

NATIONAL REGISTER ELIGIBILITY ASSESSMENT VESSEL: SS *Cape Farewell*, ex-SS *Delta Mar*



SS *Cape Farewell* underway off the coast of California in 1997. Maritime Administration photograph.

Vessel History

SS *Cape Farewell* is a lighter aboard ship (LASH) barge carrier. It was launched in 1973 at Avondale Shipyard in New Orleans, LA as *Delta Mar* for Delta Steamship Lines. Intended for the company's U.S. Gulf to South American service, the ship was the third in a flight of 20 identical ships built at Avondale Shipyards for Delta Lines. The Maritime Administration (MARAD) purchased the ship in 1986 for use in its Ready Reserve Force (RRF).¹ *Cape Farewell* served in the RRF until August 2021 and is currently moored at MARAD's Beaumont Reserve Fleet (BRF) in Beaumont, Texas. *Cape Farewell* is one of four (4) LASH vessels that were acquired by MARAD for the RRF due to their militarily useful features (described under Maritime Administration).²

¹ MARAD's RRF consists of a group of vessels that can be activated on short notice to assist in the deployment of military equipment and supplies during times of national emergency. RRF ships are maintained under contract for MARAD and are manned by civilian crews when activated by the U.S. Navy's Military Sealift Command (MSC).

² The other three LASH vessels in the RRF were *Cape Fear* (ex-*Austral Lightning*, ex-LASH *España*), *Cape Flattery* (ex-*Delta Norte*) and *Cape Florida* (ex-*Delta Caribe*, ex-LASH *Turkiye*)



SS Delta Mar. MARAD Annual Report, 1974.

Delta Lines

Delta Steamship Lines was established as the Mississippi Shipping Company in 1919 to serve South American ports from the Gulf of Mexico. The company later expanded its services to include U.S. Atlantic, Eastern Mexican and Western African ports.³ Its 1962 name change to Delta Lines reflected its New Orleans roots. Delta primarily operated in the breakbulk general cargo trade. Its LASH service operated from Baton Rouge, LA to South American ports.⁴ The company was sold several times in quick succession; the last in 1985 to United States Lines (USL), which also acquired the Moore McCormack Lines and McLean Industries. USL went bankrupt in 1986 and all former Delta Lines services ended.

³ MARAD Annual Reports, various.

⁴ MARAD Annual Report 1974, p. 16.

Maritime Administration



***Cape Farewell* in Naval Weapons Station, Concord, CA, carrying containers, January 14, 1998.**

MARAD purchased *Delta Mar* in April 1986.⁵ The ship's name was changed to *Cape Farewell* in 1987. In August 1990, the RRF consisted of 96 ships, 79 of which were activated to support Operations Desert Shield/Desert Storm. MSC activated *Cape Farewell* on August 19, 1990. During its activation, *Cape Farewell* carried military supplies to Saudi Arabia. Prior to this service, *Cape Farewell* had been modified to carry containers as well as LASH barges in the cargo holds.⁶ *Cape Farewell* made one trip between Wilmington, NC and Ad Dammam, Saudi Arabia carrying material for the 1st Theater Sustainment Command (COSCOM), the logistical arm of the XVIII Airborne Corps.⁷ The vessel made another run between Livorno Italy to Ad Dammam with another cargo this time of ammunition. The ship's third trip between Nordenham, Germany and Ad

⁵ "McLean Industries Files Its Reorganization Plan." *The New York Times*. 6 July 1988. "Bankruptcy Step Taken By McLean." *The New York Times*. 25 Nov 1986. <http://www.oldsaltblog.com/2019/09/a-look-at-mcleans-clipper-ships-the-fastest-cargo-ships-in-the-world/>. Accessed 4-11-22.

⁶ *Cape Farewell* Ship File, MARAD 05.05 NDRF Ship Files, HQ office.

⁷ https://www.army.mil/article/49920/1st_theater_sustainment_command#:~:text=The%201st%20COSCOM%20deployed%20to%20Saudi%20Arabia%20in,provided%20crucial%20logistics%20support%20to%204%201%2F3%20divisions. Accessed 4-12-22.

Damman carried Army and Air Force equipment.⁸

Desert Shield/Desert Storm was the first large-scale activation and employment of the RRF since it was created as a subset of MARAD's National Defense Reserve Fleet (NDRF).⁹ More than seventy-five percent of the RRF provided sealift to support the U.S. effort in the Persian Gulf between August 1990 and April 1991. The ships transported 750,000 short tons of dry cargo, which was one-fifth of the total dry cargo sealifted during the conflict.

LASH vessels were essentially very large general cargo ships. Unlike a traditional break bulk cargo ship whose cargo was packed into the ship's holds at the pier, the individual barges transported by the LASH mother ship were loaded and unloaded independently, and often at some remote location. For the carriage of weapons, large, bulky, or heavy equipment, and especially for palletized munitions, this capability was very attractive to military planners. The loading and unloading of palletized munitions were very time consuming; the LASH vessel allowed for large quantities of munitions to be delivered and rapidly offloaded from the mother ship, which was then free to make another voyage while its first complement of barges was being unloaded. This potential advantage of rapid in port turnaround time over the traditional break bulk general cargo ship was significant, but the experience gained during Operations Desert Shield / Desert Storm proved less than satisfactory, and hastened efforts to transition the carriage of munitions to containers.

Cape Farewell served in the Joint Chiefs of Staff Exercise OCEAN VENTURE 93. The exercise was held off the coast of North Carolina and emphasized moving equipment from offshore to the beach area.¹⁰ This Joint Logistics Over the Shore (JLOTS) exercise demonstrated another aspect of the LASH vessel's military utility – the ability to self-unload barges or other small craft into the sea adjacent to a beachhead. The LASH vessels' 500-ton gantry cranes permitted the ships to be loaded with and discharge a wide variety of craft and equipment useful to the transport of cargo between beach (or unimproved / damaged port) and ship.

Exercise TURBO CADS¹¹ 97 demonstrated the transition of munitions carriage from break bulk to containers. *Cape Farewell* participated in the exercise from July to November 1997. The vessel loaded 777 twenty-foot containers of ammunition at the Military Ocean Terminal Sunny Point, North Carolina, and discharged those containers in Kuwait and Saudi Arabia. *Cape Farewell* loaded 992 containers of retrograde

⁸ Rost, Ronald F., John F. Addams, and John J. Nelson. Sealift in Operation Desert Shield / Desert Storm: 7 August 1990 to 17 February 1991, Report CRM 91-109. Alexandria, Va.: Center for Naval Analyses, May 1991., B-9.

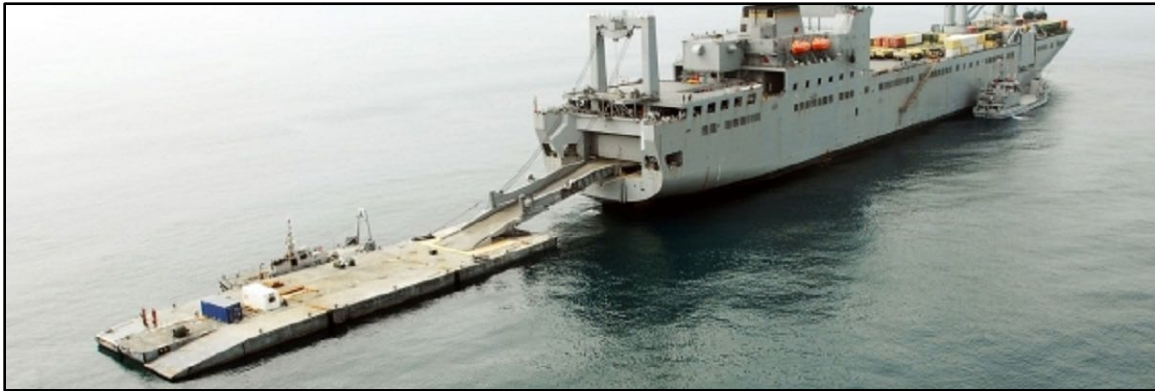
⁹ The NDRF was established under Section XI of the Merchant Ship Sales Act of 1946 to serve as a reserve of ships for national defense and national emergencies. The RRF component was established in 1976.

¹⁰ MARAD Annual Report 1995, p. 22.

¹¹ "Turbo" indicates an exercise sponsored by the U.S. Transportation Command; CADS stands for Containerized Ammunition Distribution System.

ammunition, to be discharged at the Naval Weapons Station, Concord, California. The exercise satisfactorily demonstrated the concept of transporting ammunition in standard shipping containers.¹² On March 18, 2004, *Cape Farwell* was activated for TURBO CADS (containerization ammunition distribution system 2004) which lifted cargo to the Far East.

For the balance of its career, *Cape Farewell* and its three sisters were increasingly devoted to the support of JLOTS mission requirements since containerships were plentiful and easily accessible. For this purpose, the ship was refitted in 2000 to stow floating causeways and motorized lighterage (not to be confused with the LASH barges) and equipped with Cantilever Lifting Frames to permit this outsized equipment to be discharged using the ship's LASH barge crane. The opportunity was also taken to increase the ship's container capacity.



Cape Farewell and floating causeway, Concord, CA, January 1998.

Design Characteristics

LASH, or lighter aboard ship vessels, were designed to transport fully loaded barges in ocean freight service. An extension of the idea of the multimodal shipping container, the LASH system was developed to reduce the cost of shipping bulk cargo. As described in a contemporary trade journal, “[P]re-stowed lighters can be raised and lowered from the mother ship without lengthy in-port layovers, thereby offering an unparalleled express delivery service for shippers.” The LASH concept was developed by naval architect Jerome L. Goldman of Friede & Goldman, Inc., of New Orleans, who received a patent for the idea in 1966. He also founded LASH Systems, Inc., to license construction of LASH vessels based on his concept.¹³

Cape Farewell has an all steel, welded construction. Its design employs a curved stem and a square stern. The hull is longitudinally framed, divided by 10 transverse watertight

¹² Hunter, E. Stewart. *Commercial overseas transportation of containerized ammunition*. Monterey, California. Naval Postgraduate School, 1999.

¹³ Quote from Bob Ware, “The Editor’s Log,” *Marine Engineering / Log* (August 1870), 98; John Pope, “Jerome Goldman, a naval architect and real estate developer, dies at 89,” *New Orleans Times-Picayune*, Sept. 10, 2013; Jerome L. Goldman, “Integrated Barge and Cargo Ship Construction,” U.S. Patent 3,273,527, Sept. 20, 1966.

bulkheads. The ship measures 893.04 feet to include its aft crane overhang. It has a beam of 100 feet. As originally built, *Cape Farewell* was configured to carry 74 barges, and 288 TEUs. It had a service speed of 21 knots, and a maximum speed of nearly 23 knots, but often operated at an economical speed of 18 knots.¹⁴ During periods of activation with MSC, the ship only needed a crew of 24.¹⁵

The ship was designed for higher speed service and had fine lines fore and aft as well as a protruding bulb bow. Short but deep bilge keels were fitted to reduce roll, and the ship carried passive anti-roll tanks. The hull was longitudinally framed except near the bow to provide deep open holds without intervening decks. Longitudinal bulkheads outboard of the holds serve as side tanks.¹⁶ Ship's electrical service was supplied by two turbogenerators, one of 2,500 kW capacity powered by steam, and a second diesel generator with 2,000kW capacity. The vessels had one evaporator with a capacity of 25,000 gallons per day.

The ship is powered by two Babcock & Wilcox boilers supplying two DeLaval steam turbines geared to a single shaft and a single, 23'-diameter, four-bladed screw. Maximum shaft horsepower when new was 32,000 at 105 rpm. Service speed was 22.5 knots. The ship was not built with additional horsepower for national defense purposes. Steering is through a semi-balanced rudder carried on a horn.¹⁷

Cape Farewell can transport between 71 and 77 standard cargo barges or about 840 containers. The ship has three 110'-long cargo holds forward of the engine room and two shorter holds aft of the engine room. The lighters can be stacked as much as four high in the holds. Thirteen 57-ton watertight steel pontoon hatch covers and one 81-ton two-panel folding hatch cover secure the lower holds. The ship is self-loading and -unloading, with a 446-ton-capacity traveling gantry crane for barge handling and a 30-ton-capacity traveling crane for container handling. The ship also has two 5-ton cargo cranes. In normal operation, the ship can load or discharge a lighter in about 20 minutes.¹⁸

Historical Integrity

Cape Farewell is largely unchanged from its original configuration, and still possesses its signature original barge crane. Modifications made to increase container stowage did not significantly alter the ship's arrangement, hatch covers, or primary structure. The modifications made to stow and handle JLOTS equipment are equally uncompromising to the ship's structure.

¹⁴ *Cape Farewell* Ship File, MARAD 05.05 NDRF Ship Files, HQ office. Mentz, Paul. *U.S. Merchant Fleet Characteristics*. The Maritime Administration United States Department of Commerce, July 1974, p. 9.

¹⁵ Norman Polmar, *The Naval Institute Guide to the Ships and Aircraft of the U.S. Fleet*, 18th ed. (Annapolis, Md.: Naval Institute Press, 2005), p. 310.

¹⁶ "LASH Italia, First U.S.-Built Barge Carrier Completed," *Marine Engineering / Log*, January, 1971, pp. 37-41, 80.

¹⁷ Polmar, *Naval Institute Guide*, 310; Dillon, "Forty Years of Ship Designs," 206.

¹⁸ Joseph S. Helewicz, "Lash Italia's first docking receives no fanfare here," *Baltimore Sun*, Jan. 9, 1971, B7

Statement of Significance

The LASH concept was developed by naval architect Jerome L. Goldman of Friede & Goldman, Inc., of New Orleans. LASH vessels were mainly used between 1969 and 2007.¹⁹ LASH carried all types of breakbulk and bulk cargos to include lumber, steel, grain, minerals, machinery, military equipment and various other supplies and household goods. The LASH system was superseded by the container system, still in use today, but it served initially as a revolutionary and ultimately reliable work horse design for many years in the shipping industry.²⁰

The ship activated for service during Operations *Desert Shield/Desert Storm*, where it, along with 79 others MARAD vessels, provided war materiel in support of U.S. and coalition forces. It is one of the last of its kind, but was not the first built, nor did it encompass any particularly unique characteristics. Subsequent crises involving MARAD's role of assisting the military during national emergencies have generally utilized different ship types more in keeping with modern logistics operations.

National Register Eligibility Statement

Cape Farewell does not possess the extraordinary historical significance necessary under Criteria Consideration G or in any category necessary to be eligible for listing on the National Register of Historic Places. While it did participate in Operations Desert Shield/Desert Storm, it was one of 79 RRF vessels activated by the U.S. Navy to support those operations and its role was not significant enough to qualify under Criteria A, particularly considering the recent nature of those operations.

Date: April 1, 2023

Determination: NOT ELIGIBLE

¹⁹ Based on use it would appear LASH fell out of favor as early as 2003 although one of *Cape Fear*'s contemporaries *Lihue ex Thomas E. Cuffee*, is still operating. MARAD Annual Reports, multiple years. <https://www.vesselfinder.com/vessels/LIHUE-IMO-7105471-MMSI-0>. Accessed 5-4-22. <http://www.hawaiifreepress.com/Articles-Main/ID/25324/Matson-Recycles-Containership-Kauai-in-Texas>. Accessed 5-4-22.

²⁰ "Remembering LASH," *The Marine Executive*, 25 January 2020.

SOURCES

Couper, Alastair. *The Shipping Revolution: The Modern Merchant Ship*. London: Conway Maritime Press, Ltd., 1992.

De la Pedraja, René. *The Rise & Decline of U.S. Merchant Shipping in the Twentieth Century*. New York: Twayne Publishers, 1992.

— — —. *A Historical Dictionary of the U.S. Merchant Marine & Shipping Industry*. Westport, CT: Greenwood Press, 1994.

Dillon, E. Scott, Ludwig C. Hoffmann, and Donald P. Roseman. "Forty Years of Ship Designs Under the Merchant Marine Act, 1936–1976." *Society of Naval Architects and Marine Engineers Transactions* 84 (1976): 169–219.

Farrington, S. Kip. *Ships of the U.S. Merchant Marine*. New York: E.P. Dutton & Co., Inc., 1947.

Goldman, Jerome L., "Integrated Barge and Cargo Ship Construction," U.S. Patent 3,273,527, Sept. 20, 1966.

House Committee on the Judiciary. *The Ocean Freight Industry*. H. Rpt. 1419, 87th Cong., 2d sess., March 12, 1962.

Hunter, E. Stewart. *Commercial overseas transportation of containerized ammunition*. Monterrey, California. Naval Postgraduate School. 1999.

Matthews, James K. and Cora J. Holt. *So Many, So Much, so Far, So Fast United States Transportation Command and Strategic Deployment for Desert Shield/Desert Storm*. Based on v 1 of *Desert Shield/Desert Storm 7 August 1990 - 10 March 1991*. United States Transportation Command Office of History, 1992.

Polmar, Norman. *The Naval Institute Guide to the Ships and Aircraft of the U.S. Fleet*, 18th ed. Annapolis, Md.: Naval Institute Press, 2005.

Polmar, Norman. *Naval Institute Guide*, 310; Dillon, E.S. et al, "Forty Years of Ship Designs," Presented at SNAME Annual Meeting, New York, NY, November 13-15, 1976.

Rost, Ronald F., John F. Addams, and John J. Nelson. *Sealift in Operation Desert Shield/Desert Storm: 7 August 1990 to 17 February 1991*, Report CRM 91-109. Alexandria, Va.: Center for Naval Analyses, May 1991.

Maritime Administration Sources

Vessel History Database, MARAD, "Status Card," *Delta Norte, Cape Farewell*.

Cape Farewell Ship File, MARAD 05.05 NDRF Ship Files, HQ office.

Annual Reports of the Maritime Administration. Various years (1974–present).

Koehler, Erhard. "RRF Operation Desert Shield / Desert Storm readiness notes." Maritime Administration files, Washington, D.C.

MARAD Division of Ship Maintenance and Repair. Office of Ship Operations. *Readiness Assessment of the RRF*, August 28, 1992. Maritime Administration files, Washington, D.C.

Mentz, Paul B., *U.S. Merchant Fleet Characteristics*. U.S. Department of Transportation, Maritime Administration, July 1974.

"RRF Activation Summary (Desert Shield / Desert Storm)." Maritime Administration files, Washington, D.C.

"*The Ready Reserve Force: A History upon its Twenty-Fifth Anniversary*," November 2001, MARAD Office of Ship Operations.

U.S. Department of Transportation, Maritime Administration. *Characteristics and Index of Maritime Administration Ship Designs*. January 1991.

Periodicals and Newspapers

"Bankruptcy Step Taken By McLean." *The New York Times*. 25 Nov 1986.

"New lash ship arrives in port to get first cargo," *New York Times*. 29 Jan 1971.

"Jerome Goldman, a naval architect and real estate developer, dies at 89," *New Orleans Times-Picayune*, Sept. 10, 2013;

"Lash Italia's first docking receives no fanfare here," *Baltimore Sun*, Jan. 9, 1971, B7

"LASH Italia, First U.S.-Built Barge Carrier Completed," *Marine Engineering / Log*, January, 1971, pp. 37–41, 80.

"McLean Industries Files Its Reorganization Plan." *The New York Times*. 6 Jul 1988.

"The Editor's Log," *Marine Engineering / Log* (August 1870), 98

"Remembering LASH," *The Marine Executive*. 25 January 2020.

Websites

https://www.army.mil/article/49920/1st_theater_sustainment_command#:~:text=The%201st%20C%20OSCOM%20deployed%20to%20Saudi%20Arabia%20in,provided%20crucial%20logistics%20support%20to%204%201%2F3%20divisions. Accessed 4-12-22.

https://en.wikipedia.org/wiki/Type_C8-class_ship. Accessed 3-31-22.

<https://maritime.dot.gov/national-security/strategic-sealift/maritime-security-program-msp>. Accessed 4-11-22.

https://wiki2.org/en/SS_Green_Harbour. Accessed 6-22-22.

<https://www.globalsecurity.org/military/systems/ship/green-island.htm>. Accessed 6-22-22.

<https://www.globalsecurity.org/military/systems/ship/tak-2049.htm>. Accessed 6-22-22.

<https://vesselhistory.marad.dot.gov/ShipHistory/Detail/5549>. Accessed 4-11-22.

<https://law.justia.com/cases/federal/district-courts/FSupp/434/920/1417328/>. Accessed 4-5-22.

<https://law.justia.com/cases/federal/district-courts/FSupp/434/920/1417328/>. Accessed 4-5-22.

<https://www.vesselfinder.com/vessels/LIHUE-IMO-7105471-MMSI-0>. Accessed 5-4-22.

<http://www.hawaiiifreepress.com/Articles-Main/ID/25324/Matson-Recycles-Containership-Kauai-in-Texas>. Accessed 5-4-22.

<https://magazines.marinelink.com/Magazines/MaritimeReporter/198503/content/approves-steamship-united-203077>. Accessed 4-11-22.

https://en.wikipedia.org/wiki/United_States_Lines. Accessed 4-11-22.

<http://www.oldsaltblog.com/2019/09/a-look-at-mcleans-clipper-ships-the-fastest-cargo-ships-in-the-world/>. Accessed 4-11-22.

https://www.army.mil/article/49920/1st_theater_sustainment_command#:~:text=The%201st%20C%20OSCOM%20deployed%20to%20Saudi%20Arabia%20in,provided%20crucial%20logistics%20support%20to%204%201%2F3%20divisions. Accessed 4-12-22.

<https://csi.who.edu/download/file/fid/Full%20Text/index-6.pdf>. Accessed 6-17-22.

<https://www.oceanstaroec.com/hall-of-fame/industry-pioneers/jerome-l-goldman/>. Accessed 3-31-22.

<https://obits.nola.com/us/obituaries/nola/name/jerome-goldman-obituary?id=10537165>. Accessed 3-31-22.

