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STUDY PROJECT

THE SEALIFT DILEMMA
...IS NOT THE DECLINE BUT THE INABILITY TO CHANGE

BY

LIEUTENANT COLONEL ROBERT A. MILES JR.

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The health of the US Merchant Marine directly effects national security either by its contribution or lack thereof of strategic sealift. The deplorable conditions of the maritime industries, both ship operators and ship builders, has been well documented and extensively publicized. The reasons for the deterioration of the industry are complex. They are deeply rooted within governmental policies and programs, as well as the vested economic and political interests of those involved. Any serious attempt to do more than

slow the decline of the merchant marine will necessitate a new approach to fixing the problem. There is little agreement among the participants, except that something needs to be done to insure sufficient sealift for defense needs. This paper assesses the situation from outside the norm, because the norm hasn't worked in the past and is unlikely to work in the future.

USAWC MILITARY STUDIES PROGRAM

THE SEALIFT DILEMMA
...IS NOT THE DECLINE BUT THE INABLITY TO CHANGE

An Individual Study Project

by

Lieutenant Colonel Robert A. Miles Jr.

Colonel D. E. Marks
Project Advisor

U.S. Army War College
Carlisle Barracks, Pennsylvania 17013
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AUTHOR: Robert A. Miles Jr., LTC, TC

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INTRODUCTION

> In the 1990s and beyond, the United States will have to rely even more heavily on the rapid deployment of Army forces from the United States to guarantee its security. Thus, despite reductions in the defense budget, it is vital that sufficient resources be allocated to correcting the serious shortfalls in US sealift and airlift.[1]
>
> General Carl E. Vuono
> Army Chief of Staff
> January 1990

The unprecedented rate of change in world politics has brought into question the validity of the traditional rationale for European alliances and adversarial relationships. With the reduction of Soviet military domination of the Eastern European Nations, a reduced direct military "threat" to Western Europe, and unilateral and negotiated Soviet force reductions, "the Soviet have sent a major political signal, implying that military power will play a lesser role in future political affairs."[2]

As a result, it is inevitable that the US military presence overseas will decrease, and the size and composition of US forces will change. Yet, amid the euphoria, it behooves the United States to maintain sufficient capability to convince the Soviets or any other potential adversary that to attempt to forcibly impose their will upon us or our friends is not worth the consequences.

In the future we can be assured that strategic mobility and rapid force projection of a smaller more versatile and lethal US force worldwide will be a major element of new strategic thinking.

particularly in light of the Chief Staff of the Army's following statement.

> Even the most deployable and combat-ready land force cannot be employed without adequate strategic lift. The U.S cannot afford to risk the effectiveness and credibility of its overall defense strategy by failing to develop and field adequate world wide lift assets. Airlift and Sealift assets currently available or approved for acquisition are inadequate.[3]

The adequacy of US Strategic Airlift and Sealift to support national defense initiative has been in question throughout the past decade. Interestingly, airlift which provides the most flexible and rapid national lift capability has actually increased from 27 million ton miles per day (MTM/D) in 1981 to a current level of 46MTM/D, a 70% increase. Additionally, the C-17 Cargo Plane, if fully funded, will further enhance the airlift capability and the achievement of the intermediate goal of 66 MTM/D established as a result to the 1981 Congressionally Mandated Mobility Study. The positive growth in airlift capability is unfortunately not mirrored by sealift capability.

Growing concern about the insufficiency of strategic sealift is evidenced by major governmental initiatives, such as: the conduct of the DOD Sealift Study in 1984; the Chief of Naval Operations recognition of strategic sealift as the Navy's third major function; the expenditure of 7.1 B between 1980 and the present by the Navy for Sealift Enhancements and the expansion of the Ready Reserve Force (RRF) to off-set the declining merchant marine capability; the establishment of the Commission on Merchant Marine and Defense in 1984 to study problems within the maritime industry; the completion of the Revised Inter-theater Mobility Study (RIMS) in 1988, and the recent proclamation by the President of the "National Sealift Policy". All these events give testimony to recognition of the problem by the government, yet the decline continues.

What has become most evident to those assessing the sealift situation is the startling decline in the US Merchant Marine industries as it relates to: private US ship operators (down from 14 to 4 since 1970)[4]; active ocean going ships (2,114 in 1947 to 369 in 1987)[5]; shipbuilding and repair capabilities (76 yards closed & 52,000 jobs lost between 1982 and 1987)[6]; militarily useful ships, and merchant mariners available to crew the ships of the reserve fleets in a national emergency. Unquestionably these statistics are alarming at first glance. They are, however, more reflective of the economic evolution and restructuring within one of the nation's oldest and least competitive commercial industries than a loss of potential defense capability.

The sealift/maritime problems have been adequately documented in previously studies, articles, books, and reports. The intent of this paper is not to redefine the problem, but rather to assess: (1) the linkage between the private merchant marine and national defense, (2) the governments involvement and initiatives to foster a robust US Merchant Marine, and (3) the prospects of "fixing" the defense sealift capability shortfall by revitalizing government support programs to the merchant marine within the parameters of previously legislated merchant marine laws.

---

1. Vuono, Carl E., A Strategic Force for the 1990s and Beyond, Washington, DC. Jan 1990.
2. Thompson, James., Implications of the Gorbachev Force Cuts, Statement before Defense Appropriations Subcommittee, Feb. 1989.
3. Vuono, Carl E., A Strategic Force For The 1990s And Beyond, The United States Army, Washington D.C., January 1990, p. 13.
4. Denton, Jeremiah A., First Report of the Commission on Merchant Marine and Defense: Findings of Fact and Conclusions, Washington DC., Sept. 30, 1987.
5. Ibid.
6. Ibid.

CHAPTER I

SEALIFT REQUIREMENT

In any major overseas military development sealift will deliver almost 95% of all Dry Cargo and 99% of all petroleum products.

Admiral W.J. Crowe
Chairman, Joint Chief of Staff
FY 1988, Posture Statement

The percentages quoted by Admiral Crowe represent lift requirements of a major war or mid-intensity conflict on the scale of Vietnam. In lesser operations similar to Granada and Panama, the preponderance of the deployment or reinforcement was accomplished by airlift. However the point to be made with the Admiral's quote is that sufficiency of airlift in recent contingency operations does not equate to sufficiency of strategic lift for national defense.

Mr. Benjamin F. Schemmer, editor of Armed Forces Journal International, although not an expert on the strategic lift, has articulated the strategic lift "shortfall" in a rather blunt and straight forward manner with the following assessments;

+ The United States is woefully short of airlift and sealift, and the problem will get worse before it gets better.[1]

+ Even with forward deployed divisions in Europe and expanded POMUS prepositioning, the United States can't meet the commitment it made to NATO in 1982 of having 10 divisions in Europe within 10 days of a decision to reinforce.[2]

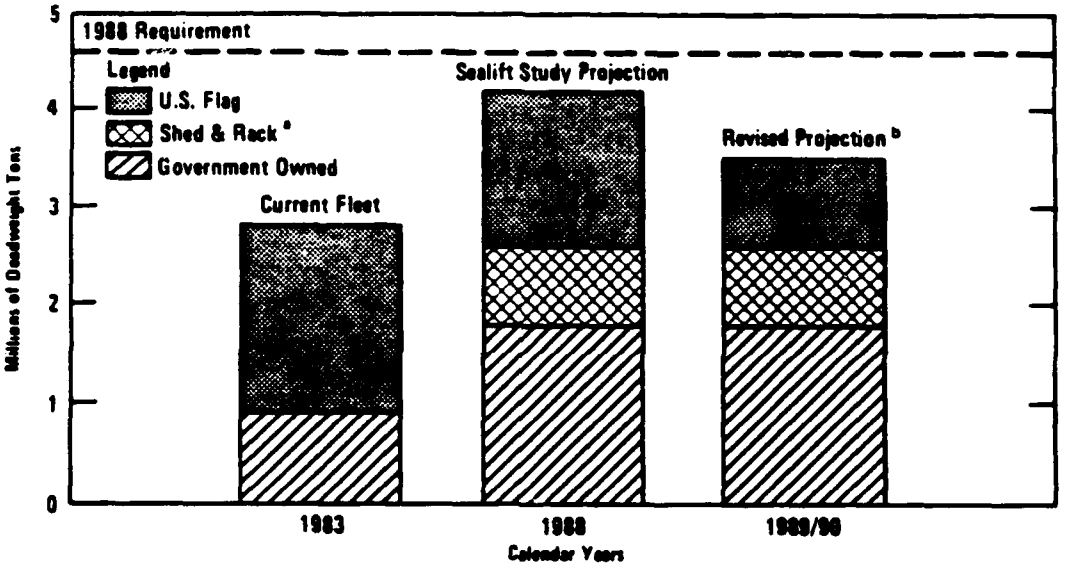
The US commitment to NATO of 10 divisions in 10 days, chided by Mr. Schemmer and others as an example of our deficiency in lift capability, calls for 10 US divisions to be in Europe and available to the CDR CENTAG within 10 days. "The 10 day closure time figure was reached because it was generally thought to be the length of time the forward deployed Corps could hold the line"[3]. However, the 10 day rapid response time places too great of demands on existing transportation systems and prepositioning programs to achieve 100% of the goal. In reality the required 10 day deployment time frame is simply too short for sealift to participate without advance notice to facilitate ship acquisition, positioning, and loading prior to C-Day.

The 10 in 10 concept as stated is a non-starter and needs to be set aside unless there is a national intent to significantly increase POMCUS fill, make a major financial commitment to build "Surface Effect Fast Sealift"(with speeds of 55 knots) or extend the warning/build up time. Due to current military cutbacks, budget constraints, and political change in Europe the most feasible option may be the extension of the warning/ lead time.

Defining the sealift requirement in numbers of ships has frustrated planners for years due to the magnitude of variables: ie, ship size, configuration, speed, load and off load capabilities, availability, dependability, reinforcement requirements, availability of Army equipment for loading, port capabilities/ locations, and so on. The DoD Sealift Study completed in 1984, "assumed a scenario based on worldwide war with concurrent operations in Europe, Northeast Asia and Southwest Asia."[4] "The key deficiencies identified were shortages in dry cargo ships capable of carrying unit equipment (UE) such as tanks, trucks, howitzers, and so forth during the surge phase of a mobilization."[5] The study assumed that the US would rely on shipping from NATO and Korea to meet US reinforcement sealift requirements in their area of operation while the US shipping would be used exclusively for deployments to Southeast Asia. The study

estimated a lift requirement for Southeast Asia of 800,000 short-tons of military equipment during surge operations and 1,700,000 short tons of resupply and ammunition during sustainment operations.[6] Timely delivery of this amount of cargo would require 4.6 million Dead Weight Tonnage (DTW) of shipping. A comparison of capability verses requirement in DWT of shipping is portrayed in the following diagram.

Available Shipping Versus Requirement: Department of Defense Estimate for Deployment of Military Unit Equipment During Surge Phase of Mobilization



SOURCES: Department of Defense and Maritime Administration.

[a] Sea shed and flat rack are devices to improve the ability of existing containerships to carry military unit equipment.

[b] Revised projection is contained in a more recent assessment by the Maritime Administration.

The study concluded that assuming the lift requirements to support Europe and Northwest Asia operations were born by our allies, the US did not have sufficient surge sealift capability to meet the requirement on a "go it alone basis" in Southeast Asia then, nor in the future.

In 1987 the Commission on Merchant Marine and Defense came to a similar conclusion and determined that a minimum of 650 ships would be required under US registry to meet national security needs based on a "Go it alone scenario in South West Asia. They

recommended several actions to achieve this number of ships, ranging from Presidential reaffirmation of the US Maritime Policy (contained now in the National Sealift Policy) to government construction and leasing of 10 merchant ships per year for 10 years. The most recent DOD effort to define the requirement has been the Revised Intertheater Mobility Study (RIMS). Although completed, it has not been released pending validation.

Despite these and other repeated efforts to quantify and substantiate the sealift requirement in numbers of ships, a consensus has eluded high level leaders, commissioners, and staffers. Whatever the number of ships, the sourcing of that requirement is the crux of the issue when determining the extent of shortfall. With almost 2500 ships of multiple national and international registration plying the seas, numerically there is ample opportunity to acquire sufficient ships to meet our wartime needs. To what extent will they be available to the US in an emergency, and more importantly to what extent the US is willing to risk reliance on foreign shipping determines the US ship requirement and shortfall.

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1 Shemmer, Benjamin F., "Airlift, Sealift in Short Supply at Very Time Need Grows Fastest", Armed Forces Journal International, May 1989, pp. 66&68

2 Ibid.

3 Kitfield, James, "The Defense Transportation Dilemma", Military Forum, Sept 1988, pp. 16-24.

4 A CBO Study, US Shipping and Shipbuilding: Trends and Policy Choices, Congress of the US, Aug. 1984, p50.

5 Ibid., p. 52.

6 Ibid.

CHAPTER II

SOURCES AND CAPABILITIES OF SEALIFT

> Even more important, perhaps, than its role in the development of commerce is the vital relationship that exists between the Merchant Marine and National Defense. Many authorities regard the latter consideration as the more important of the two, a view which is supported by the fact that national defense is placed ahead of trade as an objective of the Merchant Marine Acts of 1920, 28, and 36.[1]
>
> United States Maritime Commission
> 1937

The significance of the previous quote is that after 53 years it still reflects current government thinking. This thinking may have inadvertently contributed to the decline of the industry by burdening it with well intended governmental requirements, controls, and support programs in the interests of national defense. The decline has unfortunately reduced in capability and value the Merchant Marine to support defense interests.

Merchant Marine link to National Defense

With the Merchant Marine Acts of 1920, 28 & 36, it became national policy that the active merchant marine would serve as a reserve auxiliary source of ships and crews in the event of national emergency or mobilization. Section 101 of the '36 Act mandated that

the U.S. maintain a merchant marine "capable of serving as a naval and military auxiliary in time of war or national emergency"[2]. It is relevant to note that at the time Congress was legislating these acts many recalled the inability of the US flagged ships to support deployment of forces during the Spanish-American War, and/or to support the around the world sailing of the Great White Battleship Fleet in 1909. They envisioned that merchant shipping would contribute to national defense by transporting military cargo overseas when necessary and provide fleet bunkering, fleet replenishment, and naval combat roles as part of the Naval Fleet Auxiliary.

During World War II the US Merchant Marine played a major part in transporting material and supplies overseas, as well as in naval auxiliary operations. Both US and GB merchant ships were "employed as Destroyer; Submarine, PT Boat, and Seaplane Tenders; armed cargo and transport ships; ammunition ships; communication ships; repair ships; fleet oilers; stores issue ships; escort aircraft ships; armed merchant cruisers; anti aircraft ships; minelayers; and amphibious assault ships".[3] That was a time of great ingenuity as allied forces converted and modified available shipping to meet immediate military demands. With time, however, the utility of private merchant ships in the role of fleet auxiliary support vessels or for conversion to combat roles, as envisioned in 1937, has diminished in the face of increased technical needs of the Navy. Consequently, the Navy has constructed and incorporated into the active commissioned fleet organic navy oilers, ship tenders, and an assortment of replenishment and stores ships. Their reliance on the Merchant Marine to support defense fleet support requirements as envisioned by the drafters of the 1936 legislation has significantly changed. Similarly, the conversion of the bulk of the dry cargo US Merchant Marine fleet to containerships over the past two decades has reduced their utility to meet defense sealift requirements.

MILITARILY USEFUL SHIPS

Military dry cargo sealift requirements have evolved into two definable categories.....SURGE & SUSTAINMENT.

SURGE sealift refers to unit equipment (UE) cargo consisting mainly of large vehicles, tanks, weapons system, and aircraft which are not readily containerizable. Surge sealift requirements comprise the initial unit reinforcement to an area of operation. The best and most "Militarily Useful Ships for this lift are Roll-on-Roll-off-Ships (RoRo), Breakbulk (older self sustaining cargo ships) and Barge Carrying Ships. Due to commercial market trends, these types of ships once prevalent in the US Merchant Marine, have for the most part been phased out and replaced by the more commercially cost effective containerships. Fortunately, the Navy in conjunction with the Maritime Administration(MARAD) bought many of these commercially uneconomical but militarily useful ships from civil trade, and placed them in the Ready Reserve Force (RRF). Consequently, today the RRF constitutes the major national surge sealift capability.

Although the containership is not well suited for transport of large quantities of military unit equipment, they do represent a superb SUSTAINMENT lift capability. SUSTAINMENT cargo is largely composed of spares, rations, and general supplies that can be readily containerized.

Although the Navy has purchased a combination of Seasheds and Flatracks in sufficient quantities to convert 25 containerships to be capable of carrying UE cargo, the point is that the primary defense contribution of the current private US Merchant Marine will be in the area of sustainment lift.

The diagram on page12 provides a graphic display of the difference between UE Surge lift requirements and Sustainment Resupply lift

requirements as they relate to time phasing. Note that a primary source of shipping for the Surge Requirement is the government Ready Reserve Fleet (RRF) and a primary source for the Sustainment Requirement is the US privately owned fleet. In chapter I the "shortfall" referred to in both the DoD Sealift Study and Commission on Merchant Marine and Defense studies was in SURGE lift, the very area of sealift that the Navy has been building up with the RRF.

SOURCES of SEALIFT

In 1936 it was envisioned that the primary source of sealift would be the private Merchant Marine. The realities of current merchant marine limitations to transport large amounts of unit equipment during a surge have forced a shift in government policy to include government sealift resources, as well as those of the private sector. This policy shift from the 1936 National Maritime Policy first appears in the new National Sealift Policy signed by President Bush .

> Sealift is essential both to executing this country's forward defense strategies, and to maintaining a wartime economy. The US national sealift objective is to ensure that sufficient military and civil maritime resources will be available to meet defense deployment, and essential economic requirements in support of our national security objectives.[4]

When considering the availability of sealift, we must consider the availability and utility of all 6 primary sources of strategic sealift available to meet national defense requirements. These sources are; Military Sealift Command (MSC), Ready Reserve Force (RRF), National Defense Reserve Fleet (NDRF), US Merchant Marine, Effective US Controlled Ships (EUSC) and Allied Ships. The following diagram denotes each of these sources in the order in which they would be requisitioned for an emergency or mobilization, and where they make the greatest contribution (Surge, Sustainment or Attrition fillers).

SHIP SOURCE	SURGE	SUSTAINMENT	ATTRITION
MSC	++	+	
RRF	+++	++	
US FLG	+	+++	
EUSC		+++	
ALLIES	+++	+++	
NDRF			++

1. Military Sealift Command (MSC) Controlled Shipping

+ Currently MSC has 22 Common User Ships (9 Dry Cargo & 13 tankers) on long term chartered from commercial US Flag Operators dedicated to transporting military cargo and petroleum from point to point on a full time basis. These ships are usually at sea, but are available to support military contingencies and emergencies.

+ The 8 Fast Sealift Ships (FSS) owned by the Navy are maintained on a 4 day readiness criteria with reduced civilian crews. They represent our most rapid response and militarily useful sealift capability. The ships were originally built for Sealand Corporation as very fast containerships capable of 33 knots. However, when the fuel costs increased to a level they were no longer economically viable to operate commercially, and were sold to the government. The Navy then converted them to a Roll-On/ Roll-Off configuration to facilitate rapid loading and off load of Army vehicles and equipment. A combination of all 8 ships are capable of lifting the equipment of one mechanized division.

+ There are 12 PREPO Ships administratively loaded with vehicles, tanks, munitions, fuel, and water for the Army, and Air Force. The ships, owned and operated privately under long term

charter, are located in the vicinity of Diego Garcia, Subic Bay, and the Mediterranean Sea. There are 8 dry cargo ships and 4 tankers. The concept was originated as an interim measure in 1980 to facilitate force projection into the Indian Ocean. Today they represent a significant forward presence in an area (Middle East) where land storage facilities are limited.

2. The Ready Reserve Force (RRF) is a quick response, government owned, merchant marine reserve fleet maintained by the MARAD to meet SURGE SEALIFT requirements for contingency and mobilization. These 95 ships bought from US and foreign private operators are highly militarily useful (breakbulk, barge & RoRo) ships and are maintained in an inactive preservation status with 5, 10 & 20 day activation status. Upon activation notification they will be broken out, manned, and operated by private contractors. This fleet of ships represents a significant sealift resource in a type of shipping lacking in the active Merchant Marine.

3. The National Defense Reserve Fleet (NDRF) established by the Merchant Shipping Act of 1946 placed all unsold WWII ships in an inactive reserve fleet. Many of these (162) ships are older and date back to WWII Victory Ships. For the most part the machinery and power plants on them are obsolete, making it difficult to find spares and knowledgeable crews to operate them. They will require 30 to 60 days for activation, and for the most part will replace attrition losses and/or replace active vessels taken out of the commercial trade.

4. US Privately owned Merchant Marine in Oceanborne Trade: The US Fleet consists of 279 oceangoing ships available for volunteer charter by the government at any time. By law they represent our primary source of shipping, but in reality their numbers and military utility are declining. Operators who receive subsidy assistance in the form of either Operational Differential Subsidy (ODS) or Construction Differential Subsidy (CDS) have agreed to participate in the Sealift

Readiness Program, which means their vessels can be requisitioned on a 20% w/i 10 days, 30% w/i 30 days, 50% w/i 60 days schedule.[5]

5. Effective US Control Ships (EUSC) : There are 109 militarily useful US owned ships registered outside the US under - "flags of convenience" - such as Liberia, Panama, Honduras and the Bahamas. Flags of convenience nations provide a favorable financial arrangement under which operators of all nations are allowed to register their ships without restrictive national codes, and regulations. The registration laws of these nations do not preclude nor restrict US ship owners from supporting US military needs. These ships are mostly large tankers or bulk carriers operating primarily in the international bulk trades. There are only 19 militarily useful dry cargo ships and 10 passenger ships. Considerable debate has ensued over the reliability of planning for the use of these ships for military operations because of their staffing by foreign crews. The debate as to whether these ships will be available or not is beyond the concern of this paper, except to point out that EUSC shipping has successfully supported US and foreign military operations in the past.

6. Allied Ships have been earmarked and promised for purposes of reinforcing both Europe (461) and Korea (31) respectively. This is a dependable source of sealift when reinforcing these theaters of operation.

Summary

The US Merchant Marine is an important and unquestionably reliable source of strategic sealift. Additionally, it is the most cost effective source of sealift since the private sector purchases, crews, and maintains the ships in peacetime. However, the realities of the reduced numbers and limitation on utility of the US Merchant Marine Fleet dictates that military planners consider other sources of sealift in conjunction with the US Fleet to meet Surge and Sustainment Lift Requirements. The US Merchant Marine role in national security

needs to be re-assessed not from the role envisioned by the drafters of the 1920, 28 & 36 Merchant Marine Acts, but from the perspective of current economical and political realities.

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1. US Maritime Commission, Economic Survey of the American Merchant Marine, Washington, 1937, p. 9.
2. Fraze, Franklin, Maritime Logistical Support - Can We Sustain Our Armed Forces?, AWC Study, 1972, p 38.
3. Transportation Institute, Analysis of the Direct Impact of the Merchant Marine on National Security, Washington, DC, May 1976, p 4-1.
4. NSC, National Sealift Policy, 1990.
5. Fraze, op cit p. 7.

CHAPTER III

Prospective of the Merchant Marine

> We have come to today to the end of our once magnificent armada of 2500 vessels launched in the mightiest shipbuilding program of history, but only a few hundred aging specimens remain. Soon these remaining few will be incapable of service. Then unless some means of replacing these vessels can be found, the great endeavor of the US at sea, so far as the subsidized lines are concerned, will be at an end.[1]
>
> United States Maritime Commission
> 1937

This quote made in 1937 describes the condition of the US Merchant Marine 20 years after a massive wartime construction program that left America with one of the world's largest fleets. Interestingly, it has a parallel connotation to the following more recent statement by the Commission on Merchant Marine and Defense:

> The commission has found a clear and growing danger to the national security in the deteriorating condition of America's Maritime Industries.[2]
>
> Commission on Merchant Marine and Defense
> 1987

These statements made 50 years apart both describe the terrible condition of the US Maritime Industry, a condition that with the exception of WWII has existed for years, despite legislative concern,

protective laws, and support programs. Today as in 1904, 1920, 1936, and 1970 there is again a swelling of public support and rhetoric for the government to initiate actions to save the US Merchant Marine as a matter of national defense. To assess where we are going, we must first assess where we have been. We need to understand the problems that have plagued the industry and learn from past actions and/or inactions. To do less is to do more of the same; by fixing the symptoms and not the cause.

People like to think of America as a maritime nation. Certainly during the colonial period and the emerging years of the nation, it was. Colonists and early settlers, for the most part, emigrated from European maritime nations, and brought with them sailing and ship building skills. As a result, shipbuilding and sailing evolved into a major basic industry for reasons that will be explained later. Yet, today the merchant marine industries of the United States represent an insignificant portion of our GNP as the result of years of decline. What happened?

This chapter presents a perspective of how the industry has been in decline for 130 years with the exception of the two world wars; provides insight into why and to what extent the government has injected itself into this industry; and shows how politics and parochial interests have crippled and hindered needed change to merchant marine legislation .

The MERCHANT MARINE

The US Merchant Marine expanded with the young nation in the early 1800s, experienced a golden era of prosperity by the mid 1800s, and had declined as a commercial industry by 1900.

GROWTH

As early as 1778 the well being of the industry was of concern to the government. "The first act of the new Congress was a protective tariff placed on imported goods. In order to help US citizens, a 10% reduction on duties was allowed on imported goods carried in US ships"[3]. Additionally, port taxes were discriminatory for US built and operated ships with the following tariffs;

US built and owned ships.....6 cents per ton
US built and foreign owned.....30 cents per ton
Foreign built and foreign owned.....50 cents per ton

The effects of these protectionist advantages which were prevalent in one form or another among most maritime nations, coupled with 20 years of European wars, facilitated the growth of the US Merchant Marine. Growth in US foreign trade and the percentage of the total carried in US ships between 1789 and 1828 is as follows:

YEAR	TONNAGE	% OF TOTAL
1789	123,893	23.6
1792	411,438	64
1800	667,107	89
1808	765,252	90.5
1816	800,760	70
1824	636,807	91.2
1828	757,998	88.9 [4]

In 1818 to further assist the Maritime Industries, Congress passed the Navigation Acts that required that US Flag ships be US built, and reserved all coastal traffic (referred to as Cabotage Trade) for US shippers. The concept of reserving of Cabotage Trade for US shippers has survived as a major part of current US maritime policy. The requirement to build US to flag US has changed but remains for ships

to be eligible for subsidy and cabotage trade. The most significant effect of this long standing legislation has been to tie the ship operator's success to the shipbuilder's international competitiveness.

PROSPERITY

By 1828 the US Merchant Marine Industries was prospering and the country was interested in extending trade and commerce possibilities. Reciprocal Treaties were negotiated with several other countries which established comparable taxes and duties for US ships with those of the treaty nations. In essence we wanted equal trade access, a forerunner of the "free trade concept".

The period from 1830 to the 1860 was the high water mark of America's maritime industry. It was a time of growth of commercial trade nurtured by world peace and a semblance of free trade. A large portion of US trade was carried in foreign ships, but conversely there was more commerce of other nations for us to carry. It was also a period of major developments and changes which would alter the destiny of the US as a maritime nation. These were:

1. Growth of US foreign trade
2. Advent of steam power
3. Beginnings of iron and steel ships
4. Era of the Clipper Ship
5. First attempts at government subsidies
6. Evolution of "Packet Shipping Lines"
7. Preoccupation with domestic industry development

The amount of foreign trade markedly increased during this period and the percentage carried in US ships remained high.

YEAR	TONNAGE	% OF TOTAL
1848	943,307	81.7
1850	1,439,694	72.5
1854	2,151,918	70.5
1858	2,301,148	73.7 [5]

DECLINE

The US Merchant Marine was predominantly owned by Northerners and became the target of a few very effective southern privateers during the Civil War. Shipping was raided in the Atlantic, Indian, and Pacific Oceans with such success that foreign shippers found the risk of cargo loss too high to use US flag ships. Motivated to protect their investments, operators sold ships or transferred their registry to foreign nations. The result was a decline in the US fleet by nearly 33%.

With the end of the war, a vengeful congress in 1866 " enacted a law providing that vessels transferred to foreign registry during the war could not be re-admitted to US registry".[6] This legislative action coupled with actual war time losses and rising US ship construction costs fueled the impending decline of the US Merchant Marine.

Failure in 1870 of the ship operators to obtain change in the Navigation Act to allow Americans to purchase and register foreign built ships was a major contributor to the economic decline of the merchant marine. Operators forced to buy expensive US built ships could not profitably compete in the international market place. Additionally foreign governments were subsidizing their national fleets making it even more difficult to compete since the US government largely ignored the merchant marine during this time and focused its attention on developing the continent. Private investment was diverted to more lucrative domestic industries. As a result by the end of the century the size of the fleet had significantly

declined, most of the foreign trade commerce was carried on foreign ships, and the shipbuilding industry was near collapse.

The following diagram supports the premise that the end of the Civil War was the beginning of the US Merchant Marine Decline from which it has never recovered. The problem was that the fleet found it more difficult to compete in the international market due to government restrictions and protectionist practices that favored the steel industry. Additionally there were few US Government incentives similar to those offered by other nations to help the industry. This first decline was the result of economic factors effecting the industry.

YEAR	TONNAGE	% OF TOTAL
1860	2, 379, 398	66.5
1867	1, 515, 648	33.9
1871	1,363 652	31.8
1875	1,515,598	26.2
1900	816,795	9.3 [7]

CAUSES FOR THE DECLINE

A review of the causes for the decline of the US Merchant Marine between 1860 and 1900 is worthy of consideration because they provide an insight into the economic factors that have plagued the industry.

1. The British Flag ship operators lost international shipping market share and their fleet declined during the early 1800's due to the British Navigation Acts which had been intended to protect the Maritime Industries. It had the opposite effect on the ship operators who were required to buy more costly British built ships. The Act

was repealed in 1849, allowing British ship operators to purchase ships at a world competitive price. Additionally, their shipbuilders, no longer protected by tarrif laws, were forced to become innovative.

2. British shipbuilding refined the technology for construction of steam and iron ships, and took the shipbuilding cost advantage away from wood shipbuilding yards in the US.

3. The young US steel industry was a protected industry and shipyards were forced to buy steel at prices higher than the international market. Unable to compete in the steel and steam shipbuilding market, emphasis was placed on perfecting the Clipper Ship. Thus, the absence of low cost steel inhibited the conversion from sail to steam and wood to iron of the US Fleet, giving England a competitive advantage in the international shipping market.

4. Late start in organizing steam ship liner companies gave foreign companies an experience and organizational advantage in the commercial market place.

5. US ship operators linked by law to the US shipbuilding industry had higher capital investment cost than their competitors. Ship owners began to invest in foreign built ships and registering them under foreign flags. It is interesting to note that despite the decline and diversion of American investors many US ship operators remained in business although many were outside of the US Flag Fleet. "By 1901 the number of bottoms controlled by Americans under foreign registry was a full 75% of that of the entire American flag fleet engaged in foreign trade."[8]

6. Failure of the US government to provide subsidy support comparable to other foreign governments.

7. Better potential of profits lured investment and manpower to continental and domestic industries.

8. Sinkings during the Civil War, as well as a vengeful law restricting the return of US ships registered under foreign flag during the war to return to the US Fleet. This legislative act was motivated by rivalry and jealousy within the industry that was counter productive to the well being of the whole industry. Similiar vested and parochial interests are still prevalent today and contribute to the destruction of the industry.

RENEWED NATIONAL INTEREST

Concern for the deplorable condition of the merchant marine was aroused when national defense and diplomatic needs could not be supported sufficiently by the US Fleet. The first situation was the Spanish American War followed closely by President Roosevelt's desire to sail the "Great White Fleet" around the world. The lack of sealift became a matter of national pride, as Congress took legislative action to enhance support to the merchant marine. The 1902 Maritime Act provided for enhanced cargo reservation for US ships of all military cargo going overseas, and an extension of the Cabotage Laws to include overseas territories with the exception of the Philippines.

However, this Act did little to rebuild the merchant marine, and with the advent of WWI the nation was still 90% dependent on foreign shippers primarily British, French, and German. Sudden wartime shipping shortages initially paralyzed US foreign trade, and lead to the 1916 Shipping Act which provided for the ultimate construction of 2,300 merchant ships by the government.

At the conclusion of WWI President Wilson was convinced that world freedom was only possible if the US assumed a world leadership position founded on power and world prestige with a strong national merchant marine to provide economic flexibility and diplomatic presence in the world. "Shipping was to assume a significance

beyond ordinary economics as an arm of the nation's foreign policy, and as an ingredient of its national security".[9] This shift in focus clearly stated in the preamble of the Merchant Marine Act of 1920 has endured with some modification to current day;

> Be it enacted... that it is necessary for the national defense and for the proper growth of its foreign and domestic commerce that the United States shall have a merchant marine of the best equipped and most suitable types of vessels sufficient to carry the greater portion of its commerce and serve as a naval or military auxiliary in time of war or national emergency, ultimately to be owned and operated privately by citizens of the United States; and it is hereby declared to be the policy of the United States to do whatever may be necessary to develop and encourage the maintenance of such a merchant marine....
>
> Pre-amble of 1920 Merchant Marine Act

Incumbent in the act were provisions for: turning over the operation of the government fleet to private operators; establishment of essential trade routes; sale of government ships to operators; and regulatory and management powers assigned to the government Shipping Board. At this point in the history, the government took unprecedented steps to "inject itself forcibly into the commercial shipping business," an association it has not relinquished even to the present day.[10]

Success of the program was short-lived as other countries were also interested in expanding their national shipping. Economic incentives for expanding the national fleets were superceded by political, national defense and international prestige interests. This was particularly true of Germany, Italy, and Japan where shipping served national interests. Expansion of these and other non-British fleets (world's largest) without a decline in the British Merchant

Marine led to a worldwide excess of shipping tonnage and a slump in the industry.

Despite the reintroduction of mail subsidies with the Merchant Marine Act of 1928, US operators could not generate sufficient revenue to replace less efficient older ships. "As late as 1934, 220 of 282 subsidized ships were of WWI origin."[11] By 1936 the industry was near collapse.

The government, determined to stand behind the concept of maintaining a robust US Merchant Marine, enacted the Merchant Marine Act of 1936, which reaffirmed previous maritime legislation and provided for direct operating and construction subsidies. It was a comprehensive legislative affirmation of the government's maritime intention emanating from President Wilson's belief in the need for greater US world prestige and leadership. It reaffirmed and strengthened previous maritime policy, provided for direct operational and construction subsidies, eliminated the badly managed mail subsidy program, and did away with the Shipping Board by creating a new Maritime Commission. The 1936 Act reaffirmed US Maritime Policy:

> ... it is necessary for national defense and development of foreign and domestic commerce that the US 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 at all times, (b) capable of serving as a naval and military auxiliary in time of war or national emergency, (c) owned and operated under the United States in-so-far as may be practicable, and (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. 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.[12]

The new Maritime Commission's perspective of the shipping industry in 1937 was as follows:

> Shipping... is not a business in the usual sense of the word. It is, so far as the US is concerned, an instrument of national policy, maintained at large cost to serve the needs of commerce and defense.[13]

There is no evidence that this experiment with semi-nationalization of the maritime industry prior to WWII resulted in any growth to the fleet. The war, however, catapulted the US fleet ahead of all others quadrupling its size so that by the end of the war the US Fleet represented almost half the world's merchant tonnage.

During the post war years more than 2000 government built and owned ships were sold off to both US and foreign operators. During the first years there was plenty of cargo for US ships especially with the Marshall Plan reserved government cargo. Yet, with time, the old systemic problems of higher operating and construction costs coupled with US owners shifting ship assets to "flags of convenience registration" precipitated a rapid decline between 1948 and "69. The following chart depicts the declining percentage of US foreign oceanborne trade carried in US ships.

1947	1951	1956	1961	1966	1969
58%	40%	21%	10%	7%	5% [14]

Again national concern over the state of the US Merchant Marine and its declining ability to meet expectations in commerce, national defense, and international prestige gained public support. Congress responded in 1970 with the most comprehensive Merchant Marine

Act since the 1936 Act. It reaffirmed and enhanced the provisions of the '36 Act providing for:

1. Continued link between shipbuilding and ship operators. (There had been an unsuccessful attempt to de-link the two)
2. Expanded the Construction Differential Subsidy (CDS) to 50% of cost in hopes of building 300 ships over a ten year period. (Effort was thwarted in 1973 by the oil embargo which led to excess tanker shipping capability in the world.)
3. ODS & CDS were expanded to non-liner shipping. (effort was too late to effect any significant change in the fleet)
4. The Capital Construction Fund (CCF), a tax deferral fund of profits used for construction of new ships was expanded.
5. Guaranteed Loans were expanded.
6. R&D was expanded.
7. A wage indexing system was introduced to check run a-way government subsidized crew wages.

The programs of the 1970 Merchant Marine Act were moderately successful in that US flag ship tonnage in both the liner and tanker trades did increase. However, this growth did not keep pace with the expansion in US foreign trade as evidenced by the decline in percentage of foreign trade carried in US bottoms.

1970	1975	1979
5.3%	5.1%	4.2%

The 1970 Act corrected some of the ills of the '36 Act and infused new government money into the subsidy programs. However, it did not represent any new thinking nor did it rid the industry of the systemic problems that have plagued it for100 years. Government assistance has addressed the symptoms of the decline (high labor

cost, high ship construction costs), but have failed to politically change the laws that caused the problem.

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1. US Maritime Commission, op cit., p 79.
2. Denton, Jeremiah A., First Report of the Commission on Merchant Marine and Defense: op cit, p 1.
3. Ibid, p 14.
4. Ibid, p 16.
5. Ibid, p 23.
6. Ibid, p 24.
7. Ibid, p.26.
8. Safford, Jeffery, Business History of Shipping, The US Merchant Marine in Foreign Trade, 1800-1939, Fugi Japan, 1984, p. 100.
9. Ibid, p. 108.
10. Ibid, p. 108.
11. Ibid, p. 112.
12. Office of Manpower and Budget, OMB Staff Review of Maritime Program and Policy, Washington, DC., May 3, 1982 p 16.
13. Saffort, op cit, p 113.
14. OMB., op cit, Part 1, p 3.

CHAPTER IV

SEALIFT DILEMMA

> Although the foreign trade of our country has expanded considerably in the past three decades, American flag ships with few exceptions have not carried the substantial portion of the waterborne export and import foreign commerce of the US, declared to be desirable in the Declaration of Policy in the Merchant Marine Act of 1936 and as amended.[1]
>
> United States Maritime Administration
> 1952

The Maritime Administration's concern in 1952 was over the rapid decline in percentage of foreign trade being carried in US ships since the end of WWII. At that time US shipping was carrying in excess of 35% of the foreign trade while today less than 4% is carried in US bottoms. Our declared National Maritime Policy, since 1920, of maintaining a robust national merchant marine to carry a "large share" of the foreign commerce and "serve defense interests" in war and national emergency has not materialized. Extensive rejuvenated legislative support, subsidies and programs have had short lived successes. Thus, this 38 year old statement is even more relevant today.

Today there is again renewed public support for governmental assistance for the merchant marine. This time support is based almost solely on national defense concerns.

In 1984 the Commission on Merchant Marine and Defense was chartered by Congress to determine if national defense is a valid

rationale for maintaining a US merchant marine. The commissioners focused their study on, "the problems within the industry as they relate to transportation of cargo and personnel for national defense purposes in time of war or national emergency".[2] They advocated: the maintenance of adequate ships, seamen, and shipbuilding and ship repair capability to support for military purposes; previous legislated support programs should be maintained and enhanced; the government should build ships as was done in the previous two world wars and lease them to private operators; and both the government and private sectors need to become more efficient in the management of the fleet.

Their findings were:

- that there is a clear and growing danger to national security due to the deteriorating condition of America's maritime industries;
- that the capacity of the U.S. Flag Merchant Marine to respond to strategic sealift needs is marginally adequate and inadequate when utilizing only our US resources to execute a major deployment in a contingency operation to a single theater;
- that the decline of the US Merchant Marine has been paralleled by a similar decline in the size of the merchant fleets of our most important allies upon whom we rely for sealift support;
- that U.S. ship types are becoming less militarily useful (tankers too large for contingency ports; container cargo ships which are incompatible with bulk military equipment);
- that the U.S. Flag Merchant Marine has declined from 843 ships in 1970 to 369 oceangoing ships in 1987;
- that automation and containerization of shipping will decrease the number of seagoing billets by 50% by the year 2000 resulting in a projected deficit in trained personnel to meet mobilization requirements at over 12,000;
- that between 1982 and 1986: 76 shipyards, 22 building ways, 17 floating bay docks were closed, 65,000 workers furloughed;

+ that 90% of shipyard work is navy contract and that no merchant ships are being constructed in the US.

Due to the composition of the commissioners, several with direct interest in the well being of the industry, their findings were not surprising.

Their recommended legislative actions included:

+ Declaration of Maritime Policy. (accomplished with the recent signing of the Sealift Policy)
+ Continue Operating Differential Subsidy program
+ Institute an 11 billion dollar Build and Charter Program (would provide the fleet with new ships, yards with work, and crew jobs)
+ Continue and enhance Federal Ship Mortgage Insurance
+ Continue and enhance Capital Construction Fund
+ Reinstate Investment Tax Credit
+ Expand and enforce Cargo Reservation laws
+ Support expanded Jones Act Trade restrictions
+ Invest in Research and Development Programs
+ Reform manning statues and requirements

The Commission's findings and recommendations represent a "more of the same" approach, in that their plan of corrective action is a costly omnibus approach that builds on previously tried and largely unsuccessful programs and legislative subsidies.

Their approach is representitive of most governmental, political and maritime industry leaders. The commission's reports were followed on 16 March 1989, by a Senator Breaux and Senator Inoye co-sponsored bill designed to "further the development and maintenance of an adequate and well balanced American Merchant Marine".[3] In

essence their proposed bill reaffirms the intent of the 1936 Merchant Marine Act, supports the findings of the Commission on Merchant Marine and Defense and proposes the establishment of a National Merchant Marine Policy Council.

The bill is representative of most rhetoric today: ...government support as usual or more of the same...

Continual adjustment to old support programs holds little promise of bettering the US Merchant Marine situation. They have been tried and proven only to prolong or control the inevitable decline of the industry. A bold new approach, new thinking, and breaking of paragons is needed. However, change in approach to the solution is unlikely to occur because of direct vested government bureaucratic involvement in the industry supported by a patchwork of laws and regulations which are held in check by political interests and parochial in-fighting. The Sealift Dilemma is not the declining strategic sealift capability of the merchant marine, but rather our inability to implement change to correct the situation.

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1 US Maritime Administration, Participation of the US Flag Ships in American Overseas Trade 1921-1951. Washington, DC, June 1972, p i.

2. Denton, Jeremiah A., First Report of the Commission on Merchant Marine and Defense: op cit, cover letter.

3. Breaux, Senator, Proposed Congressional Bill S631, US Congress Washington DC.

SUMMARIZATION

It would be extremely desirable for the United States to have a strong robust merchant marine that could contribute to both the economy and the security of the nation. This has been the government's goal dating back to when President Wilson envisioned the US assuming a world leadership position with a strong national merchant marine to provide economic flexibility and diplomatic presence in the world. Efforts in that direction have included legislative actions in 1920, '28, '36, '54, '70, and '84 all of which were well intended, but short on success. The reasons these programs have not met expectations may be the result of the fact they are focused on the symptoms of the decline rather than the causes. Therefore, although initially intended to promote the industry, they evolved toward only preserving it.

As a nation we have allied ourselves through legislative actions with the US Merchant Marine as our primary source of defense sealift and auxiliary naval shipping. Yet with time, technological change, and an inability to compete in the international market place, the merchant marine has declined as a source of strategic sealift, naval reserve vessels, and as a commercial industry.

It should be evident from what has been presented in earlier chapters, that the government has previously recognized the importance of the US Merchant Marine with regards to national defense, commerce, and international prestige. They have taken legislative actions and allocated government funds in an effort to restore and maintain a robust merchant marine. However, their experiment with semi-nationalization of the merchant marine has not achieved the intended outcome. In fact, the nation has become currently dependent on: foreign shippers to carry better than 96% of our peacetime oceanborne foreign trade; our allies to carry a large percentage of the wartime military requirement; and the

government reserve fleet to carry the bulk of the Surge lift requirement.

The temptation to propose options to fix the merchant marine problem is intriguing, but would be presumptuous on my part due to my limited expertise, especially in light of all the experts who have already tried. However, I would offer the following thoughts for consideration.

1. We need to refocus our attention away from trying to fix the visible symptoms of the decline (ship, manpower, shipyard) and address our efforts on the known but ignored causes of these declines (outdated laws, regulations, and restrictions).

2. Is the primary purpose of our commercial fleet defense in emergencies and war, or is the primary purpose COMMERCE?! I believe it to be commerce, and we have lost sight of that fact. If commerce is not the primary purpose than we should consider nationalizing the fleet and building ships that meet our military purposes as the Russians do.

3. No other industry in the US is more regulated than the maritime industry. These regulations, although well intended, are outdated and have proven ineffective in either fostering or maintaining a robust US maritime industry. Consideration must be given to de-regulation.

4. The continued proliferation and expansion on past ineffective support programs better serves parochial interests than what is best for the nation. Adustments of these old programs appear to be the most politically palatable options open to Congressional and governmental leaders due to long standing union, shipbuider, and ship operator interests. In essence, we continue with programs that do not work, because it is too hard politically to change them. Therefore, despite the renewed interest in rejuvenating the merchant

marine, the best we can hope for in the future without major change is controlled decline!

5. The private merchant marine has declined as a source of strategic sealift especially with regards to Surge sealift and Naval Reserve vessel requirements due to technological changes in shipping. This fact needs to be openly accepted by proponents of the industry so as to eliminate the popular misconception that fixing the merchant marine also "fixes the defense sealift problem".

The reasons for the deterioration of the US Merchant Marine are complex and deeply rooted within governmental policies and programs, as well as the vested economic and political interests of those involved. There is little agreement among those responsible for the well being of the industry on what needs to be done. It is doubtful that these individual segments or interest groups will significantly compromise on their differences to reach an acceptable consensus that will allow meaningful change to existing programs, policies, or regulations.

Any serious attempt to do more than slow the decline of the merchant marine will necessitate a new and dramatic approach to fixing the problem. **It is Time For a Change. Not More of the Same!**

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[1] Skaarup, Ole, The United States Maritime Dilemma, Greenwich, Ct., Feb 1988, p. 7.

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