

How the United States' marine industrial base has declined

by Joyce Fredman

Perhaps the most overwhelming evidence of how a country can erode one of its most necessary capabilities lies in the destruction of the merchant marine. Since 1946, the United States Merchant Marine has dropped from more than 3,000 ships actively engaged in U.S. oceanborne foreign trade to a mere 470 today, of which 100 are inactive. Only 5% of America's trade is currently carried on U.S. flag ships.

This is not simply a question of our economy: America's ability to move thousands of troops and many millions of tons of military matériel in crisis or war, while also sustaining critical economic shipping, is seriously jeopardized. The country's policy was made explicit in the Merchant Marine Acts of 1920 and 1936. The imperative for a "National Defense" was stated. The United States must have a merchant marine that is:

"sufficient to carry United States domestic cargo and a substantial amount of its export/import cargo and to provide shipping service for maintaining domestic and foreign waterborne commerce at all times;

"capable of serving as a naval and military auxiliary in time of war or national emergency;

"owned and operated under the United States flag by citizens of the United States;

"manned with a trained and efficient citizen personnel."

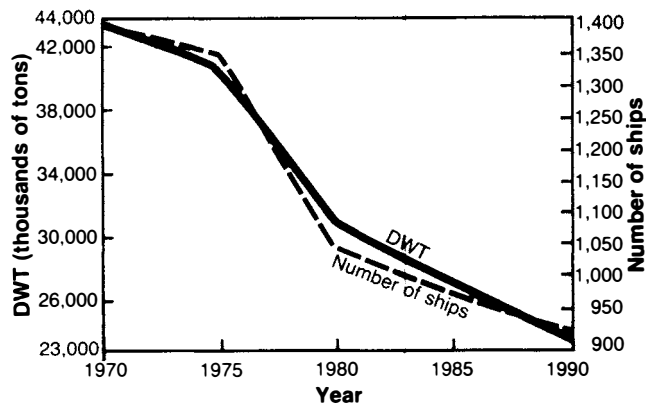
At the end of World War II, the United States possessed the world's largest merchant fleet, comprising more than 3,000 active ships and employing more than 200,000 experienced merchant mariners. The United States now ranks 16th in number of ships, carries 5% of U.S. waterborne foreign trade, and employs fewer than 30,000 active seafarers. (See box on page 21.)

The problems this poses have not been lost on the military. "The continuing threat of entry into the trade by subsidized tankers [foreign flagged] has had a debilitating effect," said Assistant Secretary of the Navy for Shipbuilding and Logistics, Everett Pyatt. "The domestic tanker trade is the primary source of commercial tankers that would be used for carriage of military petroleum in wartime. When that trade is healthy, it provides the Defense Department with tankers for

use in wartime. When that trade is depressed, we must find alternate sources of tanker tonnage. . . . We expect to be buying 20 or more tankers over the next few years at a cost of more than \$200 million, to meet the requirements that cannot be covered by the U.S.-flag dependent estimates of the future of the U.S.-flag tanker fleet indicate that we might have to increase our tanker procurement significantly."

In May 1986, Vice Adm. Thomas J. Hughes, DCNO (logistics) government sources of shipping will be able to provide only about 536,000 short tons of lift capacity for surge deployment. The balance, then, of approximately 434,000 tons, would have to be lifted by commercial U.S. flag and U.S.-controlled foreign-flag ships. However, by 1992, unless some drastic measures are taken, the total commercial lift capacity will be at best 334,000 tons. This means a shortfall of 100,000

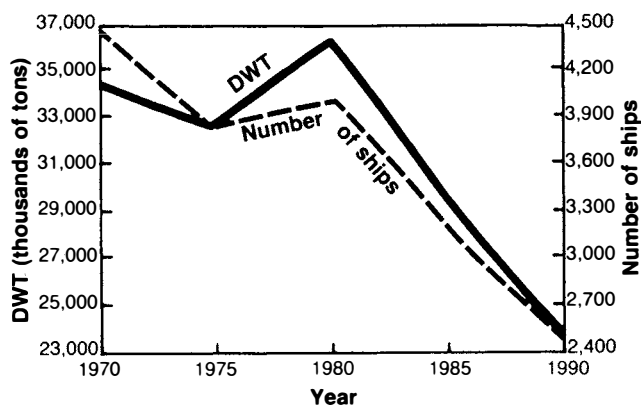
FIGURE 1
Decline in NATO flag fleet militarily useful tankers
(≥2,000 dwt and ≤100,000 dwt)



Source: Strategic Sealift Division, U.S. Navy.

FIGURE 2

Decline in NATO flag fleet militarily useful dry cargo ships



Source: Strategic Sealift Division, U.S. Navy.

tons, hardly inconsequential in time of war.

There are other shortfalls equally as disturbing. In 1977, the U.S. government announced its intention to store 750 million barrels of crude oil in salt domes along the Gulf Coast as a Strategic Petroleum Reserve. The figures as of the end of 1985 were 493 million barrels stored—under two-thirds of the stated 1977 goal.

As of 1984, the Soviet merchant fleet outnumbered the U.S. merchant fleet better than five to one. That was when our commercial vessels numbered 574. As ours have been depleted, the Soviets have increased theirs. Now the ratio is close to 10 to 1 (see Table 1).

The Ready Reserve Force

For reasons of national security, the Maritime Administration of the Department of Transportation maintains the National Defense Reserve Fleet (NDRF) (see Table 2) as a ready source of vessels for use during national emergencies or times of crisis—the so-called mothball fleet. It also assists the U.S. maritime industry in fulfilling its traditional role as the country's fifth arm of defense in logistically supporting the military if needed.

The Ready Reserve Force (RRF) is a select component of the NDRF consisting of vessels which can be activated for sealift operations with 5 to 10 days' notice, as opposed to other NDRF vessels which assume a 30 to 60 day period for activation. As of Sept. 30, 1986, the RRF consisted of only 77 ships, and approximately 140 of the NDRF vessels were over 40 years old.

Shipbuilding

Yet despite the clear and present need for more vessels, the shipyards are disappearing from the country. During the

past four years, one-third of all shipyards has been lost, and the rate is increasing. Todd Shipyards, based in Jersey City, New Jersey, and once the largest builder of military ships in the United States, recently filed for Chapter 11 bankruptcy. One of its antecedents constructed the ironclad warship *Monitor* of the Civil War. During World War II alone, it produced more than 6 million tons of shipping, including 444 "Libertyship" freighters, 29 tankers, 46 destroyers, 56 escort aircraft carriers and 350 landing craft. As recently as 1983, Todd completed construction of 31 guided missile frigates valued at \$3 billion for the Navy.

The General Dynamics Corporation shipyards at Quincy, Massachusetts, which were shut down in 1986, have just been sold to the Massachusetts Water Resources Authority for \$49 million. The irony of their fate is telling. The once great shipyards are to become a staging area for the EPA-mandated Boston Harbor cleanup, including possibly being turned into a sludge burning plant for the city.

The famous Bethlehem Steel yards are another example of our deindustrialization. Their shipyards once numbered 16 and are now down to 2. David Klinges of Bethlehem Steel gave a graphic picture of this decline: "Fortunately for the United States, Congress enacted the Merchant Marine Act of 1936 which was designed to rebuild the merchant marine and the shipyard mobilization base. To meet the requirements of

TABLE 1

Merchant fleets of the world by rank July 1986

(oceangoing merchant ships of $\geq 1,000$ gross tons)

Country	# of ships	Rank by # of ships	DWT	
			(thousands of tons)	Rank by DWT
Liberia	1,783	3	113,856	1
Panama	3,611	1	70,379	2
Japan	1,572	5	59,394	3
Greece	1,756	4	57,524	4
U.S.S.R.	2,531	2	25,151	5
United States	468	13	20,790	6
United Kingdom	527	9	19,557	7
Norway (priv. owned)	387	17	17,116	8
British colonies	468	14	16,814	9
Cyprus	747	7	16,463	10
People's Rep. of China	1,048	6	15,989	11
Italy	573	8	12,557	12
France	260	24	11,887	13
Rep. of Korea	487	10	11,150	14
Singapore	472	12	11,052	15

Source: Department of Transportation Marad '86: The Annual Report of the Maritime Administration for Fiscal Year 1986, June 1987.

Mariners needed for emergency

"The Merchant Marine . . . as a resource of defense . . . will admit neither neglect nor forbearance . . . this can only be done by possessing a respectable body of citizen seaman."—*Thomas Jefferson*

The importance of a national merchant marine was recognized from the beginning of this country's founding. Yankee shipowners satisfied the need for a "home fleet" that could be counted on when the mother country's ships couldn't. Legislation for the benefit of shipping dates to the first Congress, which passed laws permitting lower duties on imports carried by U.S. citizen-owned vessels. Later, under President Jefferson, whose intentions were good, but whose grasp of economics was weak, Aaron Burr and other traitors in the administration succeeded in undermining U.S. naval strength prior to the War of 1812. Despite this, the new nation mustered the ships and seamen needed to defeat the British a second time.

The Navigation Act of 1817 made cabotage, the reservation of the domestic, coastwide trade to U.S. flag ships, a critical aspect of policy. Historically, there has been a clear appreciation of the importance of a strong and



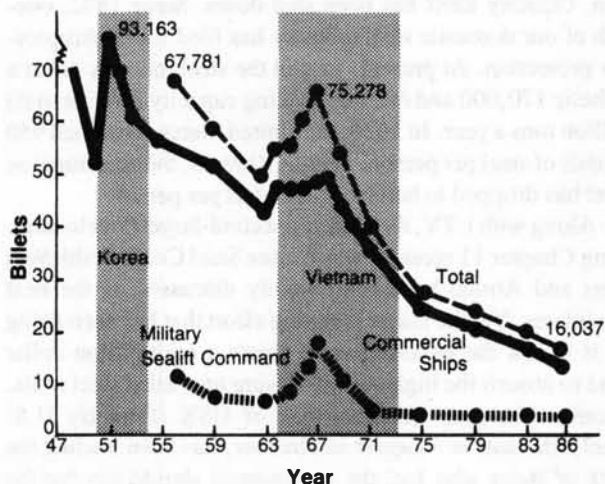
secure shipping industry.

That appreciation has declined over the years. At the end of World War II, the United States employed more than 200,000 experienced merchant mariners. Now, there are fewer than 30,000 active seafarers. From 1981 to 1986 the drop was 40%. Projections at this rate show only 20,000 seafarers by the early 1990s! As well there has been a concomitant fall in the number of seafaring billets, some 79% since 1968. (See **Figure 3**.) What does this mean for our national security?

In the surge phase of a military contingency, all RRF and other early readiness ships must be fully manned and ready for loadout within 4 to 20 days of the decision to deploy. In addition, an estimated minimum of 25% of the billets aboard 54 militarily useful Effective U.S.-Controlled (EUSC) ships may need to be filled by U.S. citizen merchant seamen within 20-30 days.

The cumulative manpower requirement for military surge shipping for the first 30 days would be about 6,000 additional billets, of which approximately 75% must be filled within the first 10 days. If only 75% of the active seafarers respond, then the surge shipping shortfall will be on the order of 6,000 people! Needless to say, this shortfall is increasing steadily with the closing of the shipyards. Extrapolations have been done by the Transportation Institute show that by 1992 we will be left with an available seafarer pool of about 21,400 versus a total wartime requirement of about 31,000. This translates to a predictable shortfall of between 9,000 and 10,000, or higher, depending on how many answer the call! Again, if one assumes a 75% rate of answer, the shortfall could be as much as 15,000.

FIGURE 3
U.S.-flag oceangoing civilian billets decline precipitously, 1947-86



Source: Maritime Administration.

TABLE 2

National defense reserve fleet (1945-85)

Fiscal year	Ships
1945	5
1950	2,277
1955	2,068
1960	2,000
1965	1,594
1970	1,027
1975	419
1980	303
1985	300

Source: Department of Transportation *Marad '86: The Annual Report of the Maritime Administration for Fiscal Year 1986*, June 1987.

the Merchant Marine Act, a long-range shipbuilding program was initiated in 1938.

"Contracts for 50 merchant vessels were placed that year to initiate a 10-year program anticipating the construction of 50 vessels a year. From this base, the program grew in 1939 to 150 ships per year and further to 200 ships a year in August 1940. Clearly, the running start that the American shipyards got on the most ambitious shipbuilding program in history saved this nation from likely military defeat. The vessels built under this program supported our forces abroad in the face of the devastating U-boat packs encountered in the early years of the war.

"This program permitted Bethlehem to enter World War II operating 10 shipyards which provided the base of facilities, manpower and technical resources to expand the number

of yards to 16—10 repair yards and 6 for new construction from which the 1,136 ships were delivered. Also, during this period, 42,542 vessels were repaired and reconditioned, aggregating over 300 million deadweight tons. This is an interesting figure when you realize that the total world fleet today aggregates some 656.3 million deadweight tons." Bethlehem now has fewer than 2,000 workers.

Under operating conditions in which our top yards are filing Chapter 11 with increasing frequency, the companies have more and more been underbidding, out of desperation for contracts; hence, accelerating their own demise. One of the major losses that Todd Shipyards had failed to withstand was \$40 million from one contract. The conversion of a roll-on, roll-off automobile cargo ship had a 25% cost overrun. They admitted they had vastly underbid.

In contrast, the Soviet Union over the past 15 years has constructed 4 new shipyards and modernized 24 others.

In the United States, the last order for a good-sized commercial vessel—1,000 gross tons or over—was in October 1984! (See **Figure 4**.) At that time, three container ships were ordered for delivery in 1987. Those vessels, being built in Sturgeon Bay, Wisconsin by the Bay Shipbuilding Corporation will be the last merchant vessels delivered in the entire United States.

Steel

Along with shipbuilding and other heavy users of basic metals, the steel-making capacity itself has joined the ranks of militarily critical industry in America that is being shut down. Soon after Sept. 7 when Congress returns to Washington, Sen. John Heinz (R-Pa.) is expected to introduce, at the behest of the steel industry, a bill which basically asks the government to foot the bill for the shutdown of steel.

With the high interest rates introduced by Paul Volcker in 1979, steelmaking was at 50% of capacity by 1980. Since then, capacity itself has been shut down. Since 1982, one-fifth of our domestic steel industry has filed for bankruptcy-law protection. At present, jobs in the steel industry are at a pathetic 170,000 and our steelmaking capacity is down to 80 million tons a year. In 1976, the United States consumed 950 pounds of steel per person. Within 10 years, the consumption level has dropped to barely 700 pounds per person.

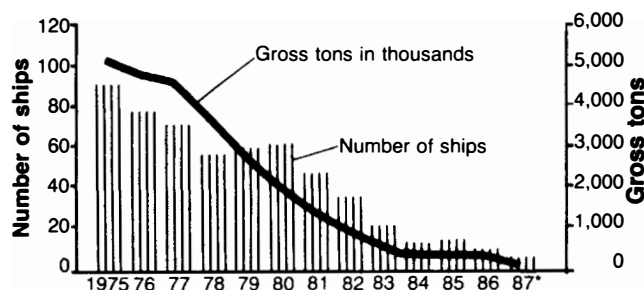
Along with LTV, the nation's second-largest steelmaker, filing Chapter 11 recently was Kaiser Steel Corp. Bethlehem Steel and Armco have been widely discussed as the next candidates. Yet the major lobbying effort that has been going on is to ask the government to create a multibillion-dollar fund to absorb the high cost of closing unneeded steel mills. Thomas Graham, vice chairman of USX (formerly U.S. Steel), the nation's largest steelmaker, has been leading the pack of those who feel the government should pay for the steel companies' burial.

Any sort of war mobilization, then, that were to be instituted, would find this great superpower ill-equipped indeed.

FIGURE 4

Merchant vessels building or on order in U.S. shipyards, Jan. 1, 1986

(ships of 1,000 gross tons and over)



Source: Maritime Administration.

*Forecast