

NATIONAL REGISTER ELIGIBILITY ASSESSMENT

VESSEL: *Flickertail State (T-ACS-5)*/ex- *C.V. Lightning*



Figure 1: *Flickertail State* offloads components of the Elevated Causeway System (ELCS) during TC/CJLOTS in 2001. TC/CJLOTS 01 was a USPACOM/USTRANSCOM sponsored readiness exercise. (United States Navy Photo #010513-F-RP755-004)ⁱ

Vessel History

Flickertail State (ACS-5) was originally the container ship *C.V. Lightning*, built by Bath Iron Works, in Bath, Maine, for American Export Isbrandtsen Line (AEI) in 1967, under Maritime Administration contract MA 205. MARAD subsidized both the construction and operation of the vessel. Bath Iron Works launched the *C.V. Lightning* on May 11, 1968. It was delivered to AEI on May 11, 1969, and designated MARAD type C5-S-73b.¹ MARAD acquired the vessel in 1981 for service in the Ready Reserve Force (RRF), a fleet of merchant vessels kept in readiness for use in event of national emergency. MARAD converted the vessel to an auxiliary crane ship and renamed it *Flickertail State* (T-ACS-5) in 1987. It continued to serve in the RRF until 2021, when it was placed on retention status as a source of equipment with the National Defense Reserve Fleet (NDRF). MARAD subsequently moved it to Suisun Bay Reserve Fleet in California that year.

Civilian Service

Bath Iron Works began construction on the container ship *C.V. Lightning* for AEI on February 14, 1967, under MARAD contract 205. Bath Iron works deliver the ship to AEI

¹ MARAD uses a vessel classification system based on groups of letters and numbers. For example, for the classification C5-S-73b, the C signifies vessel type (cargo, passenger, tanker) and the number 4 signifies its approximate length. Therefore, C5 is a cargo vessel with a length 550-600 feet. The S indicates the type of propulsion, in this case steam propulsion with a single propeller. The last grouping indicates the original vessel design and any modifications made to the vessel. The class were design “73” version “b.”

on May 11, 1969. *C.V. Lightning* was MARAD Hull 355. It was 610' in total length with a maximum breadth of 78'. Its gross tonnage was 17,902 tons. The hull consisted of seven watertight traverse bulkheads, with five cargo holds. The ship's bridge was in the bow section and the ship's machinery in the section furthest aft. *C.V. Lightning's* turbine engines were capable of 17,500 horsepower and the vessel's service speed was 18.5 knots. It was designed for container cargo and featured no onboard cranes. This made it entirely dependent on shore-based cranes for cargo loading and unloading. The vessel featured both a forward and after house. In the forward house were the bridge, navigation spaces, wheelhouse, and quarters for deck and radio officers. The aft house held propulsion machinery, and quarters and facilities for the engineering crew. Tunnels between the two houses ran along both the port and starboard sides of the ship.²

From 1969 to 1978, American Export Lines, Inc. (Parent company of American Export Isbrandtsen Line) owned and operated *C.V. Lightning*. In 1978, AEI sold the vessel to Farrell Lines. Farrell operated it until 1980, when they traded it to the United States government for credit toward the cost of a new vessel.³



Figure 2: American Export Isbrandtsen Lines SS *C.V. Lightning* approaching Bremerhaven, Germany on the Weser River, August 1969.⁴

² Flickertail State, Ship File, MARAD.

³ Flickertail State (T-ACS-5), MARAD Vessel History Database, Accessed on June 4, 2024, <https://vesselhistory.marad.dot.gov/ShipHistory/Detail/1573>.

⁴ "Flickertail State (T-ACS-5)," NavSource, accessed on May 30, 2024, <https://www.navsource.org/archives/09/76/7605.htm>.



Figure 3: *Flickertail State (T-ACS-5)* at sea with cranes in lift position. Date and location unknown. (MARAD File Photo.)

Maritime Administration

In 1980, the Farrell Line traded the *C.V. Lightning*, *C.V. Stag Hound*, *Export Courier*, and *Export Leader* to MARAD in exchange for credit toward the purchase of the newly constructed *Austral Puritan*. MARAD assumed ownership of *C.V. Lightning* on February 5, 1981, with the intention of converting all the traded ships into auxiliary crane ships capable of assisting military sealift in austere environments. This required the installation of four specially designed cranes. In the meantime, *C.V. Lightning* remained laid up with the National Defense Reserve Fleet at the James River Reserve Fleet in Fort Eustis, Virginia. In 1986, MARAD contracted with Norfolk Shipbuilding and Drydock Company for conversion of the vessel to an auxiliary crane ship, or ACS. Norfolk Shipbuilding began work in 1987.⁵ They installed four 30-ton capacity cranes on two pedestals between the bridge and aft house, retained storage space for 300 standard shipping containers and space for heavy military materials, including tanks and landing craft. MARAD renamed *C.V. Lightning*, *Flickertail State (T-ACS-5)*. It received the new MARAD type designation C5-S-MA73c.⁶ *Flickertail State* officially entered the Ready Reserve Force on February 9, 1988, with a five-day readiness status. The vessel employed crew of thirty-two mariners when active including specially trained crane operators. While on reserve status it only required management by nine mariners.⁷

⁵ “*Flickertail State (ACS-5)*,” *NavSource.org*, Accessed on June 4, 2024, <https://www.navsource.org/archives/09/76/7605.htm>; *Flickertail State*, Ship File, MARAD.

⁶ *Flickertail State*, Ship File, MARAD.

⁷ *Flickertail State*, Ship File, MARAD.

In June 1990, *Flickertail State* underwent its first major mission. Both it and *Gopher State* (T-ACS-4) were activated by Military Sealift Command (MSC) to assist in Operation STEEL BOX. STEEL BOX involved the safe transportation of over 100,000 chemical munitions from stockpiles in Clausen, West Germany, to the chemical weapons decommissioning site at Johnston Atoll, off Hawaii. This mission was particularly dangerous, as the munitions held both Sarin (GB) and VX chemical agents. The two ships were specially outfitted in June 1990, for the mission and completed transit from Germany to Johnston Atoll on November 18, 1990.⁸



Figure 4: *Flickertail State* (T-ACS-5) docked at Cheatham Annex, Virginia. (MARAD file photo.)

Immediately following STEEL BOX, MSC assigned *Flickertail State* to support Operation DESERT SHIELD/DESERT STORM. In 1990, the RRF consisted of 96 ships, 79 of which were activated to support Operations DESERT SHIELD/DESERT STORM, the U.S.-led coalition's response to Iraq's invasion of Kuwait. This was the first large-scale activation and employment of the RRF since it was established in 1976. On December 1, 1990, MSC activated *Flickertail State* and it took part in cargo operations supporting American forces until June 4, 1992. More than 75% of the RRF provided sealift to support the U.S. efforts in the Persian Gulf between from 1990-1991. The ships transported 750,000 short tons of dry cargo, which was one-fifth of the total dry cargo sealifted during the conflict.⁹

⁸ Pike, John E. "Operation Golden Python/Operation Steel Box", *Globalsecurity.org*, Accessed May 30, 2024.

⁹ "Ready Reserve Force: Maritime Administration Fact Sheet," Maritime.DOT.Gov, Accessed on May 30, 2024, <https://www.maritime.dot.gov/sites/marad.dot.gov/files/docs/resources/newsroom/fact-sheets/3551/fact-sheet-rrf-2017-3.pdf>

After the war, *Flickertail State* returned to a readiness status with occasional participation in MSC exercises. This included multiple Joint Logistics Over-The-Shore (JLOTS) training missions. The definition of JLOTS, is:

...the loading and unloading of ships without the benefit of fixed port facilities in either friendly or undefended territory and, in time of war, during phases of theater development. LOTS operations are conducted over unimproved shorelines, through fixed ports not accessible to deep draft shipping, and through fixed ports that are not adequate without the use of LOTS capabilities.¹⁰

Flickertail State provided positioning and cargo support during multiple JLOTS exercises from 1997 until 2021. On March 4, 2004, *Flickertail State* took part in a dangerous exercise from Morehead City, North Carolina to retrieve cargo for United States Marines on the ground in Port-Au-Prince, Haiti. At the time, the Marines were taking fire at the port and unable to unload the ship under normal conditions. *Flickertail State* arrived at the port and the crew assisted in unloading supplies over nine hours. MSC COMSCLANT praised the crew for their “flawless” performance “under extreme, dangerous conditions.”¹¹

In addition to the JLOTS exercises, *Flickertail State* was also used for logistics at sea research. The Office of Naval Research tested their Large Vessel Interface Lift-on/Lift-off (LVI Lo/Lo) crane on *Flickertail State* at Naval Station Norfolk, in April 2010. LVI Lo/Lo uses motion-sensing technology to control standard 20-foot containers in all six degrees of freedom. MARAD mounted the demonstrator crane and the Navy used *Flickertail State* to test the functionality of the LVI Lo/Lo.¹²

Throughout the early 2000’s, *Flickertail State* remained in the James River Reserve Fleet where it was assigned to the National Defense Reserve Fleet. There it remained to provide spare parts for other auxiliary crane ships in the RRF.¹³

¹⁰ Peter J. Thade, et. al; “Joint Logistics Over the Shore: An Assessment of Capabilities,” Logistics Management Institute, September 1995, p. 1-10.

¹¹ *Flickertail State*, Ship File, MARAD.

¹² “Navy Large Vessel Interface Lift On Lift Off,” High Tech Military News, Accessed on June 4, 2024, <https://web.archive.org/web/20120325134943/http://www.hightech-edge.com/navy-large-vessel-interface-lift-onlift-off-lvi-lo-lo-crane-ship-cargo-transfer/8515/>.

¹³ “*Flickertail State (ACS-5)*,” *NavSource.org*, Accessed on June 4, 2024, <https://www.navsource.org/archives/09/76/7605.htm>.



Figure 5: Large Vessel Interface Lift-on/Lift-off (LVI Lo/Lo) crane at Naval Station Norfolk, 14 April 2010, temporarily installed on SS Flickertail State (ACS 5), uses motion-sensing technology .Alongside SS Flickertail State is the open/covered lighter YFN-1270. (U.S. Navy Photo)¹⁴



Figure 6: Flickertail State (T-ACS-5) fades into morning fog while docked at Navy Expeditionary Logistics Support Group, Naval Weapons Station Yorktown Cheatham Annex in Williamsburg, Virginia. (U.S. Navy Photo)¹⁵

¹⁴ "Flickertail State (ACS-5)," *NavSource.org*, Accessed on June 4, 2024, <https://www.navsource.org/archives/09/76/7605.htm>.

¹⁵ "Flickertail State (ACS-5)," *NavSource.org*, Accessed on June 4, 2024, <https://www.navsource.org/archives/09/76/7605.htm>.

Description/Characteristics of Vessel Type

MARAD Type: C5-S-73b

Official Number: 6817845

Previous name: *C.V. Lightning* (1969-1988)

Builder: Bath Iron Works, Bath, Maine

Year: 1967

Location: Suisun Bay Reserve Fleet, Benicia, California

Length: 668'

Beam: 76' 1"

Draft: 33' 5"

Displacement, summer: 31,500 tons

Displacement, lightweight: 13,900 tons

Gross Tonnage: 17,930 tons

Cargo Capacity: 710 TEU

Cranes: 4

Propulsion: Single propeller

Speed: 17 knots

Shaft Horsepower: 17,500 shp¹⁶

Historical Integrity

Flickertail State (T-ACS-5) underwent considerable renovation from its original containerized configuration to its current state as an auxiliary crane ship in the 1980s. In 2021, MARAD placed it in the National Defense Reserve Fleet where it served as a source for spare parts and equipment for active crane ships. The current vessel holds little resemblance to the original configuration while the condition remains fair.¹⁷

Statement of Significance

Before major conversions in 1987, *Flickertail State (T-ACS-5)* was a standard container vessel at the beginning of the containerization revolution. After conversion, it became one of ten auxiliary crane ships produced by the United States Navy and MARAD during the 1980s for the RRF. MSC activated it on multiple occasions to provide cargo and crane assistance in hostile and remote locations, where it performed well.

National Register Eligibility Statement

Flickertail State is more than 50-years-old, but it does not possess any extraordinary historical significance necessary to be eligible for listing on the National Register of

¹⁶ “*Flickertail State (T-ACS-5)*,” MARAD Vessel History Database, Accessed on June 4, 2024, <https://vesselhistory.marad.dot.gov/ShipHistory/Detail/1573>.

Historic Places. It was a typical container ship, similar in size, construction, machinery, propulsion, cargo capacity and other features like many of the vessels constructed domestically since in the late 1960s. While it took part in DESERT SHIELD/STORM, and several MSC cargo lift and testing operations, its service does was not historically significant nor exceptional. It is also not associated with a historically significant person. The vessel has undergone considerable renovations and been subject to stripping to support the operations of another vessel and is in a degraded condition.

Date: 9/9/2024

Determination: NOT ELIGIBLE

¹⁷ *Flickertail State Ship Condition Report, August 18, 2021, MARAD.*

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ⁱ <https://vesselhistory.marad.dot.gov/ShipHistory/Detail/1573>