (ODS) program and is attempting to negotiate early termination of existing ODS contracts with some liner companies.
- In 1982, American shipyards acquired only three new orders for ships 1,000 gross registered tons or more; no new orders have been placed in 1983.
- In March 1982, the House Merchant Marine and Fisheries Committee passed a bill intended to facilitate and streamline port developments and improvements (the Port Development and Navigation Improvement Act of 1981, H.R. 4627). A similar bill had been passed by the Senate Committee on Environment and Public Works in December 1981 (the National Harbors Improvement and Maintenance Act of 1981, S. 1692).
- The United Nations Law of the Sea (LOS) Conference voted to adopt the Convention (Treaty) on the Law of the Sea on April 30, 1982. Subsequently, the United Nations General Assembly ratified this action. The Treaty will come into force when 60 nations have ratified it. The United States voted against adoption, and President Reagan has indicated that the United States will not sign the Treaty. The Treaty may have some impact on marine transportation activities through freedom of navigation, rights of transit, and establishment of pollution control over shipping.
- In mid-1982, the Reagan Administration asked the maritime labor unions to accept pay freezes. The reaction from labor was mixed, with some unions agreeing and others rejecting the request.
- In May 1982, then Secretary of Transportation Drew Lewis announced the "first phase" of the Administration's proposed national maritime policy. This phase proposes:
  - To permanently allow U.S.-flag ship operators to build vessels overseas, to put them under the U.S. flag, and to allow the ships to be eligible for ODS.
  - To create a DOD-owned, contractor operated fleet of "Defense-relevant multi-purpose carriers."
  - To allow foreign investment in U.S.-flag shipping companies involved in foreign trade to rise from a permitted maximum of 49 to 75 percent.
  - To remove the 50-percent tariff duty on overseas repairs of U.S.-flag ships.
  - To exempt salaries of U.S. seamen from income taxes.
  - To improve the efficiency of the existing ODS program through administrative reform.
  - To reduce unnecessary regulation in shipbuilding and ship operations.



In this 1900 campaign poster, Presidential Candidate William McKinley focussed on major issues dealing with our country's rapid industrial expansion. Between 1870 and 1900, the gross national product of the United States had grown by 82 percent. Clearly linked to McKinley's "prosperity at home and prestige abroad" was maritime commerce.

CREDIT: Smithsonian Institution, Washington, D.C.

— To eliminate rate regulation of U.S. domestic trades by the Federal Maritime Commission.

- In August 1982, Congresswoman Lindy Boggs introduced the Competitive Shipping and Shipbuilding Revitalization Act of 1982 (H.R. 6979). This Act would have used the mechanism of gradually increased cargo reservation (preference) to U.S.-flag operators for U.S. bulk commodities (coal, grain, oil, etc.) to stimulate construction of a bulk carrier fleet under the U.S. flag.
- In August 1982, former Transportation Secretary Lewis announced "phase two" of the proposed maritime policy that would increase the ceiling on Federal loan guarantees for shipbuilding (the "Title XI" Program) from $600 million to $900 million. Also, the Administration's support for the Jones Act provisions of reserving U.S. domestic trade to U.S.-built and U.S-manned vessels was restated.
- In September 1982, the House of Representatives passed the Shipping Act of 1982, H.R. 4374. The Senate failed to pass a similar bill (the Shipping Act of 1982, S. 1593) before the 97th Congress adjourned. The Senate version largely corresponds with the Administration proposal.
- In December 1982, legislation (P.L. 97-389) preventing foreign seamen working for U.S. companies in foreign waters from filing suit in U.S. courts unless they have no other recourse was signed into law.

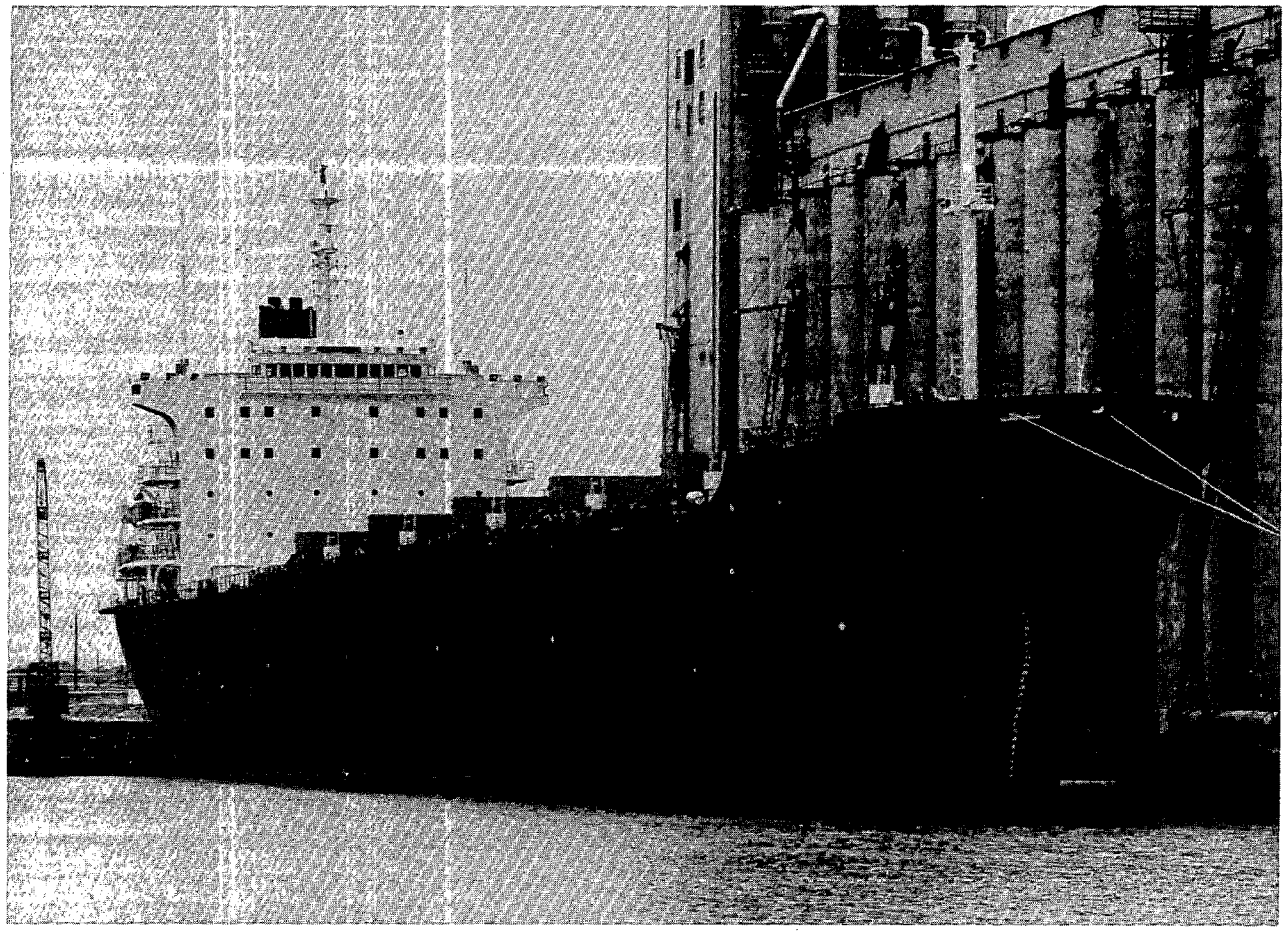
Although not an exhaustive catalog of the events affecting the U.S. marine transportation system over the past two years, this listing demonstrates the dynamics of this system over a fairly short period. Moreover, the positive and negative impacts of these actions are not assessed here. Since the time of the Revolutionary War, myriad major government actions have been initiated in the name of improving our U.S. marine transportation system. Most of these actions have been ineffective and have not provided this Nation with needed continuity and growth for its marine transportation system. Instead, we have seen more of a "sawtooth" cyclical response—up in times of national emergency and down in times of peace. Beginning with George Washington, more than 25 of our presidents have attempted, with the support of Congress for the most part, to formulate a merchant marine policy. Historically, such policies have failed due to dual lack of consistent view of maritime needs and continuity of leadership.

Many continue to suggest that our Nation needs a "National Maritime Policy," with a high-level policy official leading its administration. In fact, the Reagan Administration is expressing its proposed maritime program elements as parts of such a policy. Its chief spokesman is a cabinet officer, the Secretary of Transportation. The history of past Presidential administrations and Congresses shows that maritime policies (perhaps more correctly, micropolicies) have been with us for some time. A careful reading of the Shipping Act of 1916 and the Merchant Marine Acts of 1936 and 1970 conveys a sense that the national policy statements needed to support and stimulate improvement in the U.S. marine transportation system have been well articulated. If this is the case, then why have these acts not effectively met their original purposes and the needs of today? Perhaps the principal answer rests in their not being administered with consistent full vigor and understanding. In addition, Congress and the Executive Branch have not maintained these acts as "living legislation." This requires frequent review and modification as the marine transportation world changes at home and abroad. Such is the difference between policy and the policy-operation framework; one is static, the other dynamic.

Not all aspects of U.S. maritime interests are in serious trouble. The U.S.-controlled shipping of the world, called "flags of convenience" or "open registry" vessels, accounts for a fleet that has nearly three times the tonnage of the U.S.-flag merchant marine. These are almost all bulk carriage vessels and represent about one-quarter of the world tonnage in open registry. Thus, U.S. capital and management are, in a way, major forces in the world's marine transportation industry. Such vessels do not employ American seamen nor were they built in American yards, and because of preferential tax treatment, they probably add little economic benefit to our economy. Finally, even though U.S. owned, there is some uncertainty as to their usefulness to our country in times of national emergency.

Our offshore oil and gas industry is supported by a large U.S.-owned and operated fleet of over 2,000 units (of a world total of about 4,000). This fleet is generally in excellent financial condition although the current oil glut has temporarily depressed its operations. In the area of support for the offshore oil and gas industry, the United States is often competitive in building and selling vessels, platforms, etc. to foreign operators.

The promising prospect for a major future U.S. export trade in coal could provide opportunities for the construction and operation of a U.S. dry bulk carrier fleet. But the U.S.-flag bulk carrier fleet (of all types) engaged in foreign trade consists of only 48 vessels, most of which are near the end of their service lives; only 20 dry bulk vessels (colliers, general bulk, ore/bulk/oil, tug-barge) operate under the U.S. flag (1981 figures). Consequently, for the United States to stake its claim in an expanded coal trade, Federal policies would have to be modified, possibly including some cargo reservation for U.S.-flag vessels. The capitalization and construction of the needed ships would take several years. In view of the world oil surplus and the reduced pressure for rapid expansion of the coal trade, the United States has time to plan and develop its bulk fleet and associated port facilities.



The U.S. dry bulk fleet has declined from 32 vessels in 1972 to 20 vessels in 1981. This fleet, including the PRIDE OF TEXAS, comprises less than 1 percent of the world dry bulk tonnage.

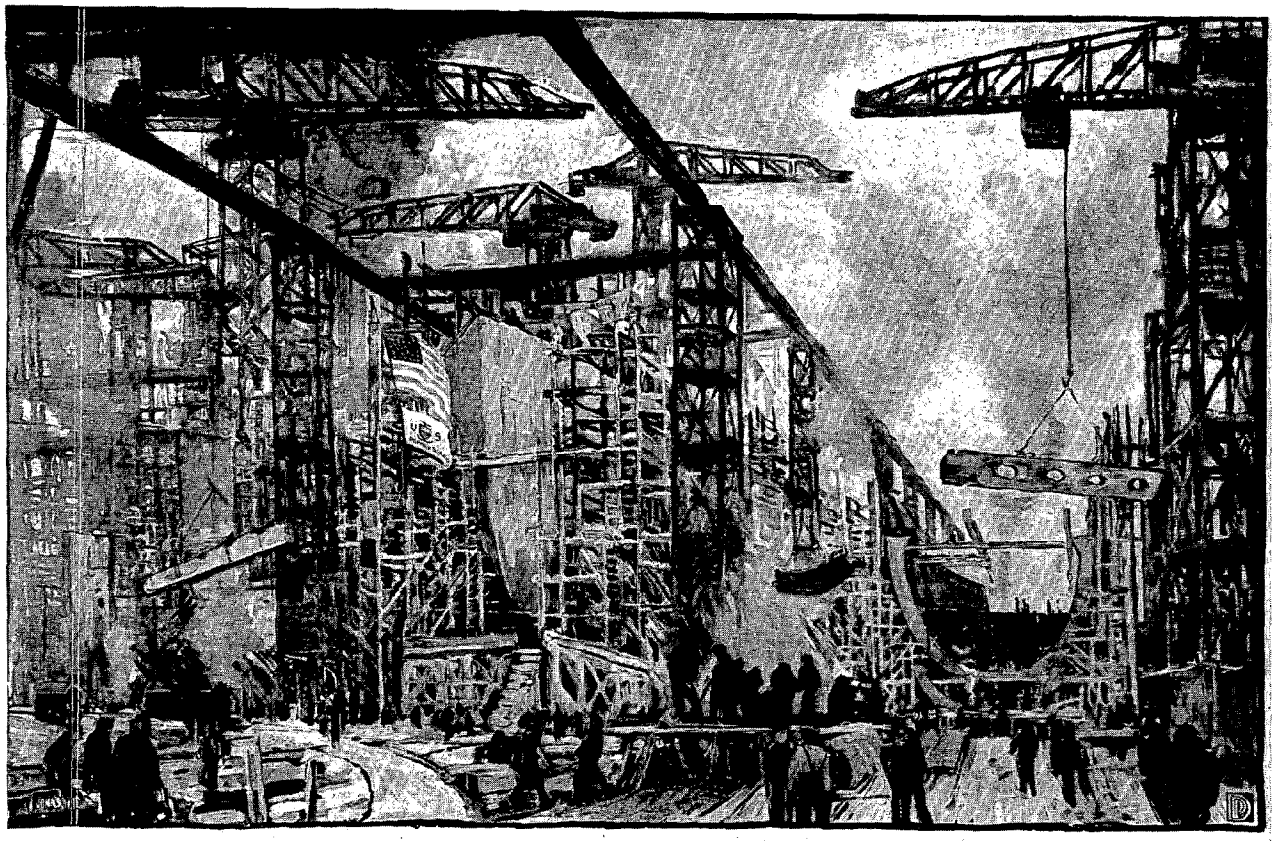
CREDIT: Transportation Institute, Washington, D.C.

The NACOA Report

In our examination of the complex of elements comprising U.S. marine transportation and the maritime industry, we have focussed on those issues that we believe pose major problems for the entire system. We have reviewed activities with respect to:

- Changes in patterns of international trade and their impact on the world's marine transportation systems.
- Changes in foreign marine transportation activities as they respond to market pressures, national and international policies, and new technological opportunities.
- Regulations and policies of the Federal Government that govern the U.S. marine transportation industry, as well as attempts to apply our rules to foreign operators in U.S. trades.
- Operations and types of carriage of the U.S. ocean-going (bluewater) merchant marine fleet; the question of U.S.-controlled (open registry) ships; and viewpoints of the customers and shippers who use these fleets.
- Trade routes reserved to the United States in U.S. coastal waters and between U.S. Territories and Possessions (i.e., "Jones Act Trades"). Ship operations supporting offshore oil and gas development also are considered, including U.S. companies operating in foreign waters.
- The land-sea interface in terms of harbor, port, and terminal operations; ship construction and repair industry; and other issues, such as intermodal connections, port services, and navigation/traffic control.
- "Crosscutting areas," i.e., activities that follow U.S. marine transportation activities no matter where they operate, such as national defense, labor, regulation, etc.

We also are sensitive to the economic realities expressed by the present Administration. We do not suggest that huge sums of new Federal money be pushed into this industry (an unrealistic expectation). Instead, we point to fundamental policy changes, relief in regulatory burden, and tax incentives that could stim-



In World War I, the U.S. Shipping Board's Emergency Fleet Corporation orchestrated one of the greatest shipbuilding efforts the world has ever seen. The U.S. Shipping Board, established by Congress in response to the heavy demand for ships from the Allied forces, set up the Emergency Fleet Corporation to request, lease, purchase, and build vessels. This effort brought assembly line production to American shipping.

CREDIT: Smithsonian Institution, Washington, D.C.

ulate positive change and help begin the long task of reconstructing our Nation's merchant marine and its supporting industrial base. It is encouraging to note that both the Administration and Congress are moving in this same direction.

Perhaps the fundamental issue to be addressed before all others is: What is the national interest in having a strong U.S.-flag merchant marine with the attendant shipbuilding base? Certainly, our shipping services exist to serve the purpose of moving our foreign trade, which is vital to our economy. And, certainly, the shipping services should be provided as economically and competitively as possible for the good of the entire economy. There are some, therefore, who believe that on a simplistic economic basis, we should take advantage of foreign shipyards and ship operators, who are subsidized by their treasuries and who offer goods and services to the United States at discounted prices. However, if we believe our national security requires some significant fraction of vital imports and exports to move in U.S.-flag controlled vessels, then the economic calculus becomes a bit more difficult. National security then enters the realm of policy consideration. The ancillary benefits of a pool of trained U.S. mariners and the maintenance of a surge capability in our national shipbuilding industrial base are important related considerations. Moreover, as we note in Chapter 6, the United States is tied to over 40 mutual assistance treaties overseas, and senior military planners have expressed doubts about the ability of our shipping assets to meet significant emergency demands. The case for or against a viable and healthy maritime industry for our country must be developed on more than simple economic questions alone.

Chapter 2
The Growth and Changing Nature of World Trade: Implications for Marine Transportation

The Shape of World Shipping 11
The United Nations Conference on Trade and Development
Code of Conduct for Liner Conferences 12
National Subsidies 15
Policy Implications for the United States 15

CHAPTER 2

THE GROWTH AND CHANGING NATURE OF WORLD TRADE: IMPLICATIONS FOR MARINE TRANSPORTATION

The Shape of World Shipping

The volume of international trade and the distances over which this volume is transported mold the shape of world shipping. In addition, the demand for shipping is affected by political and natural events, and various production technologies, including the inventory policies of the various manufacturing companies.

Since the end of World War II, and particularly in the past 15 years, there has been a rapid growth in the volume and distances of world trade which, coupled with the emergence of new nation states, has affected the size, number, and type of ships as well as the economic and political conditions under which these ships operate.

The increasing cost of fuel has been another important factor in the increased shipping demand of recent years. High energy costs have made slow steaming a desirable and efficient alternative for shippers. These slower speeds have increased the demand for ship tonnage, because a given volume needs more cargo to be profitable. Stockpiling of goods, were it to become a common practice, also would temporarily increase demand for shipping.

To understand international shipping, it is important to recognize that it exists in two forms, the liner trade and the bulk trade. Bulk carriage can be further divided into wet (oil, chemicals, etc.) and dry (coal, grain, etc.) cargo. Each segment has its own unique set of circumstances and problems.

Liner trade can be compared to a bus system, in which ocean carrier vessels are operated on a predetermined and fixed itinerary over a given route, at regular intervals, carrying general cargo. The ship operators are referred to as common carriers. It is in the liner trade that one finds the system of conferences, or associations of common carriers whose purpose is the self-regulation of price and service competition.

If the liner trade can be compared to a bus system, the bulk trades, wet and dry, resemble a taxi system, in which vessels carry cargoes wherever and whenever necessary on a contract basis. Bulk cargoes are those raw materials usually shipped in large quantities (full shiploads) between ports. The bulk trades are as close to a free market system as one gets in international shipping, with essentially no regulation. Wet bulk carriage refers primarily to the transport of oil. The primary feature in the wet bulk area today is the shift of control of oil transport away from the oil companies. In the dry bulk sector, the major feature is the increase in international coal trade.

Under all reasonable future scenarios for world economic growth, world trade is expected to grow, albeit at a low rate and with much uncertainty as to what the relative developments in the different trades and commodities may be. The expectations for the decade of the 1980s are for the increased demand primarily for shipping in liner trades. The present "oil glut" is expected to be worked off in the next three to four years at which time gradual price increases will begin. The offsetting impact of decreased demand due to conservation alternative energy sources, and price resistance is difficult to assess. As oil prices increase, the substitution of coal for oil is expected to have a dramatic effect on the coal trades. A switch from oil-based technology to coal-based technology would naturally stimulate greater demand for coal production and associated transport systems. The U.S. Interagency Coal Export Task Force (ICE) has estimated (1980) that the demand for U.S. coal would be primarily in the export market. However, it would seem that if substitution of coal for oil is economical for our foreign customers, it also may be economical domestically. In that case, competition for the coal may well result in a lower export increase than foreseen by the ICE Task Force.

On the whole, the volume of trade and its rate of growth in the 1980s are expected to be sufficient to provide a basis for ocean shipping activity of the characteristic "feast and famine" type. This cycle is created by our inability to level out and maintain merchant marine assets and supporting shipbuilding base through economic up and down trends. Assets and capabilities dissipate in down cycles while replacement in up cycles is

time consuming and very costly compared to a "steady state" situation. What may be of greater importance for shipping operations are the changes in international political and institutional arrangements. Of interest here are the United Nations Conference on Trade and Development (UNCTAD) Code of Conduct for Liner Conferences (the "Code"), the issue of state-controlled trading, and the new Law of the Sea (LOS) Treaty.

Although the world trade picture is primarily dependent upon prospects for economic growth within the Organization for Economic Cooperation and Development (OECD) and the major Asian shipping countries (South Korea, Taiwan, etc.), the developing countries, particularly the Pacific Rim states, also are expected to play a major role in determining future trade growth. Sources and markets for internationally traded goods have shifted, and the developing countries have become increasingly important participants in international trade. These countries represent 84 percent of the world's coastal nations and many have emerged as modest shipping powers. Some of these developing countries have attempted to emulate the model of the Organization of Petroleum Exporting Countries (OPEC) in setting up commodity cartels for items, such as bauxite, copper, and coffee, but none have been successful.

Overlying the entire maritime scene are international conventions and treaties (i.e., actions of the International Maritime Organization [IMO]) that affect our domestic industry in all its aspects. Additionally, the Law of the Sea Treaty with its provisions in areas, such as freedom of navigation, transit, and pollution, may affect these industries in as yet undetermined ways, particularly because the President has indicated the United States will not sign the treaty.

All of the above developments have resulted in a more complex and competitive environment for shipping carriers where attendant problems are increasingly resolved through high-level political processes involving the trade and foreign policies of the trading partners. In other words, shipping issues are becoming increasingly political rather than commercial in nature. We have a new environment for world trade and shipping, and we must recognize this fact and modify our maritime policy accordingly.

The greater the number of trading partners and trading areas, the less will be the relative influence, over time, of any single partner or area. Therefore, even a major trading nation, such as the United States, tends to lose some economic leverage, vis-a-vis the rest of the trading world, by virtue of its decreasing trade share. For example, the proportionate share of the United States in world trade has declined from about 50 percent in the 1950s to about 20 percent in 1980. With its trade becoming less important for world shipping, the United States is less able to influence the conditions under which world shipping operates. Although the United States can still stipulate the conditions for carriers participating in its own trade, that trade is now too small to carry these conditions over into the world shipping scene. At the same time, international trade has become more important to the U.S. economy. While in 1970, exports and imports accounted for about 11 percent of our Gross National Product (GNP), that proportion had risen to 21 percent, 10 years later.

Hence, the basic effects of the growth and changing nature of world trade on the United States have been: rapid growth in non-U.S. related trade; rapid growth of world tonnage and the proliferation of national merchant marines; a weakening of the U.S. position as the major force affecting the operating conditions of the world shipping industry; and a U.S. economy increasingly dependent on international trade.

If we do not increase our U.S.-flag shipping assets, then the U.S. seaborne trade will become increasingly dependent on foreign-flag carriers over whom we will have increasingly less leverage. The national security implications of this development must be considered. Figure 1 paints a vivid picture of the lack of growth of our merchant fleet compared to that of five other nations whose growth is rapidly expanding.

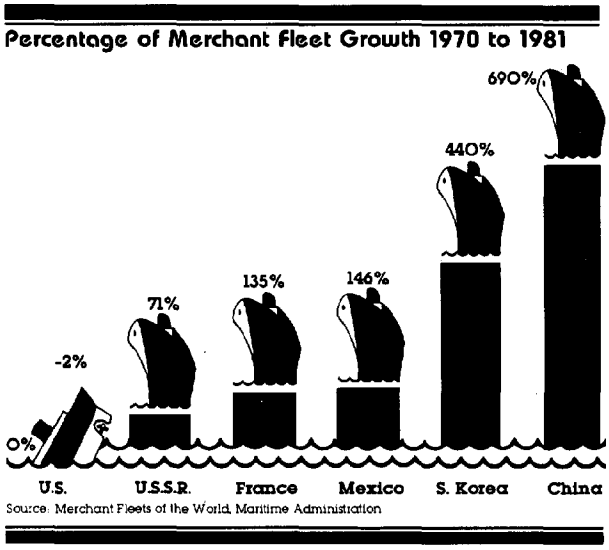


Figure 1.—Comparison of Merchant Fleet Growth from 1970 to 1981.

The United Nations Conference on Trade and Development (UNCTAD) Code of Conduct for Liner Conferences

Perhaps the most important recent policy development for global maritime operations is the UNCTAD Code of Conduct for Liner Conferences, which is close to ratification. The Code would create a framework for national control of the international liner shipping

industry. It would ensure that the majority of liner cargo between two states is carried and shared by the trading partners. The Code provides that shipping lines of the two trading nations be given "equal rights to participate in the liner freight and volume of traffic generated by their mutual foreign trade" with ships of third party nations entitled to "a significant part, such as 20 percent." This has generally been referred to as the 40-40-20 forumla. The Code's acceptance by the rest of the world, possibly with significant reservations by the European Economic Community (EEC), is virtually certain. The EEC reservation is basically that the Code's guidelines for cargo sharing will be applied in the EEC trade with the developing countries only. The guidelines will not apply to EEC trade with OECD countries provided these countries grant reciprocity to the EEC trading partners. The general acceptance of the Code will pose a problem inasmuch as the United States, the world's largest trading nation, may be operating outside this new international framework for shipping.

The UNCTAD Code is generally considered unacceptable by the U.S. Government. Basic U.S. objections to the UNCTAD Code are that it contradicts, or is in conflict with, U.S. domestic antitrust statutes, and it also provides for later modification of the Code (a Treaty) without observing our national laws with respect to "advice and consent of the Senate." Despite the inevitability of implementation of the UNCTAD Code, the United States has resisted its acceptance. This could ultimately result in considerable trade disadvantage to the United States and the "dumping" of excess world liner shipping tonnage (excluded from Code trades) into the U.S. liner trades. In other words, there would be shipping with no other place to go but into the open U.S. foreign trade conference system, which is required to take any carrier willing and able to provide regular service on a trade route.

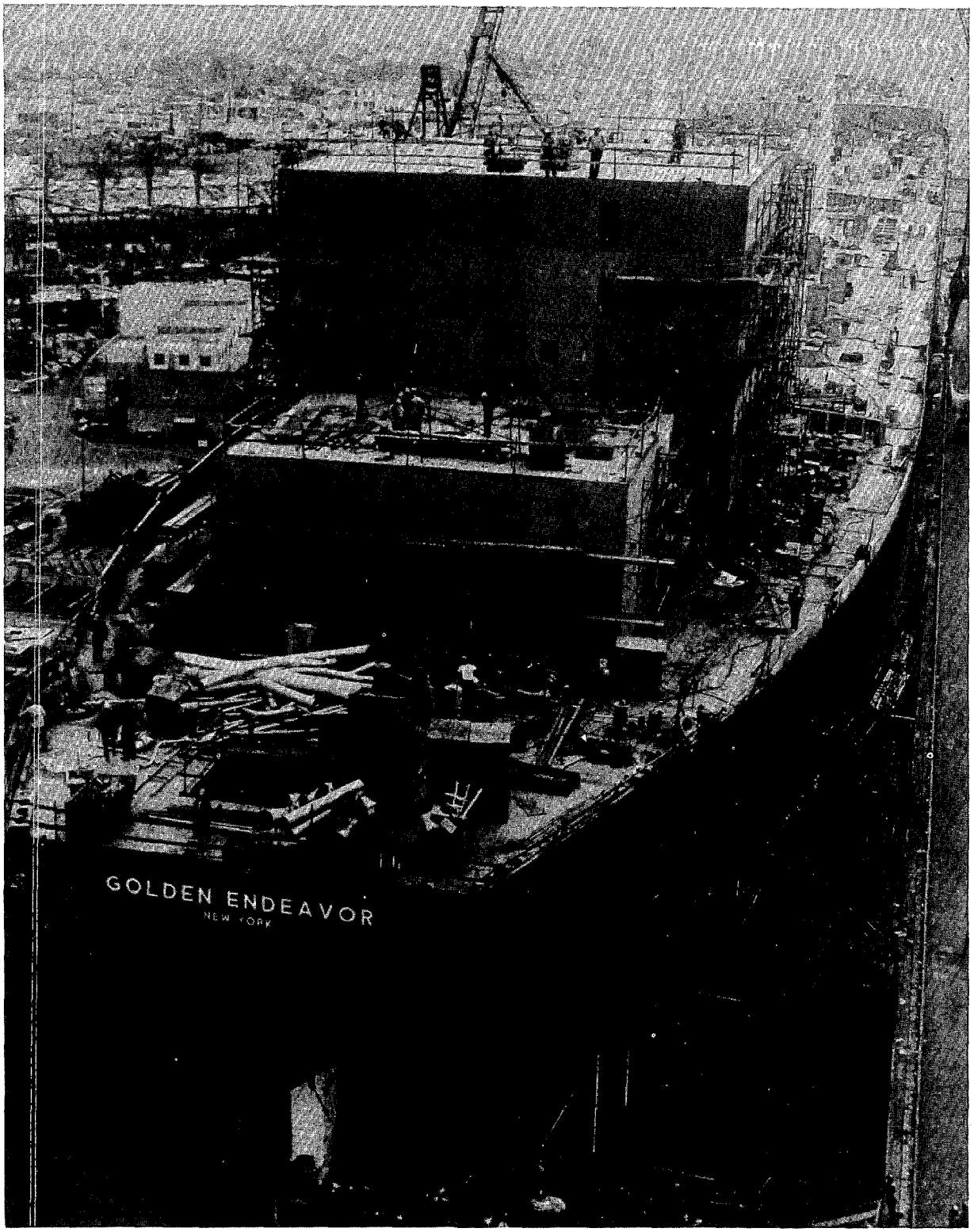
The Code will create special opportunities for expansion of merchant fleets for those countries that have the cargo volume but not the available ship tonnage. If the United States remains outside the Code, there will be no secure cargo base (in terms of the 40 percent reservation of cargo) for the building up of a U.S. fleet.

For the emerging shipping nations, the situation is somewhat different. Their acceptance of the Code may be immediately reflected in national laws protecting their shipping from outside competition. Because one of the important elements of the Code is to mandate a closed conference system where membership is restricted, shipping companies will seek membership in conferences where pooling of both revenue and cargoes will undoubtedly be the norm for the future. Given the growing capital intensity of shipping operations, we should also expect these companies to receive increasing state aid in their operations. We may see a growing proportion of the trade being carried by state-owned shipping companies. Already, state-controlled shipping (government owned and/or operated) accounts for 28 percent of the world's merchant vessels and 18 percent of the tonnage capacity.

The extent to which the Code will affect U.S. trades depends on whether or not the United States becomes party to the Code. In the absence of acceptance, open conferences would presumably remain in U.S. trades. We must expect the closed conference system in Code-controlled trades to squeeze out cross-traders, and the tonnage released (or in excess) in this manner will migrate to the open trades of our country. The effect would be over-tonnaging with excessive rebating (illegal for U.S. liner companies) by foreign operators. This would place U.S. operators at a severe competitive disadvantage and pose problems for the Federal Maritime Commission, the Federal agency in charge of monitoring tariffs of rates and charges of all ocean common carriers engaged in U.S. foreign trade.

Whether it would be better for the United States to accede to the UNCTAD Code or to enter into its own multi-lateral and bilateral agreements outside of the code is a question requiring careful consideration. The United States has had successful bilateral shipping agreements with a few trading partners. An orderly buildup of the U.S. merchant fleet requires access to a secure cargo base for its rational utilization. Whereas, the United States currently carries a fair proportion of its liner trade tonnage (about 27 percent), it carries a negligible proportion of its bulk trade (about 2 percent) hence, it is in the latter that the major prospects for growth and development are to be found.

The relative success of the cargo sharing scheme negotiations for liner trades (the Code) has prompted UNCTAD to suggest a similar scheme for bulk trades. So far the proposal has not gained widespread acceptance, although bulk cargo sharing is practiced by some developing countries. Nevertheless, the bulk sharing scheme looms on the horizon and may well become an important concern. This issue is clearly tied with attempts by developing countries and others to phase out flag-of-convenience, or open registry, ships—vessels operated under foreign registry to avoid unfavorable domestic flag regulation. Since a large portion of the world's flag-of-convenience tonnage is owned by U.S. firms, our interests are clearly at stake. The phasing out of the open registries would bring pressure to bear on the United States to bring these ships under American flag. There would also be pressure for U.S. acceptance of the bulk sharing scheme as well. If, in the meantime, a U.S.-flag bulk fleet has been created in response to a government initiative and forecasts of future coal exports, over-tonnaging is a distinct possibility. However, with an orderly phase-in of U.S.-flag bulk shipping, such as that prescribed in the 97th Congress by H.R. 6979, the Competitive Shipping and Shipbuilding Revitalization Act of 1982, this may not be a problem.



The world's first liquid-cargo carrier, the GLÜCKAUF, built in England in 1886, weighed 3,000 deadweight tons. Today, tankers, renown liquid-cargo carriers, weigh in the hundreds of thousands of tons and encompass areas ranging the length of four football fields. The GOLDEN ENDEAVOR, a 90,000 deadweight ton Panamax tanker completed in 1973, is one of 29 U.S.-flag tankers operating in international trade.

CREDIT: Maritime Administration, Office of Public Affairs, Washington, D.C.

National Subsidies

In addition to the UNCTAD shipping issue, there is the state-controlled trading issue. Its roots are largely political rather than economic. State-owned shipping companies operating outside normal principles of cost and profit motives (bent on earning foreign exchange and expanding political influence) are undercutting freight rates in various trades and are thus causing havoc on the traditional trade routes. These companies account for over 28 percent of world shipping tonnage, and the percentage is growing. The Organization for Economic Cooperation and Development (OECD) has passed legislation to deal with these issues. The United States has addressed the problem of state-controlled carriers by passing the Ocean Shipping Act of 1978. Through this Act, the tariffs of such carriers are monitored to ensure they are fair and reasonable if they wish to participate in the U.S. market.

The People's Republic of China is expected to enter into international trade on a massive scale in this decade. China's demand for shipping space will be matched by a planned increase in its own flag tonnage. China now has an impressive fleet amounting to about 10.5 million deadweight tons. It is expected to double by the mid-1980s. There are potential consequences of these events for the United States. If the Chinese tonnage is acquired and the trade does not materialize, then we would have a situation that greatly resembles the Russian situation in the U.S. North Atlantic and Pacific trades in the late seventies, where unemployed Russian vessels entered these shipping markets and undercut the freight rates. That is, we may find unemployed Chinese vessels moving into the open trades of the United States and playing havoc with the freight market through discounted rates and rebates just as the Russian fleet did four years ago. On the other hand, should the trade develop as expected, then under the bilateral shipping agreement with China, the U.S. fleet, particularly the bulk fleet should it materialize, would have an opportunity to have a secure cargo base.

Also of importance to the U.S. bulk shipping industry are events and developments in the international oil market. Two events seem to have changed the situation since the 1973 oil embargo. First was a decision by the oil-producing nations to get a share of downstream operations which included a greater share of the ocean transportation link. In the years following the 1973 crisis, the Organization of Arab Petroleum Exporting Countries (OAPEC) has built up a modest tanker fleet of both crude and product carriers. OAPEC had previously lost a considerable amount of its ability to control world oil supplies, despite its position as the world's major oil source, because it did not control its own tanker fleet—the heart of the transportation system.

The second development has been much more noticeable. In the past, oil was sold on long-term contracts in large volumes to the major oil companies, and this necessitated long charters, usually on large ships. However, over the past 10 years, we have seen more and more sales to state companies, brokers, and dealers, in reasonably small lots on voyage, or a few consecutive voyage, charters. This has meant that the oil companies have released much of the tonnage they previously had on long-term charter. The OECD now calculates that between 60 and 65 percent of the world tanker tonnage is in the free market, whereas in the past only 10 to 20 percent was in this market. This large free tonnage is depressing rates and causing wide rate fluctuations. Consequently, the efficient allocation of tanker tonnage has suffered.

In sum, we now have a fragmented market in terms of charter length and allocation where market control is shifting from the oil companies to the oil-producing nations. As the oil-producing countries achieve the centralized control previously held by the oil companies, the consumer nations will become more dependent than ever before on the oil-producing countries. And no longer will oil companies have the ability to reroute tankers in times of crisis.

Policy Implications for the United States

The United States must consider its options in the face of the inevitable adoption of the UNCTAD Code by the majority of the world's shipping nations. If we adhere (join) to the Code, perhaps with reservations similar to those taken by the EEC, the U.S.-flag shipping industry could be protected from over-tonnaging. A second option would be to engage in an active program of seeking bilateral shipping arrangements with our major trading partners. We presently have such bilateral arrangements, along with certain variations of them, with a few nations. To do nothing would simply embrace all that is wrong in not following either option; there would be virtually no positive gain for our Nation in this case. As we noted, there is some question as to whether the Code runs counter to some aspects of U.S. domestic law by putting jurisdiction over U.S. citizens and corporations in the hands of a non-U.S. system. We believe such concerns could be addressed through some reservations to the U.S. adherence of the Code.

It is wrong, however, to assume that U.S. adherence to the Code would solve all of the problems of the U.S.-flag liner operations. To be sure, it would provide a strong element of cargo reservation under the 40-40-20 percent formula, although there are those who believe that guaranteed cargo also could guarantee inefficiencies and higher costs. Moreover, the rate setting pro-

visions of the Code would discourage destructive price cutting by operators "buying in" to a trade route between two states operating under it. On the other hand, the application of U.S. domestic antitrust regulation only to U.S.-flag operators competing side-by-side with foreign operators (who are exempt from these regulations) out of U.S. ports and in the same trade routes, has provided distinct disadvantages for the U.S. merchant marine. In addition, other regulatory restraints, applied solely to U.S. operators (e.g., manning, training, safety, etc.), seem to exceed the norms of other major maritime fleets and simply add cost burdens for the U.S.-flag fleet. The U.S. decision on how to respond to the Code's adoption should be coupled with a review of domestic regulation of the U.S.-flag shipping industry to permit it to be competitive with its side-by-side competition operating under foreign flags.

Although the adoption of the Code is perhaps the major international, near-term event that will affect the U.S. marine transportation system, there are other, long-term trends that also must be considered. Perhaps the fundamental issue is the reservation of cargoes. Forty-five maritime states have some form of cargo reservation for their flag merchant shipping. This reservation practice often includes both liner and bulk trades. In the United States, the practice of cargo reservations applies only to shipments of government-sponsored cargoes (military assistance equipment, imports of U.S. government purchases, the U.S.-Soviet grain shipments, etc.) where 50 percent of the cargo must be carried in privately owned U.S.-flag ships. To date, the impact of U.S. cargo reservations has been largely ineffective in world trade because of the legislated limitation to the government-sponsored cargoes. Without the assurance of cargoes, the U.S. merchant marine will have a difficult time competing in world trade. As we have outlined in the preceeding paragraphs, there are several ways to assure cargoes. The primary need is for the Administration and Congress to consider a total, integrated national cargo policy and then formulate the legislation necessary to support it.

The question of maintaining a strong U.S. merchant marine in the face of an aggressive and expanding international shipping community really boils down to the issue of national security. The institutional devices necessary to support and protect a U.S.-flag fleet must be competitive with similar devices employed by foreign shipping companies (and in many cases, foreign governments). By and large, these devices amount to both direct and indirect subsidies. If the United States chooses not to meet this international competition, the immediate result will probably be the actual saving of some costs in shipment of our trade through the lower cost, subsidized foreign companies. But the long-term issues of controlling a significant part of the transportation system that keeps our economy functioning and whether or not we have the ships necessary to meet our military commitments overseas in time of national emergency cannot be solved in this way.

Chapter 3
U.S. Government Policies and Regulations: Help or Hindrance

The Rules 19
Federal Subsidies 19
Federal Maritime Policies 21
National Security Issues 22
Future Prospects 23

CHAPTER 3

U.S. GOVERNMENT POLICIES AND REGULATIONS: HELP OR HINDRANCE

The Rules

As stated in the Merchant Marine Act of 1936, U.S. policies and regulations are to "foster the development and encourage the maintenance" of a merchant marine capable of serving our defense and commercial needs. The objectives have not been reached and maintained in a consistent way, except in time of war.

Relative to other major maritime shipping nations, the United States has a small merchant marine of about 525 active vessels. (See Table 2 in Chapter 4 for a detailed breakdown.) In other terms, the U.S. merchant marine ranks 11th in its number of ships and 8th in its deadweight tonnage. In 1950, the United States was first in both categories.

Today, the U.S. fleet carries only about 27 percent of the country's liner trade and 2 percent of our bulk trade, or about 4 percent by tonnage of the total combined trade. The resulting high dependence on foreign-flag shipping means that in a time of national crisis, we may have difficulties in carrying out policies independent of the interests of foreign powers that control international shipping. We do not have the ships necessary to provide for our commerce or, under emergency conditions, for our military sealift needs.

A significant reason for this state of affairs in liner shipping operations is that U.S. operators, because of our national antitrust laws, have to follow different rules than do foreign carriers in competition in the same trade routes. Although the Department of Justice and the Federal Maritime Commission can at any time pursue antitrust enforcement actions with respect to U.S. operators, most foreign countries have enacted "blocking statutes" that make it a criminal offense for their carriers to release documents to U.S. courts or agencies without their own government's consent.

Another effect of antitrust is the requirement for open maritime shipping conferences in U.S. trades. This means that a conference must accept any and all shipping companies who want to participate in a particular conference trade. It also means that any foreign carrier who might have been unable to engage in a trade somewhere else because of a closed conference (e.g., the UNCTAD Code) may choose to enter the open system in the U.S. trades. This often leads to over-tonnaging (excess capacity), which in turn leads to unrealistic rates and excessive rebating by foreign operators eager to "buy in" to a trade route. In a deferred rebating system, a shipper who moves all his cargo with the conference over a period of time receives a rebate at regular intervals on freight payments made in a specified period of time. Such deferred rebating is illegal for U.S. operators.

Federal Subsidies

Compared to their foreign competition, U.S.-flag operators have higher operating costs primarily because of their higher crew costs. Until recently, they also had higher shipbuilding costs, because they were required to build in U.S. shipyards to be eligible for various benefits. The Merchant Marine Act of 1936 established the Construction Differential Subsidy (CDS) and the Operating Differential Subsidy (ODS) programs to provide direct Federal aid for the construction and operation of a U.S.-flag vessel. These subsidies are intended to place U.S. operator costs at parity with foreign competitors. The Maritime Administration (MARAD) oversees these programs.

The Operating Differential Subsidy (ODS) is available to the operator of a U.S.-flag liner or bulk vessel, whether he owns or leases the ship. The operating subsidy is based on the difference between the fair and reasonable cost of insurance, maintenance, repairs, and wages for a U.S.-flag vessel and the estimated cost of the same items if the vessel were operated under foreign registry. MARAD and the operator may agree to a lesser amount of subsidy than that which is necessary to achieve parity.

Operators holding ODS contracts must be U.S. citizens and must operate only U.S.-flag vessels. The subsidized vessel must be operated in the U.S. foreign trade along an essential trade route. Before 1981, a subsidized vessel also was required to be built in U.S. shipyards, but Congressional action gave U.S. operators a one-year

authority to build ships in foreign yards and put them under the U.S.-flag in subsidized operations.*

Regular, long-term operating subsidy contracts are written for 20 years. Under the ODS contracts, subsidized operators are required to construct new vessels to replace the existing vessels in their subsidized fleets as they become obsolete. In accordance with the Reagan Administration's intention to phase out the ODS program, MARAD has not issued any new ODS contracts and is negotiating the early termination of existing contracts with a few subsidized companies. Currently, MARAD administers about 150 ODS contracts totaling over $400 million annually.

The Merchant Marine Act of 1936, as amended, also provides for a Construction Differential Subsidy (CDS) to build vessels to be used in the foreign commerce of the United States. The subsidy program was intended to enable U.S. shipyards to construct vessels at parity with foreign yards, and to enable U.S. operators to obtain U.S.-built vessels at competitive world prices.

Under the CDS program, a U.S. shipyard or purchaser could apply to MARAD for construction subsidy to aid in the construction or reconstruction of a vessel

> "which will meet the requirements of the foreign commerce of the United States, will aid in the promotion and development of such commerce, and be suitable for use by the United States for national defense or military purposes in time of war or national emergency."

The vessel was required to be manned by U.S. citizen crews and remain documented under our laws for not less than 25 years (20 years for tankers and other liquid bulk carriers). The construction subsidy could cover up to 50 percent of the domestic cost of the vessel.

The last CDS authorization, for fiscal year 1981, was $135 million dollars. Considering the high cost of constructing merchant vessels and the large disparity in cost between building in U.S. versus foreign shipyards, this level of funding does not go very far in achieving the objectives of the CDS program. At the Administration's request, Congress eliminated CDS funds for fiscal year 1982.

By requiring vessels with operating subsidies to be U.S. built and by obligating subsidized operators to a vessel replacement program, the Merchant Marine Act of 1936 attempted to link direct government aid to U.S. ship operators and shipbuilders. The Omnibus Budget Reconciliation Act of 1981 broke this link by allowing ODS-assisted vessels to be foreign built. Although this action benefits U.S.-flag operators, this build-abroad authority presents severe problems to U.S. shipyards. Under this temporary authority, MARAD has approved the construction or acquisition of 36 new vessels to be built in foreign yards. The dollar value of this work, exported mainly to Japan and South Korea, is more than $1.2 billion.

Legislation proposed in the 97th Congress would have extended this build-abroad authority for another year. The Reagan Administration supports the permanent extension of this authority. Without a Presidential request for zero CDS funds for fiscal year 1983 (see footnote below) and with the failure of the 97th Congress to pass ODS legislation, the temporary build-abroad authority has expired.

In addition to direct subsidy, practically all maritime nations offer various forms of indirect government subsidy to their shipbuilding and shipping industries. One form of indirect subsidy is through tax benefits and tax-free revenue funds. In the United States, vessel operators in the U.S. foreign trade and the non-contiguous and Great Lakes domestic trades may obtain certain tax benefits through the maintenance of Capital Construction Funds to construct qualified vessels. The Capital Construction Fund (CCF) program is a method of aiding American vessel operators in accumulating the capital necessary for the construction, reconstruction, and acquisition of vessels of American registry built in the United States. A Senate proposal in the 97th Congress would have allowed U.S. companies to use CCF funds to buy or to build ships in foreign yards.

The CCF program is authorized by Section 607 of the Merchant Marine Act of 1936, as amended, and arose from 1970 amendments to the Act. Section 607 of the Act allows for the deferment of income taxes on certain deposits of money or other property, if these funds are used to construct vessels in U.S. shipyards. Fundholders may invest CCF assets in certain securities and stocks to develop an expanded pool of tax-deferred funds. MARAD sets the guidelines on where CCF may be invested and determines who may have a CCF. Currently, there are about 130 individual fundholders whose CCF assets total around $600 million.

Another technique for indirect maritime subsidy is in the form of low interest government loans or government loan guarantees for ship construction. The Ship Financing Guarantee Program, derived from Title XI of the 1936 Merchant Marine Act, as amended, authorizes MARAD to guarantee loan obligations to aid in financing the construction or reconstruction of vessels

* In 1981, Congress included in the Omnibus Budget Reconciliation Act (P.L. 97-35) a provision permitting U.S.-flag ship operators to buy vessels to be operated in foreign trade in foreign yards, to put them under the U.S. flag, and to receive ODS. This was to be only for fiscal year 1982 but could extend to fiscal year 1983 if the President requested at least $100 million for CDS (for U.S. yards) or initiated the equivalent in an alternative building program. In the past, any U.S.-flag operator could build his ships in foreign yards for international trade, but the operator was not eligible for either CDS or ODS.

designed for use in the domestic and foreign commerce of the United States. Its purpose is to assist U.S.-flag operators in obtaining private, rather than direct Federal, financing to build ships in American shipyards. Under Title XI, payment of the principal and interest on approved loans is guaranteed by the Federal Government. As a result, the shipowner is able to obtain long-term financing at favorable interest rates.

Vessels eligible for guarantee under Title XI include passenger and cargo vessels, tankers, towboats, dredges, and barges, as well as fishing vessels, ocean thermal energy conversion facilities and plantships, and oceanographic or pollution treatment, abatement, or control vessels. To qualify for Federal loan guarantees, the shipowner, managing agent, and bareboat charterer must be a U.S. citizen.

The Title XI program is self-sustaining and exists at no real cost to the U.S. Government. Premiums received from shipowners for the guarantee of the obligations and other fees, totaling about 1/2 to 1 percent of the outstanding balance annually, are deposited in the Federal Ship Financing Fund administered by MARAD. As of June 30, 1982, Title XI loan guarantees were over $7 billion.

In its fiscal year 1984 budget, the Reagan Administration has proposed raising the annual ceiling on new commitments for Title XI loan guarantees from $600 to $900 million. A Senate proposal in the 97th Congress would have set a limit of $2.25 billion on new loan guarantee commitments during fiscal years 1983 to 1985, with no more than $850 million to be committed in any one year. The House of Representatives had proposed eliminating the restriction on vessel type and increasing the Title XI ceiling from $12 to $15 billion.

As noted earlier, there also is some aid extended to the U.S. ships through limited cargo reservation legislation directed to military goods and cargoes generated by Federal agencies, such as the Agency for International Development (AID), the Department of Agriculture, and the Department of Defense. There has to be government involvement in the movement of the cargo or in its acquisition before the laws become applicable. With government-impelled cargoes comprising nearly 16 percent of the income received by the U.S.-flag liner companies, this form of cargo reservation has considerable impact on the liner segment of the U.S. industry. However, while the policy exists and is supported, there is cause for some concern. The early deliveries for the U.S. strategic petroleum reserve were carried in foreign-flag vessels to a considerable extent. Although this situation has been resolved, many believe that cargo reservation for U.S. agriculture shipments continues to be a problem.

Because the issue of cargo reservation is so complex and difficult to analyze, it is important that the U.S. Government study the question incident to the consideration of a comprehensive national cargo policy. We now have a partial policy in the reservation of government cargoes, but the larger issue of a policy for all seaborne trade should be carefully studied. If a national cargo policy is then declared, Congress should enact legislation to establish such policy.

A number of other countries also practice cargo reservation, but they do so with respect to the much greater volume of commercial cargoes. In addition, they have a number of aids that go well beyond those applicable in this country. Examples are low interest government loans, duty free imports of shipbuilding materials, export credit to shipyards, trade in allowance (scrap and build programs), basic tax exemption, reduced pilot and dock fees, and partial or complete government ownership of shipping companies and shipyards.

Federal Maritime Policies

In the area of ship depreciation, rules of foreign governments allow considerably faster write-off of a ship than the United States allows. Prior to 1981, the write-off period for U.S. shipowners was 14 1/2 years. The Economic Recovery Tax Act of 1981 shortened this period to five years, but U.S. depreciation policy is still not as liberal as those of other major maritime nations that recognize the long leadtimes involved in ship construction and the substantial investment expense shipowners experience prior to delivery of the ship. Other nations allow ship owners to begin depreciation before the vessel is placed into service, with write-off beginning as early as the moment of contract signing. For example, Norwegian shipowners may writeoff up to 25 percent of the ship's value before it is delivered. Shipowners in the United Kingdom may writeoff the ship in only one year from the contract signing. U.S. shipowners must wait until the vessel is delivered to begin depreciation. In addition, U.S. owners must follow a particular write-off formula, while foreign nations allow free depreciation where owners are allowed considerable discretion in determining the amount they writeoff in a given year. The positive impact of a liberalized U.S. depreciation policy depends on whether the company involved is generating enough profits to encourage building and, thus, depreciating ships.

With respect to shipbuilding, several issues crop up. Since 1981, it has been possible to build ships in foreign yards and put them under the U.S. flag and receive operating subsidy. However, building in the United States is the only way to maintain a certain mobilization base for shipbuilding. Building for naval purposes is generally different from building for commercial purposes, in both construction and repair yards. Of the 27 major yards in the United States, 15 are considered capa-

ble of building warships. The question arises whether our shipbuilding capability is sufficient in terms of physical plant, as well as manpower, to accommodate the Administration's plans for expanding the naval fleet by 150 or more vessels in the next few years. While the physical plant is there, the manpower availability may be questionable because of the widely fluctuating shipbuilding cycle. There is no sustained planning that allows the shipbuilding industry to have a steady volume of work to maintain a capable and stable labor force. Instead, when there are no orders, the labor force is dispersed; and when orders pick up, there are extra costs and time involved in training a new labor force.

Many foreign governments have made policy decisions to keep their shipyards open. They build vessels for long-term political and economic reasons. In some cases, these vessels are sold below actual cost; however, this practice has maintained the shipbuilding industrial base for the time when the market returns and when emergency situations may require it. We have not adopted this "future gain" strategy in the United States. It would be too simplistic to argue that the foreign yards do this only for socialist, make-work reasons. It is, in fact, a simple investment in the future where an in-place industrial base will be able to gear up quickly and competitively when the present ship glut is reduced. The United States, lacking this sort of subsidized advantage, must load the start-up costs into overhead charges, which thus reinforces the notion that U.S. yards are too costly to be competitive in a world market. The United States also has higher shipyard labor costs as well as a number of special (regulatory) construction requirements, primarily those of the U.S. Coast Guard and the Occupational Safety and Health Administration, which increase costs in U.S. shipyards compared to those of foreign yards. The result is a widening gap between U.S. and foreign shipbuilding costs.

In the regulatory area, it is unclear whether the basic antitrust immunity specified by the 1916 Shipping Act and the penalties given in that Act supersede other general U.S. antitrust laws. This Shipping Act established a system of limited antitrust immunity for U.S. shipping companies operating in international trade. The Act's intent was to permit our operators to compete against foreign shipping that operated in ways counter to our domestic antitrust laws, to which they were not subject. Despite several amendments of this Act in the 66 years since its passage, the Act has not provided the full measure of immunity envisioned by its drafters. Agencies of the U.S. Government, notably the Departments of Justice and State, have often taken actions that have run counter to the intentions of the Act. The result has been confusion, delay, and continued loss of competitive position in our U.S.-flag liner operations. This makes the current situation most difficult. Today, an operator may go through all the procedures to have an agreement approved and to join a conference. He is party to what he believes is a valid conference agreement. But, under existing law, if that agreement were challenged and later overturned, the operator is not only subject to the penalties that are contained in the 1916 Shipping Act, but he also may be subject to all the penalties contained in the antitrust laws. There is both corporate and personal liability involved. The current Congressional and Administration initiatives on antitrust immunity can help remove these problems.

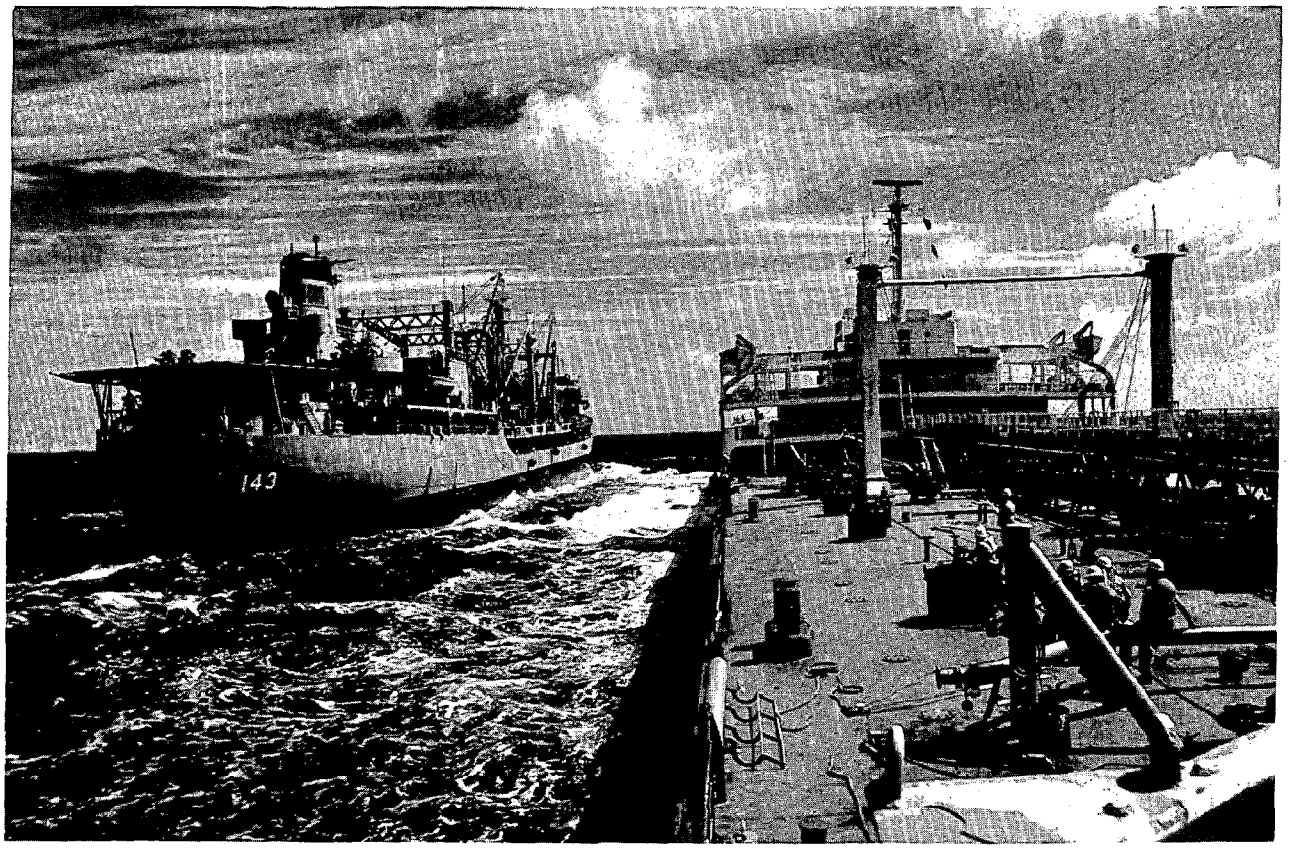
Recall that the 40-40-20 cargo sharing formula rule of the UNCTAD Code would make it possible for countries without their own ships to charter or designate certain flags as their own preferred carriers. Just as developing countries may charter and designate flags as their national carriers, so could the United States if it chose to join the UNCTAD Code. This would provide transport capacity to meet our 40-percent share but would not provide a national fleet.

However, a cargo base can be obtained without the UNCTAD Code. Nothing precludes our government from negotiating bilateral agreements that would encompass not only liner cargo, but also bulk cargoes, as was done recently with the People's Republic of China. The U.S. agreement with China calls for a sharing of seaborne trade in which the two countries each carry 30 percent of the tonnage traded between the two nations, with the remaining 40 percent available to third-party carriers. In the past, the United States has had other bilateral arrangements (e.g., with Brazil and Argentina) for revenue pooling and equal access to cargo transport that have worked well.

National Security Issues

What advantages are there for a U.S. taxpayer to subsidize a U.S.-flag vessel, especially in bulk trades? The answer depends on whether there is any defense need for a U.S. dry bulk fleet to import vital raw materials. Some argue that we can rely on flag carriers of the North Atlantic Treaty Organization (NATO) and the U.S.-owned foreign flag fleet in time of emergency. However, there can be instances of heightened international tension when NATO would not be involved and NATO ships not necessarily available.

Bulk vessels have little direct military, logistic utility as part of the combat support train for the armed forces. They are absolutely vital, however, for the transport of the raw materials needed to supply our defense industries and to supply vital bulk commodities (e.g., foodgrains, fuel, etc.) needed by allies who may be cut off from normal sources of goods. A U.S. citizen-manned, U.S.-flag bulk fleet will be much more predictable and controllable than a foreign-flag fleet would be, but there will be a subsidy cost (i.e., cargo reservation) for development and maintenance of this national emergency capability.



Our Nation's merchant marine is an essential strategic resource. The Oiler USS NEOSHO (A0-143) cruises alongside the commercial tanker SS ERNA ELIZABETH to prepare to take on fuel in the Caribbean Sea.

CREDIT: U.S. Navy, Washington, D.C.

There is also the basic controversy of whether any military sealift capability will be necessary in a future war. Such capability implies a large element of protracted, conventional warfare—an assumption not universally accepted. Opposed to that view is the continuing possibility of regional, but major conflicts, such as Korea or Vietnam, where sealift capability will remain essential. Moreover, in the latter cases, there was no warfare (i.e., submarines, surface combatants, air strikes) directed against the shipping capacity. This, however, cannot be assumed to be the rule for the future. Since World War II, there have been over 140 conflicts between nations. For those in which the United States was concerned, sealift capability has always been a major factor.

Future Prospects

Although the policy objectives of the various merchant marine acts are clear, the actual mechanisms and institutions developed to regulate this industry have not achieved these objectives. There is an urgent need to specify clearly the nature and mix of the U.S. merchant fleet that would meet our Nation's security needs and still respond to commercial demands. The Reagan Administration has suggested some remedies for the ambiguities described in this chapter. Agreement by the White House and many Members of Congress that certain working antitrust immunities should be applied to the U.S. merchant marine operators in the liner trades is a significant step in the right direction. The House and Senate versions of the Shipping Act of 1982 seem to embody most of the necessary features.

If Congress completes its action and the antitrust remedies become law, and with an attendant phase-out of the ODS subsidy program (CDS has effectively been terminated as of 1981), a more efficient operation of the U.S.-flag liner fleet could result. It is important, however, that the Administration carefully monitor the positive impact of its remedies as it removes past supports for this industry. The removal of ODS, through no further contracts, and negotiations for early termination of existing contracts, must be done at a rate that permits other remedies to take effect.

On the other hand, a case where benefits have been unequally applied was noted in the earlier discussion on the build-abroad authority for U.S.-flag subsidized operations. This practice provides significant benefits

for U.S. operators and seagoing labor, but it creates very serious problems for the U.S. shipbuilding industry, especially for those yards that are primarily in commercial construction work.

It would appear that a major growth direction for adding to the U.S. merchant marine will be in the bulk trades, especially coal, but this is dependent upon some type of cargo reservation legislation being enacted by Congress. The Boggs Bill (H.R. 6979) would have provided a graduated implementation of cargo reservation that could help meet this need. This proposed legislation would have stimulated the construction of a bulk fleet on the order of 158 new vessels of 120,000 deadweight tons each for carriage of 20 percent of reserved bulk cargoes (for U.S.-flag operators) phased-in over a period of 16 years. The gradual phasing in of such a construction program, the naval construction program of about 150 new vessels, and a modest replacement program for U.S. liner vessels could all work towards establishing a stable base for the U.S. shipbuilding industry.

It should be noted at this point that the average return on equity for the U.S.-flag liner industry has been a very low 8.6 percent over the 5-year period of 1976 to 1980. In a ranking of 10 other industrial groups (manufacturing, mining, retail, air transport, etc.), this industrial sector ranks second from the bottom, the place held by the railroads. Therefore, any plan to drop operating subsidy must be applied very gradually to avoid added financial crisis among the eight subsidized companies remaining in this sector. To cut back suddenly on subsidies while continuing to apply antitrust sanctions to liner operators will prevent American operators from competing on terms similar to those of foreign-flag competitors. Again, this problem seems to have been recognized by both the Legislative and Executive Branches over the past year.

The underlying theme in our discussion is the need for a unified and coherent direction for our national maritime policy together with its managerial framework. This was a point made by Presidential Candidate Reagan in September 1980 (Appendix G) when he said that the United States must develop a specific naval maritime program that will:

> . . .provide a unified direction for all government programs affecting maritime interests of the United States. We must insure that there is active cooperation between the Navy and the Merchant Marine and the governmental departments responsible for each. We must see that long-range building programs for naval and merchant ships are established and carried out without falling victim to petty bureaucratic jealousy. ***This is the role of the President and I shall see that our maritime policy is coordinated to insure that it achieves the objectives we set for it.***
>
> ***(Emphasis added by NACOA)***

The move of MARAD to the Department of Transportation and the increasingly visible role of the Secretary of Transportation in making major Administration announcements on its "maritime policy" may be positive steps in this direction. At the same time, however, industry representatives are concerned that the relief and reform efforts by the Administration, now two years in office, are not being developed quickly enough to deal with its real, near-term problems. We believe that on balance the right proposals are being made; it is the speed with which they are being put into action that concerns us.

The NACOA Marine Transportation Panel heard little during its "audit" of this industry to indicate that there is significant industry interest for more of the past direct subsidies or cash transfers from government. This shows a recognition of the realities of the present economic situation but, more importantly, the realization that past subsidy programs derived from our laws have simply not met industry expectations.

The topic of this chapter, "U.S. Government Policies and Regulation: Help or Hindrance" seems to reflect where the major concern lies. There is general agreement that regulatory relief; tax incentives to achieve parity with foreign operators; defined and acceptable statement by government as to the proper role of our maritime industry as part of our national security; and a clear, consistent direction for national maritime policy all would provide much of the needed impetus to revitalize this industry without additional direct subsidy.

Chapter 4
U.S. Marine Transportation System

Characteristics of the Industry 27
U.S.-Flag Fleet 27
Flags of Convenience 28
The Shippers 30
Domestic ("Jones Act") Shipping 31
Tug and Barge Operations 34
Offshore Oil and Gas Operations 34

CHAPTER 4

U.S. MARINE TRANSPORTATION SYSTEM

Characteristics of the Industry

U.S. ocean shipping consists of two major sectors, the foreign (international) trade and the domestic ("Jones Act") trade. These sectors have been almost entirely separate in terms of government policies, regulations, and subsidy. Generally, a ship operated in (or built for) the foreign sector cannot be used in domestic trade. But, there have been infrequent special cases of interchange between the sectors, and such interchange may become more common in the future.

There are two categories of U.S. shipping vessels: U.S.-flag ships and U.S.-owned ships under foreign flag. The foreign shipping sector contains both categories, while the domestic contains only the U.S.-flag ships.*

U.S.-Flag Fleet

To fly the U.S. flag, the vessel must be owned and manned by U.S. citizens. As of April 1982, the U.S.-flag fleet (active and inactive) consisted of 850 ships amounting to a little under 16 million gross registered tons (grt) or 24.4 million deadweight tons (dwt). Of the total, 575 are privately owned while 275 belong to the Federal Government. The privately owned fleet had 509 ships in service while the government-owned vessels totaled 16 in active service. The balance of 325 vessels are in the inactive fleet.

The composition by vessel type of the U.S.-flag fleet is given in Table 2 and its use in Tables 3 and 4. Note that the major portion of the active U.S.-flag fleet (252 ships or 63 percent of the active dwt) is engaged in the domestic trade sector. Only 192 ships, or 26 percent of the dwt, is in the foreign trade sector; of this part, 20 ships, or 15 percent of the U.S.-flag foreign trade tonnage, is in cross trades ("Foreign to Foreign"). The remaining 11 percent of the deadweight tonnage, amounting to 81 ships, are employed by various Federal agencies.

The U.S.-flag fleet, whether engaged in domestic or foreign operations, is used primarily for industrial (private or proprietary) carriage, tramp shipping, U.S. agency operations, and liner services. Industrial, or proprietary, carriage is usually transported in specialty ships required by particular commodities, such as automobiles, newsprint, lumber, etc. Tramp shipping operates on a non-scheduled basis serving all types of commodities, routes, and shippers. When a carrier in this part of the industry provides services to a particular shipper for a specific period of time, it is often referred to as independent shipping.

Certain types of government-owned or financed cargoes are preferentially routed via U.S.-flag commercial vessels. This preference extends to all overseas transport of supplies for the armed services. Moreover, at least half of all government-generated cargo, primarily agricultural and petroleum products, must be carried by privately owned, U.S.-flag commercial vessels.

Liners, which consist of conventional cargo, container, and roll-on/roll-off (Ro-Ro) ships, barge carriers, and tug-barge systems, operate on fixed routes and schedules and may be subsidized or non-subsidized. At the end of 1981, only 10 liner companies operated U.S.-flag vessels in international trade.

Three of these companies are now (1982) having financial difficulties. Eight of them were receiving government subsidies. In 1965, there were 19 liner companies in U.S.-flag service. In 1982, the U.S.-flag fleet provided 20,000 shipboard jobs compared to 57,000 jobs in 1965.

From Tables 3 and 4, we can see that the U.S.-flag fleet engaged in domestic trade is a bulk fleet, while the U.S.-flag fleet engaged in foreign trade is a liner fleet. This also is shown in Table 5 on the participation of U.S.-flag vessels in our Nation's seaborne trade.

The relatively high U.S.-flag participation in liner trades, while still much below the 40-percent level of the UNCTAD Code, has been accomplished through rapid adoption of the most sophisticated ship technologies available, largely ship technologies developed in the

* The Reagan "phase one" program proposes to permit foreign ownership of U.S.-flag shipping companies engaged in foreign trade to rise from 49 percent to 75 percent. Thus, a foreign trade shipping company might not be owned and operated by U.S. citizens. However, this is still only a proposed action.

Table 2.—U.S. Oceangoing Merchant Marine as of April 1, 1982

(In Thousands of Tons)

	Privately Owned			Government Owned			Total[1]		
	Number of ships	GRT[2]	DWT[3]	Number of ships	GRT	DWT	Number of ships	GRT	DWT
Active Fleet[4]									
Combined passenger/cargo	5	65	45	5	58	39	10	123	84
Freighters[5]	82	903	1,103	9	53	67	91	956	1,170
Bulk carriers	15	284	500	0	0	0	15	284	500
Tankers	259	7,179	13,873	2	14	21	261	7,193	13,894
Intermodal[6]	130	2,611	2,729	0	0	0	130	2,611	2,729
Tug-barge	11	184	342	0	0	0	11	184	342
Liquified natural gas	7	584	500	0	0	0	7	584	500
Total	509	11,810	19,092	16	125	127	525	11,935	19,219
Inactive Fleet[7]									
Combined passenger/cargo	2	30	13	51	530	328	53	559	341
Freighters	27	283	359	186	1,504	2,039	213	1,787	2,398
Bulk carriers	3	40	70	0	0	0	3	40	70
Tankers	15	668	1,335	13	130	208	28	798	1,543
Intermodal	12	207	228	9	126	137	21	332	365
Tug/barge	1	26	41	0	0	0	1	26	41
Liquified natural gas	6	459	428	0	0	0	6	459	428
Total	66	1,713	2,474	259	2,290	2,712	325	4,001	5,186
Total U.S.-Flag Fleet	575	13,523	21,566	275	2,415	2,839	850	15,936	24,405

[1] Totals are preliminary and reflect rounding.
[2] Gross registered tons.
[3] Deadweight tons.
[4] Includes 3 vessels in bareboat charter and 10 vessels in custody of other agencies.
[5] These are the conventional break-bulk ships.
[6] These are the new technology ships, including Roll-on/Roll-off, container, and barge carriers.
[7] Includes National Defense Reserve Fleet, which consists of 245 ships.

Source: Maritime Administration, 1983. Office of Trade Studies and Statistics, Washington, D.C.

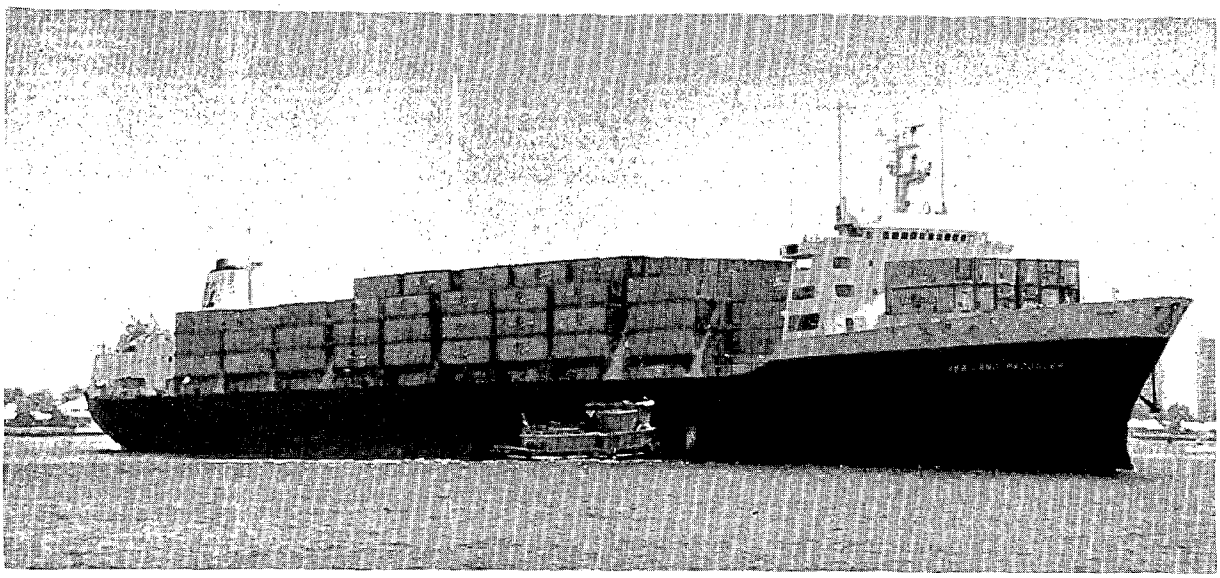
United States. The relatively few conventional ("break bulk") cargo vessels remaining represent about 16 percent of the active fleet. Container ships, barge carriers, and Ro-Ro vessels comprise the majority of liner fleet.

Flags of Convenience

The U.S.-owned fleet registered under foreign flag is indicated in Table 6. At the end of 1981, this flag of convenience, or open registry, fleet consisted of 639 ships, or 60.9 million dwt. Eighty-eight percent of this tonnage is in tankers, 11 percent in bulk carriers, and 1 percent in cargo percent. According to MARAD statistics, about 25 percent of world open registry tonnage is U.S. owned. This U.S.-owned, open registry fleet, including the Effective U.S. Control (EUSC) fleet, is about 2.5 times larger, in terms of dwt, than the total U.S.-flag fleet.

Industry representatives of this U.S.-owned fleet argue that it is not possible to operate competitively in the international (bulk) trades under the U.S.-flag because of U.S. wage scales, American ship construction and repair costs, and domestic antitrust, financial, and taxation rules. They assert that these restrictions are disadvantageous compared to other major shipping nations engaged in bulk (non-liner) shipping. Counterarguments are that increased work in U.S. shipyards is lost, that employment of seamen is lost, and that there is an element of tax evasion involved. Nevertheless, the present "free market" nature of bulk shipping works against profitable operations under the U.S. flag. Foreign operators can simply purchase and operate these vessels at cost levels well below the lowest levels of U.S.-flag operations.

Although there is a potential cargo base for expansion of the U.S.-flag bulk fleet and an expected future upsurge in coal exports, the existence of the U.S.-owned foreign flag fleet may pose a disincentive to expansion. It provides a more readily available, and more attractive, investment alternative than does U.S.-flag shipping under existing policies.



From Ship to Shore

The United States pioneered the use of containerships—vessels designed to carry standard-sized boxes of general cargo that fit flatbed tractor-trailers and flatcars. Easily loaded and unloaded, containerized vessels, introduced in the late 1950s, have enabled steamship companies to reduce port time and cargo handling costs. The SEA-LAND PRODUCER, a 26,000 deadweight ton vessel, sails in the U.S. container fleet, the largest container fleet in the world.

CREDIT: National Oceanic and Atmospheric Administration.

Table 3.—Use of the Active U.S.-Flag Oceangoing Merchant Fleet (≥ 1,000 gross tons) as of April 1, 1982

(In Thousands of Tons)

Status and Area of Use	Total			Combination Passenger & Cargo			Freighters			Tankers[1]		
	Number of ships	GRT[1]	DWT[2]	Number of ships	GRT	DWT	Number of ships	GRT	DWT	Number of ships	GRT	DWT
Foreign Trade												
Nearby Foreign	12	152	270	0	0	0	6	34	45	6	118	225
Great Lakes-Seaway Foreign	0	0	0	0	0	0	0	0	0	0	0	0
Overseas Foreign	160	3,119	3,900	4	45	37	143	2,653	3,032	13	421	831
Foreign to Foreign	20	808	753	0	0	0	11	179	175	9	629	578
Total	192	4,079	4,923	4	45	37	160	2,866	3,252	28	1,168	1,634
Domestic Trade												
Coastwise	94	1,507	2,577	0	0	0	8	92	121	86	1,415	2,456
Intercoastal	80	2,549	5,002	0	0	0	3	25	43	77	2,524	4,959
Non-contiguous	78	2,426	4,562	1	20	8	28	428	441	49	1,978	4,113
Total	252	6,482	12,141	1	20	8	39	545	605	212	5,917	11,528
Other U.S. Agency Operations												
Military Sealift Command Charter	65	1,249	2,028	0	0	0	31	434	548	34	815	1,480
Bareboat Charter and Other Custody	16	124	127	5	58	39	9	52	67	2	14	2
Total	81	1,373	2,155	5	58	39	40	486	615	36	829	1,501
Grand Total	525	11,934	19,219	10	123	84	239	3,897	4,472	276	7,914	14,663

[1] Gross Registered Tons.
[2] Deadweight Tons.

Source: Maritime Administration. 1983. Office of Trade Studies and Statistics, Washington, D.C.

The Shippers

As the customers, or "employers," of the fleet, the shippers are an important part of the U.S. marine transportation system. Their needs and views to a large extent shape the market context for the U.S. international liner trade. The main policy premise of the shippers is the free choice of carriers, the shipping companies that transport the liner cargo. They, therefore, support the conference system where independent operators also are allowed to serve the trade. In addition, shippers would like conferences to give up their rights to set and maintain uniform rates for all members; they want conference members to have the right of independent action.

Shippers oppose bilateral agreements and mandatory cargo sharing. They believe such arrangements can drive up or "fix" shipping costs. At the same time, they support American-flag carriers and recognize the need for added antitrust immunity to permit them to be more competitive. Thus, it also may be timely for them to consider the elements of a national cargo policy given the inevitability of the UNCTAD Code.

Although shippers and carriers hold different views on bilateral arrangements and closed conferences, there are many areas in which they agree. One of these areas is the rigidity of the essential trade route concept under the Merchant Marine Act of 1936. These routes are defined specifically, and only liner operators on the "essential" routes are eligible for ODS. This decreases the flexibility of the carriers, and it affects their ability to operate efficiently, or to maximize their services and profits. The shippers view this inflexibility as a detriment to moving their goods in a timely and cost-effective manner where such shipments do not follow the essential trade routes. The shippers would like to introduce a scheme called "immediate discount" or "cash discount" rates. Such an immediate discount system would be very similar to a dual rate system with lowest or preferred rates going to large volume, repeat customers. On the whole, it would be entirely acceptable to U.S. carriers, as a counter to the deferred rebate system practiced by foreign operators.

Shippers emphasize the need for a "shippers' council," corresponding to a liner conference, as a counter-

Table 4.—Use of the Inactive U.S.-Flag Oceangoing Merchant Fleet (≥ 1,000 gross tons) as of April 1, 1982

(In Thousands of Tons)

Status and Area of Use	Total			Combination Passenger & Cargo			Freighters			Tankers		
	Number of ships	GRT[1]	DWT[2]	Number of ships	GRT	DWT	Number of ships	GRT	DWT	Number of ships	GRT	DWT
Temporarily Inactive	17	390	585	0	0	0	11	133	173	6	257	412
Laid-Up (Privately Owned)	48	1,305	1,872	2	30	13	30	379	467	16	896	1,392
Laid-Up (Privately Owned/NDRD)[3]	1	18	16	0	0	0	1	18	16	0	0	0
Laid-Up (non-NDRF/MARAD-owned)[4]	14	147	172	3	39	23	10	97	131	1	11	18
Total	80	1,860	2,645	5	69	36	52	627	787	23	1,164	1,822
National Defense Reserve Fleet												
Merchant Types	166	1,385	1,870	0	0	0	166	1,385	1,870	0	0	0
Military Types	79	756	671	48	490	305	19	147	176	12	119	190
Total	245	2,141	2,541	48	490	305	185	1,532	2,046	12	119	190
Grand Total	325	4,001	5,186	53	559	341	237	2,159	2,833	35	1,283	2,012

[1] Gross Registered Tons.
[2] Deadweight Tons.
[3] National Defense Reserve Fleet.
[4] Maritime Administration.

Source: Maritime Administration. 1983. Office of Trade Studies and Statistics, Washington, D.C.

balancing force if the closed conference system for liner carriers becomes a reality in the U.S. trades. From the shippers' point of view, such councils are seen as an effective alternative to government regulation. Most carriers agree on the need for such councils so that they can find out exactly what the shippers' position is on certain issues. To operate effectively, however, the councils would require the same kind of antitrust immunity the liner companies are requesting. Both House and Senate versions of the Shipping Act of 1982 would have provided for the establishment of shippers' councils with such antitrust immunity.

In summary, the shippers' positions are that their marine transportation service options should include a profitable and efficient U.S.-flag fleet. This fleet should be adequate to carry a substantial share of cargo moving in all trades in the United States. Transportation services should be at the lowest reasonable cost. Services should be primarily tailored to the needs of importers and exporters; they are the "users." There is overwhelming support by the shippers for the reaffirmation of the antitrust immunity and the primacy of the proposed Shipping Acts (or their equivalent) over the antitrust laws.

The shippers have long believed that free access to the U.S. trades has generated healthy competition and, in turn, more choices of rates and services. However, a significant number of shippers are now reconsidering this position because of the inevitability of the UNCTAD Code. The consequences of this agreement, when it becomes international law, with all major trading nations in the world agreeing to it except the United States, are of great concern. The shippers' view is that tacit enforcement of limited closed conferences is a *quid pro quo* of carrier support for formation of shippers' councils. These conferences and councils will be necessary, because the coming into force of the Code, coupled with the European Economic Community's reservations to it, will result in the further dumping of liner capacity into our already over-tonnaged trades, as was discussed in Chapter 2.

Domestic ("Jones Act") Shipping

The United States began protection of its domestic oceangoing shipping through one of the first acts of the First Continental Congress. The Cabotage (from the French verb *caboter*—to sail along the coast) Law of 1817

Table 5.—Participation in U.S. Trade, 1981

Type of Ship	Millions of tons		Percent
	Total World Trade	Tons Carried by U.S. Flag	Percentage Carried by U.S. Flag
Liner	59.6	16.4	27.6
Non-Liner (Mostly Dry Bulk)	346.5	4.5	1.3
Tanker	356.8	13.9	3.9
Total	762.9	34.8	4.6

Source: Maritime Administration. 1982. Office of Policy and Administration, Washington, D.C.

was designed to keep foreign-flag shipping out of these trades, reserving them to U.S. ships and seamen. This policy has continued unbroken to the present. Over the years, there have been attempts to change or modify some aspects of this national policy, but they have been largely unsuccessful.

The principal governing legislation is the "Jones Act," section 27 of the Merchant Marine Act of 1920. This section details the reservation of coastal, intercoastal, and non-contiguous U.S. trades to U.S.-built ships manned by U.S. citizens. A 1950 amendment to this act provided that these provisions could be waived in times of national emergency. The U.S. Virgin Islands and the Wake and Midway Islands are exempt from the Jones Act.

The major part of the U.S.-flag fleet is engaged in domestic oceangoing trade, the deadweight tonnage being divided among coastwise, intercoastal, and non-contiguous shipping (Table 7). There is no conference system operating in this trade; the operators are independent or proprietary (operated by corporations as in-house shipping). There is liner as well as tramp service, and the fleet includes bulk carriers, tankers, conventional, and container ships, and tug-barge systems.

Table 6.—Foreign-Flag Ships Owned by U.S. Companies or Foreign Affiliates of U.S. Companies Incorporated under the Laws of the United States as of January 1, 1982

(In Thousands of Tons)

Country of Registry	Total			Tankers			Freighters			Bulk & Ore Carriers		
	Number of ships	GRT[1]	DWT[2]	Number of ships	GRT	DWT	Number of ships	GRT	DWT	Number of ships	GRT	DWT
Liberia[3]	378	20,708	42,538	242	17,374	36,054	40	281	392	96	3,052.	6,093
Panama[3]	95	2,999	5,973	63	2,772	5,626	23	86	91	9	141	256
United Kingdom	69	2,951	5,527	50	2,738	5,215	12	63	60	7	150	252
France	11	1,280	2,540	11	1,279	2,540	0	0	0	0	0	0
Federal Republic of Germany	6	643	1,299	6	643	1,299	0	0	0	0	0	0
Netherlands	6	545	1,080	6	545	1,080	0	0	0	0	0	0
Saudi Arabia	2	251	515	2	251	515	0	0	0	0	0	0
Norway	10	249	449	10	249	449	0	0	0	0	0	0
Belgium	5	168	292	2	56	99	0	0	0	3	111	194
Argentina	7	127	214	7	127	214	0	0	0	0	0	0
Denmark	5	75	129	5	75	129	0	0	0	0	0	0
Canada	12	77	110	12	77	110	0	0	0	0	0	0
Australia	2	32	52	2	32	52	0	0	0	0	0	0
Honduras[3]	7	47	48	0	0	0	7	47	48	0	0	0
Italy	2	26	44	2	26	44	0	0	0	0	0	0
South Africa	1	19	31	1	19	31	0	0	0	0	0	0
British Colonies	12	19	24	0	0	0	12	19	24	0	0	0
Finland	3	8	13	3	8	13	0	0	0	0	0	0
Costa Rica	3	6	8	0	0	0	3	6	8	0	0	0
Singapore	1	2	4	1	2	4	0	0	0	0	0	0
Greece	2	7	1	0	0	0	2	7	1	0	0	0
Total	639	30,239	60,891	425	26,273	53,474	99	509	624	115	3,454	6,795

[1] Gross Registered Tons.

[2] Deadweight Tons.

[3] These U.S.-owned vessels, registered in Panama, Liberia, and Honduras, are the Effective U.S. Control (EUSC) fleet. Agreements between the United States and these countries exist for for the return of these vessels to the United States in time of national emergency.

Source: Maritime Administration. 1982. Data Sheet—January 1, 1982. Office of Trade Studies and Statistics, Washington, D.C.

Table 7.—U.S. Domestic Oceangoing Fleet[1]

Area	Number of Vessels	Thousands of Tons: Gross Registered Tons	Thousands of Tons: Deadweight Tons
Coastwise	94	1,507	2,577
Intercoastal	80	2,549	5,002
Non-contiguous	78	2,426	4,562
Total	252	6,482	12,141

[1] Does not include Great Lakes, inland waters, or military shipping.

Source: Maritime Administration. 1982. Office of Trade Studies and Statistics, Washington, D.C.

What are the characteristics of the U.S. reserved trades? First, the majority of this carriage is liquid bulk cargoes with about 80 percent of U.S.-flag tanker tonnage in our domestic trade. Second, the trend is towards an increasing percentage of Jones Act cargoes being moved by tug-barge transportation.

The domestic oceangoing trade shipped in 1980 was about equally divided between the coastwise and non-contiguous trades, with a small amount carried in intercoastal trade. Specifically, in 1980 non-contiguous was 194.1 million short tons, coastwise was 171.8 million short tons, and intercoastal was 4.5 million short tons.

We find the smallest element of domestic shipping in the intercoastal trade between the Pacific and Atlantic and Gulf coasts. It is only about 1 percent of the total tonnage shipped. One of the original purposes for the United States to complete the Panama Canal in 1917 was to provide a convenient sea transportation tie among the three U.S. coastal areas. Today, however, U.S.-flag shipping in intercoastal trades accounts for only about 3 percent of all Panama Canal tonnage shipping of all nations.

Cargo tonnage in the coastwise trade has remained relatively constant over the past 20 years and now represents a little less than half of the total domestic oceangoing tonnage. The largest coastwise traffic movement is between Atlantic and Gulf Coast ports.

The non-contiguous trades serving the continental United States and Alaska, Hawaii, Guam, and Puerto Rico equal about 52 percent of the domestic tonnage of cargoes. This is the fastest growing segment of the three Jones Act trades. Most of this growth can be attributed to the development of the Alaskan oil trade.

With the advent of Alaskan oil in 1978, there has been a fairly rapid growth in petroleum tonnage. The voyages have been longer than first planned, since the idea of an Alaskan oil terminal and pipeline connection to the east was dropped. Crude oil in excess of what could be stored and processed on the West Coast has been shipped via the Panama Canal (either by ship or from "ship to ship" via a trans-isthmus pipeline) to Gulf Coast ports. While peak production in Alaskan oil from the Prudhoe Bay will be reached by 1985 to 1986, the ships devoted to this route may continue to be used to support other Alaskan oil development.

Coal transport for power generation also may increase coastwise tonnage as is already beginning in the Northeast United States. While domestic dry bulk transport has been a very small segment, the future coastwise transport of coal may add tonnage in this trade. Most probably this will be in the area of tug-barge systems between major coal terminals and power generation/industrial plants—the maritime equivalent of "unit trains" on land.

At present, it is difficult to estimate whether or not increased general freight carriage will take place in domestic ocean shipping. Increased fuel costs for trucking; the slow-down in expansion of the Nation's freeway system; the projected state of the main trunkline railways; and the anticipated trend toward concentrating container cargoes in specialized regional port complexes may stimulate the development of coastwise distribution systems. Offsetting this will be the added costs of developing the specialized marine transportation assets and the investments needed to develop secondary ports outside the major regional port complexes.

Many of the shipping assets used in coastal trades tend to be older vessels that could not be competitive or efficient in overseas trading. However, the U.S.-Puerto Rico (non-contiguous) trade has been marked by a wide degree of service and technological innovation. For example, the Ro-Ro vessel, designed to allow trucks to drive on and off with trailers of cargo, was first utilized in this trade.

There have been attempts to modify provisions of the Jones Act for special cases. Within the past two years, there was a move in Congress to permit shipment of lumber in foreign-flag ships from the West Coast to U.S. Atlantic ports. Proponents of the move have been unable to generate Congressional support. On the other side of the issue, temporary waivers were made in 1978 and 1981 to permit two passenger ships (originally U.S. built), the INDEPENDENCE and the CONSTITUTION, to come back under the U.S. flag in domestic service (Hawaiian Island service) after having been operated by a foreign-flag operator since 1974. The waivers were actually private bills passed by Congress.

The Secretary of Transportation has the power to suspend the Jones Act and to allow subsidized U.S.-flag ships, intended for foreign trade, to participate in the reserved trades for up to six months out of the year.

*Similarly, the Secretary of the Treasury may grant a statutory or discretionary waiver of the Jones Act for foreign-flag vessels on the basis of national defense. Although neither instance is common, there have been cases in recent years of U.S.-flag ships moving from the foreign sector to the domestic sector, particularly in the Alaska oil trade.

Although such suspension of the Jones Act could mean possible short-term lowering of freight rates and wider markets for the U.S.-flag foreign carrier, some other consequences should be pointed out. Ships for foreign commerce have been eligible for both CDS and ODS; those engaged in domestic trade (a "monopoly" for U.S. operators) are not; instead, they rely on cabotage. If suspension of the Jones Act were to become easy, cabotage also would become accessible to subsidized carriers. Under such conditions, we could see a more competitive and uncertain domestic shipping market affecting both shipping services and the shipbuilding industry.

Relaxation or elimination of the protection of the Jones Act could result in immediate lower shipping costs in domestic trades. Foreign operators could compete freely and with their generally lower operating costs (often through subsidy from their government) and more modern equipment, the costs to both shipper and consumer would be reduced. But, in the long run, the overall impact on U.S. national security would be unfavorable, because the majority of our shipping tonnage is in this trade. A reduction of this tonnage would reduce the number of vessels and the pool of trained mariners needed in case of national emergency. In a more limited case, the same argument of national security versus free market advantage prevails here.

However, in October 1980, Presidential Candidate Ronald Reagan said:

> The preservation of coastal trade, presently embodied in the Jones Act, has been a part of this Nation's maritime policy since its beginning. The Reagan Administration will not support legislation that would jeopardize this policy.

The Reagan Administration has kept this promise. However, challenges may continue to come from Congress (and perhaps other Federal agencies) in the name of opening these trades up to subsidized operators under foreign flags.

* Under a recent ruling, the Supreme Court upheld MARAD's decision to admit the VLCC STUYUESANT to the domestic oil trade permanently in exchange for the repayment of its Construction Differential Subsidy plus interest. Thus, MARAD is authorized to permit a vessel to operate in the domestic trades permanently in exchange for the repayment of a vessel's Construction Differential Subsidy plus interest.

Tug and Barge Operations

Tug-barge systems have become important in the domestic trades where their small crews, high capacity, and shallow drafts have made them competitive in the Alaska-North Slope, U.S. West Coast/Hawaii, and on the U.S. East Coast/Puerto Rico routes. Capacities are large, up to 18,000 dwt for an oil barge, 370 forty-foot trailers for a Ro-Ro, and some 5,500 dwt for a break-bulk vessel. Ice-breaking and semi-submersible barges have been developed for specialized trade routes and cargoes. Tug-barge systems have substantially lower operating costs because of their reduced fuel consumption and smaller crews. A tug-barge Ro-Ro system with a capacity equal to a large Ro-Ro ship (about 11,000 dwt) is operated by a crew of 8 as opposed to a crew of 32 on the ship. In addition, the barges are not affected by the Port and Tanker Safety Act of 1978 in terms of either segregated ballast tanks, crude oil washings, or inert gas systems—all significant cost factors.

Barges usually fill up their space before their deadweight tonnage capacity is filled, that is, they are volume, rather than weight limited. Hence, it is feasible to use large bulk carrying barges to carry commodities, such as coal, into the shallow ports of the United States. Such systems may provide a solution to the U.S. port capacity problems caused by the forecast surge of coal exports.

Tug-barge systems are substantially cheaper than conventional ships but slower. Moreover, where conventional ships do not have to pay much attention to inclement weather, barges must slow down. Insurance for break-bulk cargo moving on barges is higher than when it moves by conventional ship.

Although the highest present potential for tug-barge systems lies in the domestic trades where high fuel costs have made truck and rail transport relatively more expensive, tug-barge systems may be used in international trade. Extension of tug-barge systems into the international trades would increase the cost of shipping by barge, requiring, among other things, larger crews for the longer distance operations.

In case of a national emergency, tug-barge systems could take over coastal and non-contiguous routes to relieve other ships for naval auxiliary and other defense-related duties.

Offshore Oil and Gas Operations

The domestic shipping sector contains the only flourishing segment of the U.S. maritime industry—the offshore services fleet. This service industry, which came into existence with the Gulf of Mexico oil activity in the 1950s, is growing at a rate of 10 to 15 percent per year and consists of about 4,000 U.S.-flag or controlled

ships in worldwide operations. Most of these ships were built in U.S. shipyards, and, as of mid-1982, there were an additional 200 under construction. Shipyards involved in this sector have built and sold vessels for foreign operators at highly competitive prices and without subsidy. Although some Title XI financing has been obtained (currently $150 million), this offshore service fleet, representing about $8 billion in construction value, is largely privately financed. About 200 companies are engaged in the U.S. offshore service sector offering ships for charter to the offshore petroleum and construction industries.

As of October 30, 1982, the offshore petroleum industry had 117 fixed platforms and 156 mobile drilling rigs operating in U.S. waters. Of this number, 165 are offshore Louisiana and 58 off Texas. In addition, there are 19 jackups, 4 submersible rigs, and 1 semi-submersible rig under construction in U.S. yards. In the international shipyards, 45 semi-submersible rigs, 40 jackups, and 8 drill ships are under construction. Ancillary to the petroleum industry are offshore construction and pipeline activities. For example, this work requires specialized equipment vessels, such as pipeline bury barges, workover units, derrick barges, and pipeline material barges, all of which are served by the offshore services sector. These units represent considerable capital investment and a significant part of the U.S. merchant marine.

The U.S. offshore service sector is highly competitive domestically and internationally—in the latter area the main competitors are British, French, Canadian, Swedish, and Norwegian companies. The offshore service fleet has been a healthy and growing segment of the U.S. maritime industry. It provides seagoing employment, supplies a competitive marketing base for shipyard work, and is the undisputed world leader in its field. The industry has developed without subsidies and, under existing policies and regulations, has succeeded in competing in world markets. Recently, some temporary weaknesses have developed resulting from the state or our economy and the world oil surplus, both serving to slow the rate of growth of this sector. Moreover, there also are potential problems on the imposition of new domestic and international rules and requirements for ship construction, manning, and operations that can result in increasing capital requirements and manning problems for vessel operators. Nevertheless, the long-term trend for the offshore service industry steers toward continued growth.

Chapter 5
The Land-Sea Interface in Marine Transportation

The Hub of Maritime Commerce 39
Ports, Harbors, and Terminals 41
The Federal Role in Port Development 44
Shipyards 45

CHAPTER 5

THE LAND-SEA INTERFACE IN MARINE TRANSPORTATION

The Hub of Maritime Commerce

A haven from winds and waves, a shelter to ships and seamen, and a hub of maritime commerce—the port joins the land to the sea. As the land-sea interface, ports integrate marine transportation systems with inland transportation modes, such as rail, trucking, and inland waterways. America's seaports also provide the supporting industrial base for construction and repair of marine shipping systems.

With foreign trade accounting for an increasing proportion of the country's economy, the importance of the port needs no elaboration. The United States is the world's leading supplier of coal and agricultural commodities and ranks with the Federal Republic of Germany and Japan as major exporters of manufactured products. At the same time, the United States has become increasingly dependent on other nations for many essential raw materials, the most important of which is petroleum.

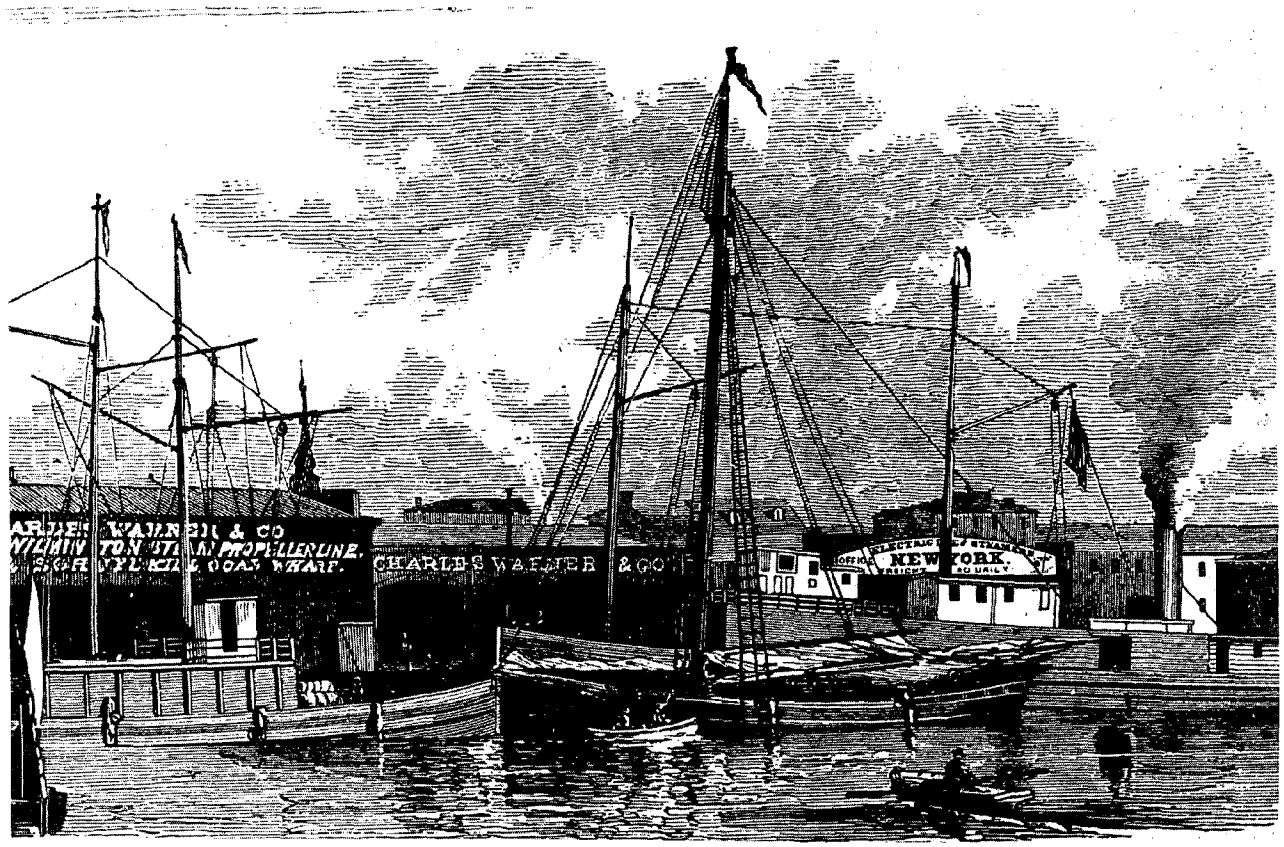
For many agricultural exports, there is simply no economical alternative to ocean transport. Farm commodities in one form or another are shipped through virtually every port in the United States. Grain is exported mostly out of the Gulf, Great Lakes, and the Pacific Northwest, and to a lesser extent through such East Coast ports as Philadelphia, Hampton Roads, and Baltimore. Hampton Roads and James River, Virginia, and the North Carolina ports of Wilmington and Morehead City account for most of this country's tobacco exports. Meat and meat products flow in greatest quantity through the Port of New York although sizeable tonnages also are handled by the ports of Philadelphia, Norfolk, Gulfport, Los Angeles, Long Beach, and Oakland. Cotton is shipped through the ports of New Orleans, Galveston, Houston, Long Beach, Oakland, and San Francisco. Much of the rice we export is handled by the ports of Lake Charles, Louisiana, and Stockton, California. Florida and California ports lead in the export of fruits, vegetables, and juice.

The United States has been the world's foremost coal exporter for more than 30 years. Until very recently, much of that exported overseas has been high-grade metallurgical coal destined for Europe, Japan, and Latin America. Considerable quantities of steam and metallurgical coal also have moved via the Great Lakes to Canada. Major coal shipping ports are Philadelphia, Baltimore, Hampton Roads, Mobile, and New Orleans, and the Great Lakes ports of Superior, Toledo, Astabula, Sandusky, and Conneaut.

Since the fall of 1979, however, the complexion of the overseas coal market has changed radically with the sudden and continuing upsurge of U.S. steam coal exports to Western Europe. Whereas, in 1978, U.S. steam coal exports to non-Canadian destinations amounted to a mere 311,000 tons, in 1979, they jumped to 2.5 million tons, and, in 1980, to 15 million tons. Heavier than expected metallurgical coal movements brought U.S. overseas exports to 72.8 million tons in 1980, up 84 percent over 1979. That huge volume stretched the capacity of our major coal loading ports to its practical limit, producing a heavy backlog of colliers and costing shippers millions of dollars in demurrage fees.

America's dependence on imports is equally important. About 45 percent of the U.S. petroleum supply comes from abroad. Although conservation and increasing resort to non-oil energy alternatives has caused a modest reduction of U.S. petroleum imports, substantial tonnages will continue to be imported for years to come. The situation concerning imports of natural gas is ambiguous; some projections estimate growth from 1.4 trillion cubic feet in 1980 to 2.6 trillion cubic feet in 1990, 30 percent of which would be in liquified form transported in specially designed tank ships called Liquified Natural Gas (LNG) carriers. However, higher cost of imported liquified natural gas compared to domestic natural gas, even with deregulation, does not suggest this rate of growth.

Crude oil and various petroleum products—gasoline, jet fuel, residual fuel oil, kerosene, and so forth—are handled in significant quantity by virtually every major commercial port in the United States. Leading petroleum import centers are the ports of New York, the Delaware River, the Mississippi River from Baton Rouge to the Gulf, the Texas Gulf Coast, Los Angeles, and Long Beach. Unloading terminals for liquified natural gas are located



For more than three centuries, our Nation's ports have served as commercial gateways linking land and sea.

CREDIT: Institute for Marine and Coastal Studies, University of Southern California.

at Everett, Massachusetts; Cove Point, Maryland; Elba Island, Georgia; and Lake Charles, Louisiana. It should be noted that only the Everett and Lake Charles Terminals are now receiving liquified natural gas.

In addition to the substantial foreign cargoes, considerable traffic moves in the domestic U.S. and Great Lakes trades, all of which likewise depend on the same port services and facilities. Expanding trade has created steadily growing demand on U.S. ports for new and enlarged cargo handling facilities.

Dramatic developments in marine technology in the past two decades also have significantly affected marine transportation. The relatively small and undifferentiated merchantmen that plied world trade routes during the immediate post-World War II era have been largely replaced by huge crude carriers, containerships, LNG carriers, refrigerator ships, and a variety of other vessel types designed to serve specialized trades. Computers and satellites have revolutionized vessel operations and management. Ships have become larger and much more expensive to operate, requiring equally sophisticated ports to keep them moving on schedule with minimum loss of time. Their size requires deeper and wider navigation channels to reach the ports.

Most significant has been the rapid takeover of the general cargo trades by containerships and other intermodal vessel types. Because of their greater carrying capacity, superior speed, and ability to dramatically cut the time required to load and discharge cargo, containerships are far more efficient than conventional freighters. Sea transport of containers worldwide exceeded 36.5 million twenty-foot equivalents (TEUs: 20-foot length equivalent unit containers, a standard unit of measure for ship capacity) in 1980. Nearly a quarter of this volume was handled at U.S. ports. Containerships now dominate the general cargo trades between the major industrial nations and are rapidly entering others, particularly those serving West Africa, East Asia, and the Middle East.

The world bulk fleet also has grown significantly in size, carrying capacity, and sophistication. This is particularly evident in the tankers and other liquid bulk carriers designed to carry asphalt, liquified natural gas, chemicals, mollasses, phosphorous, liquified petroleum gas, wine, solvents, and sulfur.

The dry bulk trades also are affecting the characteristics of the land-sea interface. Growth of the dry bulk trades—particularly grain, coal, ore, and phosphates—is

dominated by bulk carriers, and so-called OBOs (ore/bulk/oil carriers), i.e., combination carriers capable of carrying either oil or dry bulk cargo. About 75 percent of the vessels currently engaged in the world coal trades are bulk carriers, nine percent OBOs, and only 17 percent conventional cargo vessels. Sixty-thousand deadweight tons is roughly the median size for current coal shipments; this is the maximum tonnage vessel (Panamax) that can pass fully loaded through the Panama Canal. These "Panamaxers" are the typical collier sizes that carry coal out of the major U.S. East and Gulf Coast coal loading ports. The average size of the long distance coal shipments is 100,000 dwt. Relatively few coal shipments move in ships of greater than 150,000 dwt, although that could change significantly in the years ahead as world coal trade expands. It should be noted here that of the world fleet of over 4,800 dry bulk ships, only 20 are under the U.S. flag; most of the U.S. vessels are over 30 years old.

Ports, Harbors, and Terminals

The U.S. port infrastructure consists of 189 seaports located on the Atlantic, Pacific, and Gulf coasts, and on the Great Lakes. Of the 20 largest cities in our Nation, all but four have major harbors. Our ports contribute about $35 billion to our GNP and have gross sales and services of $66 billion per year according to 1980 MARAD figures. These ports are administered and, in most cases, operated as publicly owned enterprises by local or State entities. There is a partnership between local port authorities and the Federal Government. The principal Federal partner has historically been the U.S. Army Corps of Engineers (Civil Works), which has had the national responsibility for maintenance of harbors, rivers, and waterways. The Corps performs much of the maintenance dredging and debris clearance either through use of its own assets or through contractors. This partnership is the essence of our national seaport system. The "rules" of the partnership, which have been established by tradition, have generated a Federal Government role to build and maintain navigational channels (i.e., provide access) and a non-Federal role that provides for, and operates, the shoreside cargo handling facilities.

U.S. ports have responded to technological and commercial challenges by investing billions of dollars in new and improved cargo handling facilities, including wharves, docks, transit sheds, storage areas, container yards, cranes, and other equipment. From 1946 through 1978, non-Federal U.S. seaport entities invested $4.9 billion in landside infrastructure. For the 1973-1978 period alone, that amounted to $1.7 billion. In 1981, the U.S. deepwater port industry consisted of 1,456 maritime terminals located at 189 ports and offering 2,939 deep-draft berths, virtually all of which is owned by State and local port authorities and by the private sector. The cash value of these marine terminals is estimated to be $40.4 billion and the replacement cost at about $54 billion.

Containerization has revolutionized the handling of general cargo at all major U.S. ports. Forty percent of the investments made by ports in new and improved facilities between 1973 and 1978 went for intermodal terminals, and that mostly to accommodate containers. The most modern container terminals are fully automated, with computers controlling traffic flows to and from pierside. Well over half the general cargo handled at most major U.S. ports is containerized, and this trend is accelerating.

Investments in port development have resulted in improved efficiency, particularly in container operations. Using conventional break-bulk methods, it might take an hour to load or discharge 10 tons of cargo. A containerized operation can handle 30 tons in 10 minutes or less.

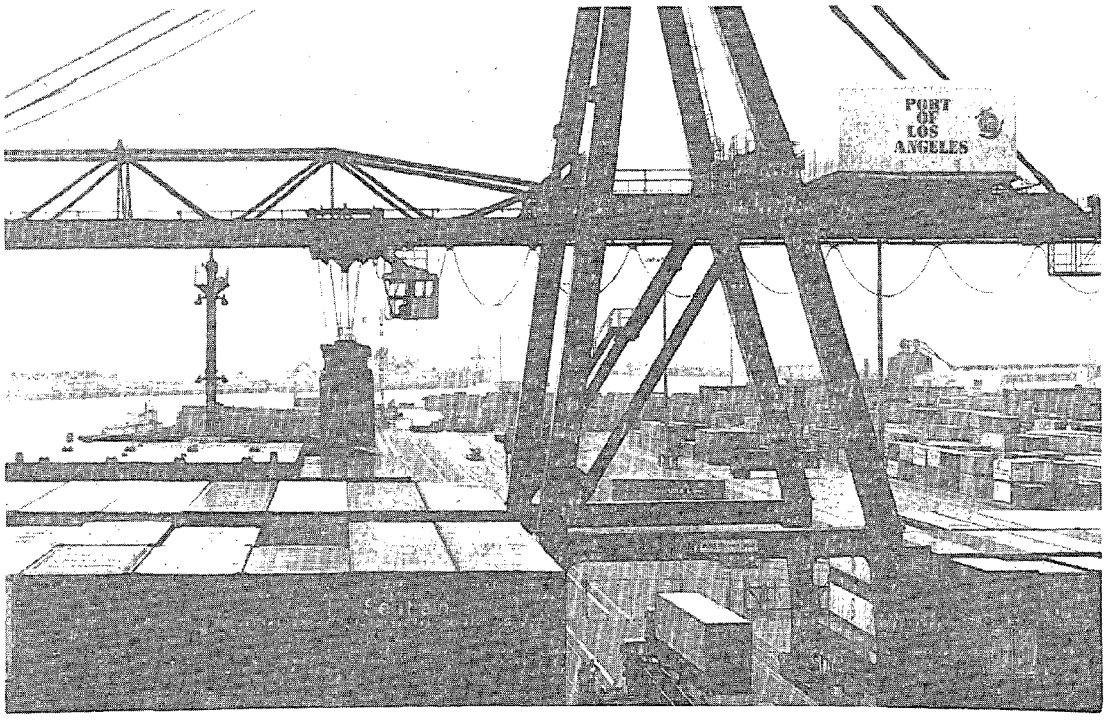
Data gathered by the Pacific Maritime Association shows that the per ton cost of longshore labor at West Coast ports dropped from $4.64 in 1967 to $3.31 ten years later, and tons of cargo handled per longshore hour increased from 0.837 to 4.699. This has had a marked effect on port labor forces. The longshore registry of persons employed at the Port of New York, for example, fell from 24,000 in 1967 to 10,500 in 1978. That decrease of 55 percent contrasts with a 10-percent increase in tonnage moving through the port. Ports have thus demonstrated their ability to handle increased cargo flows faster, more efficiently, and at a lower cost. This strengthens the competitiveness of U.S. products abroad and lowers the cost of imported goods to the American consumer.

But the challenge continues. MARAD anticipates substantial growth in both the foreign and the domestic ocean trades over the next decade. Overall, U.S. port cargo volume is expected to increase by 32 percent to a total of 2 billion tons by 1990.

To achieve economies of scale, cargo ships of the future are almost certainly to be larger and more complex than those of the present day. MARAD visualizes the prospect of containerships in the 6,000 to 10,000 TEU range (compared to a 1982 maximum of 2,400 TEU) by the end of the century. Dry bulkers will increase in length, draft, and carrying capacity. Cargo handling equipment will change.

U.S. ports, in MARAD's view, will have to adapt to the proliferation of larger ships with drafts over 65 feet; a growing number of container ships, and the expanding trades in crude petroleum, liquified natural gas, iron ore, grain, bauxite, alumina, phosphates, and other dry bulks. Meeting those challenges will necessitate heavy investment in port infrastructure in the decade ahead.

CREDIT: The Port of New York Authority.



The shift to containerization in the U.S. linear trades has led to dramatic changes in U.S. ports. At present, more than half of the general cargo handled at most major ports is containerized. Modern container terminals are fully automated, with traffic flows controlled by computer. Containers are quickly shuttled around terminal yards and are whisked to and from ships in a matter of minutes.

CREDIT: Transportation Institute, Washington, D.C.

Specifically, according to MARAD, that would include the following new U.S. berthing facilities: 27 for break bulk, 111 for containers, 10 for grain, 15 for coal, 12 for ore, 25 for other dry bulk, 22 for petroleum, 6 for LNG, and 19 for other liquid bulk, with capital requirements totaling over $5 billion.

Although most U.S. ports are efficient and use many of the latest cargo handling technologies, they have been caught up in the lag between revenues from operations and the faster moving costs of maintenance and improvements. The added specter of reductions in Federal investments in port maintenance leads to some troubling financial concerns for our Nation's port authorities. Moreover, the present world economic slump has tended to depress revenues.

The ports face a difficult task. Many public port authorities operate close to the break-even point; some lose money from marine terminal operations. Many are required by State laws to be self-supporting. For others, access to State and local government financial resources is becoming more difficult. To an increasing extent, these public agencies are being forced to rely on their own earnings and bond/credit ratings to raise the capital they need for improvements.

Similar to all other industries, the port industry has been hit hard by inflation. For example, 10 years ago, it cost a U.S. port $1,500 a running foot to build a 103-foot dock. Today, costs would exceed $6,000 a running foot. Container cranes, priced in the $500,000 range in 1970, now sell for $3 million or more. Terminals that once cost $160,000 an acre to develop would now range in the neighborhood of $500,000. Not only have prices increased, but investment capital is expensive and difficult to find. In addition, operating expenses have increased rapidly, partly in response to higher energy prices. Inflation undermines the port industry's ability to maintain efficient operations and simultaneously raises the capital needed for facility modernization and expansion.

Complicating the situation further is the impact of Federal laws and regulations that affect many facets of port management and contribute to the costs of ports. From 1970 through 1976, according to MARAD, $194 million dollars per year was expended by U.S. local public ports in compliance with Federal environmental, cargo security, and employee health and safety standards. MARAD further stated that mandated costs represent eight percent of the annual capital budgets and six percent of available operating funds of U.S. public ports, and more than half of past mandated costs and 75 percent of future mandated costs incurred by these ports are related to environmental protection laws.

Dredging, navigational aids, and mapping represent the Federal Government's traditional contribution to the U.S. port system. Without adequately constructed and maintained ship channels, seaports simply cannot function and develop. Even the best port facilities are no good if the ships cannot get to them. It is not now merely a question of more vigorous maintenance of existing ports or getting new improvement projects started. The idea of "scale" in port operations is changing with larger, specialized vessels being built for the world's fleets. Owing to their size, they tend to be more efficient carriers per unit of cargo, but they require deeper harbors and often need specialized terminal facilities.

Since World War II, few U.S. ports have been improved by dredging to any appreciable extent. Except for maintenance dredging of existing ports, not a single new seaport dredging project has been authorized by Congress since 1976 despite the fact that ships have been getting generally larger, and U.S. waterborne commerce has expanded dramatically.

According to the American Association of Port Authorities (AAPA), a major dredging problem is the time required to obtain project approval. The intricacy of the Federal authorizing process is growing. With the necessity for port dredging projects to conform to often complex environmental standards and the increasing number of Federal, State, and local agencies that must comment, or provide some form of approval, it is often years before the Corps of Engineers can proceed with its work. Local project sponsors and the Corps also must consider the comments of environmental groups and other groups; at times, legal challenges have delayed project implementation for years. Some port experts now estimate that today it will take about 25 years from concept to completion of a major dredging project. Other major problems are the absence of the necessary funds for dredging projects and the disposal of dredge spoils.

The dredging dilemma is threatening the viability of our national port system. Based on a survey of 19 U.S. ports, the AAPA concluded that navigation channel limitations have resulted in the loss of 25 million tons of cargo at a cost of $3.4 billion.

Congestion is another problem in our ports. In 1980, Japanese coal buyers paid demurrage fees totaling more than $45 million to port authorities for ships detained at U.S. coal ports awaiting berths to load their cargoes. Although this situation has eased, this tends to discourage customers when there is an option to choose another supplier in another country.

Ship schedules for arrival in port are not always precisely adhered to. One storm at sea, or other event that bunches up ship arrivals, can result in a backlog in the port. In the coal area, for example, when the ships begin to come in all at once, there has often been little communication between the various coal brokers, or traders, as to the scheduling of the ships and, thus, loading is hampered. And program flexibility to shift cargo from one port to another does not exist. If a ship has

contracted to take a certain volume of coal at a given port, the railroads are moving the coal to that port, and the ship has to go there. It is virtually impossible to reroute large volumes of coal on the rails. In addition, many of the terminals are proprietary, owned by either the coal company or the railroads themselves. Therefore, coal is invariably not routed to an underutilized competitor's port terminal to take up the slack from a congested one.

This problem is amplified by deregulation of the railroads which, under the Staggers Rail Act of 1980, have gained a large measure of freedom to route shipments however they choose. According to AAPA, the routing decisions of the railroads essentially control the flow of coal through specific ports.

Congestion, with long waiting time, also lends value to the positioning of the ship. As the ship works its way up the waiting line, the value of its cargo space increases because its position in the waiting line has improved. The operator's decision to stay in line affects rates, since it means much shuttle traffic and ballasting. These rate effects will, in turn, increase the landed price and, hence, reduce the competitiveness of U.S. coal sales.

As mentioned earlier, heavier than expected U.S. coal exports in 1979-1980 produced a heavy backlog of colliers and tremendous congestion in U.S. ports. The main reasons for this congestion were the lack of loading capacity and the relative inexperience of the coal traders faced with a rapidly expanding market. By mid-1982, the congestion problem had eased. New loading capacity is being added and, increasingly, more coal is moving on long-term contracts, thus eliminating some need for coal brokers. At the same time, the brokering system has adjusted and become more efficient.

With the congestion in the traditional coal ports, much of the trade was moved over the Great Lakes. Although this has added to costs, it has provided an alternative to waiting in line on the East Coast. Because of access limitation owing to the depth of the St. Lawrence seaway, vessels entering the Great Lakes are usually under 30,000 dwt. However, the lower St. Lawrence (Sept Iles) has deep water, which could facilitate the loading of very large bulk carriers up to 160,000 dwt.

Plans are underway for terminals in Europe, some Pacific nations, and the United States for the efficient handling of super colliers (ships in the 100,000 dwt plus range). The obstacles will be access to our ports by the more efficient deep-draft ships. We would expect the development of wide-beam shallow draft vessels to overcome this obstacle, otherwise it may be necessary for massive dredging and deepening of the channels. Although money can be saved in the ocean transportation by using large vessels, dredging harbors is extremely expensive. A major question is whether to recoup these costs through a user fee or any other method.

Whether we use small or large ships, the efficiencies in the terminals must be improved to avoid the problems caused by the congestion we had in 1980. Our ports have handled an effective total capacity of 313 million tons of coal per year. This divides into roughly 120.9 million tons for the East Coast, 110 million for the Gulf, 4 million for the West Coast, and 79.4 million for the Great Lakes. A great deal of port improvement in terms of coal moving, loading, and handling equipment is currently underway. Preliminary MARAD estimates for coal capacity in 1987 are: 258.4 million for the East Coast, 214 million for the Gulf Coast, 97 million for the West Coast, and 79.4 million for the Great Lakes. It should be noted that interlake coal movement (domestic) is 70.5 million tons at present. The key point is, however, that in either case the ports will be able to handle the projected coal exports adequately within four or five years, perhaps even in a shorter time period.

As mentioned earlier, a shift is expected to "super colliers" in the 120,000 to 150,000 dwt range. To accommodate such ships, a 55-foot channel would be needed. The present controlling depth in most major U.S. ports is 40 feet, or less. The Interagency Coal Export (ICE) Task Force has suggested that no blanket recommendation for dredging be given, but rather the decision to dredge should be made on a port-by-port basis. The possibilities of offshore coal ports and the development of wide-beamed, shallow-draft large bulk carriers also were mentioned in the report. Slurry pipelines between shore and offshore terminal moorings, while not suggested by the Task Force, offer further possibilities of overcoming harbor depth limitations.

The Federal Role in Port Development

The most pressing problem facing the port industry today is the precipitous withdrawal of Federal participation from its traditional role of providing adequate access to the ports now threatened by the Reagan Administration. In that eventuality, the ports would have to assume a major share of the financial burden themselves. Legislation under consideration addresses port problems and includes various degrees of cost recovery.

Federal participation in dredging and other deepwater navigation projects has depended on local agreement to provide easements, rights-of-way, land, and disposal areas, and to satisfy other requirements that have effectively forced non-Federal participants to shoulder more than 15 percent of the total project costs. To that extent the ports have, in fact, been cost sharing channel development and maintenance with the Federal Government for many years.

Given current fiscal and political realities, the port industry generally recognizes that changes in the Federal dredging program are inevitable and, in many ways, desirable. The existing system, with its lengthy and complicated process of authorization, reviews, and appropriations is cumbersome, time consuming, and an economic burden. The industry is particularly united on the need to reform the permitting process—or the need for fast tracking.

But funding is something else. According to the AAPA, the port authorities realize that revision of the funding mechanism is inevitable. To the extent that they speed up the availability of funds and guarantee their source, such revisions are welcome. The port authorities disagree, however, on the method by which that funding should be raised; those representing the large number of medium and smaller sized ports argue that the money should come from a uniform nationwide system of user fees. To do otherwise, they fear, would cause a diversion of traffic to their larger and more affluent rivals. Authorities of the larger ports object to a uniform fee on the grounds that it would force them to subsidize port developments at the smaller ports; they argue that fees should be based on port-specific costs, with cost recovery charges reflecting the costs incurred at the specific port. Efforts are underway to reconcile the differing views of the large and small port coalitions, but, at this writing, no consensus has been reached.

The Nation's security depends on an efficient and geographically dispersed port system. Major military and naval installations are located at ports on every seacoast. Government vessels share the same channels and anchorages provided under local sponsorship for commercial shipping. In times of war or declared national emergency, ports can be required to give the Department of Defense priority use of terminals. Thus, the maintenance and modernization of our Nation's ports has direct, long-term defense benefits.

The traditional policy of the Federal Government has been one of neutrality in matters affecting inter-port relations. There have been some suggestions of cost-sharing between ports. Wealthier ports may be able to absorb the extra costs that will be involved, but other ports that cannot obtain the funds for essential navigation improvements could be placed at a competitive disadvantage.

A difficult fundamental issue in the development of our national port system is how many ports, and what kinds, are needed to maintain present and forecast tonnages? There is some question whether or not the present number of ports is appropriate or whether the United States should be moving to fewer, more efficient ports. Aside from national security and military needs, this would be dependent upon the efficiency of the land-sea interface components in the port region. Can rail and trucking access be expanded to fit projected growth? Is there sufficient land behind the port available for development of terminals, storage, and processing activities? And, where they are factors, can riverine and inland waterway systems effectively mesh with deepwater shipping systems? A trend towards fewer, more efficient port complexes will provide problems for existing, smaller ports. Interport relations in terms of competing ports, Federal-port interactions, and collection (sharing) of user fees will cause difficult negotiations for the affected parties in the next few years. Yet, some adjustment appears to be indicated.

Shipyards

The U.S. active shipbuilding base comprises 27 shipbuilding and repair yards (see Table 8), employing a total of about 112,000 people.* In addition, there are extensive allied and dependent industries producing ship components; the estimated ratio of direct yard workers to these workers is over 1 to 3. Thus, the allied industries represent a work force of about a quarter million people. Of the 27 shipyards in this active base, 7 are only building Navy ships and 12 are solely engaged in repair work. Recent statements by the Administrator of MARAD indicate recognition that some of the yards may go out of business in the next 2 years. As a result, we face potential deterioration of our shipbuilding base.

Employment of skilled workers devoted to merchant ship construction has dropped from a high of 35,000 in 1976 to 10,000 today. In 1982, the order book for merchant vessels comprised 35 ships, valued at $1.8 billion and constructed in 12 yards. Most are to be delivered by the end of the year, leaving only 15 vessels in the yards. Few new orders are expected.

At the same time, there are 93 ships being built for the Navy in 12 yards with a total contract value of $11 billion. Orders on hand ensure deliveries for the Navy through 1987 and the new naval buildup of the Reagan Administration calls for about 150 more ships. Although there will be heavy demand on the building base, it will be unevenly distributed; about 75 percent of the work will go to four yards.

Apart from construction for the merchant marine and the Navy, there is other marine construction, such as offshore drilling rigs, barges, and tugs. This segment is very active, with deliveries extending into 1984, even though the current recession in drilling operations owing to the "oil glut" has caused a temporary slowdown in the offshore industry.

* The active shipbuilding base is composed of those shipyards constructing new ships and/or seeking new construction orders. Total shipyard employment is about 160,000.

Table 8.—The Active U.S. Shipbuilding Base

Shipyard	Location	Coast
Alabama Dry Dock[3]	Mobile, Alabama	Gulf
American Ship Building[3]	Lorain, Ohio	Great Lakes
Avondale[1]	New Orleans, Louisiana	Gulf
Bath Iron Works[1]	Bath, Maine	East
Bay Shipbuilding[3]	Sturgeon Bay, Wisconsin	Great Lakes
Bethelehem Steel[3]	San Francisco, California	West
Bethelehem Steel[1]	Sparrows Point, Maryland	East
Equitable Shipyards[3]	New Orleans, Louisiana	Gulf
General Dynamics, Electric Boat[1,2]	Groton, Connecticut	East
General Dynamics[1]	Quincy, Massachusetts	East
Halter Marine[3]	Mobile, Alabama	Gulf
Ingalls[1,2]	Pascagoula, Mississippi	Gulf
Levingston Shipbuilding[3]	Orange, Texas	Gulf
Lockheed[1,2]	Seattle, Washington	West
Marinette Marine	Marinette, Wisconsin	Great Lakes
Maryland Shipbuilding[3]	Baltimore, Maryland	East
National Steel[1]	San Diego, California	West
Newport News[1,2]	Newport News, Virginia	East
Norfolk Shipbuilding[3]	Norfolk, Virginia	East
Pennsylvania Shipbuilding	Chester, Pennsylvania	East
Peterson Builders[2]	Sturgeon Bay, Wisconsin	Great Lakes
Tacoma Boatbuilding	Tacoma, Washington	West
Tampa Shipyards[3]	Tampa, Florida	Gulf
Todd[3]	Galveston, Texas	Gulf
Todd[3]	Houston, Texas	Gulf
Todd[1,2]	San Pedro, California	West
Todd[1,2]	Seattle, Washington	West

[1] Principal producers.
[2] Currently doing naval construction only.
[3] Currently doing repair work only.

NOTE: As of October 1982, the number of employees in the active U.S. shipbuilding base was 112,374.

Sources: U.S. Navy. 1982. U.S. Shipbuilding and Repair—Importance of Industry Health to National Security. Prepared for the Assistant Secretary of the Navy (Shipbuilding and Logistics), Washington, D.C.

Maritime Administration. 1982. Office of Maritime Labor and Training, Washington, D.C.

Shipbuilders Council of America. 1982. Washington, D.C.

Because of the long leadtimes involved in the planning and construction of sophisticated naval vessels, the impact of the new building program will not be felt for at least three years. Meanwhile, the industry needs to find orders for the building of merchant ships. The yards estimate that they will lose about 30,000 workers, or one-third of the labor force because of the near-term lack of orders. The overall impact, over the 3 years, including secondary effects in allied industries, could be a loss of about 90,000 jobs. The Department of Defense, through the Military Sealift Command, is supporting increased construction of commercial-type vessels for its use in military readiness. Whether or not the numbers of these vessels and the attendant repair business will help offset lack of commercial orders is not clear.

There are several reasons for the shipyard situation. The U.S. yards are not able to compete in the international market, because many foreign yards are selling at below cost with approval and indemnification by their governments. The lower purchase prices abroad cannot be offset by CDS in this country, which provides a consequent incentive for U.S. operators to build abroad. Furthermore, extremely low foreign credit terms for ship buyers (often 5 to 9 percent) provide another level of foreign subsidy for ship sales.*

Because foreign yards receive more orders, they can build in longer series than can U.S. yards with advantages accruing in capital investment and in serial production efficiencies. Because U.S. yards are not producing ships in long production series, construction time is usually, but not always, longer than abroad. In addition, the U.S. shipyard worker very often needs retraining because of the rapid turnovers that follow from the uncertain and cyclical nature of the work in this industry. Training costs for replacing a skilled worker are estimated to average about $25,000 per worker. This necessarily goes into the overall costs/pricing of American-built ships. And, although wage costs are becoming more equal, U.S. yards still have to comply with more stringent regulatory requirements and standards than do foreign yards. And these substantially add to the construction costs.

The long delivery times in U.S. yards are partly caused by the difficulty to obtain, and the slow delivery of, component materials and parts to the yards. Because of the decline in maritime opportunities over the past 10 years, many of the companies that manufacture ship components, the allied industries, are withdrawing from the maritime business and are devoting their resources to more stable markets. As a consequence, the industrial support base for shipbuilding has been deteriorating. Purchase of foreign components is often the only choice. This development not only affects shipbuilding but all defense procurement. It may be very difficult for the U.S. industrial sectors with these shipbuilding capabilities to gear up to meet the national security goals enunciated by the current Administration.

With respect to repair work, the United States should have a relatively new Navy and some newer ships in the merchant fleet. Therefore, big repair and modification programs to keep the fleets in use as long as possible are not expected until the 1990s or later. At that time, we may not have the industrial base to handle a large backlog of yard work. As part of its "maritime policy" (Phase One), the Administration has proposed that the *ad valorem* duty (of 50 percent) for the cost of overseas repairs on U.S.-flag ships be eliminated. The original purpose of this duty was to reserve work for U.S. repair yards, except in emergency situations where the tax was then waived. This, coupled with the intent to permit building commercial vessels abroad and still enable the builder to receive operational subsidy, has provided a double blow to the U.S. shipbuilding base. This is a major problem facing the future of the entire U.S. maritime industry.

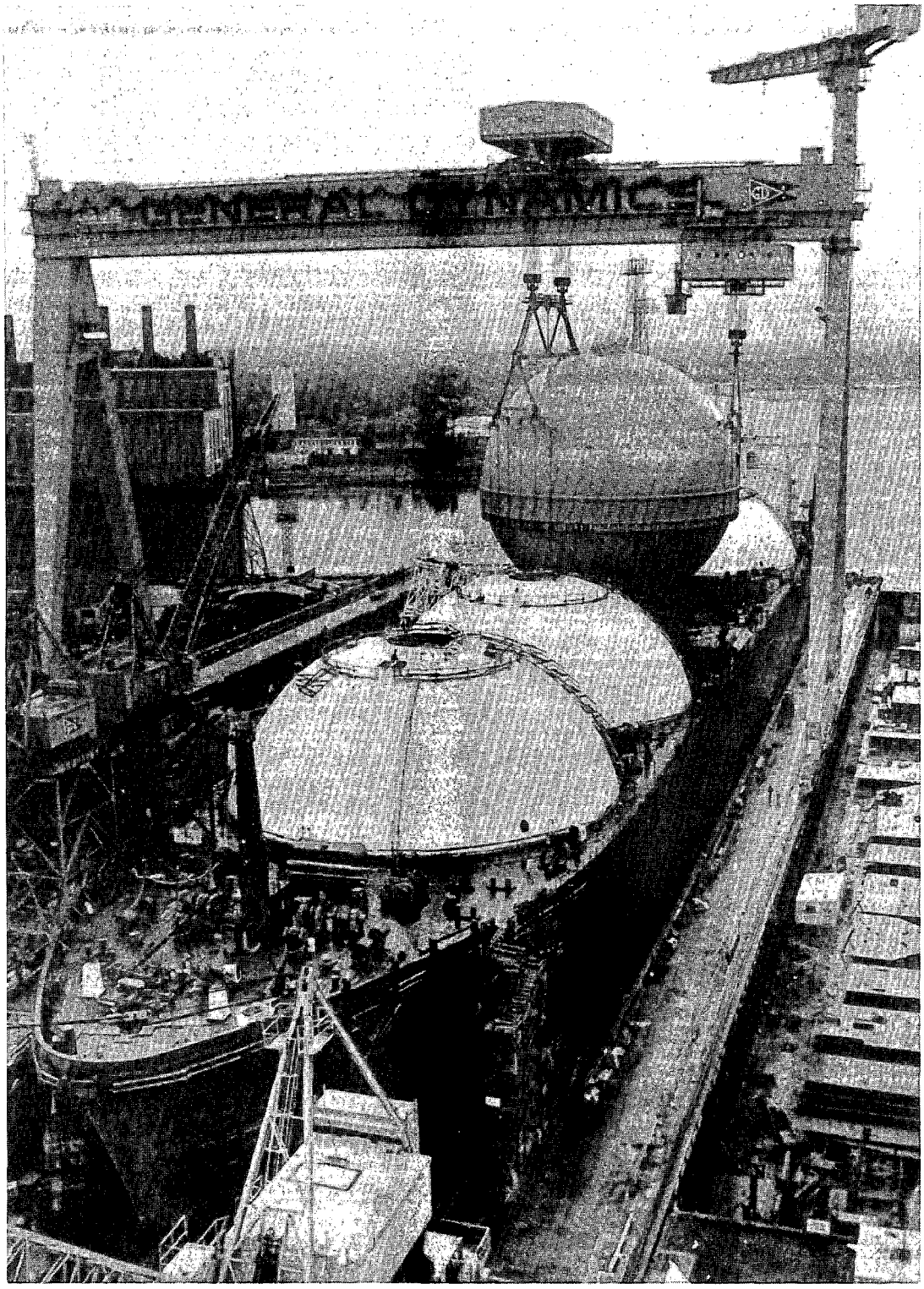
Another concern pertains to the Navy's own shipbuilding base, that is, its own yards. The Navy has not built any ships in its yards for several years and now uses them only for repair and conversion work. The facilities in this category could provide a surge capability in time of emergency. But the capability is slowly disappearing as the Federal Government gradually disposes of naval shipyards. Such was the fate of our yards at Boston, Brooklyn, Hunters Point, etc.

However, if the government decides on reactivating available Navy shipbuilding capability, construction costs generally will be higher than those in private shipyards. Studies have indicated that, depending on the type of vessel, the cost differences range from 18 percent to 110 percent. These studies were completed by the Shipbuilders Council of America in 1971 and the Department of Defense in 1972.

Of the 27 yards in the civilian shipbuilding base, 12 have been identified by the Navy as being capable of building surface naval ships. In addition, there are two other yards for submarine construction and a special facility, the only one in the country, at Newport News, Virginia, for the building of nuclear-powered aircraft carriers. The shipbuilding industry estimates that a naval construction program of about 150 ships over five years will engage a total of 15 shipyards, leaving only 12 to meet whatever demand may come for merchant ship construction.* Whether 12 yards will be sufficient for

* There is some competitiveness on the world market for U.S. yards in areas outside merchant vessel construction. Tuna fishing vessels, offshore service ships, tugboats, and offshore drilling rigs have been built in American yards and sold abroad.

* The yards building for the offshore oil and gas industry are not included in the shipbuilding base as defined here.



The planned expansion of the U.S. Navy fleet will provide long-term employment for many U.S. shipyards, including the General Dynamics shipyard in Quincy, Massachusetts. In the short term, Military Sealift Command T-ship projects will provide needed work in several yards. However, the general lack of demand for new commercial ships and the one-year "build-abroad" authority granted for fiscal year 1982 have increased the risk of closure for a significant number of U.S. yards.

CREDIT: Maritime Administration, Office of Public Affairs, Washington, D.C.

merchant ship construction is dependent upon government views on the need for maintaining this national capability. Recent actions seem to indicate acceptance of continued shrinkage.

With government-subsidized foreign yards selling merchant ships below their cost, there is little economic incentive for the investor to build at higher prices in U.S. yards. However, there seem to be four promising developments that could increase orders for our domestic shipbuilding industry. The first is the new Navy construction program that will engage a portion of the industry. The second, of importance to the remaining yards, is that if the United States responds to the UNCTAD Code by increasing the number of its bilateral trade agreements, then U.S.-flag shipping could carry 40 percent of the U.S. liner trade. Because U.S.-flag operator participation in our liner trade is currently 27 percent, there would then be a better base for the building of more merchant ships. The third is U.S.-flag participation in the expected coal bulk trade through a national cargo reservation policy. Fourth, is the action by the Navy to lengthen its one- to three-year charters to five years, and, in some cases, 25 years—the virtual life of the vessel. Strong incentives for more construction are provided, because the charter agreements can be used in securing loans for shipbuilding.

As we noted earlier, there are also counter signals. The Senate maritime authorization bill for fiscal year 1983 would have extended the ability of U.S.-flag operators to build vessels in foreign yards, put them under the U.S. flag, and be eligible for operational subsidy for an additional year. In addition, this bill would have removed the U.S.-built restriction on the use of CCF assets. The House/Senate compromise bill eliminated the U.S.-built restriction waiver for Capital Construction Fund assets but included the one-year extension of ODS eligibility for foreign-built vessels. With this provision, replacement needs for U.S. operators could be met by purchasing cheaper vessels, at lower interest rates, than would be possible in the United States. If such legislation is passed by the 98th Congress, the President will probably sign the bill into law, because the build-foreign idea also is embodied in the Administration's maritime policy statements. However, there seem to be four possible offsetting actions that, if they occur, could modify this authority with possible benefits to the U.S. shipbuilding base:

- The industry could convince Congress that further extension of this authority (fiscal year 1984 and beyond) is detrimental to the maintenance of the minimum national shipbuilding base for national security needs.
- The Department of Defense could increase the purchase of U.S.-built commercial-type vessels for military sealift and other government needs.
- The government could follow the example of other maritime states and reserve some percentage of commercial cargoes for U.S.-flag vessels built in U.S. shipyards. This would require Congressional action.
- The Adminstration could formally recognize that international shipbuilding is not a "free market" and declare that it will aggressively provide comparable competitive assistance similar to that received by foreign shipbuilders from their governments. Such assistance could be in terms of low cost loans to ship purchasers, favorable tax treatment for investments in U.S. yard products, and aggressive marketing assistance (commercial and political) by our government for our shipyards. Such aids are contrary to a free market philosophy, but we need to keep in mind that this business is not a free market arena for reasons outside the control of U.S. Government trade policies. The United States cannot change the practices of many nations that choose to subsidize; effective competition requires doing business on a comparable basis.

It is regrettable that the "buy foreign" authority comes at the expense of our domestic shipbuilding industry, but NACOA believes the ship operators and the shipyards cannot be handcuffed together as was the case in the past when both CDS and ODS were in full force. The ship operators' problems in upgrading ship assets in the short term and those of the shipbuilder in making a yard more competitive are simply on two very different time scales. But the release of the U.S. operator from building in U.S. yards must result in an added obligation for the U.S. Government to develop rapid, positive, and effective renewal programs for our domestic shipbuilding industry. The Committee was encouraged by the various modest MARAD programs that are intended to stimulate efficiency and productivity in American yards. Especially promising are the technology and management skill transfer programs from efficient foreign shipyards. Surprisingly, these initiatives have shown the productivity potential of the American shipyard worker to be very high and the industrial base to be fairly up-to-date. Thus, the solutions to better and more competitive shipbuilding seem to lie in the areas of ship design, construction methods, and better overall management of the yards. It has been estimated that very little new high cost capital equipment would be required; it is more a matter of designing and building the vessels more efficiently through better management.

The Committee also notes a recent interest by foreign investors in cooperative ventures with U.S. shipyards. In the case of Japan, this would immediately give 15 to 20 years of management and technical upgrade to the U.S. shipyard partner. It also would help to ensure market shares for the ships produced by the yard, because all the investors would be motivated to be profitable.

The Committee hopes MARAD will be able to accelerate and increase its efforts in this area of foreign coop-

eration. Implementation of better design, construction, and management techniques, similar to those used in Japan, must be implemented in U.S. yards before too many of our yards are forced to close from lack of business.

Chapter 6
The Crosscutting Areas

The Intersect 53
National Defense Requirements 53
Personnel 55
The U.S. Coast Guard 56
Other Regulatory Activities 58
Tugs and Salvage 59
Science, Technology, and Education Support 60

CHAPTER 6

THE CROSSCUTTING AREAS

The Intersect

This chapter covers those marine transportation operations and support activities that interact with U.S.-flag maritime interests throughout the world. Such areas as national defense, regulatory responsibilities of the U.S. Coast Guard, seagoing manpower, and education and training are all examples of "crosscutting areas." Essentially, these are activities that accompany or follow our merchant marine wherever it is or wherever it goes.

National Defense Requirements

The "Declaration of Policy" statement introducing the Merchant Marine Act of 1936 emphasized national defense as a priority role for the U.S. merchant marine. The intent of the various Congresses and Administrations has been clear and consistent. But how well does the United States meet these mandates today? This area is of primary concern to our Committee.

In World War II, the United States produced and operated the largest merchant fleet in the history of seafaring. About 1,700 U.S.-flag ships served under naval control to provide the primary logistic support for our war effort. During the Korean war, a U.S.-flag fleet of 400 ships was dedicated to this effort, representing 80 percent of the logistic cargo support for our forces. However, this was only 17 percent of the vessel tonnage in our merchant marine in the 1950s. In Vietnam, about 65 percent of the logistic tonnage was carried in civilian merchant vessels from 1965 to 1972, roughly 35 percent of our U.S.-flag dry cargo fleet. In a more recent non-American case, the Argentina-Britain dispute over the Falkland Islands, 3 out of 4 British ships in the Falklands area were merchant ships recalled from commercial activity.

Present planning within the Department of Defense calls for a 600 ship requirement to support a NATO conflict through a U.S.-Europe logistic train. There is considerable discussion as to whether or not sufficient vessels would be available in American and other NATO nation merchant fleets to support this requirement. It is not clear which side may be correct, but the dialogue suggests the situation is marginal at best.

In non-NATO conflicts, the availability of the 400 merchant vessels promised by our Nato allies would be in doubt. The United States has over 40 treaty relationships for helping to defend overseas allies. Prudent planning suggests that we also must consider how to support their needs in time of emergency outside the NATO alliance. Perhaps the depth of concern about the adequacy of America's sealift capabilities for defense needs is contained in the following quote from a speech made by the Commander, Military Sealift Command, Vice Admiral Kent J. Carroll before the New York Propeller Club on April 28, 1982:

> Our Nation faces disaster if it doesn't come up with a plan and policy to restore the maritime industry to vigorous health. Our merchant marine capability is so spartan that we cannot meet projected worldwide military demands without a massive commitment of allied resources . . .and we can't be sure when the next conflict breaks out that it will be in an area where we can count on allies.

The assets available for military sealift come from three assured sources and a fourth of doubtful utility. These are:

1. **Military Sealift Command (MSC).** This consists of government-owned and operated ships (about 80) together with a number of ships under charter to the MSC (about 50). As we note later, this fleet is now being expanded through increased government investment and incentives with benefits to the civilian operator.

2. **The National Defense Reserve Fleet (NDRF).** The NDRF consists of about 245 vessels, the core of which is comprised of 129 World War II Victory Ships that are nearly 40 years old. Activation of this fleet is estimated to take from 30 to 180 days. This number would probably be quite optimistic, because shipyard space, parts availability, and the manpower to do the reactivation and crewing would all be in short supply in the time of a national emergency. One effective part of the NDRF is a 30-ship fleet of the Ready Reserve Fleet (RRF). These are relatively new merchant vessels that can be activated in 5 to 10 days. Training exercises have shown the success of the RRF system.

The Maritime Administration maintains the National Defense Reserve Fleet as a ready source of vessels for emergency activation. This fleet consists of 245 ships at three sites: James River, Virginia; Beaumont, Texas; and Suisun Bay, California. More than half of these ships are World War II Victory ships, such as the BARNARD VICTORY pictured above.

CREDIT: Transportation Institute, Washington, D.C.

3. **U.S. Merchant Marine.** This would be the primary source for the surge requirements for military sealift in time of national emergency. Through MSC's Sealift Readiness Program, all U.S. owners who receive ODS commit 50 percent of their tonnage for call up, when requested, in return for priority to carry DOD cargoes in peacetime.

A significant problem in considering the 525-ship U.S. merchant marine as a war reserve lies in the divergent paths that ship designs and configurations are taking when considering military versus commercial needs. This is especially true for bulk vessels. The preferred military ship is one that can take aboard outsized and non-standard cargo and one that is not too dependent upon specialized handling systems at debarcation points. On the other hand, commercial ship technology tends to move towards the highly specialized, larger vessels. Both the specialization (i.e., containerships) and the increased size of vessels lead to less operating cost per unit of cargo and increased vessel productivity but require sophisticated terminal facilities to achieve these efficiency gains. Hence, the defense utility of the fleet decreases as technological progress increases to meet specialized commercial needs.

Another problem of divergence of requirements is in the numbers of vessels. The military needs numbers to maintain logistic supply lines, because of the attrition that will be suffered as a result of hostile action. In the commercial sector the move has been towards fewer ships but with increased overall cargo capacity. Thus, while in many instances the number of "hulls" has decreased, the amount of cargo moved has actually increased.

4. **Effective U.S. Control (EUSC) shipping.** As noted earlier, the EUSC fleet is extensive and consists primarily of bulk shipment vessels. According to DOD,

most of these are not militarily useful. There are only a few freighters that could be applied to direct military-logistic support needs. The bulk vessels could be used for bulk commodity support of both our economy and that of our allies in a wartime situation.

The major concern with this "fleet" is whether "effective U.S. control" is simply an economic term, that is, controlled by U.S. corporations, or whether it is also controllable in the sense of national security? These ships are crewed by foreign nationals and are legally operating under the national laws of foreign states. The fundamental question is whether or not they would get involved in U.S. national emergency operations in which they (the foreigners) had no involvement.

In June 1982, Caspar Weinberger, Secretary of Defense, indicated that the EUSC countries have stated: they will assert no control over the employment of U.S. ships on the registries; they will not interfere with the exercise of emergency authority by the governments of the shipowners; and they would not interpose any objections to the exercise of U.S. requisitioning authority over U.S.-owned ships. More recently, John Lehman, the Secretary of the Navy, in response to a question, told a public meeting (June 1982) that "...yes, indeed, it is still an essential part of our national security policy to count on these assets under a foreign flag." Some planners, however, express doubt and do not expect much augmentation from this source. For example, former Supreme Allied Commander Atlantic, Admiral Issac C. Kidd, Jr., told the Committee on Merchant Marine and Fisheries:

> ...That is something less than a completely comfortable feeling that one is left with in this flag of convenience business; because you take a look at the ship's company in those ships and it is almost totally international in character and more often than not just a very, very small percentage of those ship's companies are passport-carrying members of any of the NATO nations.
>
> One would have to ask oneself what would be the degree of enthusiasm with which the nation owning those passports would have with their nationals involved in any conflict not necessarily of their choosing or making.

At best, we must view the prospect of returning these EUSC ships to U.S. control in time of national emergency as uncertain, because the system has never been tested.

Recognizing the overall deficient situation in meeting military sealift needs from any or all of the "fleets" mentioned above, the DOD (Navy) has initiated three programs to add some assets to the MSC logistic fleet. These programs are:

1. **Build and Charter.** Under this scheme, the U.S. Navy stipulates its ship requirements and asks private parties to bid on their construction. The winning contractor obtains a charter guarantee (usually 5 years) at a rate that covers both investment and operating costs. Ships provided by this program are of types generally not available from existing merchant marine assets. As of March 1982, the Navy had acquired 29 ships (28 tankers and 1 Ro-Ro) through this program. In January 1982, the Navy issued a request for proposal for the construction of five new 30,000 dwt tankers. These should be in operation by 1986.
2. **Convert and Charter.** At present, the Navy has 13 merchant ships under charter as a "Near Term Prepositioned Force" located in the Indian Ocean. These civilian-manned vessels are loaded with all the supplies and equipment needed to supply a 12,000 man Marine Amphibious Brigade for a 30-day period. The Convert and Charter Program will replace these civilian ships with converted civilian hulls that are more suited for this type of use. As with the Build and Charter Program, private investors will compete for the contracts; winning bidders will receive charters of up to 25 years at a payment rate sufficient to cover hull acquisition, conversion, and operation. The Navy hopes to charter about 15 vessels under this program. The preferred conversion will be to a Ro-Ro type ship.
3. **Fast Sealift Program.** This program involves the conversion of eight large SL-7 containerships, purchased from Sea-Land Service Inc., to Ro-Ro ships. These 33-knot ships will be operated by civilian contractors on long-term charters after conversion.

These events of the past few years demonstrate an intent by MSC to increase the size of its nucleus fleet. Assets to be added to military sealift capability now appear to be on the order of 57 vessels. This is an important improvement, but one also must keep in mind the relative scale of total requirements—the NATO commitment for over 400 ships in time of NATO conflict.

In addition, MARAD and Navy research and development efforts are looking at the design of portable cargo and terminal systems that could be put into advanced areas to serve the more specialized, sophisticated vessels taken directly from merchant marine assets. This would permit greater adaptation of these assets directly to military sealift support than has been possible in the past.

Personnel

Modern ships are technologically advanced and likely to be more so in the future. A major trend has been

the reduction of crew size through extensive use of automation but without compromising safety. For example, a World War II vintage T-2 class tanker of 17,000 dwt required a crew of 40; modern 400,000 dwt tankers can have crews of only 30.

Training, qualification, and certification for officers and crew for complex vessels are areas of potential concern. So far, both management and the various seagoing unions for licensed and unlicensed personnel have been able to provide excellent up-to-date training for their members. In addition, the seven maritime academies (1 Federal, 6 State—5 saltwater and 1 Great Lakes) have effectively adjusted curricula to meet most of the change in this industry.

To simply attract people to a seafaring career is a primary problem area. The mean age of the American seafarer has been increasing. While the need for a merchant marine must be stressed, not only for defense but also for economic security and for maintaining our way of life, these values alone do not stimulate recruiting for the life of a seaman. An economically distressed and shrinking industry where seagoing employment for U.S. citizens has decreased about 65 percent since the mid-1960s, or from 60,000 to 20,000 deepsea billets, does not provide inducement. For those who are recruited, career patterns and opportunities of a reliable and functioning fleet must be available. These careers must be perceived as just that, careers.

Some of the decrease in opportunities for seagoing employment and skilled shipyard employment, as discussed in Chapter 5, results from the substitution of capital for labor through new technologies that make operations more productive and less labor intensive. Most, however, stems from the loss of the competitive advantage to foreign ship operators and shipbuilders and the resulting loss of business.

In a presentation on the deployment of U.S. combat power abroad before the Propeller Club Convention in October 1982, Vice Admiral Kent J. Carroll, Commander of the Military Sealift Command (MSC), stated:

> Why are we in such a mess? One reason is that American crew costs continue to be the highest in the world. Monthly crew costs of U.S.-flag ships are as much as three times higher than countries with comparable standards of living such as Denmark and up to six times more than third world countries such as Korea.

The U.S. seagoing labor unions have actively cooperated with government and management to improve the industry. There has not been a major seagoing labor difficulty in the U.S. merchant marine for nearly two decades. The recent move of two unions to forego contract pay raises, when requested by former Secretary of Transportation Drew Lewis, further demonstrates an active willingness to work for improvement of this industry. Limited, special contract concessions have been given by the unions to operators and to the government (MSC) for specified charters and operations in order to achieve competitive or national security advantage for the U.S.-flag operator. These have involved such items as no-strike guarantees, personnel level adjustments, and revision of wage scales. The situation is not perfect, but there is movement and goodwill on both sides. The unions vigorously support the expansion of a U.S.-flag fleet to provide a greater job basis for their members.

In the absence of a major expansion of the American merchant fleet, only limited new job opportunities for the pool of trained seafarers can be maintained by the government's programs with the Military Sealift Command in chartering from the private sector. A stricter implementation of existing cargo reservation legislation for government cargoes, such as U.S. agriculture shipments, also would help in preserving U.S. seafaring jobs.

The U.S. Coast Guard

The U.S. Coast Guard plays a major role in the marine transportation industry. In addition to its more prominent and traditional missions of search and rescue, aids to navigation, enforcement of laws and treaties, and polar and domestic icebreaking, the Coast Guard has been tasked with regulatory responsibilities in commercial vessel safety.

Over the years, the U.S. Commercial Vessel Safety (CVS) Program has developed in parallel with similar international programs. While international maritime conventions and treaties were first instituted in 1914, the advent of the United Nations in 1945 brought a growing recognition that an international framework should be established to address maritime matters. Of primary concern was a mechanism to improve safety of life at sea in an orderly manner. As a result, the Inter-Governmental Maritime Consultative Organization (IMCO) (now titled the International Maritime Organization—IMO) was established in 1958 under the auspices of the United Nations and has served as a focal point for international deliberations on marine safety since that time. IMO has created a wide range of conventions and treaties governing maritime safety. To the extent that the vessel inspection and merchant marine personnel standards are based on international criteria, the worldwide system established provides a basis for ensuring standard treatment for all vessels entering U.S. ports or engaging in world trade.

IMO has expanded to 121 member countries from the 1958 membership of 21. The Coast Guard has rep-

resented United States interests at IMO since its inception. CVS Program personnel from the U.S. Coast Guard participate at all levels of IMO. In developing international standards, there must be recognition of the fact that the solution of maritime-related safety has to be addressed in a systematic and coordinated manner. The tendency to overregulate must be avoided. In this regard, the Coast Guard's role at IMO is important.

All actions implemented by the Coast Guard to promote maritime safety are based on Federal laws, including laws implementing international agreements. The CVS Program considers the U.S.-flag vessel from "cradle to grave." Before construction of a vessel is undertaken, vessel plans are reviewed to ensure compliance with Coast Guard developed standards as well as the standards of recognized classification societies, e.g., American Bureau of Shipping (ABS). The plans are reviewed for hull structure, propulsion plant, cargo containment and handling, navigation equipment, crew accomodations, lifesaving equipment, firefighting capability, structural fire resistance, and crew operating safety.

During the vessel's construction, Coast Guard marine inspectors, or ABS surveyors acting for the Coast Guard, conduct on-site inspections at the shipyard to ensure that only approved equipment is installed, that proper construction materials are used, and that all segments of the vessel are built in accordance with approved plans. Under existing laws and regulations, individuals seeking to build vessels to operate under the U.S. flag must seek plan review and inspection from the Coast Guard which is required to provide these services. Once in service, a vessel is subjected to periodic Coast Guard inspection to ensure maintenance of minimum safety standards.

The Coast Guard also inspects foreign vessels that enter waters subject to U.S. jurisdiction. Under existing laws, treaties, and regulations, the Coast Guard boards and examines all foreign tank vessels upon their initial entry and once annually thereafter.

Presently, foreign chemical and hazardous material carriers are required to submit vessel plans for approval prior to entry into U.S. waters. Upon approval of vessel plans, the vessel is boarded and examined on initial entry, and, barring discrepancies, is issued a "Letter of Compliance." The vessel is subjected to annual boarding thereafter. The Coast Guard also performs examinations, upon application, of foreign vessels for Safety of Life at Sea (SOLAS) inspections, which are based on international standards.

The Coast Guard investigates all reportable marine casualties in U.S. waters as well as casualties involving U.S.-flag vessels, regardless of location. It investigates all incidents of acts of negligence, incompetence, or misconduct on the part of personnel licensed or certificated by the Coast Guard. Information gleaned from the investigative process is used, when appropriate, to assist in adjusting the system to prevent similar occurrences in the future.

The CVS Program also includes the administration of U.S. vessel documentation laws, for example, the issuance of vessel registration forms and official registry numbers to specified vessels, and the official repository of legal documents affecting title to vessels, such as bills of sale, mortgage, and notices of claim or lien. Vessel documentation serves to establish a vessel's nationality, its entitlement to engage in particular trades, and its eligibility to be the subject of a preferred ship mortgage.

Effectiveness of any safety program cannot be directly measured but must be inferred from a decline in an incident rate relative to previous experiences. Because the Coast Guard collects data only on incidents involving U.S. vessels or those that occur in U.S. waters, the measure of effectiveness of a given criterion does not reflect an accurate historical incident rate worldwide. Additionally, reporting requirements vary between nations, which tends to drive up the statistical incident rate for those nations with rigorous reporting requirements. Finally, incident reports must be triggered by some quantitative figure (deaths, dollars, etc.). In a period of rapid inflation, incident reports triggered by specific dollar damage estimates will increase even though the level of safety has not changed within the fleet. Statistically, they provide a negative image of a safety program when, in fact, safety levels may be steady or improving. Inflation indexing would provide more consistent and comparative statistics.

The principal alternatives to solve the problems associated with the assurance of safety of life, property, and environment as related to American commercial vessels and foreign-flag vessels in U.S. waters are to rely on the industry (owner/operator/insurer), some form of a Federal regulatory program, or some combination of the two.

The overall responsibility for a CVS Program is where it should be—in the Federal domain. However, performance of some operational or inspection functions is feasible by others such as third-party organizations (American Bureau of Shipping), standards setting societies (American Society of Mechanical Engineers, etc.), union safety committees, and ships' officers or employees of construction and repair facilities (certified as "marine inspectors").

In an effort to simplify plan approval and related new construction inspection procedures for the shipbuilding industry and shipowners, the Coast Guard, in its CVS Program, has undertaken a plan for cooperative sharing of these activities with the American Bureau of Shipping (ABS). The Coast Guard has arranged

to accept ABS plan review and inspection of certain items on vessels under construction which are to be classed by ABS and certificated by the Coast Guard. These items include hull structure of conventional ships and barges, inert gas systems, crude oil washing systems, and certain piping systems.

The Coast Guard also has certain functions not directly related to marine safety but which aid the industry. One of these is vessel admeasurement. The admeasurement tonnage of a vessel (specified dimensional characteristics) determines the applicability of various statutes related to vessel tonnage. Vessel tonnage also is used to determine locking tolls, canal tolls, wharfage rates, and other fees imposed on vessels by various port authorities. Under current law, the Coast Guard must provide admeasurement services to all U.S. vessel owners desiring admeasurement.

Immediate extensive reliance upon ABS is thwarted by a specific statutory provision prohibiting charging for admeasurement services. In the interim, until legislation is passed to repeal the statutory provision, the Coast Guard will provide owners with an option of having their vessels admeasured by the Coast Guard or by ABS.

The cost of Coast Guard regulations to U.S.-flag vessels builders and operators is difficult to determine. The most comprehensive document available about costs of maritime-related regulations is a report prepared in December 1979 for MARAD, "Cost Impact of U.S. Government Regulations on U.S. Flag Ocean Carriers." It examined the total impact, including initial additional construction costs resulting from increased technical requirements as well as reporting and administrative costs. The report determined that, for those standards where the Coast Guard is permitted some discretion (that is, where the standard is not mandated by law or treaty), the cost is small. In the two cases illustrated in the report (a tank ship costing $45 million and a container ship costing $54 million), the increased cost amounted to less than one-half of one percent of the cost (0.31 percent for the tank ship and 0.25 percent for the container ship). These figures mainly reflect higher engineering standards than might be found in a non-U.S.-flag vessel. Since the time the MARAD report was written, IMO efforts to improve safety standards on all vessels have resulted in mandatory compliance for some of these engineering standards.

Other Regulatory Activities

Classification means that a vessel is built and maintained in accordance with a set of rules and standards set by the classification society. The process by which rules are established and updated come from the principles of naval architecture, marine engineering, civil engineering, and allied engineering and scientific disciplines that have proved satisfactory through service experience and engineering analysis and research. The rules are authoritative, impartial, and current. The American Bureau of Shipping (ABS) classifies over 25 percent of the free world's tonnage. It is one of nine classification societies that comprise the membership of the International Association of Classification Societies.

However, there is a different perspective in the classification society's approach compared to that of the Coast Guard. The Society's perspective is to provide surveys for the purpose of underwriting insurance, i.e., the purpose is essentially geared to determine risks. The purpose of the Coast Guard is to provide safety in the public interest through enforcement of laws, regulations, and treaties. It should be noted that whereas ABS is primarily concerned with classed vessels, the Coast Guard safety overview is concerned with classed as well as unclassed vessels.

A major area of activity for ABS and other classification societies is the overseeing and implementation of IMO conventions that affect elements of the industry in diverse ways. Among these are the Safety of Life at Sea (SOLAS) international standards. Offshore ships are built according to SOLAS standards, which are designed for deep-water, far-from-shore shipping. Because offshore service vessels are mainly engaged in specialized close-in activities, the industry has sought relaxation in the standards from Congress. However, it is argued that vessels operating 3 to 4 miles or more offshore also need to comply with the stricter safety measures demanded of high sea vessels, since the most hazardous part of operating a ship is when leaving or entering port and when maneuvering in the nearshore areas. Nevertheless, the rules have been relaxed by Public Law 96-378, and the Coast Guard is now required to inspect these ships with consideration given to the ship's size, type of operations, and length of voyage.

This situation may eventually change, however, because the IMO's *International Convention on Tonnage Measurement of Ships* (1969), which went into effect July 16, 1982, radically affects all ships, including the offshore service ships. For example, under old measurement rules, the ship's gross tonnage was based only on carrying capacity (cargo space). An IMO-approved interim measure allows offshore equipment to be built to these present standards until 1994. When the new convention comes into force in 1994, ***all spaces*** will be measured. The result is that a formerly rated 200-ton vessel will in 1994 become classed as a ship of about 1,350 tons. In effect, the ship becomes six times "larger." This means different construction standards with higher construction costs. It also affects manning, licensing, and canal fees. On the whole, construction and operating costs will increase.

In addition, the new IMO convention will impact SOLAS ship standards in another aspect. For example, SOLAS currently requires extensive fire fighting equipment for ships over 4,000 tons. An amendment coming into force in 1983 will make this requirement applicable to all offshore ships of 500 tons constructed after 1994. When the Tonnage Convention becomes applicable, a tug that presently is 150 tons will be remeasured at 500 tons and must thus have the added firefighting equipment, which will raise construction costs by about 20 to 25 percent (from $4 million to $5 million). If the requirement applies to new construction only, then there may well be an incentive to postpone new building and extend the life of older (non-complying) vessels.

Another IMO convention posing problems is the *Convention on Standards for Training, Certification, and Watchkeeping for Seafarers* (1978). This convention and the one on tonnage interact with each other with respect to small vessels. One provides for higher crew qualification standards, depending on the vessel's size; the other brings the ship into higher tonnages with corresponding higher standards under the Training Convention. While relief has been obtained until 1994 on tonnage, the convention for training, certification, and watchkeeping remains burdensome, because it can add to the problems of providing crews with reasonable career patterns. The Training Convention stipulates, for example, that the sea-time required to qualify as a ship's master is doubled from three to six years. In the offshore service industry, with vessel work schedules of seven days on/seven days off, six years sea-time could require 12 years calendar time to qualify as a ship's master. Thus, it would be difficult for a seaman to think in terms of a seafaring future in this service with reasonable rates of advancement. The Training Convention will probably come into force in the next 2 to 3 years.

Other recent laws and regulations greatly affect the offshore vessel operators. As a result of the various pollution laws, and more particularly the recently enacted Comprehensive Environmental Response Compensation and Liability Act of 1980, the small vessel owner is subjected to higher exposure based on a per tonnage basis. Under this Act, vessels carrying "hazardous cargoes" are subject to a liability exposure of $300 per gross registered ton (grt) or $5 million, ***whichever is greater.*** Thus, taking a typical offshore vessel of 200 grt carrying hazardous cargo, the liability is $5 million or $25,000 per ton. On the other hand, a ship of 16,666 grt and carrying a much greater quantity of hazardous cargo also would have a liability of $5 million, or only $300 per ton. Therefore, the liability is inversely related to the potential for significant pollution in terms of actual tonnage of cargo carried. Because insurance must be purchased to cover liability, there is an obvious impact on operating costs.

Until recently, another problem was the ability of foreign seamen to bring suit in U.S. courts against an American company. U.S. companies involved in offshore oil operations in foreign waters employ foreign seamen, because local government rules require that the crew comprise some percentage of local nationals, commonly 70 percent. In case of injury, these seamen can usually seek redress in their local court and can be reimbursed or compensated for injury according to local customs and ordinances. However, they often chose to seek resolution in American courts, because injury occurred on board a U.S. vessel. If the U.S. courts agreed to hear the case, these foreign seaman could receive jury awards that were much higher than those they might have been awarded in their local courts. As a result, insurance rates and operating costs increased. The problem was not trivial for companies with large international operations. Legislation recently signed into law (P.L. 97-389) prevents foreign seamen from using U.S. courts unless they are unable to file in the local courts.

Tugs and Salvage

The Coast Guard bears a specific responsibility for salvage in the United States. The Intervention on the High Seas Act states that if there is a grave and imminent danger to the coastline of the United States, the Commandant of the Coast Guard may undertake any salvage or other action required to save the coastline. If the Commandant makes such a decision, then the Coast Guard would first turn to the private sector to ask for salvage.

As late as in 1970, commercial salvers were available along the East and West Coasts of the United States; however, no stand-by salvage capabilities exist in these ports today. This reflects a worldwide situation. In the past, salvage vessels and tugs were deployed waiting for someone to use their services along the major trade routes of the world. Today, these traditional salvage stations are not occupied, because there is not sufficient salvage business to allow a commerical tug company to survive on the salvage basis alone. But this was not always the case. Prior to World War II, marine peril was frequent, and the concept of dedicating tugs to accident prone areas was cost effective for the companies.

In the years since World War II, the size and sophistication of ships have increased dramatically, and the number of incidents to which the salvage company can respond has lessened. Of course, this increased operational safety is a positive factor. Moreover, the salvage awards through the courts in recent years have not been adequate to make the full-time maintenance and operation of a salvage vessel an attractive business enterprise either in the United States or abroad.

Thus, most towing companies in the world now view their salvage capabilities as an additional service to their main line of work.

International salvage vessels are not allowed to work in U.S. waters without authority from a high-level Customs official in the Treasury Department. The United States appears to be alone in having cabotage applicable to salvage. Hence, the question is—what to do in the absence of a stand-by, or dedicated, U.S. commercial capability? The Navy has some capability, but the number of its salvage vessels has declined from 60 to 9 over the past decade. These Navy vessels are based in Norfolk, Virginia, on the East Coast and in Pearl Harbor, Hawaii. Some of these also are permanently deployed to the Mediterranean Sea and to the Western Pacific Ocean. Moreover, the Navy capability is not always available for Coast Guard (i.e., civil) use.

The Coast Guard has maintained a small capability in the past with the commissioning of a few ex-Navy tugs, but its mandate is to turn to the private sector to carry out salvage operations except in life-threatening emergency situations. The industry agrees with the Coast Guard use of the private sector to fulfill its marine salvage needs. During the seventies, the number of oceangoing tugs and tug supply boats more than doubled. Most of these have the equivalent capability of the Coast Guard or Navy tugs available 10 years ago. Furthermore, they are well distributed on all U.S. coasts. There is no shortage of U.S.-owned towing and salvage companies available to provide marine salvage services on all coasts, and the U.S. Navy maintains salvage contracts with commercial salvers on all three coasts to supplement its own limited military salvage capabilities.*

In many major ports where naval bases are located, "in-house" tug and harbor support services are operated by the Navy. In the private tug business, there is the conviction that commercial firms could easily perform these services at less cost, because they are often operating in the same ports, providing similar services.

This is also the case with some other services, such as salvage, where commercial operators believe they can deliver the required level of service to the Navy at lower costs. All of this is consistent with the Reagan Administration emphasis on getting government out of businesses that can be performed by the private sector.

* Additional information on the salvage situation in the United States is contained in a study recently published by the Marine Board of the National Research Council, "Marine Salvage in the United States."

What drives the current technological improvement of salvage capability is not the need for salvaging but the need to tow oil rigs. In response to this demand, the capability for salvage operations has grown enormously, and the structure of the salvage operations has changed as well. As a result, salvage equipment is often not in place on the tug and is usually stored on shore. But, contractual agreements generally provide access to salvage-equipped tugs when the need arises.

Science, Technology, and Education Support

The research and development (R&D) base for the U.S. maritime industry is small. The highest appropriation level for MARAD for R&D was in the mid-20 million dollar range in 1973 and 1974. In the recent two fiscal years, 1982 and 1983, the amount has dropped to about one half this amount.

The U.S. maritime industry has been the initiator of practically all major innovations in recent maritime technology. The real concern is where new technical innovation will come from. The financially troubled U.S. operating companies and shipyards are not in a position to maintain any sort of "far horizon" R&D program. The universities and research institutes cannot do such work without sponsorship through sources that have traditionally come from government.

It is a matter of concern that the government appears to be reducing this area so dramatically exactly at a time when new technologies are needed to help bring about better competitive opportunities for the U.S. merchant marine. We may be in the doubtful position of mortgaging our future exactly at the wrong time. At a restored level of about 30 million dollars a year, the MARAD R&D program could help this industry find improved and more productive means of doing its business. R&D provides options and choices and priorities for the future. The MARAD investment in this area could be enhanced by some industrial R&D advancement made as a result of the major naval shipbuilding program now being undertaken. In addition, MARAD funds are being used to go into partnership with commercial companies on R&D projects on a seed money basis. In this way, limited funding can be extended for maximum impact.

The educational system supporting the U.S. maritime industry is generally in good shape. The seven maritime schools are able to train licensed deck and engineering officers in sufficient numbers to meet present and forecast needs. In fact, at present, the supply exceeds demand due to the decreasing number of seagoing jobs in the U.S. merchant marine. Many of the maritime labor unions operate excellent technical/operational training schools for their members. The

capacity and coverage of these programs seem sufficient to meet industry needs. In recent years, several of these schools have added to their facilities in recognition of the increased complexity of the new technologies and in expectation that the merchant marine might be able to get back into a growth situation.

In the areas of naval architecture and marine engineering, schools such as the Massachusetts Institute of Technology, Webb Institute, University of Michigan, and the University of California at Berkeley meet the needs for this type of trained personnel. In fact, much is being done for foreign shipbuilders and operators in these institutions, not only in training foreign students in these fields but also in research programs. An area where there is an apparent educational gap is in the management techniques used in the marine transportation industry. Within the past 2 years, several of our universities have begun plans to offer advanced degree programs in management for the maritime industry. These programs will provide formal educational training for shipping company operations; terminal operations; port and harbor departments; related government agencies; shipyards; and maritime labor unions. The ultimate result should be improved competence and efficiency at all management levels of this industry.

In the absence of a major expansion of the American merchant fleet, few new opportunities are available for the pool of trained seafarers. The Nation's seven maritime academies are currently producing a supply of licensed deck and engineering officers in excess of the demand because of the decreasing number of seagoing jobs in the U.S. merchant marine.

CREDIT: Institute for Marine and Coastal Studies, University of Southern California.

Chapter 7
Summary, Conclusions, and Recommendations

Summary 65
Conclusions 65
Recommendations 66

CHAPTER 7

SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

Summary

The Committee finds that the objectives defined by the Merchant Marine Act of 1936 continue to be valid goals toward which this Nation's policies should be aimed. It is an equally firm conclusion of the Committee that despite the more than 46 years since the passage of the 1936 Act, these objectives have not been met. In fact, they may be as remote today as ever.

The U.S. merchant marine is far from sufficient to carry a "substantial portion of the waterborne export and import foreign commerce of the United States," as stated in the 1936 Merchant Marine Act. Futhermore, our merchant marine is capable of serving only in a rather limited fashion as a "naval and military auxiliary in times of war or national emergency." The bulk shipping component of the fleet, though largely constructed in the United States, cannot be generally described as "composed of the the best equipped, safest, and most suitable types of vessels." Taken on the average, our merchant fleet can be described as too few and too old when compared with foreign competitors and the stipulations of the 1936 Act.

Finally, based solely upon the cost of ship construction and repair in the United States as compared with foreign equivalents, it may be difficult to argue that our merchant marine is "supplemented by efficient facilities for shipbuilding and ship repair." In short, we have failed to achieve most of the objectives established nearly a half century ago despite an almost uninterrupted program of government financial assistance to the industry that has involved substantial expense to the Nation's taxpayers.

The Committee recognizes and endorses recent Congressional and Administration proposed actions, "catalogued" in Chapter 1, that could provide significant improvement for our marine transportation system. Nevertheless, few of them have come into force of law to date. Therefore, the Committee is obliged to give its summary, conclusions, and recommendations based upon the current situation.

It is clear that the "fair words and few deeds" of the many laws now in force, affecting this industry, have done little to arrest its rapid decline. Companies have gone out of business; some of the surviving companies are in considerable financial difficulty; the last two liner vessels built with Construction Differential Subsidy are expected to be completed next year; and tens of thousands of jobs have been lost from the U.S. maritime industry. It would be hard to make a more forceful statement on these problems than those made by Presidential Candidate Reagan in August and September 1980 (see Appendices G and H). What remains is to see how quickly such intents are translated into action by the President and Congress. The industry is slipping away, and immediate, firm measures are needed to arrest this trend.

We should note, however, that the sector of the U.S. maritime industry supporting offshore oil and gas development appears to be a healthy, vigorous exception to many of the problems encountered by the more traditional marine transportation sectors. While there is currently a slowdown in offshore oil and gas operations because of the oil glut, this is not expected to remain a permanent situation for this segment of the industry. It seems to enjoy basic good health as compared to other parts of the marine transportation sector.

Conclusions

Congress and the Administration have continuously stressed that a U.S.-flag marine transportation system, with its supporting industrial base, is essential to our Nation's national security in peace and in times of emergency. Given this policy, NACOA concludes that the present levels of U.S.-flag participation in our trade and the supporting shipbuilding base are ***critically*** below that required to meet U.S. needs.

The Committee finds that legislation and Federal regulations, programs, and subsidy supports have not had the desired impact on the U.S. marine transportation industry. By almost any index, this industry continues to decline in its capability to support U.S. trade and our national security needs. For over 66 years (since the Shipping Act of 1916), the remedies applied

by the Federal Government have failed to work. It is time for a fundamental new consideration of how to stimulate this sector back into good health. Basic changes in government support and regulation are needed.

The U.S. marine transportation industry must compete in a market where its competition receives a wide range of direct and indirect support from their respective governments. The freedom of action available to the industry should be increased through the relaxation or elimination of various government-imposed restrictions. In short, increased flexibility is needed as much as government funding assistance. Even if government funds were not already severely limited by budgetary constraints, it would be this Committee's conclusion that certain aspects of the subsidy program that have existed for so many years, and were in fact expanded by the 1970 amendments to the Merchant Marine Act of 1936, are not now and probably can never be cost effective.

Recommendations

As a result of our findings, NACOA recommends:

1. *The Construction Differential Subsidy program should be eliminated by Congress through amendments to the Merchant Marine Act of 1936.*

Although as a practical matter the Construction Differential Subsidy (CDS) program has now been suspended (zero-budgeted) as the result of the budget process, it could be reactivated in the future, because the program is still provided for in the 1936 Merchant Marine Act. Instead of serving to narrow the cost differentials between the U.S. and foreign shipbuilding industries, CDS may have accomplished exactly the opposite—preserving, and, in many cases, widening such cost differentials, at significant expense to the U.S. taxpayer.

The impact upon the U.S. shipbuilding industry of phasing out the CDS program might have been unacceptable a few years ago. Now, however, the current rebuilding of our naval fleet and the adequacy of the funds budgeted for that purpose indicate that our shipbuilding industrial base will have a significant part of its yards involved. The Committee understands that while naval orders will help employ and upgrade shipyards, the fact is that 4 of our 27 yards will get 75 percent of this work. Further, only 15 yards are identified as capable of warship construction. Thus, care must be exercised to not let overseas ship orders by U.S. operators force the remaining shipyards, about 44 percent of our total number of yards, to go out of business. Moreover, the naval shipbuilding effort is a long leadtime program, and the work activity within the shipyards may be 2 to 3 years away. In the interim, there will be a time gap where the level of work may reach critically low levels in the yards where work will eventually take place. Some yards may risk closure in this period.

2. *The Maritime Administration should initiate discussions with the liner operators to encourage early termination of Operating Differential Subsidy contracts and eventual elimination of the program.*

Past negotiations with United States Lines (successful) and Delta Lines (in process, November 1982) can be useful models where an operator will trade a discount on the remaining value of a longer term contract for short-term funding gains. The operator gets near-term capital, and the government saves a considerable amount of funding, which had been obligated over a long-term period. In addition, it will help the Maritime Administration to achieve its goal of reducing the Operating Differential Subsidy (ODS) system while improving its overall administration and efficiency. Because ODS contracts are legal obligations, with lifetimes of several years, their reduction and "buy out" can only be done through negotiation with the contract holders. There now seems to be a modest trend in that direction with two of the eight subsidized U.S. liner companies taking this step.

Simple removal of subsidy assistance without a simultaneous offset of new remedies and incentives could deal a crippling blow to the industry. It is important that these subsidy reductions are phased out at a rate commensurate with the achievement of benefits from other actions. Therefore, NACOA recommends the following remedies and incentives for industry promotion to complement or balance the proposed reductions in direct subsidies and increase flexibility. Because these actions can only become effective over a period of time, their coordination with the recommended reductions in subsidy is essential.

3. *The Maritime Administration should promptly provide competitive incentives for U.S. shipyards to bridge the gap between termination of Construction Differential Subsidy and other measures that would offer increased work for U.S. yards.*

The termination of the Construction Differential Subsidy (CDS) program will have an impact on U.S. versus foreign shipyard costs unless other measures are instituted, even for those yards waiting for Navy business to take effect. Foreign governments are not likely to be accommodating to U.S. yards by reducing the wide variety of price subsidies offered to their shipyards. The United States should seriously consider similar measures to improve the competitiveness of U.S. shipyards subsequent to CDS termination. Among those that might be considered are: competitive low cost financing for foreigners who buy ships in U.S. shipyards; special tax incentives for shipyard investments in

productivity, increasing equipment; government assistance in worker training and placement, etc.

4a. Congress should enact legislation to authorize closed liner shipper conferences and empower these conferences to collectively set intermodal transportation rates.

The provisions of such legislation should specifically override any conflicting provisions in the Nation's antitrust statutes, with the intent of extending antitrust immunity to U.S.-flag shipowners on a basis that puts them at parity with foreign operators in the same trades. In the Committee's view, this merely recognizes the "facts of life" in the liner trades where the relevant market place is not free, and the relevant competitive arena, is international in scope. In addition,

b. Congress should enact legislation to permit shippers who consign cargoes to establish "shippers councils" to negotiate collectively with the liner shipping conferences.

5. Given the recent involvement of the U.S. shipbuilding industry in the task of rebuilding our naval fleet and given the absence of Construction Differential Subsidy funds, the Maritime Administration should relax restrictions governing the current the Operating Differential Subsidy (ODS) program as follows:

(a) U.S. shipowners should be permitted to qualify for ODS with respect to foreign-built vessels registered under the U.S. flag provided they otherwise meet the criteria for qualifications,

and

(b) U.S. shipowners should not be disqualified from ODS, when they would otherwise qualify, simply by reason of operating other vessels in foreign-flag shipping activities.

The Committee recognizes that such an authorization was made for one year as part of the fiscal year 1982 appropriation for MARAD, that the Senate proposed a 2-year continuation through action on the fiscal year 1983 MARAD authorization, and that the Administration supports the concept. The basic thrust of this recommendation is simply to help assure that U.S.-flag line operators can upgrade their capital assets (ships) at acquisition costs permitting competitive return on investment against foreign operators. If such relief is not available, then replacements are not likely to be purchased.

This does not contradict our earlier recommendation to terminate the ODS program. The Committee believes some interim modifications of the ongoing program are needed to optimize the competitive position of the subsidized U.S. liner operators. Such remedies would be permitted concurrent with MARAD's efforts to promote early termination of existing contracts and not awarding any new ODS contracts.

6. U.S. ship depreciation allowances and schedules should be made competitive with those provided by foreign governments for their merchant fleets.

Although the Economic Recovery Tax Act of 1981 achieves substantial progress towards this end, a gap still exists. The Committee recommendation would allow the owner of a U.S.-flag vessel, whether constructed here or abroad, to take depreciation of the contract cost of the vessel in an amount up to 25 percent in the tax reporting period ending after the date of a binding construction contract and prior to delivery of the vessel. This provision would recognize, consistent with the practice of most major maritime nations, that long leadtimes are involved in the construction of merchant ships, and that the owners of such ships experience substantial investment expense prior to delivery.

7a. Congress and the Administration should support continuing Federal investment in major port developments in the national security interest.

Although there should be a move towards greater investment participation by the ports and the collection of user fees, there is a legitimate partnership role for the Federal Government. Federal expenditures for channels and harbors should be viewed as a necessary investment in national infrastructure similar to the way roads and highways are treated. In addition,

b. Congress should pass legislation that would greatly streamline the planning and permitting process for port improvement developments.

Immediate action is needed to reduce the time presently required to obtain approval for major dredging projects. With current estimates of 25 years from concept to completion of these projects, attracting capital investment is difficult.

8. U.S. Coast Guard regulations relating to design and standards of construction of U.S.-flag vessels should be made consistent with the accepted standards established by the world's leading classification societies.

The Committee notes that the U.S. Coast Guard has begun some movement in this direction.

9a. The Department of Defense should be encouraged to continue to shift to the private sector the ownership of and/or the contract management for the major share of its noncombatant (sealift and service support) ship capacity.

The Department of Defense would retain management control of this fleet through commercial contract arrangements. Included in this category are logistic support ships, special purpose ships, and port services assets. Furthermore, in seeking sale-and-charterback transactions designed to accomplish this purpose,

b. The Department of Defense should be urged to continue to offer charters of sufficiently long duration to encourage operators to build or buy vessels through utilizing their own investment funds.

We are encouraged that recent Defense Department contracts have been negotiated for 5-year charters with an option for a 5-year renewal.

10. The current review of regulations affecting the U.S. maritime industry by the Presidential Task Force on Regulatory Relief should be expedited.

The regulatory structure put upon the U.S. maritime industry by our government is costly. A great many reductions can be made without compromising safety, the environment, or accountability to government while the cost savings can help the industry's competitive position.

11. Congress should take the lead in formulating national cargo policy within an expanded system of bilateral agreements.

An assured proportion of imports and exports should be required to move in U.S.-flag vessels, provided the vessels are reasonably available. This would put the United States on a competitive basis with the many maritime nations that have similar policies.

12. The Department of State should expedite the development of an effective response to the Code of Liner Operations of the U.N. Conference on Trade and Development (UNCTAD).

Advent of the Code is assured even if the United States does nothing to ensure its share of the 40-40-20 formula and does not close its open conference system for our trade. In this case, the aftermath of the Code will be to damage the U.S.-flag merchant marine even further, through excess foreign tonnage entering (dumped into) our open conferences.

13. The Title XI and Capital Construction Fund programs should be preserved by the Maritime Administration with their benefits remaining applicable solely to vessels of U.S. registry constructed in U.S. shipyards.

Although recent proposals would extend these programs to vessels constructed abroad, we believe such changes are undesirable in light of the extension of the ODS program to foreign-built ships of U.S. registry. To extend either the Title XI or Capital Construction Fund programs to foreign-built vessels would simply take the place of benefits that foreign shipbuilding nations might offer as an incentive to potential U.S. customers.

14. The Maritime Administration should increase the level of its support for research and development and coordinate its efforts with those of the industry.

It is here that new developments can help the industry become more productive and competitive.

The Committee recognizes that some of these recommendations imply costs to U.S. taxpayers. However, with the stated U.S. policy that a strong merchant fleet and shipbuilding industry are of high priority for national security, then the costs for achieving a strong U.S. maritime industry should be considered along with those of the Department of Defense.

REFERENCES AND SOURCES OF DATA

ABRAHAMSSON, BERNHARD J.
1980. Testimony before the NACOA Marine Transportation Panel. (Nov. 7) Washington, D.C.
1981. The International Dimension and Its Impact on Domestic Policies (With Reference to Shipping). Sea Trade Academy Symposium on American Shipping at the Crossroads (December 2-4), Vista Hotel, New York.

BOOZ, ALLEN.
1972. Relative Costs of Naval versus Private Shipyards. (Prepared for the Naval Ship Systems Command) Washington, D.C.

BROCKEL, HARRY C.
1982. America's Seaports - Gateways for World Trade. *In* Joyce J. Bartell (editor), The Yankee Mariner and Sea Power, p. 185-194. University of Southern California Press, Los Angeles, California.

BRINSON, J. RON.
1981. Testimony before the NACOA Marine Transportation Panel. (Feb. 27) Washington, D.C.

CAMERON, JOHN.
1982. Cost Impact of U.S. Government Regulations on U.S.-Flag Ocean Carriers. (Prepared for the Maritime Administration) Washington, D.C., 5 volumes.

CARROLL, KENT J.
1982a. Remarks before the New York Propeller Club. (April 28) New York, New York.
1982b. Deploying U.S. Combat Power Abroad. Remarks before the Propeller Club Convention (Oct. 14), Long Beach, California.

COZENS, ANN S. (Editor)
1982. Ocean Oil Weekly Report 17(7):1-4.

DATA RESOURCES INC.
1982. The Economic Impact of the U.S. Shipbuilding Industry. Washington, D.C., 100 p.

DEPARTMENT OF COMMERCE.
1983. Bureau of Census, Trade Information Section, Washington, D.C.

ERNST AND ERNST.
1971. A Survey of Cost Differentials and Other Factors: Private versus Naval Shipyards. (Prepared for the Shipbuilders Council of America) Washington, D.C.

GENERAL ACCOUNTING OFFICE.
1982. Changes in Federal Maritime Regulation Can Increase Efficiency and Reduce Costs in the Ocean Liner Shipping Industry. Program Analysis Division, GAO/PAD 82-11, Washington, D.C., 72 p.

GREENBAUM, MILES.
1981. Testimony before the NACOA Marine Transportation Panel. (May 15) Washington, D.C.

HEINE, IRWIN M.
1976. The United States Merchant Marine - A National Asset. National Maritime Council, Washington, D.C., 205 p.

HOOD, EDWARD.
1981. Testimony before the NACOA Marine Transportation Panel. (Feb. 27) Washington, D.C.

INTERNATIONAL MONETARY FUND.
1982. International Financial Statistics Yearbook. Washington, D.C., p. 469.

KIDD, ISSAC C.
1980. Testimony at hearings (Sept. 20, 1978) on Sealift Capabilities before the Committee on Merchant Marine and Fisheries, U.S. House of Representatives, *In* Irwin M. Heine, The U.S. Maritime Industry, In the National Interest, p. 69. National Maritime Council, Washington, D.C.

LEHMAN, JOHN F.
1982. The Merchant Marine and National Defense: A Partnership for Security. Proceedings of the Joint Maritime Congress Conference on International Maritime Issues (June 14-15), Washington, D.C., p. 89-97.

LIPPMAN, THOMAS W.
1982. Build Abroad Ship Subsidies Plan Advances. *The Washington Post* 106(6): D10.

LOREE, PHILLIP.
1981. Testimony before the NACOA Marine Transportation Panel. (Jan. 15) Washington, D.C.

MARITIME ADMINISTRATION.
1979b. Merchant Fleets of the World. Office of Trade Studies and Statistics, Division of Statistics, Washington, D.C.
1981a. Maritime Subsidies 1980. Washington, D.C., 188 p.
1981b. Merchant Fleets of the World. Office of Trade Studies and Statistics, Division of Statistics, Washington, D.C.
1982. MARAD '81. Washington, D.C., 78 p.
1983a. Office of Maritime Labor and Training, Washington, D.C.
1983b. Office of Trade Studies and Statistics, Washington, D.C.
1983c. Office of Subsidy Contracts, Washington, D.C.
1983d. Office of Ship Financing Guarantees, Washington, D.C.
1983e. Domestic Waterborne Trade of the United States, 1976-1980. In press.
1983f. Existing and Potential U.S. Coal Export Terminals. In press.

MORRIS, W. PATRICK.
1980. Testimony before the NACOA Marine Transportation Panel. (Nov. 6) Washington, D.C.

NATIONAL RESEARCH COUNCIL.
1982. Marine Salvage in the United States. Marine Board, Commission on Engineering and Technical Systems, Washington, D.C., 139 p.

ROWSEY, JAMES R.
1981. Testimony before the NACOA Marine Transportation Panel. (Jan. 15) Washington, D.C.

SHEAR, HAROLD E.
1982. Testimony before the House Subcommittee on Merchant Marine. Washington, D.C.

SHIPBUILDERS COUNCIL OF AMERICA.
1983. Washington, D.C.

STEINECKER, BRENT.
1981. Testimony before the NACOA Marine Transportation Panel. (May 15) Washington, D.C.

STEWART, J. TODD.
1981. Testimony before the NACOA Marine Transportation Panel. (May 14) Washington, D.C.

STRYKER, RUSSELL F.
1982. Letter to Steven N. Anastasion, Executive Director of NACOA. (June 17)

THAYER, RALPH N.
1981. Testimony before the NACOA Marine Transportation Panel. (Jan. 16) Washington, D.C.

TRANSPORTATION INSTITUTE.
1983. Office of Government Relations, Washington, D.C.
TROJANOWSKI, JOSEPH.
1980. Testimony before the NACOA Marine Transportation Panel. (Nov. 7) Washington, D.C.
U.S. HOUSE OF REPRESENTATIVES.
1982. Competitive Shipping and Shipbuilding Act of 1982. Reprint from the Congressional Record (Aug. 12) 97th Session, 2d Session, Washington, D.C., p. H5861 - H5871.
U.S. NAVY.
1982. U.S. Shipbuilding and Repair—Importance of Industry Health to National Security. Washington, D.C., 7 p.
WATERS, ROBERT C.
1981. Testimony before the NACOA Marine Transportation Panel. (Feb. 27) Washington, D.C.
WEINBERGER, CASPAR W.
1981. Letter to C. William Neuhauser, Executive Director of the National Maritime Council. (June 8)
VACCARO, RALPH A.
1981. Testimony before the NACOA Marine Transportation Panel. (Feb. 27) Washington, D.C.
1982. Letter to Don Walsh, Chairman of NACOA's Marine Transportation Panel. (Nov. 12)
VELOCCI, TONY.
1982. Our Ebbing Maritime Industry. *Nation's Business* 70(6):34-38.

Court Case Cited

Seatrain Shipbuilding Corporation vs. Shell Oil Company. 444 U.S. 572 (1980).

Legislation Cited

Comprehensive Environmental Responses, Compensation, and Liability Act of 1980, Public Law 96-510, 94 Stat. 2767-2811.
Economic Recovery Tax Act of 1981, Public Law 97-34, 95 Stat. 172-356.
Intervention on the High Seas Act, Public Law 93-248, 88 Stat. 8, 33 USC 1471-1487.
Merchant Marine Act of 1920, 41 Stat. 988, chapter 250, 46 USC 861-889.
Merchant Marine Act of 1928, 45 Stat. 689, chapter 675.
Merchant Marine Act of 1936, 49 Stat. 1985, 46 USC 1101-1294.
Merchant Marine Act of 1970, Public Law 91-469, 84 Stat. 1018-1040.
Ocean Shipping Act of 1978, Public Law 95-483, 92 Stat. 1607-1609.
Omnibus Budget Reconciliation Act of 1981, Public Law 97-35, 95 Stat. 357-933.
Public Law 96-378, 94 Stat. 1513-1519.
Public Law 97-389, 96 Stat. 1949-1956.
Port and Tanker Safety Act of 1978, Public Law 95-474, 92 Stat. 1471-1493.
Shipping Act of 1916, 39 Stat. 728, chapter 451, 46 USC 801-842.
Staggers Rail Act of 1980, Public Law 96-448, 94 Stat. 1895-1966.

GLOSSARY

Bulk Trade—ocean transportation of either liquid or dry raw materials in large quantity, without mark or count.

Cabotage—reservation of a country's coastal shipping for its own flag vessels; derived from the French verb *caboter*, to sail along the coast.

Capital Construction Fund—program authorized by 1970 amendments to the Merchant Marine Act of 1936 which allows U.S. subsidized and unsubsidized vessel operators to deposit a portion of their taxable income into a tax deferred fund for the construction, reconstruction, and acquisition of vessels of U.S. registry built in the United States. The program is intended to remove certain competitive disadvantages U.S. operators have relative to foreign-flag operators in obtaining the capital necessary for ship construction, acquisition, and repair.

Cargo Reservation—a policy of reserving a percentage of cargo tonnage for transport in a specific country's flag vessels.

Conference—a voluntary association of ocean carriers providing (shipping) liner service on a particular trade route between two or more countries. The purpose of a conference is the self-regulation of price competition.

Conference, Closed—shipping conference to which membership is restricted. The conference members decide whether other carriers should be admitted.

Conference, Open—shipping conference to which membership is open on equal terms to any carrier willing and able to provide regular service on a trade route. The Shipping Act of 1916 stipulates that all conferences in U.S. foreign trade must be open.

Construction Differential Subsidy—Federal subsidy, provided for by the Merchant Marine Act of 1936, to help make U.S. shipbuilding yards competitive with foreign yards in the construction of new vessels to be used in U.S. foreign commerce.

Containership—ship designed to carry intermodal containers of cargo to be loaded to and from trucks for liner shipping.

Cross Trade—foreign to foreign trade engaged in by national flag carriers.

Deadweight Tons—a vessel's cargo carrying capacity in terms of weight measurement, expressed in long tons of 2,240 pounds.

Deferred Rebate System—device used by closed conferences to ensure the loyalty of shippers to member lines. Under this system, a shipper who moves all his cargo tonnage with the conference over a period of time is granted a rebate at regular intervals on freight payments made during the specified period of time.

Demurrage Fee—charge for the detention of a vessel in a port, for loading or unloading, beyond the time agreed upon.

Dual Rate Contract—exclusive patronage contract, giving discounts to shippers who agree to ship exclusively on conference vessels, devised by U.S. conferences as a replacement for deferred rebates. This type of contract was legalized, subject to several specific conditions, in the 1961 amendments to the Shipping Act of 1916.

Effective U.S. Control Fleet—U.S.-owned ships registered under Liberian, Panamanian, or Honduran flag that, because of tacit agreements between the United States and these countries, are considered in contingency plans for sealift requirements primarily as a source of ships to more essential oil and bulk cargoes in support of the national economy.

Essential Trade Route—route determined by the Secretary of Transportation to be essential to the promotion, development, and maintenance of the foreign commerce of the United States. To be eligible for Operating Differential Subsidy funds, a vessel must be operated along an essential trade route.

European Economic Community—official name of the Common Market. An economic association composed of Belgium, Denmark, France, the Federal Republic of Germany, Greece, Ireland, Italy, Luxembourg, the Netherlands, and the United Kingdom. It was established in 1958 to abolish barriers to free trade among member nations and to adopt common import duties on goods from other countries.

Flag of Convenience—country that offers its registry to foreign shipowners for a small fee, and whose regulations governing ships and shipping are more favorable to the shipowner than those of his home country; also called "open registry."

Gross Registered Tons—weight of a vessel without cargo (100 cubic feet = 1 ton).

Jones Act—section 27 of the Merchant Marine Act of 1920 which reserves U.S. coastwise, intercoastal, and non-contiguous trades to U.S.-built vessels manned by U.S. citizens.

Liner Trade—ocean carrier vessels operating on a predetermined and fixed itinerary over a given route, at relatively regular intervals, carrying general cargo.

Merchant Marine—privately or publicly owned commercial vessels as distinguished from a nation's navy.

Metallurgical Coal—coal used for metallurgical processes which must be stored in railroad hopper cars so that it can be blended to proper specifications when loaded onto a ship.

Military Sealift Command—U.S. Navy owned and chartered fleet of vessels engaged in commercial services.

National Defense Reserve Fleet—inactive, government-owned merchant fleet reserved for use in a national emergency. Fleets are maintained at Atlantic, Gulf, and Pacific sites by the Maritime Administration.

Operating Differential Subsidy—Federal subsidy, provided for by the Merchant Marine Act of 1936, to equalize the disparity in operating costs between those of American ships and their foreign competitors with respect to wages, insurance, and maintenance and repairs not covered by insurance.

Organization for Economic Cooperation and Development—international organization formed in 1960 to promote the expansion of world trade and the growth and development of the world economy. The 24 member nations include the 10 European Economic Community countries and Australia, Austria, Canada, Finland, Iceland, Japan, New Zealand, Norway, Portugal, Spain, Sweden, Switzerland, Turkey, and the United States.

Over-tonnaging—an excess of vessel tonnage operating along a trade route.

Ready Reserve Fleet—part of the National Defense Reserve Fleet composed of 30 relatively new merchant vessels.

Revenue Pooling—revenues earned by individual conference member companies serving the same ports are pooled together and periodically distributed among the member companies according to a predetermined schedule. This eliminates the incentive for conference carriers to secretly undercut conference rates and suppresses price competition among conference members.

Ro-Ro—roll-on/roll-off ships designed to allow trucks to drive on and off the vessel with trailers of cargo.

Shippers' Councils—associations of shippers established to more effectively represent their interests in consultations and negotiations with oceanborne common carriers or conferences of such carriers. Legislative attempts to establish shippers councils in the United States have been unsuccessful, although they exist in practically every other major trading nation. In the United States, the Federal Maritime Commission is responsible for protecting shippers' interests.

SL-7—Eight class 7 containerships built in West German and Dutch shipyards for Sea-Land Services Inc. These high-speed ships (33 knots) had become uneconomical to operate because of increasing fuel costs and were sold to the U.S. Navy in 1981 to be converted into high-speed logistic support ships.

Steam Coal—coal used for generating steam, which has simplier quality specifications that do not require blending. It can be stored on open ground.

Tariff—schedule of rates and charges for services offered by ocean common carriers. All ocean common carriers and conferences in U.S. foreign trade must file tariffs with the Federal Maritime Commission.

Title XI—part of the Merchant Marine Act of 1936 that provides for Federal ship mortgage insurance to promote private, rather than direct government, financing of vessel construction and reconstruction.

Tramp Ship—freight vessel that does not run regularly between the same ports but takes cargo when and where it is offered.

Twenty-Foot Equivalent Units—volume of a containership expressed as the number of standard 20-foot containers it can carry.

UNCTAD Code for Liner Conferences—treaty developed to set up an international framework for the conduct of maritime liner trade; establishes a 40-40-20 formula division for the carriage of conference cargoes, 40 percent to each of the trading partners and the remaining 20 percent for conferences members from other countries. The Code is expected to enter into force in the near future.

Appendices

A. Marine Transportation Panel 75
B. Significant Contributors 76
C. Federal Agency Observers 77
D. Meeting Dates, Speakers, and Presentation Topics 78
E. Organizations Represented at the Panel Sessions 82
F. List of Acronyms 83
G. "A Program for the Development of an Effective Maritime Strategy" (by Presidential Candidate Ronald Reagan, September 15, 1980) 84
H. "Statement by Presidential Candidate Ronald Reagan on Shipbuilding" (August 19, 1980) 87

APPENDIX A

MARINE TRANSPORTATION PANEL

Chairman

Don Walsh
Director
Institute for Marine and
Coastal Studies
University of Southern California

Panel Members

Michael R. Naess
President
Westminster Ventures, Inc.

Jack R. Van Lopik
Dean
Center for Wetland Resources
Louisiana State University

Panel Staff

Steve Risotto
NACOA Staff

Robert Gary
NACOA Staff

Victoria J. Jones
NACOA Staff Technical Writer/Editor

LCDR Richard D. Wigger
Office of Merchant Marine Safety
Headquarters
U.S. Coast Guard

APPENDIX B

SIGNIFICANT CONTRIBUTORS

Bernhard J. Abrahamsson
Dean
Graduate School of International Studies
University of Denver

Robert S. Agman
Co-Director
Labor-Management Maritime Committee

Ernest J. Corrado
Vice President
American Institute of Maritime Shipping

Robert Foster
Vice President
Shipbuilders Council of America

David A. Leff
Executive Director
Joint Maritime Council

Peter J. Luciano
Executive Director
Transportation Institute

Sandra Kjellberg
Government Relations Analyst
Maritime Institute for Research and
Industrial Development

Henry S. Marcus
Associate Professor of Marine Systems
Center for Transportation Studies
Massachusetts Institute of Technology

Alfred Maskin
Executive Director
American Maritime Association

Albert E. May
Executive Vice President
Council of American Flag Ship Operators

William Mayberry
President
Offshore Marine Services Association

W. Patrick Morris
Executive Secretary
National Maritime Council

Russell R. O'Neill
Dean of Engineering
University of California at Los Angeles
(Former Chairman, Marine Transportation Research
Board, National Academy of Sciences)

Frank Pecquex
Legislation Representative
Maritime Trade Department
AFL-CIO

Rexford B. Sherman
Director of Research and Publications
American Association of Port Authorities

Ralph A. Vaccaro
Assistant Secretary
Gulf Fleet Marine Corporation

Geoffrey H. Vincent
Managing Editor
American Waterways Operators, Inc.

APPENDIX C

FEDERAL AGENCY OBSERVERS

Anthony English
Deputy
Concept and Analysis Office
Military Sealift Command
U.S. Navy

John Gaughn
Congressional Relations Officer
U.S. Department of Transportation

Duwayne A. Koch
Senior Transportation Policy Advisor
U.S. Army Corps of Engineers
U.S. Army

John Todd Stewart
Director
Office of Maritime and Land Transport
U.S. Department of State

Richard O. Thomas
Director
Office of Policy and Plans
Maritime Administration
U.S. Department of Transportation

Louis Tippett
Acting Division Director
Sealift Readiness Division
Military Sealift Command
U.S. Navy

LCDR Richard D. Wigger
Office of Merchant Marine Safety
Headquarters
U.S. Coast Guard

APPENDIX D

MEETING DATES, SPEAKERS, AND PRESENTATION TOPICS

Speaker	Title of Presentation
September 12, 1980	
Richard Thomas Director Office of Policy and Plans Maritime Administration U.S. Department of Transportation	Overview of the Maritime Administration's Operations, Responsibilities and Authorities
November 6-7, 1980	
Bruce Carleton Transportation Economist Office of the Special Trade Representative	World Trade Perspectives
Robert Ellsworth Chief Economist Office of Regulatory Policy and Programs Federal Maritime Commission	Competition or Rationalization of Liner Shipping
W. Patrick Morris Executive Secretary National Maritime Council	Maritime Shipping and Economic Regulatory Policy
Joseph Trojanowski Economist General Accounting Office	Financial Developments in the U.S. Merchant Marine—Trends Since 1965
Bernhard J. Abrahamsson Dean Graduate School of International Studies University of Denver	A Macroview of World Trade and Maritime Shipping
January 15-16, 1981	
RADM W. M. Benkert, USCG (Ret.) President American Institute of American Shipping	U.S. Liquid Bulk Trades
Phillip Loree Chairman Federation of American Controlled Shipping	American Controlled Shipping

Speaker	Title of Presentation

January 15-16, 1981—continued

CAPT James R. Rowsey Staff, Joint Chiefs of Staff U.S. Navy	Joint Chiefs of Staff Strategic Mobility Requirements and Capabilities
Peter V. Finnerty Vice President for Public Affairs Sea Land Industries, Inc.	Maritime Policy Reform
Jack Goldstein Vice President OSG Bulk Ships	Bulk Trades
Lawrence O'Brien Chief Counsel House Merchant Marine and Fisheries Committee U.S. House of Representatives	Congressional Views
Jack Sands Minority Counsel House Merchant Marine and Fisheries Committee U.S. House of Representatives	Congressional Views
Ralph N. Thayer Chairman Water Freight Transportation Maritime Committee National Industrial Traffic League	Shippers' View of Maritime Policy
Wilton Jackson Manager Contingency Port Operations Overseas Marine Division Dupont Company	Shipping's Maritime Policy
John P. Scalley Manager Export Transportation General Electric Company	Shipper and His Problems (presented jointly with C. William Neuhauser)
C. William Neuhauser Executive Director National Maritime Council	Shipper and His Problems (presented jointly with Jack Scalley)

February 26-27, 1981

Daniel Ziegfeld Assistant Chief Waterways Management Division U.S. Coast Guard	Land/Sea Interface, Terminals, and Intermodal Facilities
Robert C. Waters Professor George Washington University	Adequacy of Intermodal Movements through America's Ports

Speaker	Title of Presentation

February 26-27, 1981—continued

Herbert Brand Chairman Transportation Institute	Deep Sea, Coastal, and Inland Waterborne Shipping
Edward Hood President Shipbuilders' Council of America	Ship Construction and Repair Facilities
Ralph A. Vaccaro, Jr. Assistant Secretary Gulf Fleet Marine Corporation	Offshore Workboats/Offshore Oil and Gas Operations
J. Ron Brinson President American Association of Port Authorities	Ports, Harbors, and Terminals

May 14-15, 1981

RADM Kenneth G. Wiman Chief, Office of Marine Environment and Systems Headquarters U.S. Coast Guard	National Salvage and Towing Capability
RADM Clyde T. Lusk Chief, Office of Merchant Marine Safety Headquarters U.S. Coast Guard	Overview of the U.S. Coast Guard's Commercial Vessel Safety Role
J. Todd Stewart Director, Office of Maritime Affairs and Land Transport U.S. Department of State	UNCTAD Code of Conduct for Liner Conferences
Howard C. Blanding Assistant Vice President American Bureau of Shipping	Role of Classification Societies
W. Patrick Morris Executive Secretary National Maritime Council	Update on Pending Legislation
Miles Greenbaum Physical Scientist Technology Coordination Office of Fossil Energy U.S. Department of Energy	Impact of Energy Requirements on Ocean Transportation and Port Operations
Frank Pecquex Legislation Director Maritime Trades Department AFL-CIO	Concerns of Maritime Labor
Brent Stienecker Senior Vice President and General Manager California Division Crowley Maritime Corporation	Ocean Towing

Speaker	Title of Presentation
January 20, 1982	
W. Patrick Morris Executive Secretary National Maritime Council	Information Update on Recent Activities of Congress
Peter Luciano Executive Director Transportation Institute	Information Update on Administration Activities

APPENDIX E

ORGANIZATIONS REPRESENTED AT THE PANEL SESSIONS

Academic

George Washington University

Louisiana State University

Massachusetts Institute of Technology

National Academy of Sciences
National Research Council
Marine Transportation Research Board

University of California at Los Angeles

University of Denver

University of Southern California

Congressional

General Accounting Office

House Merchant Marine and Fisheries Committee

Federal

U.S. Department of the Army
U.S. Army Corps of Engineers

Federal Maritime Commission

Office of the U.S. Trade Representative

U.S. Department of Defense
Office of the Joint Chiefs of Staff

U.S. Department of Energy
Office of Plans and Technology Assessment for Fossil Energy

U.S. Department of the Navy
Military Sealift Command

U.S. Department of State
Office of Maritime Affairs

U.S. Department of Transportation
Maritime Administration
U.S. Coast Guard

Industry

American Association of Port Authorities

American Bureau of Shipping

American Institute of Merchant Shipping

American Maritime Association

American Waterway Operators, Inc.

Council of American Flag Ship Operators

Crowley Maritime Corporation

Dupont Company

Federation of American Controlled Shipping

General Electric Company

Gulf Fleet Marine Corporation

Joint Maritime Congress

Labor-Management Maritime Committee

Maritime Institute for Research and Industrial Development

National Industrial Traffic League

National Maritime Council

Offshore Marine Service Association

OSG Bulk Ships

Sea-Land Services, Inc.

Shipbuilders Council of America

Transportation Institute

Westminster Ventures, Inc.

Labor

Joint Maritime Congress

Labor-Management Maritime Committee

Maritime Trades Department, AFL-CIO

National Maritime Council

Research

Louisiana State University
Ports and Waterways Institute

Massachusetts Institute of Technology
Center for Transportation Studies

National Academy of Sciences
National Research Council
Marine Transportation Research Board

University of Southern California
Center for Marine Transportation Studies

APPENDIX F

LIST OF ACRONYMS

AAPA.....American Association of Port Authorities

ABS.....American Bureau of Shipping

CCF.....Capital Construction Fund

CDS.....Construction Differential Subsidy

CVS.....Commercial Vessel Safety

DOD.....Department of Defense

DWT.....Deadweight Tons

EEC.....European Economic Community

EPA.....U.S. Environmental Protection Agency

EUSC.....Effective U.S. Control Fleet

GNP.....Gross National Product

GRT.....Gross Registered Tons

ICE.....Interagency Coal Export Task Force

IMCO.....Intergovernmental Maritime Consultative Organization

IMO.....International Maritime Organization (formerly IMCO)

LNG.....Liquified Natural Gas

LOS.....Law of the Sea

MARAD.....Maritime Administration

MSC.....Military Sealift Command

NACOA.....National Advisory Committee on Oceans and Atmosphere

NATO.....North Atlantic Treaty Organization

NDRF.....National Defense Reserve Fleet

OAPEC.....Organization of Arab Petroleum Exporting Countries

OBO.....Ore/Bulk/Oil Carrier

ODS.....Operating Differential Subsidy

OECD.....Organization for Economic Cooperation and Development

OPEC.....Organization of Petroleum Exporting Countries

R&D.....Research and Development

Ro-Ro.....Roll-on/roll-off ships

RRF.....Ready Reserve Fleet

SOLAS.....Safety of Life at Sea

TEU.....Twenty-foot equivalent units

UNCTAD.....U.N. Conference on Trade and Development

APPENDIX G

A PROGRAM FOR THE DEVELOPMENT OF AN EFFECTIVE MARITIME STRATEGY

Statement by Presidential Candidate Ronald Reagan on September 15, 1980

The United States is in trouble. We have watched the steady erosion of United States power and the decline of our influence during the past few years. We have watched the Soviet Union and several Third World nations take increasingly aggressive actions against the interests of the United States and our allies, and even against smaller neutral nations. We have lost our place as the logical focal point for Free World policy and action.

The cost to the United States has been a loss of prestige and influence, and these, in turn, have had a direct negative impact on our economy in terms of increased inflation and our relations with the rest of the world.

This adverse situation has occurred because of the lack of leadership within the White House and the subsequent loss of leadership by the United States as a nation. Nowhere is this loss of leadership more evident nor more dangerous than in the decline of both our naval forces and our maritime industry.

This decline occurs at a time when the United States is more dependent upon the use of the seas for our political, economic, and military well-being than ever before in our history. Every day, major decisions affecting international relations are influenced by the capability or lack of capability of our naval forces. When we realize that strategic missile submarines are the least vulnerable component of our nuclear deterrent force and that our only military capability in the volatile Indian Ocean area is our carrier task groups, we can appreciate the importance of naval capability in world affairs.

The world trades by sea and the United States is the world's greatest trading nation. We are heavily dependent upon ships to bring in foreign goods as well as petroleum and the raw materials for our industries; and we need ships to carry our manufactured products and our agricultural and raw material exports to the world's markets.

As I stated in a recent speech in Chester, Pennsylvania, our shipbuilding industry is vitally important to our nation. Shipyards provide the mobilization base for future buildups, employ people in every one of our 50 states, and are a proven technical training facility for our youth and minorities in a host of related industries.

It is difficult for most Americans to conceive of the magnitude of our maritime decline. Three decades ago the U.S. was the most powerful maritime nation in the history of the world. Our Navy was over 1,000 ships strong and our merchant fleet carried 42% of the U.S. foreign trade. Today, the Navy is down to less than 500 ships, many over-aged. As for commercial shipping, the 500-odd oceangoing vessels flying our flag currently carry less than 5% of our own commerce, while 95% of U.S. trade is carried by ships of other countries, whose availability in time of crisis is problematical at best. Even our matchless inland water transportation system has been allowed to deteriorate so that today the movement of goods is limited by antiquated lock systems, silted rivers and inadequate harbors. In contrast the Soviet Union has emerged as a rapidly expanding maritime force. Since 1950, the Russian merchant fleet has increased from 500 ships with under two-million tons of capacity to over 2,500 ships totaling almost 20-million tons, of which the vast majority are modern ships specifically designed to support military forces. This fleet carries over 65% of Soviet foreign commerce and, through freight rate manipulation, an increasing share of the commerce of the free world.

Our maritime policy must be an integral part of our overall foreign policy. It must be well conceived and administered in accordance with a consistent, coordinated plan. Four years of increasing Soviet belligerence has been encouraged by a lack of any coherent national policy and continuing vacillation which has become the despair of our allies. This inability to project our economic strength and defense mobility in any coordinated manner has critically undermined the ability of the U.S. to serve as a world leader.

Today we see that the Soviet Union—primarily a land power—has the world's largest navy. The Soviet

Union has more oceangoing surface warships than the U.S. Navy. And the Soviets are building new ships at a faster rate than we are. While the U.S. Navy will complete five major missile warships in the next three years—four of which were ordered for Iran and come to us by default—the Soviet Navy will add more than five times that number of major missile ships to their fleet, several of them nuclear powered.

In the submarine category the Soviets have about three times as many undersea craft as the U.S. Navy, and significantly more nuclear submarines. This Soviet thrust to the sea is qualitative as well as quantitative. For example, the Soviet ALFA-class submarine, now in series production, has a titanium hull and can dive significantly deeper and travel significantly faster than any American nuclear submarine.

Similarly, the Soviet merchant fleet is among the world's largest, with almost five times the number of ships at sea as fly the American flag. These Soviet merchant ships vary from small, coastal cargo ships—ideal for the smaller Soviet ports *and* for serving Third World ports—to giant supertankers and container ships. The Soviet penetration of Third World trades gives them a political and economic presence that our current leadership fails to appreciate.

Until the Afghan invasion a year ago, the Soviet share of American maritime trade was growing at a faster rate than that of any other nation, while in the past decade the U.S. flag share of our own commerce declined by 20 percent.

The Soviet Union has the world's largest fishing and ocean research fleets as well, and they are deployed over the four corners of the world.

Despite their already massive array of seapower, the Soviets continue to expand and improve their shipyards and related industries while America continues to decline. For example, 15 years ago the United States had seven shipyards building nuclear-powered ships and submarines. Today we have only two. In the same period the Soviet nuclear shipyards have increased from two to six yards, with just one of those yards capable of building more nuclear submarines each year than the rest of the world's shipyards combined. And still the Soviet shipyards are being expanded and improved.

How did we come to this state of affairs?

The answer to that question unfortunately is all too clear. It has become apparent that during the past 3-1/2 years the Carter Administration has ignored the lessons of history, turned away from the world as it exists today, and failed to understand America's need to use the seas. Time and time again the Carter Administration has made the wrong decision or simply avoided making any decision at all.

In 1979, Mr. Carter vetoed the defense budget because the Congress—the direct representatives of the American people—had voted funds to build another nuclear-powered aircraft carrier of the NIMITZ class. Yet just over a year later Mr. Carter was ordering aircraft carriers to the Indian Ocean and it was from the deck of the carrier NIMITZ that the ill-fated Teheran rescue attempt was launched.

Similarly, the Carter Administration opposed the start of a new class of amphibious ships, the LSD 41 program has been belatedly started, while events in Iran have now led the Carter Administration to initiate a whole new class of ships to carry Marine tanks and equipment.

The American Merchant Marine has fared no better than the Navy. Although American innovation has been responsible for most of the major advances in shipboard productivity, our foreign competitors have now successfully mastered these advances and are able to take advantage of both the American innovation and the lower priced foreign wage structure. Because of the failure of the maritime policy to adapt to significant changes in the international environment over the last ten years, we are in imminent danger of losing even the minimum level of skilled manpower, management, engineering and component manufacturing capability needed to serve in a national emergency and to give us a base on which to expand in time of a protracted crisis or conflict. We must be aware of the example of the Soviet Union, which has grasped the value and relevance of a coherent, focused, and consistent national maritime policy. Their maritime activities are carefully orchestrated; their maritime resources supplement and reinforce one another. The time has come for the United States to undertake a similar commitment.

If the United States is to survive as a viable and progressive nation, we must have the leadership that has been denied to the American people in these vital areas. We must develop and undertake a maritime policy that will (1) demonstrate our understanding of the importance of the seas to America's future; (2) reestablish the U.S. flag commercial fleet as an effective economic instrument capable of supporting U.S. interests abroad; and (3) demonstrate America's control of the seas in the face of any challenges.

A specific naval-maritime program must be developed that will:

1. Provide a unified direction for all government programs affecting maritime interests of the United States. We must insure that there is active cooperation between the Navy and the Merchant Marine and the governmental departments responsible for each. We must see that long-range building programs for naval and merchant ships are established and carried out without falling victim to petty bureaucratic jealousy. This is the

role of the President, and I shall see that our maritime policy is coordinated to insure that it achieves the objectives we set for it.

2. Insure that our vital shipbuilding mobilization base is preserved. It is essential that sufficient naval and commercial shipbuilding be undertaken to maintain the irreplaceable shipbuilding mobilization base. Without this nucleus of trained workers and established production facilities, we can never hope to meet any future challenge to our security.
3. Improve utilization of our military resources by increasing commercial participation in support functions. The Navy today is facing a critical shortage of trained personnel. With the commercial industry assuming increased responsibility for many auxiliary functions, substantial cost saving can be achieved and a large reserve of manpower can be released to provide crews for a growing naval fleet. This is an example of the means by which we can increase defense mobility without adding burden to the taxpayer.
4. Recognize the challenges created by cargo policies of other nations. The United States has traditionally espoused free trade. However, the international shipping trade is laced with a network of foreign governmental preferences and priorities designed to strengthen foreign fleets, often at the expense of U.S. mariitme interests. We must be prepared to respond constructively for our own interests to the restrictive shipping policies of other nations. A major goal of the United States must be to insure that American-flag ships carry an equitable portion of our trade consistent with the legitimate aspirations and policies of our trading partners.
5. Restore the cost competitiveness of U.S.-flag operators in the international marketplace. It has been American policy since 1936 for the additional costs of building and operating U.S.-flag ships to be borne by a system of subsidies to help insure the competitiveness of American importers and exporters. But our parity system failed in the mid-1970's because most foreign governments moved to protect their own vital maritime interests after the shipping collapse of the mid-70's. We must now take corrective action to make certain our merchant fleet and our shipbuilding industry survive and grow.
6. Revitalize our domestic water transportation system. The inland water transportation system provides an economic and energy efficient method of moving the goods and commodities of the nation between all parts of our country. It also provides a vital link in our international trading effort by tying the ports of all four seacoasts, which includes our Great Lakes, to the producing heartland of the Nation. Again we are paying a high price for the absence of any coherent national policy.
7. Reduce the severe regulatory environment that inhibits American competitiveness. As foreign competition on maritime scene has increased, so have the operational and regulatory restrictions on U.S. shipping and shipbuilding. Many of these restrictions increase costs and, in some cases, simply prevent our ships from competing with foreign ships. There is rarely, if ever, any commensurate benefit from these restrictions. Accordingly, we will carefully and rapidly review the effect of these restrictions and sponsor appropriate actions.

In carrying out these expansive programs, a coordinated effort will be undertaken to create new jobs for American seamen, shipyard workers, and the thousands of workers in related industries. These maritime industries which are vital to our national well-being, in the past have had an outstanding record of providing not only employment but the training to enable minorities and the disadvantaged to obtain continued advancement.

* * * * *

This seven-point program will be carefully developed and it will be carried out. We cannot expect others—either allies or adversaries—to respect our interests if we show no respect or concern for them ourselves. The failure to develop and carry out an effective naval and maritime program will deny the use of the seas to the United States and, eventually to the Free World.

The erosion of American maritime strength is unnatural, untimely, and endangers the Free World. The strategic concepts upon which our military planning is based includes the rapid support to our allies.

The United States has a heritage of the sea that dates from the first settlement of our country. The oceans—and the ships—and men that both build and sail on them—have been a prominent factor in shaping the crucial development of our nation's history. Our economic vitality, national defense, and foreign policy options will depend increasingly on the use we make of the sea during the remainder of this century.

APPENDIX H

STATEMENT BY PRESIDENTIAL CANDIDATE RONALD REAGAN AT THE SUN SHIPYARD IN CHESTER, PENNSYLVANIA ON AUGUST 19, 1980

Shipbuilding, a strong maritime industry and our national security go hand-in-hand.

Those of you who work here in the "Arsenal of Democracy" know that well—here at Sun Ships you met the challenge during the Second World War when you designed and built 40% of all U.S. Tankers delivered during that war. At your peak you employed some 40,000 workers—today that number is closer to 4,000!

This is an alarming trend we see throughout the industry.

In order to maintain a productive private shipbuilding industry, it is projected we need a minimum of 116,000 workers. Currently 107,000 are employed by private shipyards.

Unless we begin to reverse the trend and get both Navy shipbuilding on track and develop a national maritime agenda, employment is expected to sink to 75,000 workers by 1983. Such a loss of jobs would also have a serious "spill over" effect on related industries.

In short, the 'trigger point' for employment in private shipyards able to support overhead, work efficiency and be financially viable will have been passed—resulting in an unproductive industrial base.

Statistically similar is the fact that out of 25 active shipyards, only 18 are building ships. This number is expected to decline to 15 or 16 by next spring.

Should our shipbuilding capability continue to decline, America's mobilization potential will be seriously undermined because a large reduction in a skilled shipbuilding workforce today makes any increase tomorrow very difficult. This is a dangerous threat to our national security, jobs and a key U.S. industry.

The truth is, the Carter Administration has no coherent, long-range shipbuilding or maritime policy.

America is a maritime nation. Yet our maritime industry is at a critical stage. Ninety-five percent of our trade moves in foreign vessels—a serious situation. Our active U.S. flag fleet has declined to 533 ships—about 1/3 the total lost—1,787—by our country during World War II.

As the world's leading trading nation, as an island of have-nots in the area of strategic commodities, and as the chief guarantor of freedom of the Western World, the U.S. is in dire need of a rational, reasonable and effective maritime policy.

Let's begin to move today, in the shadow of these ships, within earshot of you workers and worried Americans, to put America back in the captains chair of world maritime powers.

Some steps which would revitalize and reinvigorate our nation's shipbuilding and maritime industry would include:

First, early next year I would convene a conference of top maritime and shipbuilding leaders with the appropriate members of my administration to explore ways and means of addressing the deficiency. The goal is to build a merchant marine consistent with our economic, trade and national security needs.

Second, I would target my Administration to be the mandate of the Republican platform calling for a 600-ship Navy composed of U.S. built ships quickly as the budget would permit. I would anticipate a sympathetic Senate and House of Representatives and would work closely with the appropriate Committees of Congress to see these goals are met.

Third, in concert with Congress, I would develop a multi-year Naval Investment Program to produce a modern and versatile U.S. Navy capable of meeting the global uncertainties of the future. This plan would end the vagaries of the past on-again-off again Carter plans and provide stability in planning, production and workforce in our shipyards.

Fourth, my comprehensive National Maritime policy will be targeted toward a greater market share of Exports and Imports for U.S.-flag shipping. As more cargoes are carried on our own ships, the demand for U.S. flag shipping services will increase, and more new ships will be ordered from U.S. shipbuilders.

Fifth, these programs will be monitored from the top level of government and our national security aspects from the National Security Council. Understandably, the American people are beginning to wonder if the U.S. has the necessary thrust to counter the Soviet build-up on the high seas, of support pledges of supply when U.S. national interests are threatened. To feel safe, we have to have the sealift capability to dispatch military manpower to areas of crisis.

Sixth, I will appoint only men and women to federal posts which impact directly on shipbuilding who are people of experience, vision and dynamism. All too often the right people have not been placed in the right slots.

Seventh, in concert with industry and labor, I will develop a phased-in effort to restore international competitiveness of U.S. shipbuilding through tax incentives such as 10-5-3 technology advances and improved productivity.

Eight, I will direct a review of regulatory requirements imposed on U.S. shipbuilding (as well as other industries) consistent with health and safety. It is estimated 14% of the cost, on a value-added basis, in U.S. shipyards can be traced to U.S. Government regulations.

A "New Beginning" can and should be forged between a New Republican Administration and with U.S. Shipbuilding, their workers, and their suppliers—to make the American people safe and secure—to maintain peace on the seas through strength.