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THE UNITED STATES MERCHANT MARINE:  
SUPREMACY OR IGNOMINY IN THE 1980'S

James L. Day

Army War College  
Carlisle Barracks, Pennsylvania

25 February 1972

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USAWC RESEARCH PAPER

THE UNITED STATES MERCHANT MARINE:  
SUPREMACY OR IGNOMINY IN THE 1980'S .

A MONOGRAPH

by

Lieutenant Colonel James L. Day  
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Can the United States regain her position of prestige among the maritime nations within the next few years? The position of most of the maritime competitors of the world are discussed and an examination of America's maritime position, assets, and future is weighed. Background was gathered through research and personal interviews with maritime, Navy, and logistics personnel. The possibility of the United States falling far behind other maritime nations of the world poses a serious threat to our national security and economic future. However, it is concluded that the United States can resume its position of world maritime supremacy through an immediate revitalization of its commercial fleet. To do this, the United States must modify present Merchant Marine Acts and maximize additional assistance to American shipbuilders; pursue a viable maritime research program and encourage honest and close cooperation between Merchant Marine labor and management.

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## PURPOSE AND SCOPE

My purpose in writing this article is to reaffirm what has been said many times in recent years concerning the questionable posture of the US Merchant Marine and its outlook for the future. I could not possibly concentrate on every one of the voluminous problems the merchant marine has encountered or created for itself. Therefore, the thrust of this paper will be to focus on limited problem areas with emphasis on background and how we journeyed to the point of deterioration at which we find ourselves today. In addition, attention is devoted to the maritime posture of other nations and in particular, the USSR. The thrust of this paper is that our immediate buildup of the US Merchant Marine must be initiated to ensure an adequate maritime fleet by the 1980s on which to build a supremacy position for decades to come.

## BACKGROUND

The United States Merchant Marine is a vital manifestation of our national power and has been throughout the twentieth century. Our economy, prestige, and national security are affected by the state of our merchant marine. A viable and strong commercial fleet is an economic necessity for our country in peacetime, just as it is a vital requirement for wartime.

With Russia's rapid entry into the world seaways, the United States can no longer accept a deteriorated merchant fleet as a way of life. We can no longer display an apathetic attitude toward our

commercial fleet and rely on the adage of the past that "America and her powerful industrial complex can arise to any challenge if her shores or way of life are threatened." We simply cannot afford that philosophy today.

Three times during this century America has allowed her maritime strength to deteriorate to the danger level; a deficiency which cost us and our allies dearly in previous emergencies. In World War I and World War II for example, England was capable enough to deny the enemy access to our shores while we prepared for war. However, they paid an exorbitant price for this denial. Many major campaigns of both wars were delayed because needed shipping was not available.<sup>1</sup>

#### US-USSR CONTRASTS

Today, emerging from one of the longest and most difficult wars in our history, the US finds itself not with a surplus of emergency constructed shipping such as we had at the end of World War II, but with an obsolescent, over-aged mercantile fleet. For the most part, the majority of our present shipping is rapidly reaching its retirement age, or has already passed that point. An abrupt reanimation of our merchant marine is essential if we are to compete with other maritime nations and rejuvenate our commercial shipping and resume supremacy of the world's merchant seaways.

Today, the US Merchant Marine policy has reached its hour of decision. In 1946 the US Merchant Marine transported nearly 58 percent of the nations foreign water-borne commerce.

Today it carries approximately six percent of that same commerce.<sup>2</sup> This almost unbelievable decline can be partially placed on our selling 1100 World War II built ships to foreign nations following the war. In addition, 750 ships were transferred via the foreign registry route to other nations.

Each ship sold or transferred meant a ship lost to the US flag. Each selling or transfer meant a crew lost, abridged income from shipping, tax income reduced, and the general economy correspondingly weakened. The loss of monies overall in these transactions, has directly affected the position of our maritime arm today. Income from these ships could have gone into technology and a newer, more efficient merchant marine. Thus, the receiving countries have become competitively stronger and have forced US participation in foreign commerce to deteriorate.

Three years ago, President Nixon in a speech to Congress, stated that "We should progress from building ten ships a year for the next ten years to a more realistic goal of 30 ships a year."<sup>3</sup> This is a start, however, barely a start for if we construct only 30 ships a year for the next ten years we will not even hold our own in the maritime race. As an example, the Soviets spent over \$600 million in 1969 to construct nearly 450 merchantmen. During the period 1962-1969, Russia constructed nearly 3000 merchant ships to our 413.

The Soviet's pursuit of world maritime domination by rapidly expanding her merchant marine is progressing at a speed unequalled in anyone's memory. Her influence is being felt heavily for the

TABLE 1<sup>4</sup>

OCEAN GOING MERCHANT TYPE VESSELS CONSTRUCTED  
DURING 1962 THRU 1969 OF 1000 TONS AND OVER

| Country | Number<br>of Vessels | Deadweight<br>Tons | Average Annual Expenditure<br>in Millions \$ |
|---------|----------------------|--------------------|--|
| US      | 413                  | 8,355,000          | 100  |
| Russia  | 2,869                | 25,484,000         | 675  |

first time in all parts of the world. Table 1 is an example of the Soviet's relentless efforts to achieve maritime domination. Certainly, each Soviet ship operating any place in the world can be regarded as an extension of her empire. The Soviet's progress in the maritime arena as contrasted with the apathy manifested by the US toward its merchant marine during the past 25 years is ample cause for concern.

Contrary to what we have felt would be their national strategy since the end of World War II, the Soviets have not employed their armies alone to achieve their sphere of influence. Instead, a significant percentage of their thrust for power has been shifted from the ominous threat of her army to the economic inroads gained by the Soviet merchant marine.

The Soviet's aggressive emphasis of their intent to dominate the maritime sea lanes is supported by their Minister of the Merchant Marine, Mr. V. G. Bakayev's speech in 1967 which is quoted as follows:

The activities of sea transport, more than any other form of transport, are closely linked with the international, economic, political, and

military situation which may arise in a given part of the world, or on the world sea routes, or in individual countries.<sup>5</sup>

To reinforce the Soviet's intent to attain world maritime supremacy, consider that in 1949 the US merchant fleet outnumbered the Russian fleet by a ratio of eight to one. By 1970, the Soviet fleet had surpassed that of the US.<sup>6</sup> Their pursuit of that goal has not deviated since its inception in the early fifties. Certainly the task of the USSR to attain a formidable commercial shipping position in the world was far more difficult than ours. Russia had just emerged from her most costly war in history. Her industry was directed primarily toward strengthening her military, and rebuilding her basic national functions which at that time did not include a merchant marine. In addition, as compared to the American maritime service, Russia's merchant marine was non-existent. She had never occupied a prominent maritime position, being extremely limited because of a lack of year-round ports and harbors. The last above, makes Russia's prominent and challenging entry into the competitive maritime field a spectacular feat in itself. At the same time, the United States at the end of World War II possessed the world's most powerful and dynamic industrial capability; a large percentage of the world's technological talent and a merchant fleet that had no equal. How did we use these talents, capabilities, and resources to solidify our strength and economy? Examining our Merchant Marine posture today one would have to assume that the answer to the above question would be, ignominiously.

## LEGISLATIVE LIFT TO MERCHANT MARINE

As paradoxical as it may seem the decline of the US Merchant Marine has occurred during a period when worldwide requirements for ocean transportation have been increasing. Additional trade requirements can be anticipated because of present world tensions; the emergence of new nations and their vast need for outside resources; and the evident decision of the Peoples Republic of China to alleviate the strain with the West and adopt a new import/export posture.

Many writers, especially military, have presupposed that the need for a strong merchant marine, although desirable, is not as urgent as in past years. They go on to cite the advent of the "super" air carriers with jumbo carrying characteristics and fast delivery and turn-around capabilities. However, over 96 percent of all cargo delivered to Vietnam during the period 1961-1970 was delivered by sealift.<sup>7</sup> I agree that there is an important function that can be carried out by airlift forces but in no stretch of the imagination can these functions be compared to what sealift delivery can accomplish economically or in mass.

After too many lethargic years, an awakening has taken place within the American community that their merchant marine is in a deplorable state. A stronger ocean posture has been advocated by members of Congress, influential Navy leaders, and prestigious fraternal societies. Their "drum-beating" for the maritime industry

has been in effect for quite a few years and has recently picked up impetus.<sup>8</sup>

In 1934, the incumbent federal administration acknowledged the ailments of the Merchant Marine Acts of 1920 and 1928 and drafted new legislation which eventually became known as the 1936 Merchant Marine Act. This act, although not considered a panacea for the US commercial fleet, nevertheless, did prescribe a partial remedy. Although generally constructed to foster the development and encourage the maintenance of the merchant marine, the primary intention of the 1936 Merchant Marine Act was to ensure little or no dependence of the US upon foreign shipping during national emergencies or war.<sup>9</sup> In addition, the act directed that the US Merchant Marine shall be:

- (a) sufficient to carry its domestic waterborne commerce,
- (b) sufficient to carry a substantial portion of its waterborne foreign commerce,
- (c) sufficient to provide shipping service on the essential trade routes for maintaining the flow of domestic and foreign waterborne traffic at all times,
- (d) capable of serving as a naval or military auxiliary in time of war or national emergency,
- (e) owned and operated under the US flag by US citizens, insofar as practicable,
- (f) composed of vessels constructed within the United States,
- (g) manned by US citizens, and

(h) serviced by efficient American-owned facilities for construction, repair, and insurance.

Unfortunately, World War II was upon us before the 1936 Merchant Marine Act could be even partially implemented and the US was caught desperately wanting for shipping to carry out its war needs. By the end of hostilities in 1945, the US had built a staggering total of over 5,000 merchant ships and ranked first in the world's ship production.<sup>10</sup> By comparison, in 1971 the US produced only 482,329 tons of merchant shipping ranking us 13th in world construction. Japan led in ship production with an astounding figure of 11,992,495 tons. The Japanese produced almost half of the world's shipping of 24,800,000 tons and her nearly 12 million tons produced surpassed the United States peak World War II production in a single year of 11.4 million tons. Also in 1971, Sweden ranked second in shipbuilding followed closely by West Germany and Great Britain.<sup>11</sup> Russia did not publish her 1971 production figures.

Today the United States cannot meet most of the maritime intentions prescribed in the 1936 Merchant Marine Act.

There are many discussions heard today that the basic philosophy of the 1936 Act is the paramount strangler of the US mercantile fleet. The most vocal of these arguments relates to the paragraph within the 1936 Act which directs that the "US Merchant Marine must be composed of vessels constructed within the United States." A C-5 container ship, the most popular type container ship in the US merchant fleet today, costs \$11.5 million in 1969 dollars to construct within the United States; the same type ship can be built

abroad for approximately \$8 million 1969 dollars.<sup>12</sup> The \$3.5 million savings looks very lucrative to a US shipbuilder, especially now that technology and construction efforts of some foreign countries equal those of the US. Today, the government is paying over \$200 million in subsidies in order to keep shipbuilding construction in US yards. The differential in US/foreign shipbuilding costs would substantially decrease if American shipyards were awarded larger building contracts. Old and nearly obsolete shipbuilding equipment could be replaced by new, more effective equipment, thus saving costs in construction. Today, shipbuilders in the US receive 55% of construction costs in subsidies from the US government as compared to 35 percent in the 1930s.<sup>13</sup> It is estimated that government subsidies can be reduced to 39 percent if US shipbuilding techniques were modernized to equal those of Japan, West Germany, or Russia.<sup>14</sup> Needless to say, the US shipbuilding program must be extremely ambitious to attain that goal.

The principles contained in the 1936 Merchant Marine Act are valid today. Amendments to the original act are forthcoming and should play a vital role in adding vigor to the maritime service.

#### FOREIGN MARITIME AIDS

It is difficult to realize the magnitude of merchant fleets in the world today. At any given time of day, over 20,000 merchantmen from many nations are on the high seas delivering goods to a world population of four billion people which will increase by 100 million every year.<sup>15</sup> Competition between the mercantile fleets

of the world will increase accordingly. The country with the greatest maritime assets will capture the lion's share of this trade. There is no reason why the US should not be able to reap a substantial share of the mercantile expansion.

There are nearly 100 nations which have some sort of maritime fleet. Of the five nations at the top of the list which own merchant fleets; Norway, the United Kingdom, Japan, USSR, and the United States; the United States is the only one which does not go "all-out" to assist her commercial assets.<sup>16</sup>

Norway's shipbuilders enjoy a loan from the government of 30 percent of the cost of construction when that construction is accomplished in a country outside Norway; permits shipping industry to deposit twenty percent of income in a tax deferred fund for four years; capital gains may be placed in special funding areas for new investment purposes and tax free appropriations are granted to ship owners from a special classification fund to be used for major repair costs.

The United Kingdom authorizes ship owners who purchase ships from any source, foreign or domestic, investment grants at the rate of 25 percent of costs incurred; authorizes ship owners to claim depreciation at any rate they choose for each year even if it is the entire depreciation for one ship in one year.

Japan authorizes its merchant marine a tax exemption of three percent on the total shipping services and a five-year moratorium on interest pay merits for shipbuilding loans repayable within 20

years. Russia and her state controlled merchantmen are 100 percent subsidized.

The United States would do well to follow the lead of other free mercantile nations in granting maritime aids such as those covered in the preceding paragraphs to its own merchant marine.

#### STATE OF OBSOLESCENCE

Eighty percent of our mercantile fleet is well over 20 years of age and each year hundreds of ships join this age bracket.<sup>17</sup> As ships reach 20 years of age, the maintenance and repair upkeep costs become exorbitant; modernization is almost impossible because of outdated configuration and power and engineering systems do not produce enough energy to operate antiquated systems economically. Conversely, the majority of the USSR fleet is far less than 10 years of age and enjoys most of the 1960-70 maritime related technology breakthroughs, permitting their fleet to operate further from home, on a speedier timetable and more economically.

The average crew size on a ship 15-20 years old is 47 officers and men at a cost in salary of \$2400 per day. But a ship built during the past ten years of comparative size takes a crew of only 27 officers and men and their wages are \$1450, a savings of \$950 per day.<sup>18</sup> Multiply this factor by speedier voyages and more efficient, rapid unloading and loading service and you arrive at a substantial savings.

## MODERNIZATION AFFECT UPON LABOR

Naturally the maritime unions oppose too much modernization and automation which creates the causative agent of unemployment. However, if as needed, an energetic shipbuilding program is instituted and followed, unemployment will not materialize for ships' crews. Even though crews would be reduced an average of 20 men, the increased number of ships would compensate for this loss.

Longshoremen are a different story. Redesign of cargo handling techniques in order to permit maximized efficiency is going to greatly reduce the requirement of stevedores. Compensatory programs such as early retirement, large severance payments, and/or special retraining in jobs of equal or better pay will have to be initiated. Settlements which are more than equitable can be paid, as the potential dividends of a modern commercial fleet make every effort worthwhile.

Labor and management will always have their differences and one of their main areas of disagreement is the fear of labor that the potential job loss due to modernization of the merchant marine cannot be avoided. Management, on the other hand, has continuously during the past 20 years, accused labor of "sand bagging" their crews. As recently as February 1972 major strikes were tying up installations throughout the Western seaboard causing an estimated daily loss of seven million dollars in revenues.

One of the most important problems to be resolved within merchant marine operations is the development of firm principles

to alleviate or eliminate disputes between labor and management so that the business of developing a sound merchant marine can proceed.

#### THE NATIONAL DEFENSE RESERVE FLEET

Following the end of World War II a large, inactive fleet of government owned merchantmen was formed and designated the National Defense Reserve Fleet. In 1946 this fleet consisted of over 1600 vessels. By 1962 this figure had dropped to 1253 vessels and by mid-1972 their total strength will be approximately 150 ships. By 1975 unless migration occurs from our active merchant fleet, the NDRF will probably cease to exist.<sup>19</sup>

Prior to 1965 and as late as 1968, heavy reliance was placed upon the availability of the NDRF to perform the task of augmenting the active merchant and MSC force in carrying out national waterborne functions. However, the NRDF soon outlived its usefulness and a nation who could not meet its own active maritime responsibilities could hardly be expected to build up a reserve force.

The NDRF is mentioned here very briefly, for the benefit of those who feel we can even now build up our commercial shipping from the National Defense Reserve Fleet which is breathing its last.

#### REANIMATION OF THE MERCHANT MARINE MUST BEGIN NOW

However distressing the merchant marine picture must appear, there is some reason for optimism. For the first time since the decline of our commercial fleet, everyone from the man on the street

through the chief executive seems to be aware of the maritime situation and is concerned.

To augment "Nixon's Maritime Doctrine," total appropriations for 1971 totalled \$350 million which is the largest amount earmarked for the merchant marine<sup>20</sup> during the past two decades. The magnitude of this appropriation alone should entice commercial shipping executives to take "the helm" and start the revitalization process.

Again, in President Nixon's "Maritime Doctrine" speech, the President commented that the US-flag ships should carry 30 percent of this country's mercantile trade. In 1970 our fleet carried only 5.5 percent of that trade but they did transport over 22 million tons of US trade which was an increase, tonnage wise of 17 percent over 1969.<sup>21</sup>

Also in 1971, US container ships (which will be discussed later in this paper) carried 60 percent of the world's container trade. Pessimists may say the container trade is successful only because the US got the jump on other nations in container ship construction. Truer words could not be spoken. We did get the jump on them, through insight, planning and construction. This jump may well be the harbinger of the US regaining world supremacy of the mercantile sea. However, reanimation of our merchant marine and the recognition of the US as the commercial shipping power of the world will be a tough, long process and we will only recognize success through diligence and innovative thinking.

Innovations are being exposed in the maritime field, and the next section discusses some of the resurgent maritime vehicles planned for the US Merchant Marine.

#### THE NEW LOOK

In the early 1960s, US container ships unobtrusively appeared in the world shipping lanes. By 1970 ships carrying the US flag had cornered over 60 percent of the world's container ship trade. It wasn't until 1968 that Russia realized the potential of the container ship and by that time the American container ship was firmly entrenched in its particular type trade. In addition to handling a large percentage of the world's container trade the US ships make a substantial profit in the process.<sup>22</sup> As an example of their effectiveness, thirty container ships delivered the same amount of cargo to Vietnam that 150 breakcargo-type ships did in the same time period.<sup>23</sup>

A gainful by-product of containerization shipping to the war zone was greatly reduced losses due to damage and pilferage. In many instances, equipment or material shipped via container ship can be delivered from the point of manufacture directly to the using unit in a combat zone.

Container ships currently being constructed will carry over 400 containers, reach a speed of 33 knots and have a deadweight of 22,000 tons.<sup>24</sup>

Container ships are ideally constructed to support commercial and military users and little or no face lifting is required to

change from a commercial to a military mission. Different requirements are met through the use of different size containers. Types of containers range from liquid through dry cargo and all are handled with ease and speed.

In addition to facilitated handling, container shipments cost far less than conventional shipping. As an example, the Tracy General Depot in California shipped over 300 tons of material and equipment to Vietnam in eight containers. The total cost of shipment was a little over \$13,000, or compared with a commensurate, conventional type shipment cost of \$22,000.<sup>25</sup>

The container ship looks exceptionally attractive to the military when you consider the speed in unloading by employing the Heavy Lift Helicopter. Cargo delivery from ship to using unit in a matter of minutes can be accomplished.

Another breakthrough in shipping concepts is the Lighters Aboard Ship (LASH). The fundamental concept of the LASH ship is for the mother ship to carry preloaded lighters or barges which can be expeditiously discharged while the mother ship is tied up at an open anchorage instead of being alongside a pier. Immediately following the discharge of her barges, the LASH can take on another shipment of preloaded barges and be on her way. Where inland water ways are available, the barges can be off-loaded and towed to an inland port by-passing the normal congestion prevalent in most harbors of the world. This would be an ideal type of unloading procedure in Vietnam where the LASH could discharge her cargo at

the mouth of the Mekong River which would obviate the necessity of large shipping cluttering up the Saigon port.

Basically, the LASH system of loading and unloading is an extension of the container ship concept. Barges are unloaded from the LASH by crane at 15 minute intervals. A standard LASH ship can discharge her cargo which consists of 58 loaded barges and 30 standard twenty foot containers in less than 15 hours.

The LASH ship can be converted into a container ship in which case she can carry 1498 standard 20 foot containers.<sup>26</sup> However, if the LASH ship does convert to container shipping, she must tie up to a pier to off-load.

The Seabee, another innovation of the Merchant Marine, is similar to the LASH but is one-third smaller than the LASH. The Seabee's discharging techniques also differ from those of the LASH in that the Seabee ship does not use cranes to off-load her barges. Barges are off-loaded from the Seabee ship by an elevator at the stern of the ship.

Roll-on, roll-off type shipping is another method used to accelerate cargo handling and is even more diversified than container ships. The roll-on, roll-off vessel can carry all types of cargo and possesses the versatility of a breakcargo ship and the utility of a container ship in that she can load and unload rapidly, thereby reducing dead time in port.

The multipurpose cargo ship possesses perhaps the most potential of any type ship to ever arrive on the maritime scene. It is a combination roll-on, roll-off and container type ship. It can

carry 45,000 tons and can operate in restricted type ports. Each multipurpose ship can carry the equivalent of four World War II type Victory ships.<sup>27</sup>

All of these ships have been developed for use with the US Merchant Marine of the future. Although the multipurpose ship will need some modification for pure commercial use it does meet the requirements of a sound type merchant ship.

### CONCLUSIONS

The Merchant Marine of the United States is in danger of being left behind in the world's race for maritime supremacy. We have been late to realize that the need for a viable merchant marine exists today far more than ever before. The pivotal era for the American commercial fleet to progress from mediocrity to supremacy and to regain the unchallenged prominence of the mercantile sea is upon us. Now is the time to optimize our maritime production program.

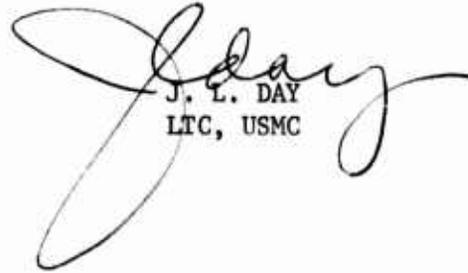
A major face lifting must be embarked upon to assure that the US Merchant Marine is placed on equal footing with its foreign competitors. This will call for extensive changes to existing merchant marine acts and subsequent amendments. American shipbuilders should not be "hamstrung" by inadequate and antiquated laws. Other nations have long recognized the indispensable requirement for federal maritime aid to shipbuilders including: tax exemptions, long range loans, depreciation rates, and cost exemptions.

Reciprocity must exist between the government and maritime labor and management. The latter must ensure that ship complements

are credible in size and that stevedore wages and controlled shipping rates are established which are fair to all.

Continuous technology must be developed to ensure the ability of the merchant marine to stay abreast of ever changing situations.

A revitalized merchant marine capable of returning the maritime supremacy of the world's sea trade to the United States is a reality that can manifest itself within the next few years, if this is what we desire. Ignominy is also a reality which we can attain by simply following our present unambitious course.



J. L. DAY  
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