

U.S. Coast Guard History Program

The Forgotten Voyage of the USARS *Duluth*: Recalling a Coast Guard-Manned Vessel That Fell Through the Cracks of World War II History

by

Ed Flynn



SS Duluth

During World War 11 the U.S. Army owned and operated a fleet of 111,006 vessels -- more than the Navy. While most of these were small craft, 1,665 were oceangoing ships over 1,000 tons. These included transports, supply ships, repair and spare parts vessels. At the height of World War II, 244 of these ships were manned for the Army by the Coast Guard. Unlike the Navy and Coast Guard which preserves the logs of its ships and honors their memory, the Army tended to view its vessels with the emotional attachment rendered a truck or any other piece of equipment; an inanimate object to be discarded and written off once it has served its purpose. As a result, these Army vessels have come to be known as "The Forgotten Fleet of World War 11."

This is the story of one of them as recalled by three of the men who served aboard her . . .

Editor's Note:

The following memoir was provided to the Coast Guard Historian's Office by the author, Mr. Edward Flynn. He wrote it, with assistance from former crewmates Ken Archer, Arthur Marx, and Ernest Simpson, after he discovered that there was little official documentation kept about the vessel he served on during World War II and in fact little about any of the 288 Army vessels that were manned by Coast Guard crews. The primary Army vessels manned by Coast Guard crews were the "Freight Supply" or "FS" ships, but the Coast Guard manned many other types of vessels of the Army's fleet. Here we have a story about an Army repair ship, a vessel that began her life as the Great Lakes freighter *Duluth* soon after the turn of the century. The Army took her into service and converted her for war-time use, gave her a Coast Guard crew to sail her while an Army contingent was aboard to handle the repair work she was designed for, and then sent her to war in the Pacific.

From the official Coast Guard standpoint, her history virtually ended as she departed San Francisco towards New Guinea in 1944, as it does with most of the Coast Guard-manned Army vessels during the war. Since these vessels were officially U.S. Army property, their logbooks, cruise reports and other official documents were Army, not Coast Guard, records. And it would appear that the Army destroyed all of the records of their immense World War II fleet sometime in the late-1940s. All we in the Coast Guard knew of the *Duluth* was the names of her commanding officers, when the Coast Guard crew reported aboard, when she departed for the Pacific, and when her Coast Guard crew was removed after the war. That was it. Until Mr. Flynn decided to take on the burden of reconstructing the history of this little-known vessel. Without his and his shipmates' efforts, the history of the Coast Guard-manned ARS *Duluth* would have been lost. We offer our thanks to them all.

USCG Historian's Office September 2004

On August 21, 1944 the Coast Guard manned USARS (U.S. Army Repair Ship) *Duluth* churned its way under the Golden Gate Bridge and headed for the South Pacific, leaving behind a wake that would soon be erased by the sea and a paper trail that would eventually be shredded by time.

If a Japanese spy, secluded on a nearby hill top, had noticed that departure he might well have wondered if it was a fact worth reporting. Painted dark green, the *Duluth* was an ugly ducking if ever there was one. Built in 1903 as a Great Lakes freighter, the 381-foot long vessel had been converted to serve as a floating repair shop for the Army and the forest of masts and booms that now rose from her deck gave her an ungainly, top heavy look. To add to the inauspiciousness of that departure, this was actually the ship's second attempt to leave the bay. The previous day she had broken down in the channel and had to be ignominiously towed back to the shipyard for emergency repairs to her decrepit engine.

When the *Duluth* did finally make it to the open sea, her destination, the first port-of-call on a voyage that would eventually see her join General MacArthur's invasion armada in the Philippines, was Finschaven, New Guinea. That was a trip of more than 7,000 miles for a ship that had been built to haul grain

between Duluth, Minnesota and Buffalo, New York. At her "top speed" of 8 knots, it took 34 non-stop days to get there.

As a member of the Coast Guard crew that watched that wake disappear as we slowly left the California shoreline behind, I've been trying, now almost 60 years later, to find some tangible trace of that voyage in the recorded annals of World War II. For the most part it's been a frustrating and futile search. Data on the *Duluth* is hard to come by. About the only thing you can establish for sure by researching official records is that she did exist. Contact the Coast Guard History Office in Washington, D.C. for information on the *Duluth* and they'll send you the following paragraph from *The Coast Guard at War; Transports and Escorts*:

DULUTH -- The Coast Guard manned Army repair ship DULUTH was commissioned at San Francisco August 15, 1944, with Lt. Comdr. Ernest A. Simpson, USCG, as first commanding officer. He was succeeded by Lt. Comdr. Robert H. H. Nichols, USCGR, who was in turn succeeded by Lt. Comdr. A. J. Smalley, USCGR. The DULUTH left San Francisco after a stay at Finschafen, New Guinea, and proceeded to Leyte and then to Subic Bay. Returning home she reached San Francisco December 1, 1946 and was re-delivered to the Maritime Commission on March 20, 1947.

As for any day-by-day records of the *Duluth's* wartime service, the Coast Guard will suggest that you contact the U.S. Army which owned the ship. The Army Transportation Museum at Fort Eustis, Virginia will, in turn, inform you that the Army has no official records of the vessels in its World War fleet. It will recommend that you refer to U.S. Army Ships and Watercraft of World War II written by David Grover and published by the Naval Institute Press in 1987, well after their service. It is apparently the only available source of information on the subject.

In that book, Grover writes:

As requests for repair and spare parts ships began to accumulate, the Army found itself without a suitable class of ships to use for this purpose. Through allocation from the War Shipping Administration it finally assembled a motley collection of six repair ships. Five (the J. E. Gorman, W. J. Connors, J. M. Davis, William F. Fitch, and Duluth) were similar in size, 350 to 390 feet in overall length, and had been built on the Great Lakes from 1901 to 1913, each at a different yard. The sixth was a 202-foot ship the Army owned, the James B. Houston, build on the West Coast in 1900.

Grover describes the six former freighters as "tired old vessels," that, after being converted to floating repair shops under the administrative control of the Army's Transportation Corps, were turned over to Coast Guard crews for manning. All served in the Pacific. Except for the *Duluth*, none apparently ever came under enemy fire.

Complaining that his research efforts were hampered and "greeted with disinterest by the higher echelons of the Army and its public affairs officers," Grover expressed the opinion that, "the Army does not seem proud, indeed it does not care that this fleet once existed." "While the surviving crew members are still with us," he concluded, "much more needs to be done to preserve the outstanding record of that fleet of vessels and the men who sailed in them."

And so -- while there is still time since I am now myself 80 years old -- let me do my small part and share with you what I remember, and what I have been able to learn about the USARS *Duluth*.

My first impression of the *Duluth* was that she appeared huge and formidable but I was young and had never been to sea and what did I know? I was a Radioman 3rd Class, 20 years old at the time, and I had been transferred from the Third Naval District in Chicago to the Coast Guard Receiving Station at Alameda for "further assignment." That assignment turned out to be the *Duluth*.



Duluth undergoing conversion to a Army Repair Ship at Oakland.

Even to my untrained eye it was obvious on the first day I first saw her, sometime in June, 1944, that she was far from ready for sea. She lay alongside a pier in Oakland, a striped-down metal hulk aboard which welders' torches flared and electric cables snaked along her decks. For several months, the crew, like commuters on their way to work, would board an LCVP [Landing Craft, Vehicle, Personnel] landing craft each morning for the trip from our barracks to the ship, watching as the guns -- six 20 mm's and a 3-inch aft -- were mounted; life rafts attached and, in the case of we radiomen, the equipment that would eventually keep us in touch with the world when we were thousands of miles at sea installed. The radio shack itself, not much larger than a walk-in closet, was located on the port side in the forward superstructure, a deck below the bridge. Our quarters, which we shared with several members of the bridge gang, was adjacent to the radio shack, a compartment with 6 double-decker bunks, rather spacious for enlisted men.

In actuality, the *Duluth's* departure for the Pacific that day did not go unrecorded. Another member of the crew was Arthur Marx (photo, next page, right), son of the famed Groucho Marx, who recalled his experiences as a Yeoman aboard the *Duluth* in a now out-of-print book entitled *Son of Groucho*. In it, Marx wrote:

The vessel on which I sailed out of San Francisco's Golden Gate one foggy morning in August of 1944 was a former Great Lakes freighter that had been converted into a repair ship at a cost to the taxpayers of three million dollars. Paradoxically the Duluth was not a Coast Guard vessel, but belonged to a huge fleet of small tugs and inter-island freighters under the command of the Army Transportation Corps [ATC], which -- just as paradoxically -- had a larger navy than the Navy. The Coast Guard merely supplied the crew to man her; the GI's on board -approximately one hundred -- were to handle the actual repair work of wardamaged vessels. The first ship that should been repaired, if not scrapped, was the Duluth. While she was still in dock being converted, her rusty, ancient hull had split under the extra weight of a new superstructure that had been added on the main desk to house its complement of soldiers. When our skipper, Commander Simpson, called this to the attention of the ATC. the General in charge assumed a most puzzling attitude. He accused the Coast Guard of being hyper-sensitive and ordered Commander Simpson to take the old bucket to sea, regardless of her infirmities. Being a man who loved life, Commander Simpson refused. The Army then accused him of



holding up the war effort and threatened to have the Coast Guard Commandant relieve him of his command. Simpson stuck to his guns, knowing no other sane sea-going man would take over the vessel under such hazardous conditions, and the Army reluctantly had the split rewelded. But it was a haphazard job, and according to Simpson, 'one good storm and we'll go to the bottom.' The Army thought so little of us that we weren't even sent in convoy. The enemy evidently thought even less of us than our own side. Not once were we bothered by subs.

For the most part, the voyage to New Guinea was uneventful. The Pacific lived up to its name, a calm blue sea that stretched to the horizon in all directions, and only the white foam breaking gently from our bow and the wake trailing behind gave evidence that we were even moving. We practiced responding to General Quarters regularly and the skipper even took us off guard a few times by sounding the alarm in the middle of the night. My battle station was as Talker on the 3-inch gun. It was a unwieldy gun that we realized would probably be of little use in battle. It took five men to man it; one to turn the crank which elevated it up and down, another to turn the crank which moved it from left to right, one standing by with a 3-inch shell in his hand and another who actually loaded it. I stood there wearing a helmet, earphones and a chest mike and it was my task to report to the bridge that the gun was "manned and ready" and than standby to relay orders. A few times, somewhere in the emptiness of the vast Pacific, we released balloons from the stern and fired at them as they drifted skyward but we never hit any of them. Once a plane, towing a canvas sleeve as a target, appeared in the sky from nowhere and the bridge -- which obviously knew it was coming -- sounded General Quarters and we manned our guns and filled the air behind the plane with tracers from the 20 mms and a few bursts from the 3-incher. The plane left, with its target unscathed. It was probably glad to get away without being hit by accident.

The days took on the sameness of a routine a sea. We stood our watches, showed up on time for chow, played blackjack or chess, drank a lot of coffee. Mostly we stared at the sea. One day, seemingly in the middle of nowhere, the bridge announced that we were members of the exclusive Order of the Golden Dragon. It seems we had just passed the precise spot in the Pacific where the International Dateline and the equator intersect. We took the skipper's word for it. Everything looked the same to us.



The *Duluth* just prior to her departure for duty in the Pacific. She has guns and rafts in place. Visible aft is a 3"/50 and just behind the stack is one of six 20mm gun tubs. Repair shop facilities were below deck, gallery and crews quarters aft, radio shack and officers' quarters and ward room forward below the bridge.

Finally, after nearly a month at sea, we caught our first sight of land. It was, we were told, Guadalcanal, a distant mirage-like image of palm trees shimmering in the tropical heat. We continued on our way and on September 24, 1944 we arrived at Finschafen, New Guinea. Finshafen turned out to be only a pit stop. Even after 34 days at sea, there was no shore leave. We took on provisions, refueled and a few days later we were underway again, plodding along the New Guinea coastline to Hollandia. When we arrived in Hollandia during the first week of October, 1944 we knew we had finally caught up with the war in the Pacific. The amphibious armada that was to make good on General Mac Arthur's promise to return to the Philippines had assembled there; destroyers patrolled the outer harbor like sheep dogs guarding their flock and within the harbor itself LSTs [Landing Ship, Tank] and attack transports lay at anchor, LCVPs scurried from ship-to-ship like water bugs and signal lights flashed like mirrors catching the sun as messages were sent from bridge-to-bridge.

In the middle of it all, like some Mother Hen, lay the USS *Mt. Mc Kinley* (AGC-7) and we heard that MacArthur himself was aboard. In fact, Ken Archer, one of the other radiomen aboard the *Duluth*, actually got to see him. (While trying to research the *Duluth* on the Internet one of the potential sources informed me that someone else had also been seeking information on the same ship. It turned out to be Ken who was preparing his own memoir of his World War II service. Since there had been only 3 radiomen aboard the *Duluth* we remembered each other well even though we hadn't seen or heard from

each other since we had left the ship to go our separate ways more than a half century ago.) Archer recalled:

When we reached Hollandia harbor it was full of ships as far as we could see. It was MacArthur's invasion fleet getting ready for the Philippines. Every type of ship you could think of was there. So now it was time to sit and wait. The only activity was an occasional native dugout cance going by; the people were primitive, bushy hair and all. One day I went ashore to see if there was a Fleet Post Office there and any mail. As I stood there, General MacArthur and the President of the Philippines, Sergio Osmena, came striding down the dock. I was so surprised that I forgot to salute. They boarded a small boat and went into the harbor to board a ship.

Arthur Marx also recorded that arrival at Hollandia. He wrote:

When we finally dropped anchor in Hollandia Bay, I was sure we had reached the end of the world. It had to be the drop-off point that so many ancient mariners had feared because it looked as if every other ship in the world had anchored there for the same reason . . . because they could sail no farther without falling off the edge. The hundreds of warships, LST's, freighters and carriers that I saw bobbing up and down under the glare of the tropical sun turned out to be the armada that General MacArthur was planning to use to retake the Philippines.

While we waited, life aboard the *Duluth* was informal, compared as I was to find out later with that aboard a combat vessel such as the Coast Guard Cutter *Spencer*. Uniform of the day was "clean dungarees" but in the tropical heat we frequently stripped down to our skivvies and no complaint ever came from the bridge. Some of us grew beards, measuring the passage of time by how fast they grew. Between watches we mingled with the Army technicians in the galley, drank coffee, played cards, and in general tried to ward off the boredom of inactivity. There was no shore leave. Besides, there was really no place to go. Hollandia was little more than a collection of grass-roofed, tin shacks and Japanese snipers were rumored to still be present in the nearby jungle.

In mid-October the harbor began to grow restless. The carriers, cruisers and destroyers that had been visible on the outer fringe of the bay disappeared over the horizon and the activity around the *Mt*. *McKinley* became even more frantic as LCVPs and barges, some of them flying blue pennants displaying the gold stars of admirals and generals, plied to and from her gangway like taxis.

Then the attack transports, LSTs and other amphibious ships, which we had seen loading troops, began to head for sea leaving behind an odd collection of misfits, including, of course, the *Duluth*. If we were going to go along it was obvious we were going to be stragglers. Late that afternoon a destroyer escort blinked a message in our direction reading: "Can you join convoy at 14 knots?" In what was probably a breach of Navy protocol, the Skipper told our Signalman to reply: "Are you kidding?" A few minutes later the light blinked again. "How about 12?" Send back, "Try again," Commander Simpson told the Signalman.

We left at sunup the next morning in what must have been one of the most nondescript convoys of World War 11, an oddball assortment of tugs and other auxiliary ships with the *Duluth* struggling to keep up while the destroyer escort circled us like a shepherd trying to herd strays.

Ken Archer remembers our departure this way:

It was back to sea as a part of General MacArthur's invasion fleet. We soon found out that the words 'slow' and 'expendable' were still in effect. The attack transports, LSTs and other troop carrying ships had gone ahead, protected by the Navy. We never saw them again until we reached the Gulf of Leyte. Our 'convoy' was the Duluth, one Liberty ship, four FS type supply ships manned by Coast Guardsmen and one small patrol boat.

In his book, Arthur Marx sums up our departure by wise cracking that "The Duluth was part of Mac Arthur's vanguard, only we brought up the rear."

The first landings on Leyte took place on October 20, 1944. The *Duluth* was at sea on that date. However, that did not mean that we missed the action. To the contrary, when we arrived on October 23 --D-Day plus 3 -- the Japanese, who had been expecting the initial invasion to be aimed at Luzon, had realized that the decisive battle would be fought at Leyte instead. As a result, Leyte was now under almost continual air attack and our own tiny convoy entered the gulf to the staccato sound of anti-aircraft guns and the sight of black puffs in the sky.

"As our convoy sailed into Leyte Gulf," Arthur Marx writes in his book, "we were attacked by a squadron of Japanese aircraft. As General Quarters sounded I reached for my helmet and life jacket and tried to remember where my General Quarters post was supposed to be. The raid went on for several hours. A number of ships in our convoy were hit and one vessel -- an ammunition ship filled with high explosives -- literally disappeared before our eyes in one giant explosion." As Ken Archer recalls that, "As we approached Leyte Gulf the ships ahead came under attack by Japanese planes and later the group behind us. One of the ships in the group ahead disappeared when hit. I guess it was an ammunition ship. We were lucky. We sailed on into Leyte Gulf with no direct attack on us."

What I recall about that entrance into Leyte Gulf is racing to my own General Quarters station as the "talker" on the 3-inch gun and waiting for an order for us to fire at something. No order ever came.

The *Duluth* sailed on unscathed into Leyte harbor and we dropped anchor in our assigned spot just off shore near the Tacloban airstrip.

"We had," Arthur Max records, "survived our baptism under fire and we were now entitled to wear a battle star on our overseas service ribbon; if we ever got back to a port where we could put on a dress uniform, that is."

In the days and weeks that followed, the ships in Leyte Gulf were subjected to continual air attack but it didn't deter the *Duluth* from performing her duty. The Army contingent went about its task of repairing damaged vessels and other equipment that was brought alongside and taken aboard by the cranes while the Coast Guard maintained the ship and manned the guns.

During the daylight hours P-38s and Mustangs, some from nearby carriers, others from the Tacloban airstrip, provided the air cover and while we donned our helmets and lifejackets and raced to stations when General Quarters was sounded, we seldom fired for fear of hitting one of our own planes. Instead, we watched the dog fights and raised our clenched fists in the air and cheered whenever a Japanese Zero came spiraling toward the ground trailing smoke behind it. Since the Japanese had been known to repair and fly one of own downed planes back at us, however, we had standing orders to open fire at any plane, friend or foe, that made a threatening pass at the ship.

One afternoon a Japanese bomber scored a hit on the fuel dump at the nearby Tacloban airstrip and we felt the blast aboard the *Duluth*. Once the flames subsided the oil smoldered for days, sending a black cloud into the sky that served as a beacon for additional incoming attacks. Another afternoon a lone Zero appeared out of the clouds -- for some reason General Quarters had not even been sounded -- and swooped downward toward the ships while we stood watching. It dropped a single bomb that struck a destroyer laying at anchor not far from the *Duluth*. The Zero pulled out of its dive and flew off. Not a shot was fired at it. For the rest of the afternoon we watched as LCVP's removed the casualties to a hospital ship.

Since the *Duluth* was anchored not far from shore and near the airstrip -- a convenient spot for its repair function -- the Japanese bombers would come in low over us on their way to an attack on the airstrip. When it was obvious that they weren't being pursued by one of our own planes, we would open fire with

our 20 mms and fire wildly as they passed overhead. Eventually, our gunners got the knack and one day we actually brought a Japanese bomber down. At least we took credit for it because after it had passed through the fire from our 20 mms it broke up and plunged into the water just beyond our bow.

"It was very scary," Archer recalls. "Japanese air raids day and night. We were anchored off the air strip so every [Japanese] plane that was attacking the strip had to fly over our ship. Some were very low. We shot down one Japanese bomber."

Since nearby ships were also firing at that plane I'm not sure how anybody could be sure just who brought it down but we proudly painted a "Rising Sun" emblem on the bridge to signify the kill anyhow. Every time a [Japanese] plane was downed, "Rising Suns" were probably painted on at least half a dozen ships' bridges but no matter. There was still one less enemy plane in the sky and enough credit to go around. During one of the daytime attacks a Zero passed overhead and our radio antenna was severed and a member of the crew wounded. We were never sure, however, whether we had been strafed by the plane or hit by "friendly fire" from a nearby ship that had followed the [Japanese] plane too low. While we all recall the incident, none of us, Arthur Marx, Ken Archer or I, can now recall the name of the wounded Coast Guardsmen but somewhere in the lost records should be a mention of a Purple Heart awarded to him aboard the *Duluth*.



Duluth radio crew: The three-member radio crew pose aboard ship during a respite from Japanese air attacks at Leyte. From left to right, Francis Fowler, RM 1/c; Ed Flynn, RM 3/c --author of this narrative -- and Ken Archer, RM 2/c, who contributed to this article. At night, the battle in the skies over Leyte took on a different character. There was no fighter cover in the dark and it was up to the ships in the harbor to defend themselves. The Japanese would fly over almost continuously -- sometimes only a single plane -- just to be sure that we didn't get any sleep. They would drop phosphorus flares suspended from parachutes to illuminate the ships below and then follow that up with bombs, occasionally scoring a hit. Only the units of the 7th Fleet, most of which were in the outer bay, had radar-controlled guns. The rest of us fired blindly into the night sky, crisscrossing it with streams of tracers in the hope that a [Japanese] plane would fly into the hail of shells from the 20 mm and 40 mm anti-aircraft guns. They seldom did.

One night, however, a Japanese bomber (probably a Betty with a 2-man crew) provided us with an unwitting assist. It decided to strafe back. Bad idea. Unfortunately for the Japanese, their gun had been loaded with tracers, a deadly mistake, at night. As the anemic stream of tracers curved downward toward the ships, it formed a dotted red line that every gun in the harbor followed back up in the plane. Within seconds the bomber exploded in a fireball and plunged toward the sea. I wonder how many "Rising Suns" were painted on bridges claiming credit for that one.

By late November, the air raids grew more sporadic but as the Japanese defense weakened it also grew more desperate. We received a report that a Japanese soldier had floated into the bay at night on a log carrying explosives which he intended to attach to a ship. He had been blasted out of the water but as a result our own night time watches were doubled. We also heard that some of the bodies of downed Japanese pilots being pulled from the water looked as if they were only young boys, 14 years old or so. And then came reports of the Kamikazes which made their first appearance at Leyte, attacking an escort carrier attached to the Seventh Fleet. After that, we were ordered to standby at the 3 inch gun during General Quarters with a 10 second, "short fuse" ready for loading. The idea was that if a plane ever made what seemed to be a suicide dive toward us we would load the shell, fire it, and hope it would explode in the path of the incoming plane, destroying it before it reached us.

Our private joke at the gun was that if there was ever an occasion to load that shell, we'd ram it into the breech, fire and jump over the side without waiting around to see what happened. Fortunately, we never had any reason to load that shell. The *Duluth*'s best defense was probably her disreputable appearance.

Major fighting on Leyte ended late in December, 1944 and the battle for the Philippines moved on toward Luzon. Aboard the *Duluth*, where Christmas and New Year's Day passed almost unnoticed, life again returned to the normal, dull routine of a ship left behind in the backwater of war.

In April of 1945 I was transferred to the 327-foot cutter Spencer which was serving as an amphibious flagship attached to the 7th fleet. Ken Archer also left the *Duluth* and went back to the war aboard an FS and then an LST. Arthur Marx came down with malaria and was transferred to the Naval hospital at Tacloban. When he recuperated, the Coast Guard realized they were wasting the show business talents of Groucho's son aboard the *Duluth*, or any ship for that matter, and assigned him to developing and acting as Master of Ceremonies for a show that toured neglected areas of the Philippines which regular USO shows never reached.

As for the six Army repair ships, all returned to the United States and service as cargo vessels after the war. In 1947, the *Duluth* was sold to Peninsula Packers, Inc. of Seattle and converted to a cannery tender. On June 22, 1955, she was loaded with 4,800 tons of scrap metal at Portland, Oregon and sailed under a Honduran flag with a Canadian crew to -- of all places! -- Japan where, she too, she became scrap. Presumably by then, the Rising Sun emblem on her bridge, boasting of a Japanese plane shot down off the Leyte beachhead, had long since been painted over.

NOTE:

Ed Flynn, now 81 (as of June, 2004), became a newspaperman and advertising copywriter. He now lives in upstate New York. Ken Archer, now 81, became an industrial engineer and he now lives in Maryland. Arthur Marx, now 82, had a successful career in his own right as an author, playwright and entertainer. He now lives in Los Angeles. Ernest Simpson, a bachelor in his mid-thirties at the time he commanded the *Duluth* was given a shore assignment in the Philippines where he met and married a Filipino woman. He stayed in the Philippines where he ran an import/export business

REFERENCES:

U.S. Coast Guard Historian's Office, Washington, D.C.

U.S. Army Transportation Museum, Fort Eustis, VA.

David Grover. U.S. Army Ships and Watercraft of World War II. Naval Institute Press, Annapolis, MD, 1987.

Coast Guard at War; Transports and Escorts, Historical Section, Public Information Division, U.S. Coast Guard Headquarters, May 1, 1949.

Dossin Great Lakes Museum, Detroit, MI