

NATIONAL REGISTER ELIGIBILITY ASSESSMENT

Vessel: SS *Cape John*/ex *Santa Ana*/ex *C.E. Dant*



Stern (left) and bow views (right) of *Cape John* at the Maritime Administration's Beaumont Reserve Fleet in Beaumont, Texas. Maritime Administration photographs.

Vessel History

The break-bulk vessel *Cape John*, originally named *C.E. Dant* and later *Santa Ana*, was constructed for States Steamship Company (commonly known as States Lines) by the National Steel and Shipbuilding Company (NASSCO) in San Diego, California. It was the last of six sister ships; Newport News Shipbuilding and Drydock Company in Newport News, Virginia built the first four. *C.E. Dant* and its sister ship *M.M. Dant* were named for members of the Dant family of San Francisco who owned States Lines. *C. E. Dant* began service for States Lines in 1963 in their U.S. West Coast–Philippines/Far East transpacific trade.

Charles Dant, a lumber merchant in Portland, Oregon, founded States Steamship Company in 1921 with its headquarters in San Francisco. The Dant family owned the company until its bankruptcy and eventual dissolution. Until the 1930s, the company operated routes to Europe and the Far East. The European routes were abandoned prior to World War II. States originally operated a fleet of World War I-era U.S. Shipping Board vessels, but after World War II upgraded its fleet with more modern Maritime Commission vessels. States was one of the smallest of the subsidized carriers in the postwar era, and expanded by acquiring Pacific Transport Lines. By the late 1950s the combined States–Pacific Transport fleet was nearing its statutory replacement age and States embarked on a new construction program based on the successful Mariner¹ design. The first six replacement vessels of the *California* Class (MA design C4-S-1u) were delivered in 1962 and 1963. *California*, *Oregon*, *Washington* and *Hawaii* were constructed by Newport News Shipbuilding; *M.M. Dant* and *C.E. Dant* were constructed by NASSCO. The vessels were externally indistinguishable from one another; the

¹ The Mariners were the first new class of cargo ships built in the U.S. by MARAD's predecessor the Maritime Commission after WWII.



C.E. Dant's builder's portrait in 1963. C.E. Dant was renamed Cape John in 1993. Maritime Administration photograph.

significant differences between the Newport News and NASSCO vessels being the suppliers of the propulsion machinery.

The rapid development of containerization in the transatlantic trade took longer to take hold in the Pacific; however, States did not construct ships capable of carrying significant numbers of containers until the mid-1970s, well after other Pacific carriers had done so. In the interim, the company constructed five large break-bulk vessels of the *Colorado* class (MA design C4-S-69b). The *Colorado*'s were designed from the outset to carry a small number (200) of containers on deck; the *California*'s were modified after construction to carry a similar number of containers on deck. The last vessels constructed for States Lines, beginning in 1976, were the four very large Roll-On/Roll-Off vessels of the *Maine* Class (C7-S-95a). These vessels could carry a combination of vehicular cargo and containers (max 1,000); however, they were not successful in the market and they proved to be an excessive financial drain on the company. States was forced into bankruptcy in 1979 a few years after the delivery of the last vessel of the class.

The six *California*-class vessels were chartered or sold to other U.S. shipping companies in the mid-1970s. In 1974 *C.E. Dant* was chartered and renamed *Santa Ana* (*California* was also chartered and renamed *Santa Rita*). The Maritime Administration (MARAD) acquired the vessel subsequent to the bankruptcy on November 15, 1979. *Santa Ana* was initially delivered to MARAD's Beaumont Reserve Fleet (BRF) in Beaumont, Texas. On May 27, 1980 the vessel was effectively upgraded to the Ready Reserve Fleet (RRF—later renamed Ready Reserve Force). The vessel saw little service other than periodic test activations and maintenance periods in the decade prior to the first Gulf War. MARAD eventually acquired all six of the *California* Class; four of which (*California*, *Hawaii*, *M.M.*

Dant and *C.E. Dant*) were upgraded to RRF status. The intended upgrade of *Oregon* was cancelled in 1987, which made the vessel available for conversion into the Training Ship *Empire State VI*. The sixth vessel, *Washington*, under the name *Mormacwave*, was retained in MARAD's National Defense Reserve Fleet (NDRF) until it was scrapped in 2005.

The U.S. Navy's Military Sealift Command (MSC) ordered MARAD to activate *Santa Ana* on December 4, 1990 to participate in Operation DESERT SHIELD/DESERT STORM. The ship was towed from the BRF to New Orleans that same day. *Santa Ana* was tendered to MSC on February 6, 1991.



***Santa Ana* in service during Operation DESERT STORM. Maritime Administration photograph.**

Santa Ana was activated late in the operation and consequently was employed to remove retrograde cargo from the theater of operations. After idling at Wilmington, North Carolina, the ship steamed empty for Ad Dammam, Saudi Arabia, arriving on April 17, 1991. *Santa Ana* returned with its first cargo loadout to Savannah, Georgia on May 19, 1991. After unloading, the vessel returned to Ad Dammam where it took on more retrograde cargo. Part of this cargo was unloaded at Hythe, United Kingdom on July 10, 1991, and the remainder was unloaded at Bremerhaven, Germany several days later. *Santa Ana* made a last voyage to Ad Dammam, arriving on August 3, 1991. The vessel took a final load of retrograde cargo to Oakland, California before being deactivated and returned to MARAD operational control on September 6, 1991.

In the closing days of its DESERT SHIELD/DESERT STORM activation, MARAD changed *Santa Ana*'s layberth from the BRF to Mobile, Alabama; the vessel returned to Mobile in October 1991. *Santa Ana* was maintained in a reduced operating status with a retention crew. Prior to the Gulf War, the C4-S-1u class was earmarked for upgrades

under the Merchant Ship Naval Augmentation Program. Those upgrades were carried out after the Gulf War when *Santa Ana* was outfitted to carry palletized ammunition and Modular Cargo Delivery System (MCDS) systems. The vessel was also outfitted with a hover-only helicopter flight deck to support vertical replenishment (VERTREP) operations. The conversion is described in more detail later in this report.

In April 1993, *Santa Ana* was renamed *Cape John* in keeping with RRF nomenclature.² On November 22, 1994, MARAD shifted *Cape John*'s layberth back to the BRF and downgraded the vessel from 5-day to 20-day activation status, as part of a large-scale reduction in RRF readiness. The size and composition of the RRF was changed again in 1998, with the *Cape J* class readiness requirements increased and the vessels moved from reserve fleet anchorages to outport locations. *Cape John* was relocated to Violet, Louisiana and Orange, Texas, in October 1998 and October 2001, respectively. *Cape John* was not activated for major operations during this time, although it did participate in some turbo activations and exercises.



***Cape John* participating in underway replenishment exercises in the Pacific. Maritime Administration photograph.**

MARAD activated *Cape John* on November 15, 2002 for participation in cargo operations in the run-up to Operation IRAQI FREEDOM. The vessel remained operational until October 27, 2003. *Cape John* returned to its layberth at Violet, but MARAD returned the vessel to the BRF for the final time in December 2003. *Cape John* was downgraded on October 1, 2004, and remains in the BRF in a non-retention status at this time.

² *California* became *Cape Jacob*; *Hawaii* became *Cape Juby* and *M.M. Dant* became *Cape Johnson*.

RRF Modifications

One effect of the Reagan-era buildup of the U.S. Navy's combatant fleet was a substantially increased requirement for auxiliary forces, including at-sea replenishment vessels. In response, the Navy developed the Merchant Ship Naval Augmentation Program (MSNAP) to meet the requirement. As originally conceived, MSNAP vessels would serve as "shuttle ships" to resupply the dry cargo replenishment vessels, which could then remain on station with battle groups for extended periods of time. These shuttle ships were modified internally to suit the permanent carriage of palletized ammunition. This required fitting of tracked dunnage systems on cargo hold decks to secure the pallets, isolation bulkheads were installed to reduce heat transfer into the cargo holds from the engine room, and means were installed to support at-sea transfer of the ammunition to the primary replenishment vessels. All modified vessels had their personnel complements increased to support specialized navy cargo handling battalions.

Eight RRF vessels³ were modified under the MSNAP program prior to Operation DESERT STORM. A ninth vessel, *Cape Alexander*, completed modifications after the conflict ended. *Cape Alexander* was fitted with a much more capable underway replenishment system than that installed on the previous ships. The original shuttle ships were fitted with Sliding Padeyes (SPEs), which were a receive-only installation that required the replenishment vessel to control the ship-to-ship transfer operation. *Cape Alexander* was fitted with two Modular Cargo Delivery System (MCDS) stations. The MCDS was a fully-capable installation that allowed the equipped vessel to control the ship-to-ship transfer operation. An MCDS-equipped vessel could effectively operate as an underway replenishment vessel, thus freeing the larger and more sophisticated naval auxiliaries for more important assignments. Given the enhanced capability of the MCDS-equipped vessels, the program was renamed Sealift Enhancement Features (SEF), with the term generally applied to the entire suite of modifications. Six additional RRF vessels were modified under the SEF program; the four C4-S-1u *Cape J* class, and two larger vessels of the C5-S-75a class, *Cape Gibson* and *Cape Girardeau*.

Vertical Replenishment (VERTREP)

VERTREP is the ability to transfer cargo between ships while underway using helicopters. It is a versatile improvement to underway replenishment, and allows material transfers to be performed at distances well beyond traditional alongside operations. Nine of the RRF MSNAP/SEF vessels were equipped with elevated platforms and controls to support VERTREP operations. Three SPE-equipped *Cape A*-class vessels⁴ (C4-S-58a; similar to but not including *Cape Ann*) were fitted with VERTREP platforms that were certified for hover-only operations. This required the receiving ship to supply the helicopter, which could not land on the RRF vessel.

³ These include: *Agent*; *Aide*; *Ambassador*; *Adventurer*, *Cape Alava*; *Cape Archway*; *Cape Ann*; and *Cape Avinof*.

⁴ *Cape Archway*, *Cape Ann* and *Cape Avinof*.

Palletized cargo was delivered to the platform by electric forklift trucks using a ramp located on one side of the ship. Because the MCDS consoles were much heavier than the SPE, *Cape Ann* did not have sufficient stability to permit installation of a VERTREP platform; it was the only MCDS ship that did not have VERTREP capability.

Cape John and its three RRF sisters, along with *Cape's Gibson* and *Girardeau* were fitted with VERTREP platforms similar to those fitted to the *Cape A's*. Like the previous ships, these installations did not include helicopter support facilities and the platforms were certified for hover-only operations.

The combination of MCDS and VERTREP required significantly larger complements of navy cargo handling personnel than the SPE-equipped vessels. The *Cape J's* passenger staterooms were converted into navy troop and officer berthing for these teams. This was the only significant internal change to the ships accommodations spaces.



***Cape John*, left, underway during the Iraq War conducting Underway Replenishment (UNREP), circa 2003. Maritime Administration photograph.**

Description/Characteristics of Vessel Type

Type: C4-S-1u

Official Number: 290262

Previous names: *Santa Ana; C.E. Dant*

Builder: National Steel and Shipbuilding Company, San Diego, CA

Year: 1963

Sister Ships: *Cape Jacob, Cape Juby, Cape Johnson, Mormacwave, Empire State (VI)*

Location: Beaumont Reserve Fleet, Beaumont, Texas

Length: 528' (between perpendiculars; 565' overall)

Beam: 76.0'

Depth: 46.0' (at centerline; 44.5' at side)

Draft, design: 29.83'

Displacement (maximum): 22,630 LT

Deadweight (maximum): 12,740 LT

Gross Tonnage (GRT): 12,690 Measurement Tons

Net Tonnage (NRT): 8,150 Measurement Tons

Cargo Capacity: 683,000 cubic feet

Power (Normal): 17,500 SHP (19,250 maximum)

Speed (Service): 20 knots (20.75 maximum)

Main Engine: General Electric Cross-Compound, Geared Steam Turbines [5]
Two Water Tube Foster-Wheeler Boilers

The C4-S-1u class, including *Cape John*, is a typical “modified Mariner” of domestic design and construction. At the time that these ships were designed, most break-bulk vessels being built in the United States were modifications of, or derivatives from, MARAD’s basic Mariner design. The C4-S-1a Mariner program of the mid-1950s was a government effort to design new and improved standardized, subsidized vessels to replace aging WWII-era Maritime Commission ships that were then nearing the end of their service lives and were being rapidly eclipsed in foreign trades by more modern and efficient European and Japanese competitors. The Mariners were not fully successful at first, but soon developed a strong following, particularly in the transpacific trades, which could make best use of their speed and range characteristics. The *Mariners* eventually proved to be very popular ships and through the early 1960s a total of about 65 modified and derivative *Mariner*-class vessels were built for several U.S. steamship companies.

Cape John follows the typical Mariner arrangements and hull form. Seven cargo holds are arranged, four forward of the machinery space, and three aft. A single superstructure is fitted above the machinery space, which provides accommodations for licensed officers, crew, and up to 12 passengers. The cargo gear features booms and kingposts topped with crosstrees with four booms provided for each hold except holds one and seven, which each have two booms. The forecabin is raised and continues over cargo holds one and two and features an attractive curved transition to the main deck. As originally constructed, there were no provisions for stowage of containers. *Cape John* is propelled by cross-compound geared marine steam turbines driving a single propeller. The boilers are typical marine “D” type operating at about 600 psi.

As mentioned previously, the *Cape J* class was constructed at two different shipyards. Of the four RRF vessels in the *Cape J* class, two (*Cape Jacob* and *Cape Juby*) were built by Newport News Shipbuilding & Dry Dock Company and delivered in 1962. The other two vessels (*Cape John* and *Cape Johnson*) were built by the National Steel & Shipbuilding Company. The differences between the Newport News and National Steel vessels were minor. Except for a forecastle that is stated to be 15 feet longer in the National ships, and some differences in the capacity of the cargo handling gear, they appear to be essentially the same. The National vessels have General Electric turbines, whereas the Newport News vessels have turbines manufactured by the shipyard; however, all six vessels (including *Empire State VI* and the scrapped *Mormacwave*) were fitted with the same design Foster-Wheeler boilers.

Cape John and *Cape Johnson* were fitted with an additional “tween deck” in several cargo holds during their SEF modifications. This was possible because the height of standard palletized ammunition was low enough to allow an intermediate deck to be fitted in what were otherwise very high cargo holds, thus allowing for denser stowage of ammunition. The change did not significantly alter the ships total cargo capacity because the volume of the holds remained close to the original (some break-bulk stowage capacity was lost due to the volume of the new deck structure). This modification did not significantly alter the basic design parameters of the vessel, and had no external impact or impact to machinery.

Statement of Significance

Cape John is a good, but not unique example of the final evolutionary development of the break-bulk general cargo ship in the age just before the containerization revolution. It is an equally good representative of the domestic Mariner design, which dominated the U.S. foreign trade in the latter half of the 1950s and through the mid-1960s. The C4-S-1u was among the last modified-Mariner classes constructed, yet paradoxically is nearly the closest to the original C4-S-1a design from among the five major design variants built (C4-S-1q; 1s; 1sa; 1t and 1u)⁵. Consequently, *Cape John* is not significant from a technical standpoint.

The activation of the RRF during the build-up to DESERT SHIELD/DESERT STORM was the first large-scale activation and operation of the force since its creation in 1976, and the first major sustained sealift operation since the end of the Vietnam War. *Cape John* delivered military cargoes and provided desperately needed services in a time of national need. *Cape John* later served a similar function during Operation IRAQI FREEDOM. Subsequent crises involving MARAD’s role of assisting the military during national emergencies have generally utilized more efficient ship types more in keeping with modern logistics operations. The employment of *Cape John* in the aforementioned operations thus represented the end of the era of traditional oceangoing shipping.

⁵ Characteristics and Index of Maritime Administration Ship Designs, January 1991 by U.S. Department of Transportation.

Historical Integrity

The overall condition of *Cape John* is good; it has experienced only normal wear and aging for a vessel of its age. The late 1980's SEF program did not significantly change the ship's structure, arrangements or equipment. Throughout its service life *Cape John* has retained much of its original form and its overall historical integrity is good.

National Register Eligibility Statement

Cape John is one of six of its class and type built at a time of rapidly changing commercial shipping needs. The ship is just short of 50-years-old and does not possess the extraordinary historical significance in any category necessary to be eligible for listing on the National Register of Historic Places. It remains a fairly typical break-bulk ship, similar in size, construction, machinery, propulsion, cargo capacity and other features to many of the 100 or so other break-bulk vessels constructed domestically in the 1950s and 60s. It was one of 78 RRF vessels activated by the Navy to support Operation DESERT SHIELD/DESERT STORM and later for Operation IRAQI FREEDOM; however, its role was not significant enough to qualify under Criteria A, particularly considering the recent nature of those operations.

Date: 16 May 2012

Determination: NOT ELIGIBLE

Sources

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