

Cape Juby - T-AK 5077

Conversion of P 61x Mariner Class Cargo Ship casting by Terry Holtham 2013



Front to Back - Cape Juby, Cape Gibson, Gem State

For the third conversion I returned to the break bulk cargo ships choosing Cape Juby T-AK 5077 as the subject - a MARAD Cape 'J' Class ship which I noted had quite different cargo handling gear - ie masts and derricks.

Cape Juby was one of four sister ships built for States Steamship Co by Newport News Shipbuilding & Drydock Co in 1962 to the C4-S-1u design as the Hawaii (MARAD Hull No 97). Two additional ships of the same design (C4-S-1u) were built for States Steamship Co in 1962 / 63 by the National Steel & Shipbuilding Co (NASSCO) as M M Dant (MARAD Hull No 128) and C E Dant (MARAD Hull No 129) respectively.

After various changes of name and ownership in the late 1970's / early 1980's California and C E Dant were traded in to MARAD in 1980 while the remaining four ships were acquired by MARAD in 1986 after United States Lines declared bankruptcy.

C E Dant, California, M M Dant and Hawaii were assigned by MARAD to the Ready Reserve Fleet as Cape John T-AK 5022, Cape Jacob T-AK 5029, Cape Johnson T-AK 5075 and Cape Juby T-AK 5077, collectively known as the Cape 'J' Class, while Oregon was converted to the Training Ship Empire State VI in 1992 and Washington was held for spare parts.

In the early 1990's all four of the Cape 'J' Class ships were fitted with the Modular Cargo Delivery System (MCDS) and "hover only" flight decks, allowing them to conduct limited connected underway replenishment (UNREP) and vertical

replenishment (VERTREP) operations, however I choose to model the Cape Juby as she was before she underwent these upgrades.

As noted in the article introducing my models a little imagination and some artistic license is required when converting the Mariner Class castings. In this case the C4-S-1u ships have a longer foredeck than the C4-S-1a ships extending back to encompass the second cargo hatch and derrick house.

Preparations:

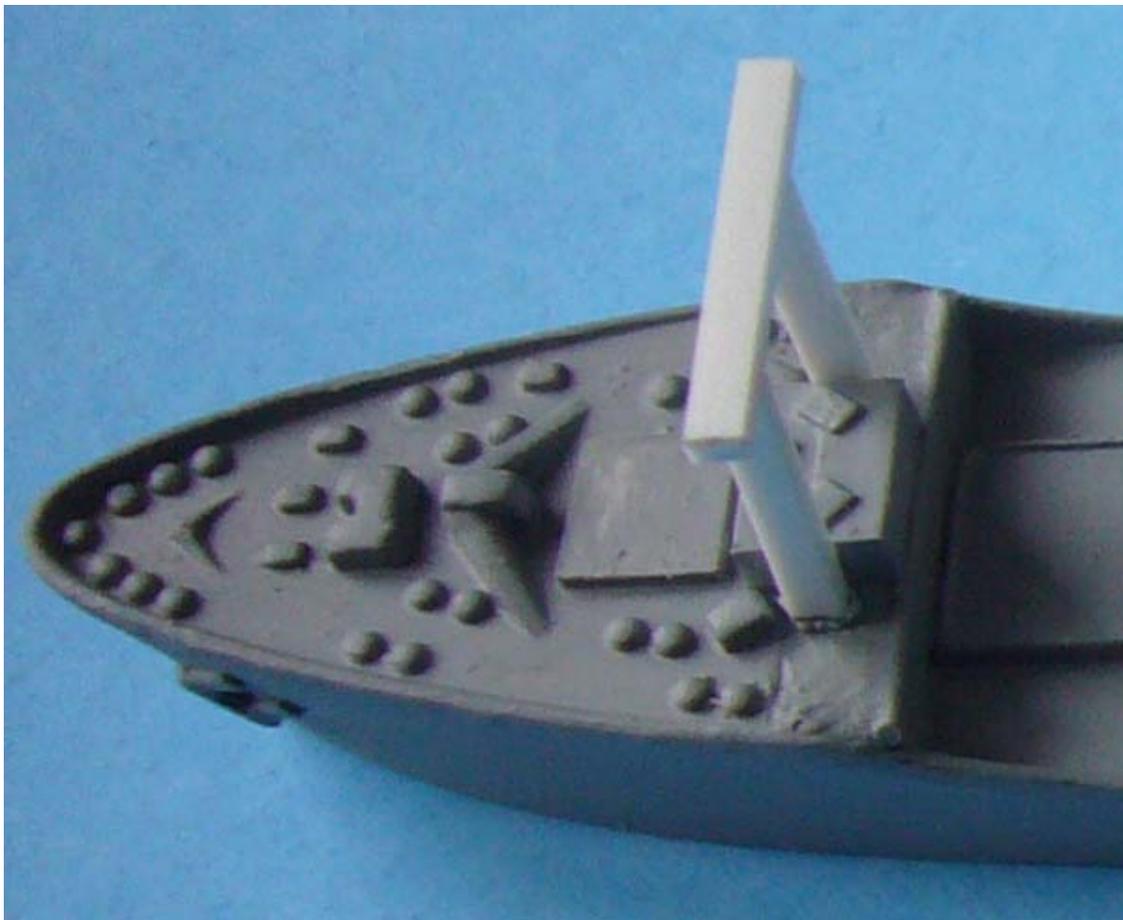
Once again the base model was a Matson livery P 611 which has a similar funnel shape. As with the previous conversions the metal lifeboats and plastic masts were removed and the superstructure was unscrewed from the hull but the funnel was left in position. The model was stripped, cleaned and polished up ready for filing and alterations.

Modifications & Additions:

First the two lugs where the original cargo derricks go into the hull just ahead of the superstructure were filed flush with the deck; the mast pedestal immediately behind the funnel was filed down to about 2 mm to be a base for a satnav dome; and the top of the mast pedestal to the starboard side of the funnel was filed flat ready for a radar to be fitted.

Next, as with the first two conversions, a bulkhead was placed across the end of the forecastle and filled with Milliput to extend the foredeck. At the same time all of the mounting holes for the original masts and lifeboats were also filled with Milliput.

A new cargo hatch measuring 5mm x 6mm was fabricated from 0.5mm thick plasticard and secured to the foredeck and a new mast house measuring 5mm wide x 4mm deep x 2mm high was created from ??? plasticard layers and fitted immediately behind the new cargo hatch.



Foredeck modifications - new cargo hatch and new mast house

With all the filing and filling completed the separate parts of the model were primed with a good coat of Humbrol 128 (US Compass Grey), which actually dries with a flat finish, and then left to dry for several hours before continuing.

New cargo masts were then made from 1.0mm x 1.5mm plastruct section sized to be about the same height as the original masts supplied with the model. The cross members, made from the same size plastruct section, were cut and checked against the masts for size as in the photographs below. The cross members needed to have a slight angle cut into them for the sections outboard of uprights in similar fashion to the original masts supplied with the model.

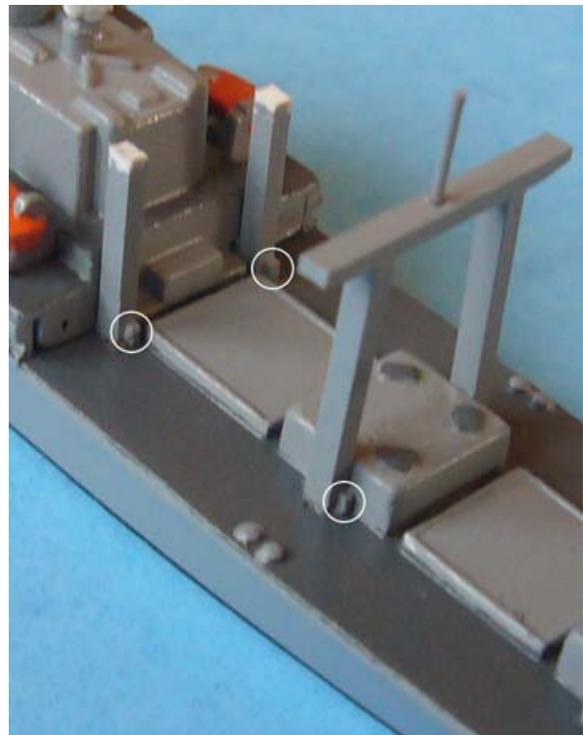
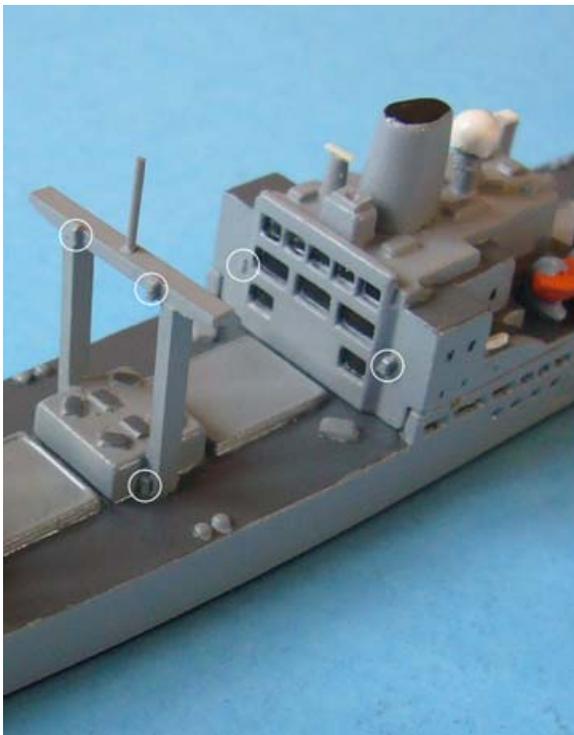


Model prepared & primed with plasticard masts held in loose position with Blu-Tack

While no masts are fitted immediately in front of the bridge there are two derricks with their heels fitted to the front of the superstructure. To make fitting of these derricks easier two very small pieces of 0.5mm x 0.5mm plastruct were glued to the forward bulkhead.

Similar pieces were glued to the base each vertical mast - for the masts forward of the superstructure to both forward and aft faces and for the masts aft of the superstructure only to the aft faces. Two small pieces were also glued to the forward face of the No.3 Mast cross member just inboard of the uprights to support the heavy lift derrick fitted to this mast.

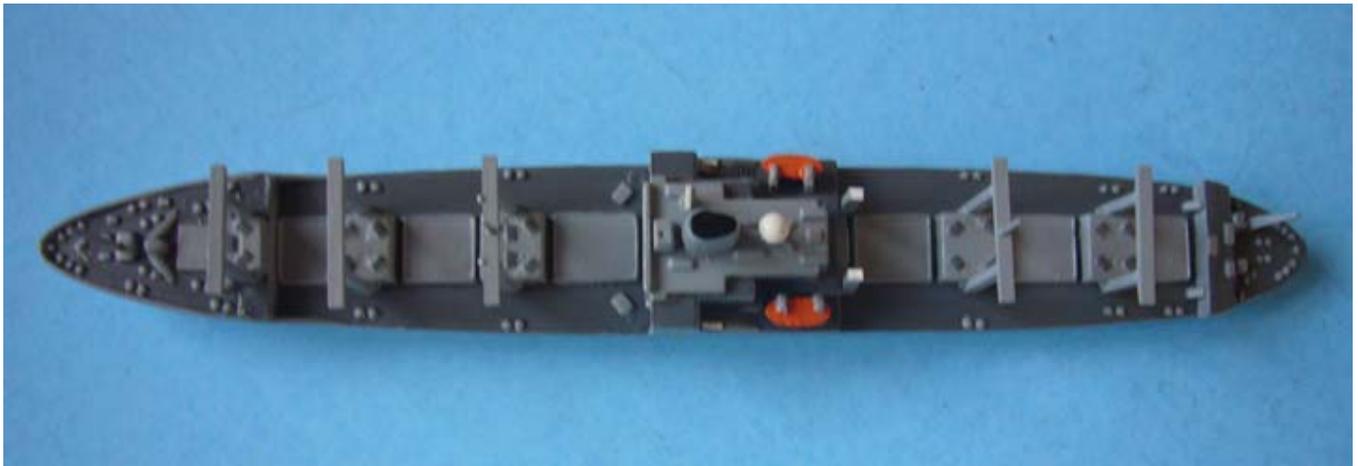
Finally the cross members for No.3 Mast (forward) and No.5 Mast (aft) were drilled to accept a 0.5mm diameter brass wire mast. When all complete the sets of new verticals (except the ones just aft of superstructure) were glued to the model and, when fully dry, the new bits were given a coat of Humbrol 128 (US Compass Grey) paint.

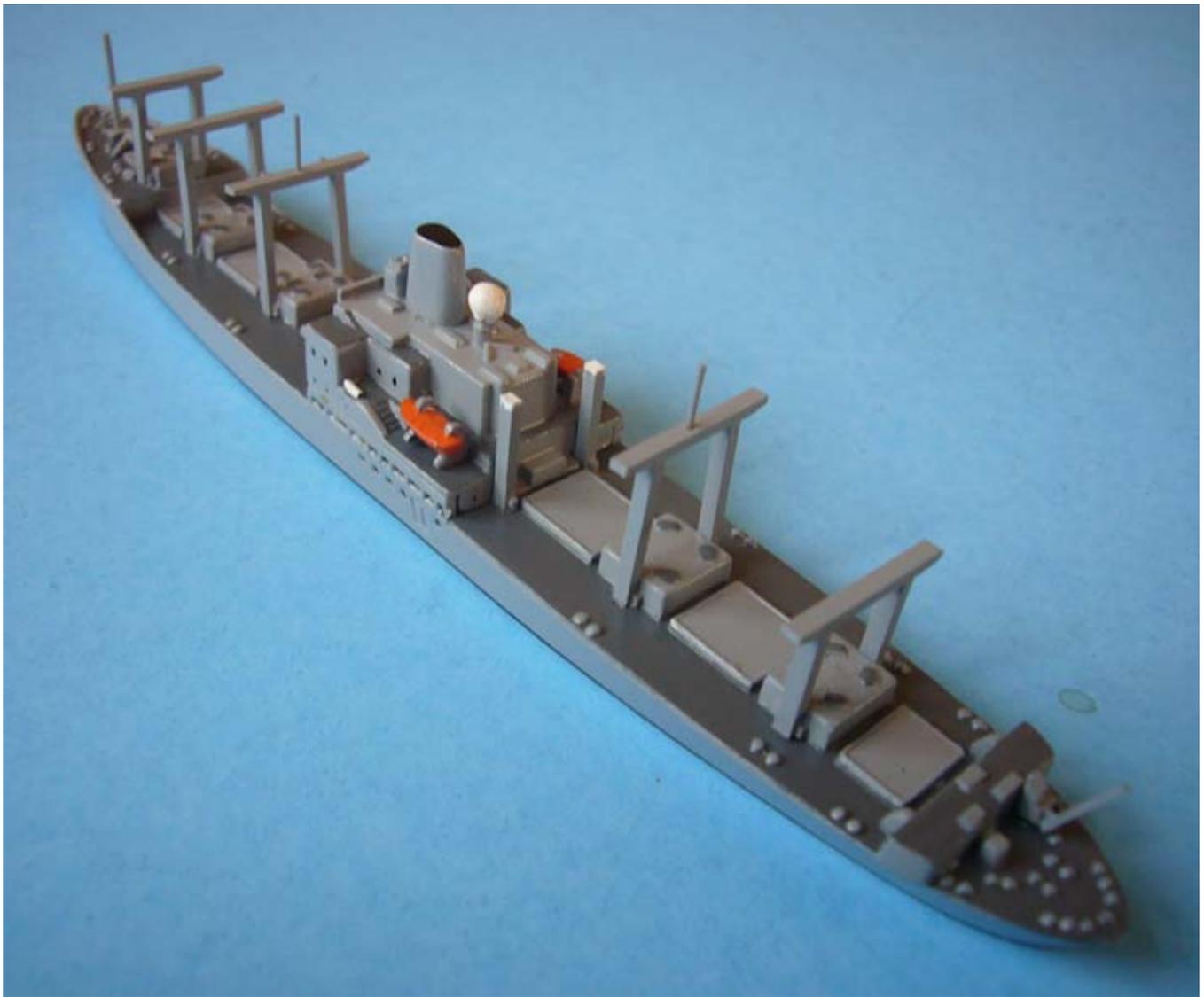


The superstructure decks were then painted with two coats of Humbrol 125 (US Gull Grey), the other surfaces were given another coat of Humbrol 128 (US Compass Grey) and the funnel cap was painted Humbrol 33 (Matt Black). Two white metal lifeboats with davits were sourced from the bag of Hansa spares and painted up with lifeboats in Humbrol 82 (Orange Lining). The top of a hat pin, painted Humbrol 22 (Gloss White), was used for the satcom dome and a small slice of plasticard for the radar to the starboard side of the funnel. A plastic main mast with cross trees was sourced from the spares box and a forward mast was made from 0.8mm diameter brass wire. When all completed they were fitted to model and superstructure was then set to one side to dry.

The hull painting was then completed giving the decks two coats of Humbrol 125 (US Gull Grey) and the deck fittings, crane pedestals and masts etc a second coat of Humbrol 128 (US Compass Grey). The hull was then given a further two coats of Humbrol 128 (US Compass Grey) and a waterline was added in Humbrol 33 (Matt Black) using sellotape to mask the hull as is my standard practice.

When everything was completely dry the superstructure was refitted and the two vertical masts just aft of it glued into place. Note that the tops of the verticals were left unpainted so the cross member could be glued in place with liquid poly glue which forms a much better bond than Evostik. The cross member was painted afterwards but before fitting the derricks.

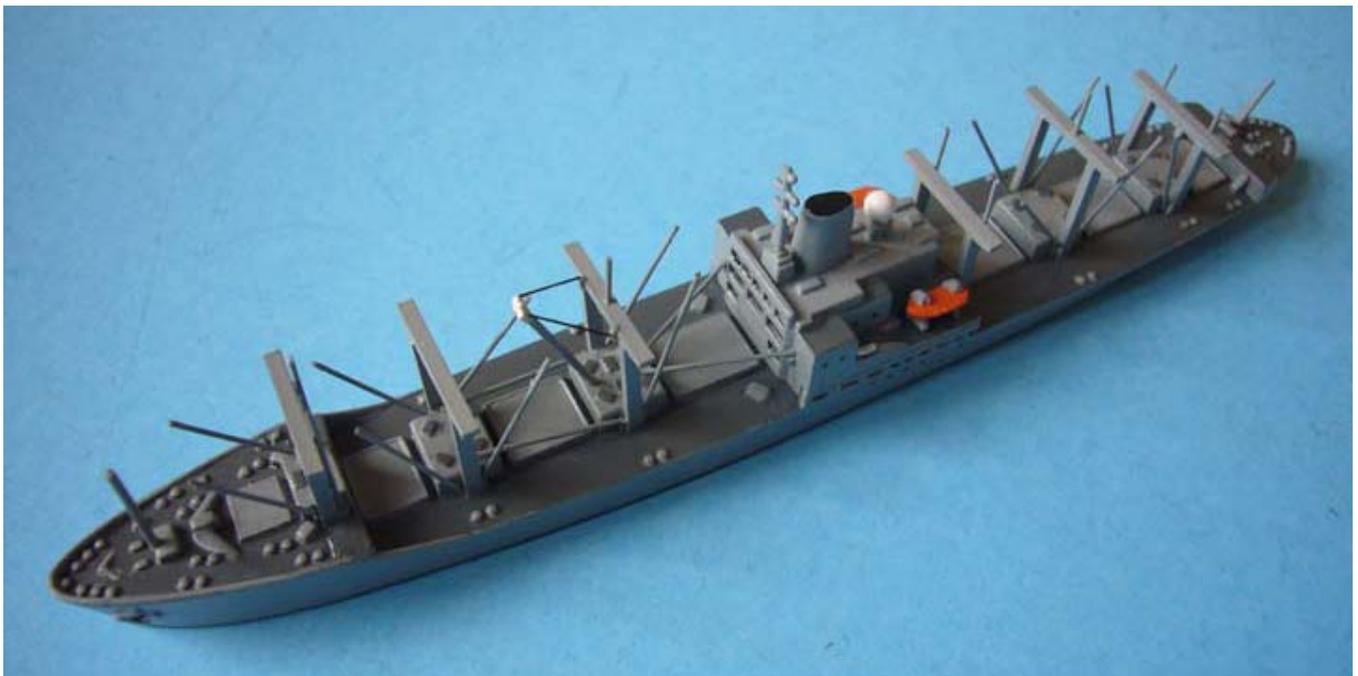




With the model assembled, as in the above photos, all that was left to be done was to mark up the windows, portholes etc with a black pen and then fit the derricks in a working position. The heavy lift derrick was made from 0.8mm diameter brass wire, with a small piece of 0.5mm x 0.5mm plasticard at its head, and all the remaining derricks were made from 0.45mm diameter brass wire. As can be seen in photos below the head of the heavy lift derrick was painted white.

A few minor touch ups with Humbrol 128 (US Compass Grey) and the model was finished.







Note the small crane at the stern is optional, not on the real ship, but I fitted one just to add something different!

This was probably the easiest of conversions and, without satcom dome and crane aft, could well be any of the type in commercial colours.

Paints	Colour	Description
Humbrol 128 "US Compass Grey" (Satin)	"Haze Grey"	Hull / Vertical Surfaces / Cranes / Masts etc
Humbrol 125 "US Gull Grey" (Satin)	Dark Grey	Deck Surfaces
Humbrol 33 Black (Matt)	Black	Waterline / Boot Topping, Funnel Cap, Highlights
Humbrol 82 "Orange Lining" (Matt)	Orange	Lifeboats
Humbrol 22 White (Gloss)	White	Radar / Satcom Dome
Humbrol Satin Cote	Varnish	Overall finish
Pilot DR Ink Pen (Size 0.1 & 0.2)	Black Ink	Windows and other markings

(For comparative paint colours please have a look at the "[Paints / Colours](#)" page)

Material	Description
Paint Stripper	Blackfriars Paint & Varnish Remover (but Nitromors or Polycell should work as well)
Filler	Milliput Epoxy Putty
Plastic Sheet / Section / Rod	Plasticard / Styrene - 0.25mm & 0.5mm - Sheet 3.0mm / 4.0mm - Square Section 1.0mm x 1.5mm - Rectangular Section
Metal Rod	0.45mm & 0.8mm diameter brass wire

T-AK 5077 Cape Juby



Photograph courtesy of the US Navy

Specifications

Name:	SS Hawaii - IMO 5144485 / Cape Juby (T-AK 5077)
Sister Ships:	SS California - IMO 5057931 / Cape Jacob (T-AK 5029) SS Oregon - IMO 5264510 / TS Empire State VI SS Washington - IMO 5386540 SS M M Dant - IMO 5215753 / Cape Johnson (T-AK 5075) SS C E Dant - IMO 5056274 / Cape John (T-AK 5022)
Owner:	States Steamship Company
Builders:	Newport News Shipbuilding & Drydock Co., Newport News, Virginia - Yard No. 554
Design:	C4-S-1u - MARAD Hull No. 97
Launched:	1962
Displacement:	12,693 tons / 14,349 deadweight tons
Length (OA):	565 ft (172.7 m)
Beam:	76 ft 1 ins (23.2 m)
Draft:	26 ft (7.9 m)
Propulsion:	2 x Foster Wheeler Type D boilers operating at 620 PSI (Wet Pressure), General Electric geared powered turbines, 19,250 HP, single shaft / screw
Maximum Speed:	20.75 knots
Cargo Capacity:	776,993 Cubic Feet / 22,002 Cubic Metres / up to 200 teu
Crew:	32 Civilian Mariners (Full Operational Status) 9 Civilian Mariners (Reduced Operational Status)
History:	1977 sold to Moore McCormack Lines Inc and renamed Mormacsea 1983 renamed American Sea when United States Lines acquired Moore McCormack 1986 returned to MARAD as Mormacsea on bankruptcy of United States Line 1988 renamed Cape Juby T-AK 5077 - assigned to the Ready Reserve Fleet at Wilmington, North Carolina on 5 days readiness 1991 activated for Operation Desert Storm 2004 downgraded to NDRF - Status "Logistics Support" (Spare Parts)
Status / Disposal:	Laid up in James River Reserve Fleet

Further details can be obtained from the following links -

The Navsource Web Site

<http://www.navsource.org/archives/09/13/135077.htm>