Our Ocean Backyard

Gary Griggs

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Big Boxes at Sea

If you were to look at the labels on almost any of your clothes indicating where they were made, or your car, computer, phone, bike, microwave, tools, or most other things that you use or touch on a daily basis, chances are very high that they were made somewhere else and delivered to a west coast port on a container ship. Today an estimated 90% of all goods are transported by sea in containers.

For decades, ships were essentially loaded by hand in boxes, cargo nets or on pallets by longshoremen on the docks and stowed by stevedores on the ship. Whether sacks of cement, bales of cotton, or crates of some other commodity, it was a labor-intensive operation that took considerable time and care. Most of the cost of shipping was incurred in the labor required to load and unload a ship.

This all changed almost overnight in April 1956, when a converted WWII tanker carrying 58 35-foot-long trailer vans left Newark, New Jersey, for Houston, Texas. At that time, costs for loading and unloading a ship by hand costs $5.86 a ton. As trailer vans became shipping containers, the cost dropped to 16 cents a ton, as well as significantly reducing the time ships spent in port, loading and unloading.

In some ways, Malcom McLean was an unlikely man to have come up with the concept of shipping containers, which soon completely revolutionized shipping. He was born in North Carolina in 1913 and when he graduated from high school, his family didn’t have the money to send him to college so they bought him a used truck. With a sister and brother, Malcom started a trucking company. To be more competitive he developed plans to move his trucks along the Atlantic seaboard by ship, which proved to be inefficient because of the wasted space taken up by the trucks themselves. He soon realized that it would be far more efficient to load just the containers on board.

McLean borrowed $22 million and purchased two WWII tankers, which he had retrofitted to carry shipping containers both on and under the deck. This also required the construction of the first containers that could be easily removed from a truck chassis and stacked on board a ship. In 1956, the maiden voyage of the first container ship took place, safely delivering the cargo to the port of Houston from New Jersey.

This new mode of sea transport started slowly, in part due to lack of cranes at ports, not enough shipping container or ships outfitted to carry the containers, but also the labor unions which resisted these changes that threatened their livelihoods. Far fewer people were required as one large crane did the work of many longshoremen and stevedores.

Service by container ship between New York and several European ports began in 1966, followed by routes to South Viet Nam in 1967, and then transit to Hong Kong and Taiwan (1969), and Singapore, Thailand and the Philippines in 1971.

Today, shipping containers are everywhere, on trucks, trains, being unloaded at big box stores, used on land for industrial storage, and many have even been converted to small homes. The largest ten shipping companies today handle more than 17 million containers across the globe. This business is at the core of 90% of all international trade.

When Malcom McLean died in 2001 at 87, Norman Maneta, the Secretary of Commerce, said that “Malcom revolutionized the maritime industry in the 20th century. His idea for modernizing the loading and unloading of ships, which was previously conducted in much the same way as the ancient Phoenicians did 3,000 years ago, has resulted in safer and much less-expensive transport of goods, faster delivery and better service. We owe so much to a man of vision, the father of containerization”.

The Baltimore Sun reported that “he ranks next to Robert Fulton as the greatest revolutionary in the history of maritime trade”. Forbes magazine called McLean “one of the few men who changed the world”.

From that first 1956 voyage of a converted tanker carrying 58 containers, the shipping industry has expanded to where we now have Ultra Large Container Vessels (ULCV) that are about thirteen hundred feet long (over four football fields) and can carry 23,000 containers with a crew of just 25 people.

In two weeks, stack attacks and containers going overboard.